SYMPOSIUM
### Symposium 1:

**Nursing Practicum Project Production Course for Innovative Nursing Product Development**

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| S01-1     | A11-153   | **Nursing Practicum Project Production Course for Innovative Nursing Product Development Building Long Term Care Networks**  
Ya-Lie Ku, Department of Nursing, Fooyin University, Taiwan |
| S01-2     | S01-2     | **The Process of Organizing Domestic Innovative Competitions With Honorable Awards**  
Man-Hua Shen, Department of Nursing, Fooyin University, Taiwan |
| S01-3     | S01-3     | **The Process of Organizing Foreign Innovative Competitions Providing Honorable Awards**  
Pi-Yu Lee, Department of Nursing and Gerontological Care Program, Fooyin University, Taiwan |
Purpose:
This symposium introduces the design and content of a nursing practicum project production course and describes the innovative teaching strategies and activities applied in the course. First, clinical plights were discussed and an appropriate plight was selected for further evaluation. Second, five groups of nursing students in a class performed brainstorming according to the innovative teaching strategies and activities, including creative-thinking strategies, by applying the concepts of fluency, flexibility, and uniqueness and skills of association, connection, substitution, and transformation to design the initial creative nursing products. In addition, marketing products and patents were introduced, compared, and analyzed with the initial creative nursing products to eventually design the final innovative nursing product. Furthermore, the five groups of nursing students designed the nursing products with the assistance of various domain experts. Furthermore, the students were taught about innovative nursing products to aid them in submitting patent applications with the cooperation of a patent company. Finally, the nursing faculty explained the process of organizing domestic and foreign innovative competitions that provide many honorable awards. This symposium may provide a reference for nursing faculties for designing future innovative courses and producing innovative nursing products.

Key Words: innovation, nursing, course, products
S01-1 Nursing Practicum Project Production Course for Innovative Nursing Product Development
Ya-Lie Ku Department of Nursing, Fooyin University, Taiwan

**Purpose:** The purpose of this study is to develop the innovative teaching strategies and activities for the nursing practicum project production course.

**Methods:** Descriptive study design

**Results:** Section 1 includes the design and content of the nursing practicum project course and describes the innovative teaching strategies and activities. First, Jiugongge was introduced to the nursing students to cultivate their creative-thinking abilities for developing innovative nursing products. The nursing practicum project course consists of innovative teaching methods, explains how creative-thinking teaching methods were incorporated into the courses for nursing students, and summarizes the 12-step teaching process. In addition, the course describes the process of innovative teaching strategies and activities, including creative-thinking strategies, by using the concepts of fluency, flexibility, and uniqueness and the skills of association, connection, substitution, and transformation, to design the initial creative nursing products. Furthermore, the author introduced five innovative nursing products, namely comfortable catheter stickers, nasogastric (NG) feeding equipment for fixation and electronic stirring, an assistive device for breathing exercises, an assistive device for NG tube fixation, and a device for draining sputum from the trachea, to explain the clinical plight, motive, and purpose of the design, creative ideas, and designed content, and to conduct a feasibility analysis.

**Implications** The final goal of this course is to improve the quality of patient care in clinical settings by using innovative nursing products to resolve clinical plights.

**Key Words:** innovation, nursing products, teaching
S01-2 The Process of Organizing Domestic Innovative Competitions With Honorable Awards

Man-Hua Shen Department of Nursing, Fooyin University, Taiwan
Pi-Yu Lee Department of Nursing and Gerontological Care Program, Fooyin University, Taiwan

Purpose: The purpose of this study is to develop the process of organizing domestic innovative competitions with honorable awards.

Methods: Descriptive study design

Results: Section 2 includes the meaning of the nursing practicum project production course, outcomes of different competitions at which innovative nursing project products have been presented, and experiences of instructing the nursing practicum project production course. Furthermore, the author introduces three innovative nursing products, namely a pressing cloth for acupressure, urine drainage bag for skirts and pants, and two types of devices for opening the amp and vial, to discuss the clinical plight, motive, and purpose of the design, creative ideas, and designed content, and to conduct a feasibility analysis. In addition, a national project production competition was organized for the nursing students, and the process and experiences of the competition were discussed. Furthermore, the author introduces three innovative nursing products, namely a mobile phone for elderly adults, a tracheal mask for men and women, and a tube fixation device, to describe the clinical plight, motive, and purpose of the design, creative ideas, and designed content and to conduct a feasibility analysis.

Implications The final goal of this course is to improve the quality of patient care in clinical settings by using innovative nursing products to resolve clinical plights.

Key Words: innovation, nursing products, domestic competitions
Purpose: The purpose of this study is to develop the process of organizing foreign innovative competitions with honorable awards.

Methods: Descriptive study design

Results: Section 3 includes the process of organizing innovative competitions that provide honorable awards in foreign countries including Japan, Hong Kong, and Poland. The first innovative nursing product is the multifunctional rehabilitation drip frame, which connects to an upper and lower limbs rehabilitation machine to reduce intestinal adhesion and other postoperative complications. The second innovative nursing product is a restraint cloth that connects the cuff to the gauze net to reduce the risk of medical tubes becoming disconnected and to increase the safety of unconscious and irritable patients in clinical settings. The third innovative nursing product is a singing steam inhaler, which is a sprayer with MP3 player functionality for playing music; the device can be removed from the equipment to clean and disinfect the inside structure and prevent infection. Therefore, the singing steam inhaler could not only dilute the sputum in the airway of the patients but also reduce their sickness anxiety by simultaneously playing songs while inhaling the steam with drugs for treatment.

Implications The final goal of this course is to improve the quality of patient care in clinical settings by using innovative nursing products to resolve clinical plights.

Key Words: innovation, nursing products, foreign competitions
The 2nd Asia-Pacific Nursing Research Conference

CONCURRENT SESSION
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Maternal and Child Health Nursin

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CS1-001 Exploring the Effectiveness of Family Communication Conference in a Taipei Community Hospital

Rung-Chuang Feng Taipei City Hospital, Taiwan
Lu-Chiu Huang Taipei City Hospital, Taiwan
Yi-Chang Chou Taipei City Hospital, Taiwan

Purpose: According to Taiwan Hospital Accreditation, the section of "patient and family rights and responsibilities" mentioned that healthcare provider have to provide patients and families well communication, properly indicating the necessity of hospitalization and treatment plans, and to promote the participation of patients, families, medical staffs in decision making process (Share decision making). A community hospital in Taipei City established the standards of family meeting/conference, included physicians, professional nurses and clinical paramedical staffs participated. The purpose of this study was to explore the application of family meetings in clinical situation, understand the participation of family members included family members and health providers, tracks physicians and head nurses involvement, cooperation and contribution of meetings, and audit the contribution and assessment results of family meetings.

Methods: Conducted a "family conferences Record system" for family meeting processes and practices, Researchers collected the data of family meeting from January to December 2016, and utilized descriptive statistical analysis the data in the database.

Results: The 61923 family meetings were conducted from January to December 2016. The 60% of visiting physicians were participated family meetings; one physician shared average 38.15 family meetings per month. 79 (81%) head nurses were participated family meeting, therefore, one head nurse were involved 176 family meetings per month. Effectiveness of family meetings shows that "regardless of whether the withdraw of life-support equipment, he medical team will never give up " got the highest rating score for 95.2% ; The rating score of " Reassure patients can get comfort care " was 95.1%. Overview the results of self-assessment, the rating score of “provide correct message” was 93.2%, the rating score of “for explaining decision” was 90.4%, and the rating score of “opening” was 92.2%.

Implications for Practice: Family meeting will enable medical team members to provide the correct information to patients and families, as well as the establishment of mutual trust relationship between patients and medical care team.

Key Words: family meeting, family conference, clinical decision-making, communication between professional staffs and patients.
Establishment and Application of Fall Prevention and Control Information System in Elderly Community

Ting Zhao
The General Hospital of People Republic Army, China

**Purpose:**
To establish and apply the fall prevention and control information system in elderly community and evaluate the effectiveness. To assess fall status, balance ability, cognitive behavioral, psychological condition and the environment at home of the community elderly. To analyze the related risk factors influential to fall. To evaluate the effectiveness of the remote continuous comprehensive intervention to reduce fall risk.

**Methods:**
We discussed the fall comprehensive prevention and control strategy about the elderly in community through evidence-based literature retrieval, experts consultation and preliminary experiment. Then, relying on Internet things of technology and informatization, we established the information management system for fall prevention and control in the elderly community, which was a collection of risk assessment, remote education and feedback. We use the system to assess the fall status of 126 elderly, quantify risk grade and analyze the risk factors related to fall.

**Results:**
Screened out 84 high-risk elderly, who were involved in the remote continuous comprehensive intervention and analyzed the fall related situation before and after intervention. The elderly generally believed that the system was innovative, convenient, strong interactivity and easy to accept. After 6 months remote continuous comprehensive intervention from the system, the fall incidence of high-risk elderly decreased from 21.43% to 4.76% (\(p< .01\)). The body balance and gait stability improved clearly (\(p< .01\)). The rate of taking proper prevention and control behavior significantly improved, especially in exercising, preventing fall after medication and replacing bathroom mat (\(p< .01\)). They believed in themselves not to fall down with more confidence when taking complex behaviors (\(p< .01\)). The security of environment at home significantly enhanced, such as non-slip soles, flat floor, using the mat, clean hallway, putting frequently-used items on the side (\(p< .05\)).

**Implications for Practice:**
Information management system for fall prevention and control in elderly community was innovative and convenient. The system could roundly assess the status related to fall, accurately screen out high-risk group and implement the remote continuous comprehensive intervention so that the incident of fall was decrease and the situation of fall was improved. The system can be further popularization and application as a successful pilot.

**Key Words:**
fall prevention and control, informatization, remote education.
CS1-003  The Automatic Medication Dispenser: A Prototype for the Older Adults
Nuttitha Petchprapai  Suranaree University of Technology, Thailand

Purpose:  Older adults with multiple chronic conditions face the complex task of medication management involving multiple medications of varying doses at different times. Advances in telehealth technologies have resulted in home-based devices for medication management and health monitoring of older adults. Creating the innovation for medication management at home required corporations from multidisciplinary. Nurse is the most important person who creates the idea, integrates and makes it work as useful device for the older adults at home. The purpose of this study was to create the medication-dispensing device that the older adults can use at home.

Methods:  A researcher originated the idea of home-based medication-dispensing device and discussed with research team. The required qualifications of the medication-dispensing device were the abilities to: 1) contain medications for at least 49 pills (seven times a day for seven days), 2) separate each medication from each other to prevent drugs interaction, 3) protect medications from sun and light to prevent medication and light interaction, 4) release medication automatically and remind by using both light and sound, and 5) work with both home electricity and battery. The engineers and educational technology specialists in research team designed and built the medication-dispensing device. The controlled program was written with open-source software (free-of-charge). It was also developed on any operating systems.

Results:  The prototype device was met the original requirements as it could contain seven remedy for seven days. It was small and light. The cost was also affordable. Reminding light was bright and its siren was loud enough for the older adults. In addition, it was easy to use and need low maintenance. The prototype medication-dispensing device was tested for the accuracy of its reminding sirens and the reliability of medication-dispensing times. The reminding sirens were set and tested 49 times. The accuracy were 35 from 49 (71.73%). Most of the mistakes occurred at the evenings and nights. Therefore, the sensitivity for low light situations has to be improved. The reliability of medication dispensing was set and tested in 49 releases. The devices released medications accurately for 35 times from 49. Key element for the mistakes would be the flatness and smoothness of the medication-dispensing track surface. These points would be further developed and tested with daily use by the older adults.

Implications for Practice:  The Automatic Medication Dispenser was useful and effective for medication management at home. It is suitable for active and interdependent older adults, and caregivers. The next steps of development will be writing the mobile phone application to make the reminders appear on mobile phones.

Key Words:  medication management, medication dispenser, older adults, telehealth, evaluation.
CS1-004  Nurses’ View of Patient Engagement Represent Patient–Centred Care During Bedside Handover

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Purpose: Advocates for societal change and consumerism have been instrumental in popularizing patient engagement in various aspects of health care. Patient engagement in bedside handovers during shift changes should facilitate patient-centered care. Patient-centered care has been promoted as an effective method of providing quality medical care to people. However the conflicting evidence of the effect of the patient-engagement approach during handover on the facilitation of patient-centered care has challenged the practicality of patient engagement. Purpose: This study’s purpose was to explore Malaysian nurses’ views about patient engagement during bedside handovers, and whether this engagement reflected patient-centered care. The information obtained from this study should not only shed light on the feasibility of incorporating patient engagement into the handover process, but also help in the modification of existing handover methods to fit with patient-centered care needs.

Methods: This qualitative study is based on the theoretical perspective of interpretivism. The qualitative study with four focus-groups discussions was conducted with 20 registered nurses from general wards in a Malaysian public hospital. Purposive recruitment from three wards was conducted by excluding nurses from specialty units, including intensive care units, operation theatres, haemodialysis units, neonatal units, and pediatric wards because different nursing-team management might produce different results from staff working in general wards. Semi-structured interviews were used to elicit participants’ views. NVivo 10 software was used for data management and content analysis was used for data analysis. Three steps were implemented to enhance the study’s credibility: prolonged engagement, member debriefing, and member checking.

Results: Four main themes were generated from the data analysis: (1) different characteristics of patient engagement, (2) the dimensions of patient-centered care, (3) patient engagement during bedside handovers that promotes patient-centered care is not pragmatic, and (4) patient engagement during bedside handovers does not represent patient-centered care. Patient engagement during beside handovers did not always uphold patient-centered care. Some nurses deliberately excluded patient engagement during bedside handover because of their own subjective views of the impracticality of patient engagement for specific activities, such as handovers.

Implications for Practice: To sustain changes in patient engagement and practices congruent with patient-centered care, nurse educators must reform nursing education, particularly, communication and training to function in nurse-patient partnerships. Comprehensive guidelines for engagement, consistent with patient-centered care values should be introduced to all registered nurses in practice.

Key Words: focus groups, patient-centered care, patient handover, patient engagement.
Resilience and Mental Problem as Predictive Factor of Quality of Life Among Nursing Students in Indonesia

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Purpose: Considering the resilience and mental health problems (depression, anxiety and stress) and its significant effect on quality of life among nursing students in Indonesia. This study purpose were to examine predictors of quality of life (physical and mental component score) in order to increasing the personal qualities of nursing students such as health status when they are facing adversity in clinical practice experience during nursing professional education.

Methods: The design of the study was using cross-sectional approach. Data were collected from 336 nursing students in East Java, Indonesia during the nursing professional education stage on August – September 2016. Study variables included demographic and socioeconomic factor; Depression, Anxiety and Stress (DASS-42 Bahasa Indonesia version); Resilience scale (Connor Davidson Resilience Scale); and Health related quality of life (SF-36). Data were collected by using paper based questionnaires, and analyzed by Independent t-test, Pearson correlation and Hierarchichal Multiple Linear Regression test using SPSS version 20.0.

Results: Results revealed that the physical and mental component score of students quality of life had a statistically significant correlation with depression, anxiety and stress ($p \leq .01$) and resilience ($p \leq .01$); and all variables simultaneously predicts the physical and mental component score of quality of life ($p \leq .01$). Hierarchical multiple regression linear model indicated stress ($\beta = -.129$, $p \leq .01$) and resilience ($\beta = .087$, $p \leq .01$) as variables influencing quality of life physical component by adjusted age, father income and father social status. Stress ($\beta = -.305$, $p \leq .01$) and resilience ($\beta = .101$, $p \leq .01$) also indicated as variable influencing the quality of life mental component score by adjusted for age and institution.

Implications for Practice: Reducing stress by increasing resilience should be emphasized in the nursing educational content, clinical experiences courses, internship work integrated learning and other work experiences courses to promote the physical quality of life among nursing students during nursing professional education.

Key Words: resilience, stress, quality of life, nursing student.
A Study to Understand Nurses’ Knowledge of Fever and How Nurses Use Nursing Interventions to Manage Adult Patients’ Fever.
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Purpose: Nurses’ fever management can be affected by knowledge, beliefs and patients’ requests for antipyretic administration. It is important that all nurses practise consistently in accordance with the latest scientific evidence. No existing evidence states that treating a fever will decrease the length of the illness. However, of particular note is that some studies have suggested that antipyretics and cooling techniques may actually prolong an illness. Therefore, the study is aiming to understand nurses’ knowledge of fever and to understand how they use nursing interventions to manage a patient’s fever.

Methods: A questionnaire has been designed to gather information about nurses’ knowledge of fever and fever management will be sent to all adult nurses across Scotland. A small sample will be selected for semi-structure interviews to be conducted after collected questionnaires have been analysed in order to understand in greater depth the relationship between knowledge of fever and fever management. The sample of the study is registered nurses in Scotland.

Results: Questionnaires have shown different levels of fever knowledge. Interviews have looked at the relationship between nurses’ knowledge and management in depth.

Implications for Practice: All the study findings are aiming to eventually improve fever management and patient outcomes.

Key Words: fever, pyrexia, management, knowledge.
Purpose: Effective perioperative hand antisepsis is crucial for the safety of patients and medical staff in surgical rooms. The antimicrobial effectiveness of different antiseptic methods including conventional scrubbing and waterless rubbing has not been well evaluated.

Methods: A randomized controlled trial (RCT) was conducted to investigate the effectiveness of the three antiseptic methods in surgical staff of Taipei Medical University-Shuang Ho Hospital. Each group enrolled 80 participants. Surgical hand cleansing with conventional 10% povidone-iodine scrub, conventional 4% chlorhexidine scrub, or waterless rub (1% chlorhexidine gluconate and 61% ethyl alcohol).

Results: The mean colony-forming unit (CFU) count were collected using the hand imprinting method before and after disinfection and after surgery. After surgical hand disinfection, CFU count of the conventional chlorhexidine (0.48 vs 0.22, \(p<.01\)) and waterless rub groups (1.38 vs 0.74, \(p<.05\)) was significantly lower than that of the conventional povidone group (4.29 vs 1.25). No significant difference was observed in the mean CFU count among the groups after surgery. Similar results were obtained when preexisting differences before disinfection were considered in the analysis of covariance. Furthermore, multivariate regression indicated that the antiseptic method (\(p=.0036\)), but not other variables, predicted the mean CFU count.

Implications for Practice: Conventional chlorhexidine scrub and waterless rub were superior to conventional povidone-iodine in bacterial inhibition. We recommend using the conventional chlorhexidine scrub as a standard method for perioperative hand antisepsis. Waterless rub may be used if the higher cost is affordable.

Key Words: chlorhexidine, povidone-iodine, waterless rub, antisepsis, surgery.
Comparative Antibacterial Efficacy of Three Surgical Hand Antisepsis

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Purpose: Medical professionals use different methods of surgical hand antisepsis aims at preventing surgical site infections. This study will be compared the efficacy of three surgical hand antisepsis in reducing the numbers of colony-forming units (CFUs).

Methods: Prospective, randomized, controlled study. From July 20, 2016 to October 19, 2016. 31 healthcare workers were enrolled in the study. They used 7.5% povidone-iodine, 4% chlorhexidine and Alcohol-based hand rub as preoperative hand antisepsis during their routine practice. Hand sampling for cultures were performed before and after operations. The agar plates were analysed by Microbiology Department.

Results: After surgical hand preparation, microorganisms were found on 19 of the 62 plates in 7.5% povidone-iodine group, on 4 of the 62 plates in the 4% chlorhexidine group, and on 0 of the 62 plates in the Alcohol-based hand rub group ($p < .001$). At the end of surgery, microorganisms were found on 13 of the 62 plates in 7.5% povidone-iodine group, on 8 of the 62 plates in the 4% chlorhexidine group, and on 2 of the 62 plates in the Alcohol-based hand rub group ($p = .004$).

Implications for Practice: Based on our results, Alcohol-based hand rub demonstrated superior efficacy in CFU reduction, easy application, rapid action speed and time saving profile.

Key Words: povidone-iodine, chlorhexidine, hand rub, colony-forming units
CS2-004 Diabetes Knowledge and Self-Care Behaviors in Type 2 Diabetes Patients: The Mediating Effect of Resilience
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Purpose: To explore the associations among diabetes knowledge, self-care behaviors and resilience in patients with type 2 diabetes, and to determine whether resilience moderates or mediates the relationship between diabetes knowledge and self-care behaviors.

Methods: This cross-sectional study was conducted from July to October, 2016. Participants were consecutively recruited from three hospitals in mainland China. The sample comprised 195 adult patients who were diagnosed with type 2 diabetes for at least 6 months with intact cognitive function. Diabetes Knowledge Questionnaire (DKQ), Summary of Diabetes Self-Care Activities Measure (SDSCA) and Connor-Davidson Resilience Scale (CD-RISC-10) were administered to measure knowledge, self-care behaviors and resilience respectively. Associations among diabetes knowledge, self-care and resilience were examined using Pearson correlation. Moderating effect of resilience was indicated by the significance of interaction between knowledge and resilience which tested by hierarchical multiple regressions. A composite regression flow was conducted to examine the mediating effect of resilience.

Results: Self-care was positively related with diabetes knowledge (r = .187, p < .01) and resilience (r = .226, p < .01). Besides, resilience was positively related with diabetes knowledge (r = .246, p < .01). The interaction between resilience and diabetes knowledge (moderating effect) was not significant for self-care (p = .856, R square change = .000). However, resilience played a completely mediating role in the relationship between diabetes knowledge and self-care in this study. The mediating effect size of resilience in this model is 0.122.

Implications for Practice: Effective management of type 2 diabetes, which affecting 415 million adults worldwide, requires adequate self-care to adhere to treatment regimen, modify unhealthy lifestyle and monitor changes in physical and emotional signs and symptoms. Empowering type 2 diabetes patients with effective self-care has been recognized as one of the most important agenda in nursing practice to deal with the challenge brought by the disease. To acquire diabetes knowledge is essential to generate sufficient reflection and reasonable decision making for self-care performance, and is a central component of self-care training project to change patients’ behavior. There has been increasing awareness about the influence of patients’ inner strengths on behavioral change. As one strengths-related attribute that promotes effective coping and better health outcome, resilience refers to the capacity to maintain psychological and physical well-being in the face of adversity. This study indicates that the improvement of knowledge level may take effect by promoting resilience to strengthen self-care behaviors of type 2 diabetes patients. Future self-care projects for type 2 diabetes patients should consider incorporating specific strategies to address resilience, to enhance the impacts of knowledge on self-care behaviors. Promoting patients’ inner strengths should be emphasized in the health care service for type 2 diabetes patients.

Key Words: type 2 diabetes, diabetes knowledge, self-care, resilience.
Factors Influencing Insulin Adherence in Patients With Type 2 Diabetes

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Purpose: This study aimed to determine the predictive power of depression, financial status, attitude toward insulin treatment and patient-provider relationships on insulin adherence.

Methods: The sample consisted of 120 patients with type 2 diabetes that came for a treatment at the outpatient department of a tertiary referral hospital. Data were collected by using personal data questionnaire, Center for Epidemiological Studies Depression Scale, The Insulin Treatment Appraisal Scale, Trust in Physician Scale and The Medication Adherence Report Scale. Data were analyzed using descriptive statistics and logistic regression analysis.

Results: According to the findings, the samples were females (54.2%) with a mean age of 61.16 years ($SD = 8.79$, $Max = 81$, $Min = 37$) and had insulin adherence at 35.8 percent. Depression, financial status, attitude toward insulin treatment and patient-provider relationships were able to predict insulin adherence in patients with type 2 diabetes at 19.5% ($Nagelkerke R^2 = .195$). Depression and attitude toward insulin treatment were able to predict insulin adherence with statistical significance ($OR = .91$, $p < .05$ and $OR = .94$, $p < .05$), respectively.

Implications for Practice: Nurses should identify symptoms of depression in order to prevent depression in patients with diabetes and provide appropriate nursing care. Moreover, multidisciplinary team should deal with the negative attitudes of insulin therapy. Offering patients with knowledge of diabetes and understanding of insulin benefits and effectiveness can develop a positive perspective of insulin therapy.

Key Words: type 2 diabetes mellitus, insulin adherence, depression, attitude toward insulin treatment, patient-provider relationships.
Purpose: Diabetes has been the fourth leading cause of death in Taiwan since 2002. Patients who have diabetic foot, as well as their families, are faced with the burden of possible limb amputation and treatment. The objective of this study was to explore the understanding of the diabetic foot patients’ and their families’ decision-making processes of amputation.

Methods: This study uses grounded theory approach. Data from 16 participants (consisted of 11 patients and 5 family members) were collected using purposive sampling in a regional hospital in Taiwan. The data analysis was conducted through open coding, axial coding, selective coding, and memo writing.

Results: The study revealed that the decision-making process of amputation from the point of view of patients and their families consisted of three categories and one core category. The three categories were the devastation of experiencing multiple diseases, the experience of difficult to heal wounds treatment, and the decision to amputate. The core category of the decision-making process was “facing dilemma-amputation in order to survive.”

Implications for Practice: The study results indicated that the patients and their family members experienced anxiety and feelings of helplessness during the decision-making process of amputation caused by diabetic foot because of the extreme difficulty and dilemmatic nature of the decision. Therefore, after understanding the patients’ medical history and decision-making process regarding amputation, healthcare professionals are encouraged to empathize such patients, respect the patients’ and family’s decision, and thereby provide them with necessary care. Future research should include professionals’ perspective and family members’ care process for amputees to understand the decision-making process of patients who require amputation.

Key Words: patients with diabetic foot, amputation, decision making process, qualitative research, grounded theory.
The Living Experiences Among Interstitial Cystitis Patients in Taiwan

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Purpose:
Interstitial cystitis is a clinical syndrome characterized by daytime and nighttime urinary frequency, urgency, and pelvic pain. Despite considerable research, universally effective treatments do not exist. However, there is few study to explore the life experiences from the subjective perspective for patients. This study was aimed to explore the living experiences among patients with interstitial cystitis.

Methods:
The in-depth interviews method was conducted for nineteen patients with interstitial cystitis from one regional teaching hospital in northern Taiwan. The qualitative data were analyzed using constant comparative methods.

Results:
There are seven categories: (1) ‘feeling discomforts include: “urination problem, stressful life, and negative life impacts” (2) doctor shopping -- searching for medical help, (2) taking medicine for controlling symptoms –prescription drugs, herb, over-the-counter medicine (3) modify life pattern: sexual adjustment, diet and fluid control, behavior modification, hygiene habits (4) keeping busy for diverting urinary attention, (5) outdoor life rules-- carrying privacy equipment, going with familiar friends or family (6) always self-reflection cue of disease. (7) Self-learning skills of living with own bladder: life meanings for diseases, stress management, emotional support.

Implications for Practice: Symptoms distress resulted from interstitial cystitis, for example, pain, is considered inherently subjectively and individualized experiences. This is crucial that we should establish enabling skills from patients’ subjective experiences instead of traditional health teaching from health providers.

Key Words: interstitial cystitis, enabling skills, qualitative, self-management.
Factors Influencing Adherence to Inhaled Long Acting Bronchodilators With Corticosteroid in Patient With Chronic Obstructive Pulmonary Disease

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Purpose: This correlational predictive study aimed to examine the influences of perception of disease control, medication taking confidence, readiness to take medication and patient-clinician communication on adherence of inhaled long acting bronchodilators with corticosteroid in patients with chronic obstructive pulmonary disease (COPD).

Methods: The sample consisted of 120 patients with COPD who came for follow-up visits at COPD clinic of Chest Disease Institute. Data were collected by questionnaires including: Demographic Questionnaire, Medication Adherence Report Scale, Brief Illness Perception Questionnaire, The Confidence Ruler, Readiness to Change Questionnaire and Physician-Patient Communication Behaviors Scale. Data were analyzed by using descriptive statistics and logistic regression analysis.

Results: The results showed that the majority of participants (95%) of the sample were male, with average age of 68.95 years (SD = 9.33), while perception of disease control, medication taking confidence, readiness to take medication and patient-clinician communication together contributed for 54.3 % of variation on inhaled long acting bronchodilators with corticosteroid therapy adherence in COPD (Nagelkerke R2 = 0.543). It was also found that medication taking confidence and readiness to take medication could predict inhaled therapy adherence in COPD (OR= 1.85, p< .05 and OR= 2.40, p< .05), respectively.

Implications for Practice: Based on the study’s results, it was suggested that nurses should promote confidence and ready to use medication by providing knowledge about the disease and medication use. Monitor and evaluate the results of medication of a patient taking the medication, and increase cooperation in the future.

Key Words: chronic obstructive pulmonary disease, medication adherence, perception of disease control, medication taking confidence, readiness to take medication.
Purpose: This study was conducted to determine the predictive correlations by studying the medication adherence in patients with chronic heart failure and also focused on the influence of the severity of disease, financial status, barriers to medication adherence and patient-provider relationships in co-predicting medication adherence in patients with chronic heart failure.

Methods: The sample was composed of 120 patients with chronic heart failure who treated at the Outpatient department of a tertiary hospital. Data were collected using questionnaires namely, the personal data, the severity of disease evaluation assessment form, the barriers to medication adherence assessment form, the trust in provider assessment form and the medication adherence assessment form. All data were analyzed using descriptive statistics and logistic regression analysis.

Results: According to the results, the samples were males (66.7%) with a mean age of 54.28 years ($SD= 11.27$), medication adherence at 47.5%. Severity of disease, financial status, barriers to medication adherence and patient-provider relationships were co-predicted the medication adherence in patients at 17.8% (Nagelkerke $R^2= 0.178$). Financial status and patient-provider relationships were also co-predicted the medication adherence with a statistical significance of $OR = 1.76$ ($p< .05$), and $OR = 1.06$ ($p< .05$), respectively.

Implications for Practice: Based on the findings, the researcher recommends the development of programs to promote patient-provider relationships based on a foundation of trust to promote medication adherence in patients, assess their financial status and plan to help those with problems to reduce medication nonadherence.

Key Words: chronic heart failure, medication adherence, severity of disease, financial status, barriers to medication adherence.
Purpose:
To evaluate the change in health-related quality of life of hip fractured older persons with cognitive impairment/dementia

Methods:
A systematic review was performed by searching MEDLINE, PubMed, and Scopus to identify relevant studies since their inception up to November 2016 (Registered: PROSPERO 2016:CRD42016052878). The inclusion criteria were: (i) involved hip-fracture patients over 60 years of age with cognitive impairment or dementia. (ii) HRQoL measured questionnaires contained at least: physical, psychological and social dimensions (iii) English full-text article including descriptive or interventional studies.

Results:
Eleven studies were included in this systematic review. Studies using sample consisted of hip fractured persons with cognitive impairment with those without cognitive impairment, or studies include only hip fractured persons with cognitive impairment were included. Most studies (81%) reported HRQoL measured by the EQ-5D instrument. Most of the deterioration in HRQoL as compared with pre-fracture conditions for hip fractured older person with cognitive impairment occurred during the first 4 months and then the HRQoL remained relatively unchanged for 6th, 12th, and 24th months following the hip surgery. Different types of hip fracture and surgery were found to have a different impact on changes in HRQoL for these patients after 4th-month follow-up

Implications for Practice: The first 4 months following the hip surgery is the critical time period for health care providers to provide extensive care in order to improve the quality of life for hip fractured persons with cognitive impairment. Provide a knowledge foundation for designing an intervention protocol in managing HRQoL hip fractured older person with cognitive impairment, such as involved family caregiver on programs would be recommended in future studies

Key Words: health-related quality of life, older persons, hip fracture, cognitive impairment, dementia, review.
The Effects of Exercise on Cognition in Elders With Mild Cognitive Impairment: A Systematic Review and Meta-Analysis

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Purpose: Mild cognitive impairment (MCI) is a transitional stage between normal aging and dementia, and individuals with MCI may represent an optimal target population for dementia prevention interventions. Recently, physical exercise has shown to benefit brain health among cognitive healthy elders. However, few systematic reviews reported its effects on cognitive outcomes among MCI patients, and none study explored the effects of exercise modalities on the results. This study aimed to evaluate the effects of physical exercise on cognitive outcomes for MCI patients and further determine which specific type of exercise is of greater effectiveness.

Methods: Studies which investigated the effects of structured physical exercise on cognitive outcomes among individuals with MCI, written in English or Chinese, were included. The following databases were searched from inception to December 31, 2015: Medline, CINAHL, EMBASE, PsycINFO, SPORTDiscus, and the China National Knowledge Infrastructure. Two reviewers independently assessed the study quality by the Effective Public Health Practice Project Quality Assessment Tool. Meta-analysis was conducted when data were available, with further subgroup analyses for exercise types. Heterogeneity in study results was tested by the Cochran Q statistic and quantified by I2 statistic. Pooling analysis was conducted only for studies where I2 was less than 75%. A random-effects model was used to pool the results, as it yields more conservative summary effect estimates. The standardized mean difference (SMD) and a 95% confidence interval (CI) were calculated for the summary effect of continuous data. A sensitivity analysis was run by excluding the studies of weak quality in the pooling analysis for the primary outcome. Narrative overview was performed when statistical synthesis was inappropriate.

Results: Ten studies met the inclusion criteria. The interventions of the included studies can be categorized into three types: (a) aerobic exercise, (b) resistance training, and (c) multimodal exercise. The results of meta-analysis showed that, overall, exercise had moderate effect in improving global cognition (SMD= 0.39, 95%CI [0.15, 0.60], p= .002). Further subgroup analysis showed that aerobic exercise had the largest effect size (SMD =0.57; 95%CI [0.25, 0.88], p< .001) in comparison to resistance training (SMD =0.48; 95%CI [0.04, 0.93], p= .03) and multimodal exercise (SMD= 0.20; 95%CI [-0.25, 0.64], p= .39). The effects of exercise on cognitive subdomains remain inconclusive.

Implications for Practice: This study provides evidence that exercise has moderate effects on global cognition in MCI patients, and by comparison, aerobic exercise is of better effectiveness compared to resistance training and multimodal exercise. Given the limited number of studies in this field and various methodological flaws found in current studies, more RCTs with rigorous study design are needed to explore the effects of physical exercise on cognitive subdomains in MCI patients as the current evidence remains inconclusive.

Key Words: mild cognitive impairment, physical exercise, systematic review, meta-analysis.
Purpose: This correlational predictive study aimed to examine the influences of Perception about disease control, confidence in ability to take medication, readiness to take medication and patient- clinician communication on corticosteroid inhaled adherence in patients with asthma and studying the correlation between asthma exacerbations and corticosteroid adherence.

Methods: The sample consisted of 120 patients with asthma who came for follow-up visits at the Lung Disease Out-Patient Clinic and the Asthma Clinic, Central Chest Institute of Thailand. Data were collected by questionnaires including: Demographic Questionnaire, Medication Adherence Report Scale, Brief Illness Perception Questionnaire, Confidence Ruler, Readiness to Change Questionnaire, and Physician-patient communication behaviors scale. Data were analyzed by using descriptive statistics and logistic regression analysis.

Results: The results showed that most of the samples were found to be females with a mean age of 59.73 years (mean= 59.73, SD = 10.89) The samples (63.3%) had corticosteroid inhaled adherence with Perception about disease control (95 %), high adherence confidence (83.5%), adherence readiness ranging from regularly practiced to maintained (54.4%) and high patient-clinician communication (67.8%).More than half of the sample (63.3%) had corticosteroid inhaled adherence, Concerning the relationship between asthma exacerbations and corticosteroid inhaler adherence in patients with asthma, asthma exacerbations were found to have no correlation with corticosteroid inhaled adherence. Analysis of predictive power found perception regarding the disease, adherence confidence, adherence readiness and patient-clinician communication to be able to explain variances in corticosteroid inhaled adherence in patients with asthma at 47.3 percent with statistical significance at 0.05 (Nagelkerke R2 = 0.473, p< .05). In addition, adherence readiness was the only variable with the power to predict corticosteroid inhaled adherence in patients with asthma with a statistical significance (OR= 8.28, 95%CI [3.76, 18.20], p< .05).

Implications for Practice: Based on the study’s results, it was suggested that nurses should pay attention to assessing readiness to use inhaled corticosteroid and to develop nursing practice model for increasing readiness to use inhaled corticosteroid.

Key Words: asthma, perception about disease control, confidence in ability to take medication, readiness to take medication, patient clinician communication, medication adherence.
Study on the Awareness of Hypertensive Hemodialysis Patients of Home Blood Pressure Monitoring and Investigation of Influencing Factors

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Purpose: The prevalence of hypertension was 50–60% in patients who were undergoing hemodialysis. Studies have shown that good home blood pressure monitoring can effectively decrease the risk of cardiovascular diseases and lower the risk of permanent disability or death in patients. The aim of this study was to investigate and analyze the changes in awareness to home blood pressure monitoring of hypertensive hemodialysis patients and the influencing factors.

Methods: This was a cross-sectional study. The study subjects were patients with primary hypertension who were treated in the hemodialysis department of a medical center in the north district. Interview visits and self-designed structured questionnaires were used, and 153 effective survey responses were collected. The interviewees had a mean age of 66 ± 13 years, and 61% of them were male. Study data were presented in percentages and statistically analyzed by using the chi-square test, analysis of variance, t tests, and simple regression analysis.

Results: Results of this study showed that the mean score of the hypertensive hemodialysis patients in awareness to home blood pressure monitoring was 4.04 ± 2.24 (total possible score, 9). Among the relevant factors that influence home blood pressure monitoring by hypertensive hemodialysis patients, knowledge of home blood pressure monitoring did not significantly change home blood pressure monitoring behavior, and sex, age, educational level, marital status, and time on hemodialysis did not show any significant differences. Age was shown to influence compliance with blood pressure monitoring indirectly through physician-patient relationships, which affect health beliefs. Patients who were older or had higher educational levels had better compliance.

Implications for Practice: The results of this study showed that providing healthcare workers with an understanding that home blood pressure monitoring in hemodialysis patients can provide patients with awareness of target values for blood pressure control and is key to the prevention and treatment of hypertension. Further suitable medical guidance provided to patients can enhance the quality of comprehensive clinical care.

Key Words: hemodialysis, home blood pressure monitor, hypertension.
Health Services Concerns and Breast Cancer Prevention Strategies for New Immigrant Women
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Purpose:
(a) To understand new immigrant women’s (NIW) health service concerns and needs on breast cancer prevention. (b) To evaluate the effectiveness of an educational program on NIW’s knowledge of food safety and breast cancer screening services.

Methods:
A time series design was used to examine the efficacy of an educational program for improving participants’ knowledge on breast cancer prevention over time. The program lasted 2 hours per week for four weeks. Thirty participants were invited to attend. Lessons covered in the program are as follows: week 1: Introduce Ontario Healthcare System, week 2: The link between eating behaviors and breast cancer, week 3: Breast cancer prevention and screening, and week 4: Focus group discussion. Four instruments were used to collect data: demographic data questionnaire, food safety questionnaire (FSQ), food frequency questionnaire (FFQ), and Chinese breast cancer screening belief questionnaire (CBCSBQ). Participants signed a consent form and filled out demographic data in week 1. They were tested before and after each lesson (FSQ & FFQ in wk. 2, CBCSBQ in wk. 3). SPSS version 23.0 and Paired sample t tests were used to analyze the data. In addition, a focus group discussion was held in week 4 to explore participants' unmet health services concerns and needs. The focus group discussion was audio-recorded and transcribed verbatim by a research assistant. The transcription was analyzed by using content analysis.

Results:
Paired sample t tests revealed that there were significant differences between knowledge scores on pre- and post-test, which indicated that participants’ knowledge significantly improved following the food safety educational program. Furthermore, participants’ breast cancer screening belief was much positive after the educational program.

Implications for Practice: Breast cancer is the most common cancer diagnosed among Canadian women and the leading cause of cancer-related death in Canadian women less than 40 years of age. Several risk factors have been proposed to explain breast cancer incidence. Among the known risk factors, eating habits and dietary components are thought to be factors that may influence development of breast cancer. This study has demonstrated that an educational program on food safety resulted in improved food safety knowledge for Chinese immigrants in Canada. Participants also have a better understanding on information related to healthy eating habits and breast cancer prevention and screening. The study can raise women's awareness of practicing appropriate cancer prevention strategies, such as utilizing screening programs and adopting cancer-preventing eating habits.

Key Words: breast cancer, knowledge, immigrants, women, Canada.

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**Purpose:**
Although the effect of cultural and economic influences are considered as a huge factor of the delay of help seeking behavior, there have not been enough any research done regarding this issue in Japan. The aim of this study is to identify the relating factors of delay help seeking behavior among Japanese female breast cancer patients.

**Methods:**
Descriptive, cross-sectional survey was carried out in two breast clinics in Okinawa, Japan from February 10, 2016, through May 9, 2016. Two hundred ninety-one female breast cancer patients who were at least 3 months to 5 years post-diagnosis were selected. The questionnaires had consisted based on Judgement to Delay model which showed relating factors of help seeking behavior such as health care utilization habits, fear and anxiety, and family relationship. Subjects were classified into two groups according to the time from women notice the breast abnormal(s) to when they attend the hospital: delay group (three months or more) and non-delay group (three months or less). And, univariate analysis was conducted using the delay group and non-delay group as the dependent variable. All data were analyzed with the use of SPSS software, version 23. The study was the approval of the Institutional Review Board of the Okinawa Prefectural College of Nursing.

**Results:**
The response rate was 88.0% (n=256). 1. The mean age of the participants was 58.3±11.5 years. Of the participant, 256 of 61 (23.8%) were in delay group. 2. The percentage of stage 3 or 4 diagnosis was significantly higher in delay group (delay > 3months) as compared to the percentage in non-delay group (16.4% vs. 3.6%). 3. Delay group was significantly younger (p=.041), higher rate no occupations (p=.011), lower income level (p=.012) and lower education level (p=0.001) than non-delay group. 4. Delay group took more utilize breast cancer screening (p<.001) and cervical cancer screening than non-delay group (p=.010). 5. Delayed groups experienced fear (p=.36) and anxiety (p=.84) on discovering breast abnormal almost equal level to that of non-delay group. 6. Delay groups tended not to disclose breast abnormal immediately to someone else (p=.011), the reason why “not being a burden to others”. And delayers family competence to cope with the health problem was weaker than non-delay group (p<.001).

**Implications for Practice:**
Our results indicate that difficult living conditions such as low income level, no occupations and low support is relating delay in Okinawa, Japan. Therefore, Understanding relating factors of delay of help seeking behavior such as women’s living conditions and demographic characteristics by health professionals may lead to effective interventions to reduce patient delay.

**Key Words:**
breast cancer patients, delay, help seeking behavior, relating factors.
Developing a Regression Model for Job Satisfaction and Staying Intention in Nursing Career

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**Purpose:** The serious shortage of nursing staff becomes a critical issue globally. The hospital management echelon plan various interventions for retaining nursing staff in their hospitals and improving employee loyalty and working performance. The purpose of this study was to construct a regression model of job satisfaction and staying intention in nursing career.

**Methods:** This study was a cross-sectional study design. Combining the ACSI (American Customer Satisfaction Index) and the ECSI (European Customer Satisfaction Index) included seven areas: professional image, expectation of retention policy, opinion of retention policy, value of work, staff appeal, job satisfaction and staying intention. Six hundred nurses as subjects were recruited from a north medical center. Self-administered structured questionnaires were conducted to survey the opinion of job satisfaction and staying intention. The correlation of these variables was analyzed by a regression model of job satisfaction and staying intention.

**Results:** Professional image (X1), expectation of retention policy (X2), opinion of retention policy (X3), value of work (X4), and staff appeal (X5) were used independent variables, and the job satisfaction (JS) and the staying intention (SI) as dependent variables. Two equations were obtained as follows: 

\[
JS = 30.02 + .28 X3 + .37 X4 + .45 X5, R^2 = .56(56\%);
\]

\[
SI = 9.32 + .13 X1 + .21 X3 + .35 X5 + .23 JS, R^2 = .47(47\%).
\]

**Implications for Practice:** There were moderate and positive correlations, for professional image, expectation of retention policy, opinion of retention policy, value of work and staff appeal, with job satisfaction, or staying intention. ASCI and ESCI, which are widely applicable to the model of external customer satisfaction, can also be used to predict 47-56% job satisfaction and staying intention for nursing staff. The study results provide an important application for government agencies and the management echelon of hospitals in promoting the better job satisfaction and staying intention of nursing staff.

**Key Words:** nursing, retention policy, job satisfaction, intention to stay.
Purpose: An exploration of nurses’ handover contents, time and related factors.

Methods: This study applied qualitative research method. Data was collected from registered nurses who have at least three months' nursing experience and a position below assistant manager in medical or surgical wards at a teaching medical center in central Taiwan. Data collection used nurses’ task diaries and nursing handover tape records. Qualitative data in nurses’ task diaries, such as nurses’ education level, and position was collected and analyzed using SPSS. Nursing handover tape record data was analyzed using thematic analysis. Research rigor is following Lincoln and Guba’s standards.

Results: The results of this study found out inconsistent use of the Situation, Background, Assessment, Recommendations (SBAR) communication technique leading to insufficient nursing information.

Implications for Practice: To avoid delay to get off work, under time restrict, the junior nurses had limited chance to enhance their nursing competency on logical thinking and reasoning, a nursing handover education package is needed in the future.

Key Words: clinical competency, handover, nurses, qualitative methods.
The Force and the Wall of Courage: Lived Experience of Nurses on Workplace Bullying

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Purpose: The main goal of this study was to document and to have a collective understanding the lived experiences of nurses on workplace bullying which is a very serious phenomenon.

Methods: A descriptive phenomenological approach was utilized in this study in order to collectively understand and explore the experiences of nurses on workplace bullying. The researcher sought permission from UST Graduate School Ethics Review Committee for ethical clearance prior conduction of the interviews for the research study. Using a snowballing sampling technique, seven (7) co-researchers were selected after securing informed consent based on the criteria set by the researcher. Pseudo-names were utilized instead of using their real identity to maintain anonymity. Colaizzi's Seven Procedural Steps on Reflective Analysis was utilized in identifying the significant statements, organizing and formulating the cluster of themes and identifying the essence of the phenomenon.

Results: After undergoing the process of reflective analysis, three main themes arose from the narratives which include: (1) The Force Larger than Themselves, (2) The Shadow of Fear and Doubt, (3) The Wall of Courage. With the statements provided by the co-researchers, it is imaginable that they are being maltreated in the workplace. Eventually, these bullied nurses sought justice by moving a step forward and pointed out that such behaviour should be reprimanded by the management.

Implications for Practice: This research implied that early recognition, acknowledgement and understanding the multi-dimensional aspects of workplace bullying should be done through revisiting and reinforcement of existing workplace bullying policies, involving staff nurses, administrators and the organization in the policy implementation and information dissemination to stop or prevent such behaviors.

Key Words: workplace bullying, bullied nurses, bullying experience.
CS5-004  Anxiety Among the Female Nurses  

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Purpose: To explore subjective and objective anxiety in the female nurses and examine the factors those contribute to anxiety.

Methods: This study is a cross-sectional design with purposive sampling design. The 119 participants were recruited from clinical nurses with having worked at least three month in a hospital in northern Taiwan. The structured questionnaire included demographics, subjective anxiety and work stress. Moreover, the heart rate variability (HRV) is as an objective anxiety indicator. The data were analyzed by SPSS20.0 statistical software. Descriptive and inferential statistical analyses were including t-test, one-way ANOVA, Pearson product-moment correlation coefficient, and multiple regression.

Results: The average age of the nurses is 31.6(± 7.6) years and the average seniority is 8.6 (± 7.4) years. The number of the slight and mild anxiety is 52 (43.7%) and 43 (36.1%), respectively. The average HRV is 42.1 (SD= 13.1) ms. The regression analysis of individual attributes, overall health status, life stress and working pressure showed that the variables affecting the subjective anxiety were nursing seniority, overall health status and life stress. Moreover, the explained variance of those factors was 28.7%. The only variable affecting the HRV was age which explained 9.5% variance.

Implications for Practice: The research result explores the whole view of nurses’ subjective and objective anxiety. We suggest clinical nursing supervisors should decrease the anxiety aged nurses’ life pressure. In addition, providing some health promotion interventions maintain the nurses’ health conditions and prevent them to worse their subjective anxiety. Specially, clinical nursing supervisors should take addition on caring aged nursing staffs’ objective anxiety.

Key Words: female, nurse, anxiety, heart rate variability.
Purpose:
Older Chinese immigrants in the United States (US) demonstrate elevated rates of hypertension (60%), yet little is known about appropriate treatment strategies. The purpose of this study was to test intervention efficacy of a culturally tailored management intervention protocol, Chinese Medicine as Longevity Modality (CALM), in improving hypertension management among Chinese elders in the US.

Methods:
A single-group trial with pre- and post-intervention design was conducted with 20 Chinese immigrants ≥65 years old on once-daily antihypertensive medications. Blood pressure was assessed at baseline, and 3 and 6 months post intervention. The intervention was 2 months in duration introduced at one month after baseline data were collected. The intervention consisted of a Chinese language educational video, an individualized nurse counseling session, and four follow-up phone calls at 1 week, and 1, 1.5 and 2 months after the intervention. The video and counseling incorporated Chinese’s cultural health practices for hypertension management, including Chinese herbs and practicing Tai-Chi.

Results:
Participants were monolingual Chinese, had a mean age of 71 years (SD=5.10), included 55% female and 80% married, and 79% had annual household income <$20,000. At post-intervention, we observed a significant reduction of systolic blood pressure at both 3 months (-15.36±3.98 mmHg, \(p = .003\)) and 6 months (-16.41±2.82 mmHg, \(p< .001\)), a minimal reduction of diastolic blood pressure at 3 months (-4.70±1.86 mmHg, \(p = .061\)) and a significant reduction of diastolic blood pressure at 6 months (-5.45±1.86 mmHg, \(p = .025\)).

Implications for Practice: Culture/language-targeted video educational material in conjunction with individualized nurse-led counseling sessions are effective in improving hypertension management among Chinese elders. This novel intervention warrants further efficacy testing in hypertension management in a larger population of older Chinese immigrants. The CALM protocol may offer a helpful intervention framework by incorporating culture/language-targeted approaches for hypertension management that could be adapted to various older Asian immigrant communities.

Key Words: hypertension, Chinese immigrants, elderly, culturally, tailored intervention, echology.
Purpose: This action research aims to translate the National Health Assembly resolution on tobacco control into practice in the community of Nakhon Si Thammarat Province, Southern Thailand.

Methods: The target group consists of a vocal community, health volunteers (HV) and people of the village 156 persons, school director, teachers, and students 408 persons and sub-district health promotion hospital staffs 3 persons. Data were collected by survey, group discussion and in-depth interviews. The descriptive statistics, content analysis and summary descriptive essay were used for data analysis.

Results: The results showed that the goal of community Health Assembly resolution schedule by three measures as: first, preventive measures by designated smoking areas, community campaign non-smoking, and the team setup to detect justify violating of the tobacco control in community; second, proactive treatment measures included of health volunteers visit who want to quit smoking, and community leaders were encouraging; and third, reinforced measures by configuration outstanding person do not smoke and award from the family or the person can quit smoking completely). Operating results showed that 55 community smokers heavily decrease 35 remaining 20 persons, and 30 student smokers can reduce and quite cigarette 20 persons.

Implications for Practice: Policy-driven on tobacco control in the community should focus on the treatment of smokers in the community and school smoking measures seriously.

Key Words: National Health Assembly, tobacco control, policy-driven.
Purpose: Advance care planning is a process that enables individuals to make plans about your specific treatment wishes as well as your goals, values, and beliefs are known and can be respected by health providers and those closest to you, discussing with your family and close friends, and possibly documenting what types of health care you may or may not wish to receive - if you become seriously ill and/or unable to speak for yourself. This study examined the effect and the willingness of discussion advance care planning from the family caregiver when caring of chronic disable patient in Taiwan.

Methods: A cross-sectional, correlational research design and the Theory of Planned Behavior (TPB) was used to guide this study. A convenient sample of 198 caregivers who care of disable family member in Hualien were invited to participate in this study. The participants were asked to provide demographic data. In addition, they were asked to complete Wang (2008) the Multidimensional Scale of Perceived Social Support (MSPSS), Given et al (1992) the Caregiver Reaction Assessment (CRA) and Family Caregiver Advance Care Planning scale by self design. The data were analyzed using SPSS 19.0 software. Descriptive statistics, t-test, One-Way ANOVA, Scheff’s method, Pearson’s product moment correlation and regression were used for data analysis.

Results: The caregivers’ demographic characteristics are as follows: average age 54.7 years (minimum 23 years, maximum 92 years), female sex (71.3%), spouse care relationship (29.5%), high school education level (32.8%), no care experience (66.4%), had foreign care (62.3%) and the deterioration of self-perceived health (51.6%). The home care case average age was 74.7 years (maximum 110 years, minimum 20 years). Most of their Karnofsky scale were the fourth stage (55.7%), the Barthel Index is 0 score (83.6%). The main findings of the study are as follows. The average of CRA score was 75.95 (maximum 110, minimum 48) and the average MSPSS score was 63.59 (minimum 12, maximum 84), showing caregiver care burned and social support are in the high. There was a positive correlation between caregiver attitude towards the ACP behavior, Subjective Norms and Perceived ACP Behavioral Control, and 31.8% of variance could be explained by behavioral intention.

Implications for Practice: Advance care planning is a key issue in modern health care system. This study provided important information for discussion ACP with family member having experience in taking care of chronic disable patient. The caregiving experience does affect the caregiver's intention of ACP and preference more peace to face own end-of-life. It can be used as a basis when planning appropriate intervention.

Key Words: advance care planning, theory of planned behavior, caregiver.
Purpose: To evaluate the effects of a nurse-led proactive program on blood pressure control and quality of life among hypertensive older persons. The 3 month nurse-led proactive program based on the Chronic Care Model (Wagner, 1998), was developed by literature review and implemented at five health centers in Nakhon Si Thammarat, Thailand.

Methods: A hundred participants were studied with and random assignment to the intervention or control group. The intervention consisted of interactive group education, proactive monitoring, and skill training at home. Testing was conducted at baseline, 3, 6, and 9 months on both an experimental and a control groups. Data was analyzed by repeated measures ANOVA at .05 significant level.

Results: The results indicated that the participants in the experimental group had lower mean values of systolic and diastolic blood pressure at 3, 6, and 9 months. Post-test mean values of systolic and diastolic blood pressure were significantly lower in the experimental group ($p < .05$). The average of health-related quality of life score was also significantly greater in the intervention group ($p < .05$) compared to the control group.

Implications for Practice: This study provides strong evidence that a community nurse and proactive team, working collaboratively with patients and caregivers, can have a major effect on blood pressure control and quality of life among older persons in the community. This potential benefit is particularly important given the magnitude of the care gap for elderly hypertensive patients in Thailand.

Key Words: older person, proactive nursing, chronic care model, hypertension.
The Preliminary Study of the Non-Cancer Terminal Ill Patient to Sign “Advance Hospice Palliative Care & Life-Sustaining Treatment Choices of Intent” in a Regional Teaching Hospital in Taiwan

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Purpose: To discuss 8 categories of non-cancer terminal ill patients to sign the “advance hospice palliative care & life-sustaining treatment choices of intent” relevant documents' situation.

Methods: This study is a retrospective exploratory study, over 200 medical records were collected from the 8 categories of non-cancer terminal ill patients in 2015, for further statistical analysis.

Results: Death patients of 8 categories of non-cancer patients aged from 36 years to 102 years, over 65 years of age accounted for 74.4%, signed the “advance hospice palliative care & life-sustaining treatment choices of intent” relevant documents accounted 87.8%. Of which patients from only 3.31%, and 96.69% of family members signed (children and grandchildren signed 64.5%). The higher the age of patients ($t = 4.235, p < .05$) and the lower education level of the primary school and below ($\chi^2 = 6.584, p < .05$), the higher the relevant documents signed ratio. 82.2% of patients died within 7 days after the signing. And there are still some data are still in the analysis.

Implications for Practice: Autonomy and previously signed "advance hospice palliative care & life-sustaining treatment choices of intent" documents can improve the quality of life of patients with terminal illness, still have to work hard to advocacy and health education. And yet parts of health care workers also need in-service education indeed.

Key Words: advance hospice palliative care & life-sustaining treatment choices of intent, do not resuscitation, consent 8 categories of non-cancer terminal ill patients.
CS7-001  Independent and Synergistic Effects of Self and Public Stigmas on Quality of Life of HIV-Infected Persons

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Purpose: To assess the dynamic changes in self-stigma and public-stigma along the time course and determined their independent and synergistic impacts on quality of life.

Methods: A Cross-sectional study was conducted at Two HIV-designed hospitals and two branches of non-government an-AIDS organizations in West Java, Indonesia. Persons diagnosed with HIV completed self-report measures of stigma and the questionnaire of World Health Organization Quality of Life (WHOQOL)-HIV brief version. Kernel smoothing method and multivariate linear regression were applied for statistical analysis.

Results: Two hundred fifteen adult HIV-infected persons agreed to participate in this study, with a response rate of 85.3%. The kernel smoothing means showed that one-third of subjects developed self-stigma immediately after HIV diagnosis while a higher public-stigma felt 6 months later, and both seemed to last continually. Beginning at about 48 months after diagnosis, participants with stigma showed consistently lower scores for all domains of quality of life. After control of potential confounding through multiple linear regression analyses, we found scores of all four domains and items of mobility, fatigue, activity of daily living, positive feeling, self-esteem, social support, and physical environment of WHOQOL were independently associated with both self-stigma and public-stigma. While self-stigma also affects items related to personal psychological feelings, public stigma alone associates with lower scores of items related to social and environmental domains.

Implications for Practice: Both self-stigma and public-stigma remains highly prevalent in Indonesia and affects all four domains of quality of life and many items of WHOQOL-HIV. Our findings underscore the need to explore and control the complex structure and possible synergistic effects of multiple stigmatizations.

Key Words: HIV, public-stigma, self-stigma, quality of life.
Purpose: The World Health Organization (WHO) has reported that approximately 35% of women have experienced domestic violence. Taiwan is the first Asian country that implemented the Domestic Violence Prevention Act, the prevalence rate of domestic violence remains high. When women experienced domestic violence, they often sought help from medical institutions for injury treatment and social welfare assistance. Studies have indicated unsatisfied experiences of domestic violence women sought for medical care, while limited studies have investigated entire processes of domestic violence women’s experience and satisfaction on their utilizations of medical institutions. This study aimed to explore domestic violence women’s experience and satisfaction toward health care utilization.

Methods: This study combined qualitative and quantitative methods of in-depth interviews along with and self-administered satisfaction questionnaire on four domestic violence women to obtain their experiences and satisfaction on their utilization of health care service.

Results: The physical and psychological impact on domestic violence women: Physical injuries and physical/psychological symptoms were common impact of domestic violence on those women that also cause other somatic symptoms after violence. The health care utilization of domestic violence women: When those women experienced domestic violence, they usually sought for medical, legal, safety and social assistance from emergency department. The utilization of the health care is influenced by factors including a supportive, private and safe space, and referral to social resources. Moreover, they may not reveal their exposure to domestic violence when seeking for to medical help and the health care institution also may not find or ask whether they had exposed to domestic violence. Domestic violence women’s satisfaction on health care and its impact on their use of health care services: Domestic violence women had only 52% of satisfaction on health care institution. The low satisfaction will consequently influence their choice of health care institution and satisfaction of follow-up medical service.

Implications for Practice: Health care institutions should provide domestic violence care with consideration of privacy and safety along with gentle and non-judgmental attitude toward those domestic violence women. Inputs from multidisciplinary team like social worker and legal representative need to be adopted for greater care provided for those domestic violence women. Continuing education regarding domestic violence care that will increase health care staffs’ awareness and knowledge of screening, identifying, screening, treating, counseling, and referral of domestic violence.

Key Words: domestic violence, health care utilization, satisfaction.
**Purpose:** This systematic review aimed to analyze the evidence of the effectiveness of physical activity on depression in patients with Parkinson’s disease (PD).

**Methods:** A systematic review of primary research was undertaken and conducted according to the Preferred Reporting Items for Systematic Reviews. The data sources were Scopus, Psycho-info, CINAHL, Pub-med and ProQuest Cochrance which were searched from January 2006 to April 2015. The language was restricted to English. Abstracts were screened and reviewed against the eligibility criteria. The data was extracted and the quality was appraised by at least one reviewer and verified by another. The modified Jadad scale can be used to assess the quality of the methodology of the published papers.

**Results:** The database search yielded 262 abstracts, 9 of which were included in this review, each rater awarded scores ranging from 3 to 8. The 9 studies included 282 patients. A total of 9 studies executed 13 kinds of physical activity programs. Results of this review show inconsistent empirical evidence to support the efficacy of physical exercise in the PD population. Aerobic training exercises significantly improved the scores on the Unified Parkinson’s Disease Rating Scale (UPDRS), the Beck Depression Inventory (BDI), and Quality of Life (QOL). Qigong improved scores in UPDRS-III. However, activities of daily life, the incidences of multiple non-motor symptoms, and depression decreased. QOL showed no significant difference when using qigong. A balance training program, such as Tai Chi, can improve postural instability and better results in QOL.

**Implications for Practice:** Physical activity may improve motor symptoms, decrease depression, and increase the quality of life of PD patients using aerobic training to produce better results in lowering depression, bettering the QOL, and favorable results in motor symptoms. These findings suggest that physical activity, especially aerobic training, could be a good exercise strategy for patients with PD.

**Key Words:** Parkinson's disease, physical activity, depression, modified Jadad scale.
Purpose: Research on communication regarding the use of complementary and alternative medicines (CAM) with patients from the perspective of nurses is limited. Insufficient communication about patients’ usage of these medicines may result in adverse interactions between conventional medicine and CAM, or cause gaps in care. The purpose of this study was to explore reasons for nurses’ reluctance to communicate with patients regarding the use of CAM and to find ways of improving this communication.

Methods: A focus group was conducted to facilitate an understanding of the perceptions, feelings, and thoughts of nurses on communicating with patients regarding CAM use from January to May 2013. Participants interviewed were 54 nursing students enrolled in a post-registration or Master’s level nursing program. Data were transcribed verbatim and thematically analyzed. Ethical approval was obtained from the Research Ethics Board.

Results: The dilemma about communication regarding CAM use, based on the focus group interviews included: “unclear scope of nursing practice for CAM,” “unsupportive organizational culture,” and “undervaluation of patients’ needs.” The strategies for improving communication included “establishment of an organizational scheme,” “increasing awareness about the nurses’ needs,” and “encouraging interdisciplinary teamwork.”

Implications for Practice: Preliminary findings provided new insights into the barriers to communication regarding CAM use with patients from the nurses’ perspectives, and helped raise consciousness regarding the communication gap between nurses and patients.

Key Words: complementary and alternative medicine, perception, communication,
Purpose: The purpose of this study was to examine the influences of family interaction and spiritual well-being on the older people’s anxiety and depression.

Methods: Study Design: This was a cross-sectional, descriptive design. Setting: The participants were recruited from the community. The mean age was 71.03 (SD= 7.05), range (58-95). There were 35.7% Male and 64.3% Female. Methods: The structured questionnaires were used to do the data collection. The SPSS 23 version was used to do the data analysis. The descriptive data analysis, Pearson Correlation, and Step-wise Multiple Regressions were used to solve the research questions.

Results: Older people whose parents used Child Monitor and Positive Family Interaction had lower score of Anxiety. Older people whose parents used harsh discipline and negative family interaction had higher score of anxiety. Older people whose parents used Child Monitor, Inductive Reasoning, Communication, Involvement, and Positive Family Interaction had lower score of Depression. Older people whose parents used Inconsistent Discipline, Harsh Discipline and Negative Family Interaction had higher score of Depression. Older people who had higher score of spiritual well-being, higher score of faith/belief, life and self-responsibility, and higher score of life satisfaction and self-actualization had lower score of Anxiety.

Implications for Practice: According to the Stepwise Multiple Regression model variables accounted for 27.5% of the Anxiety variance and 50.3% of the Depression variance. Life Satisfaction/ self-actualization (β= -0.524, p< .0001 for Anxiety; β= -0.709, p< .0001 for Depression) was the significant predictor of older people’s anxiety and depression. Higher score of Life Satisfaction/ self-actualization was found to predict decreasing older people’s anxiety and depression. According to these results, nurses could help the older people to understand their achievements in their lives in order to decrease their anxiety and depression.

Key Words: family interaction, spiritual well-being, older people, depression, anxiety.
CS8-002  Burden and Depression in Family Caregivers of People With Amyotrophic Lateral Sclerosis According to Staging System

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Purpose: This study aimed to compare caregiver burden and depression and investigate associations between caregiver burden and depression according to staging system in family caregivers of people with ALS.

Methods: 130 family caregiver-patient with ALS dyads participated in face-to-face interview investigating patient’s neuropsychiatric symptoms(Korean version of Neuropsychiatric Inventory-Questionnaire symptom subdomain, KNPI-Q-S), motor function(Korean version of Amyotrophic Lateral Sclerosis- Revised, K-ALSFRS-R), caregiver burden(Korean version of Zarit Burden Interview, ZBI-K), caregiver depression(Korean version of Center for Epidemiologic Studies Depression Scale, K-CES-D) and demographic survey. The family caregiver-patient with ALS dyads were classified into three groups and analysis according to the staging system for ALS.

Results: The mean ZBI-K score was 45.58 and increased according to the disease stage(stage II 28.82, stage III 43.24, stage IV 52.71). The mean score of K-CES-D was 24.45 and increased according to the disease stage(stage II 18.94, stage III 21.85, stage IV 28.50). Caregiver burden and depression did not show significant correlation in stage II. But, there was a significant positive correlation between burden and depression in stage III and IV.

Implications for Practice: Inclusion, We identified level of burden and depression in Korean family caregivers of patients with ALS. They experience high level of burden and depressive symptoms and it is increase at according to disease stage. Inventions aim to promoting caregiver’s psychosocial health should be considered to stage of ALS and inter-correlation of caregiver burden and depression in advanced stage.

Key Words: amyotrophic lateral sclerosis, family caregivers, burden, depression, staging system.
Impact of End of Life Hospice Orders on Medical Treatments for Critical Care Patients in North Taiwan: A Retrospective Study

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**Purpose:**
The purpose of this study was to explore the impact of End of life hospice orders on Medical Treatments for Critical Care Patients in ICUs.

**Methods:**
A retrospective study and chart review at three ICU at one medical centers was conducted. The selection criteria were that the terminal critical ill patient was document by ICU doctor and had signed End - of - Life Consent in chart in ICUs. The study employed a self-administered questionnaire developed for this study. This study was approved by the Research Ethics Committee (reference number: IRB 105081-E) on 6 Sep 2016. A total of 114 patients was recruited, including 87 with expired and 27 with survival.

**Results:**
The Results show that patients were male of 58.8%, average 70 years old (SD±15.64), high APACH II (mean scare : 26.95), Into the ICU diagnosis was mainly pneumonia or acute respiratory failure and shock (respectively ,32.4%), followed by OHCA. The length of stay in the ICU was 12 days (SD ± 13.54). The length of stay in the hospital was 19.16 (SD ± 12.78). 113 of the 114 patients signed the DNR, 87 of whom were hospitalized and 27 were discharged. Five of these patients were CPR who signed DNR and died the same day. Signed DNR died an average of 9.5 days, of which 21 people died on the same day. There were 67 families and 43.3% of them in the family meeting; 84.2% of the ICU patients received sedative drugs, 59.6% of the sedative drugs, 19.3% of the patients receiving dialysis and 88.6% of the respirators. Only 12.3% (14 persons) of medical evacuations were performed, 12 of whom died within 1 hour after removal.

**Implications for Practice:** Critical ill patients are still receiving active medical attention after signed DNR and end-of-life Consent, but analgesic and sedative medications are not yet available to every patient and can not achieve the goal of comfort and hospice. Some patients was receive CPR before approval of DNR and after approval of DNR had high ratio active treatment and low ratio for withdrawal medication treatment. Found that people for critical ill end-of-life care and hospice is still not enough. Recommended that future family meetings be held for each patient who is enrolled in an intensive care unit, and provide end-of-life hospice-related options and messages, when the family in the face of family dying or death issues, as soon as possible to make a decision. While the medical part of the implementation of the provision of physical comfort and reduce the pain of medical care. In order to achieve the goal of hospice in critically ill patients.

**Key Words:** critical ill patients, intensive care unit (ICU), end of life hospice, medical treatments.
Purpose: Irritable bowel syndrome (IBS) is prevalent among general population and thought to be a psychosomatic disease. Though IBS is not life-threatening, it is associated with poor quality of life and may result in missed work or school. Studies show that stress and anxiety tend to co-exist with IBS. The present study focused on nursing students who would attend to their first practicum training. We investigated the role of practicum stress, trait anxiety, and distress in the association with IBS of nursing students.

Methods: A cross-sectional study with purposive sampling was conducted to recruit nursing students from an Eastern university of science and technology in Taiwan. A total of 389 subjects enrolled to the study, and structured questionnaire was used to collect data and analyze the relevant characteristics of IBS. Data collection was from October 2013 to January 2015 and then was analyzed using SPSS 19.0. The t-test, ANOVA / ANCOVA, and Pearson correlations were used for statistical analysis.

Results: In this study, 186 (47.8%) nursing students met the IBS Rome III criteria, among those students, 42.5% self-identified as constipation-diarrhea subtype of IBS. Our results revealed that trait stress, practicum stress, and distress were positively correlated with each other. Students with high trait anxiety tended to perceived more practicum stress and reported more distressed. More importantly, IBS group compared to non-IBS group were significantly higher on perceived practicum stress, trait anxiety, and distress.

Implications for Practice: The findings from the current study highlighted the importance of examining the association of psycho-social factors with IBS for young adults. The discussion focused on the relations between practicum stress, level of trait anxiety, and emotional state and IBS. The results are discussed in the context of their implication for nursing practicum training and future research.

Key Words: irritable bowel syndrome (IBS), practicum stress, trait anxiety, distress.
Purpose: The Taiwan Triage and Acuity Scale (TTAS) is a five-level Emergency Department (ED) triage system developed to stratify patients into groups based on the severity of their medical condition which has been used in all the tertiary hospitals in Taiwan. Many studies have investigated the reliability and accuracy of the TTAS. However, the extent of which the TTAS is used by nurse outside of Taiwan is little know. The aim of this study was to assess interrater and intrarater reliability and accuracy in a tertiary emergency hospital of Mainland China.

Methods: This prospective cross-sectional study was carried out on 10 case-based scenarios which validated by five triage experts. Fifteen ED nurses assigned to rate the 10 case-based scenarios through March-April 2016. Interrater reliability was assessed by comparing nurses. Intrarater reliability was assessed by retriage the 10 case-based scenarios in two weeks. Accuracy of the triage rating was measured against the expert. The CVI and Cronbach’s a were applied to assess the reliability and validaty of the 10 case-based scenarios. The kappa statistics and Kendall correlation coefficient were used to evaluate the reliability by Minitab software. One-way Anova test was operated to test the accuracy among nurses by IBM SPSS 19.0.

Results: The interrater reliability and Kendall correlation coefficient were 0.48 (95% CI 0.29-0.54) and 0.85. The intrarater reliability and Kendall correlation coefficient were 0.53, 95% CI [0.34, 0.64] and 0.88. The accuracy of the triage rating was 60.7% 15.8%. There was no significant difference among nurses (age /years of working/training background) (p<0.05).

Implications for Practice: The TTAS has shown an moderate reliability and accuracy in a tertiary hospital outside of Taiwan in Mainland China. It needs some development approaches to discuss to improve the reliability and accuracy.

Key Words: Taiwan triage and acuity scale, reliability, accuracy
Purpose: Although Asian Americans population in the U.S. and Midwest has increased since 1980s, there is paucity in the literature on cancer screening utilization about Asian American refugees. The purpose of the study was to evaluate preventive health and screening practices and examine demographic predictors of health and screening behaviors among Asian Americans living in state of Michigan.

Methods: This study utilized a cross-sectional research design and recruit study participants from health fairs held in the Asian American Communities of Michigan. Health Fairs were widely publicized through local Asian language media, Asian-language newspapers in Asian grocery stores, announcements at Asian American temples, churches, picnics and other community events and held at various convenient locations such as the community centers, churches and temples. The inclusion criteria for this study were: (1) 20 years or older; (2) self-identify with Asian origins; (3) able to understand and speak English and/or one of the Asian languages. Before data collection commenced, the approval was obtained from the Institutional Review Board. A convenience sample that included 217 Asian Americans participated in the study and completed a self-administered questionnaire.

Results: The results indicated that Asian Americans in current study reported the cancer screening rates were both below the Healthy People 2020 target. Several demographic and acculturation-related factors were found to be associated with “ever screened” status in bivariate analyses. In particular, the study performed separating Asian Americans based on their refugee status and examine its association with cancer screening, and the results further indicated that after adjusting other demographic correlates, Asian American in refugee group performed lower screening rates in colorectal and breast cancer.

Implications for Practice: Addressing disparities in preventive health and screening tests remains a critical task for improving minority health; however, most studies in Asian Americans did not examine the effect of refugee status. Our study extends this new strand of research on identifying demographic predictors between refugee and non-refugee Asian Americans. The study findings contribute to existing research by understanding the unique needs of Asian Americans and identifying predictors to breast, cervical, and colorectal cancer screening.

Key Words: mammography, pap smear, colonoscopy.
Purpose:
In order to integrating community health nursing theory into practice experiences and cultivate the core competences for Junior College Nursing students, one internet teaching system device focusing on family nursing care of case management was built.

Methods:
The study design was a pilot research. The study subjects were 120 students aged 18 to 19 and engaged on the curriculum of community health nursing in one Junior Nursing College. The intervention method was using a new internet teaching system to improve students’ family health care capability. At the first stage, nursing faculties incorporated with computer technology professionals worked on designing an internet teaching system in 2016. It was consisted of three parts: student input, teacher feedback, and manager access. Second, students were grouping to conduct family care practice and used computers to record the information from home visiting. The contents included family functional assessment, family resources assessment (house floor plan and ecology-map drawing), family nursing care plan, discussions and picture attachment sections. Then, nursing faculties supervised the results of students’ case management and gave them instructions through the internet teaching system. Finally, students completed a comprehensive case management report and received a semi-structural questionnaire survey voluntarily for the evaluation of learning effect.

Results:
The study results reported that 86.6% of study participants agreed the internet device may cultivate and advance their competences on community health nursing. The study participants also pointed out the top three weakness competences were a) the application of theory and method into community health care; b) recognize clients’ health problems; c) making nursing care plan and implementation. However, after completing family health care assignment, the top five advanced capabilities were a) building teamwork cooperation competence; b) accepting different culture values; c) increasing the application competences of assessment theory and method; d) building independence and accountability competence; e) increasing health problem solving competence.

Implications for Practice: The new network teaching system device on case management did provide a conveniently communication channel for the interaction between students and faculties. In additions, it integrated theory into practice that helping students to learn community health nursing knowledge and skills more systematically and effectively. In the future, we look forward the intelligent case management system may be applied on community health nursing education field.

Key Words:
nursing competence, community health nursing, case management, family nursing care.
The Result of Glass Ball Footbath Message Walking Reflexology Dominate Elastic Equipment Reduce Neuropathy of Diabetes Type II – Risk Pre-Hypertension.

Wisitpholn Ban Naipong of Primary Care Unit, Thailand
Thepmaneerat
Wisitpholn Ban Naipong of Primary Care Unit, Thailand
Thepmaneerat

Purpose: Objective patients with type 2 diabetes walk footbath glass ball reflexology have resulting into reduce of neuropathy another controlling hypertension and diabetes type 2 patient have a nice satisfied of using innovation.

Methods: Methods The testing with samples or diabetes type 2 patients are at risk for high blood pressure (DM pre- hypertension) in response are 10 village of Thasabar of primary care unit Thasabar, Wangwiset, Trang during the month of February - May 2558. Then we selected sample was recruited patients with a body condition are the same as the 36 sample and they tested with foot neuropathy by before - after monofilament testing the foot with a moderate risk and measuring blood pressure and collected data to analysis with spss by mean, SD, Pair simple test.

Results: Result we analysis (Monofilament) averaged at moderate risk – usually testing of illness or (pain score) at an average grade four minor pain tolerable and measuring blood pressure dropped an average sys. = 12 mm / Hg, dys = 14 mm / Hg waistline average reduced by 2.5 cm administration in diabetes type 2 patient who have foot numbness, high blood pressure as well. Management fully satisfied after 40/50 days at a good level (4.74).

Implications for Practice: Diabetes disease associated with high blood pressure the glasses ball hit the pavement and the swing arm by elastic relieve the numbness can be used foot reflexology promotes the stimulation of blood circulation so well. symptoms by diabetes with type 2 patients then hypertension is associated with results also add to the elastic arm in reducing heart disease, lower blood pressure, reduce high risk. The lymphatic system and body's systems are built to clean cleanse the body responsible for eliminating waste toxin, It also helps create control white blood antibodies of the immune system filter out foreign substances germs goodies a primary health management devices in the home for chronically ill patients.

Key Words: reflexology, glasses ball, DM type 2 patient.
The Biopsychosocial Correlates Influencing Sleep Hygiene Practices, Sleep Quality and Daytime Sleepiness Among Schoolgoing Adolescents

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Purpose:  
A chronic insufficient sleep is highly common between 54%- 87% of adolescents. Sleep difficulties arise from various determinants which are common in adolescents, which include biological aspects such as age, gender and pubertal development as well as lifestyle, behavioral, psychological and environmental factors. The aim of the study was to examine the relationships of various correlates influencing adolescents sleep (age, gender, grade level, problems at home, involvement in afterschool classes and extracurricular activities) with their sleep hygiene practices, sleep quality, and daytime sleepiness.

Methods:  
A correlational study design was used. Participants were 660 healthy adolescents (330 males and 330 females), aged 11-17 years, studying in various schools from grade VI to XII in Mangalore, India. Data was collected using a socio-demographic questionnaire with some additional questions on sleep and activities with 16-items, and standardized questionnaires such as Sleep Hygiene Index to measure sleep hygiene practices, Pittsburgh Sleep Quality Index to measure sleep quality, and The Cleveland Adolescent Sleepiness Questionnaire to measure daytime sleepiness among adolescents.

Results:  
There was a significant association of age group of participants with sleep quality and daytime sleepiness when the adolescents were grouped as early adolescents (11-14 years) and middle adolescents (15-17 years), with a higher level of daytime sleepiness (Mean = 32.0 ± 8.3 among early adolescents and Mean = 34.6 ± 9.6 among middle adolescents; t = 3.52, p = .000) and poor sleep quality (Poor Sleep Quality, 47.7 % among early adolescents and 62.5% among middle adolescents; ë² = 12.68, p = .000) observed among older adolescents in comparison with the younger age group. But no significant association of age with sleep hygiene practices was observed (p > .05 level of significance). No significant association of gender with any of the target variables were observed (all, p > .05 level of significance). There was a significant association of grade level of adolescents and the home atmosphere with all the target variables. Sleep hygiene, sleep quality and daytime sleepiness found to become worse with the increasing grade level of adolescents (p < .05 level of significance), as well as for the adolescents who had problems at home compared to those who do not have problems at home (p < .01 level of significance). Average time in hours spent for additional classes was significantly associated with all the target variables (p < .05 level of significance), but there was no significant association of average time in hours of engagement in extracurricular activities with the target variables (p > .05 level of significance).

Implications for Practice: The study results suggest that adolescents suffer from many unreported sleep problems which can be indicative of a range of physical, mental and behavioral health issues. Adolescents should be screened routinely for sleep difficulties in school health and adolescent clinics by the nurses, when they present with any conduct, behavioral and learning difficulties. Early identification of these is important to minimize the risk of adolescents developing a sleep disorder or a secondary mood
disorder.

**Key Words:** sleep quality, adolescents, sleep practices, daytime sleepiness.
Purpose: This study aimed to explore the Disaster Prevention and Mitigation Literacy (DPML) among primary and secondary school teachers in Macao. Disaster Prevention and Mitigation Literacy includes knowledge, techniques and attitude. The significances of this study was to provide Macao government the relevant information on designing disaster prevention training for primary and secondary school teachers.

Methods: A total of 265 primary and secondary school teachers who had registered with the Macao Education and Youth Affairs Bureau were recruited by quota sampling. Subjects voluntarily completed the modified “Primary and Secondary School Teachers DPML in Disaster Prevention Questionnaire”. The questionnaire, originally designed by Professor Ye Xincheng of the Taiwan National Kaohsiung Normal University, was modified and evaluated by the validated and reliability test.

Results: A total of 270 questionnaires were distributed with 98% response rate. The valid questionnaire (265) included 164 for secondary school teachers (60%) and 101 for primary school teachers (40%). The overall mean score of DPML was 57.05±5.44. The mean scores of disaster prevention knowledge, disaster prevention techniques and disaster prevention attitudes were 8.86±2.42, 6.66±1.78 and 41.51±5.45 respectively. There were statistically significant differences between primary and secondary school teachers in disaster prevention knowledge (t=2.72, p=.007) and disaster prevention attitudes (t=-2.59, p=.01). The findings also revealed that there was moderate positive correlation between knowledge and techniques (r=.6, p<.001), a weak positive correlation between techniques and attitudes (r=.36, p<.001), and weak positive correlation between knowledge and attitude (r=.42, p<.001).

Implications for Practice: The Macao government should establish a disaster training committee and facilitate the collaboration between different sectors, such as non-governmental health professional organizations to provide disaster education to all school teachers. The disaster prevention education will be introduced to primary and secondary teachers first, then to students, and ultimately to the general public, thereby minimizing the adverse consequences of disasters to the Macao community. The disaster prevention education program should be offered annually, and should emphasize on combining theory and practice, with more weight allocated to theory application, thus changing the attitudes of participants. It is also suggested to popularize the disaster prevention education among primary school teachers and to promote better attitudes among secondary school teachers. In addition, the disaster prevention education program should target at teachers who were male, younger, had less teaching experience, and had never participated in such training or any disaster duty before. The method and the content of the education program should be taken into serious consideration. Besides increasing advertising through television, newspapers, and magazines, establishing online prevention education course should be considered, for it is more convenient and give teachers flexibility to study in their leisure time. The content of the education program should be localized and diversity.

Key Words: teachers, disaster prevention knowledge, disaster prevention techniques, disaster prevention attitudes.
Purpose: The study aimed to identify facilitators, barriers and attitudes towards nursing participation in health policy formulation in Taiwan.

Methods: A structured interview guide was used to support key informant, focus group interviews and in-depth individual interview. A total of 130 nursing leaders from nursing associations across Taiwan participated in the study. All interviews were voice recorded, transcribed, and the data were analyzed using content analysis to identify key themes.

Results: Formal engagement in health policy by nursing association leaders is low. Only 6-9% of participants reported formal engagement at the health policy table. Key barriers include lack of support from their administrator for policy engagement, and a negative perception towards policy activities (i.e. some felt that policy is “dirty” like politics). However, perceptions that health policy engagement provides one voice for the profession and also supports collective power serves as a facilitator.

Implications for Practice: Nursing in Taiwan should harness the power of their nursing associations to assure that the profession has a presence and voice at the policy table. We suggest to develop political action strategies to increase nursing presence at the health policy tables on the local and national levels and implement a national level program that addresses health policy engagement for future nursing leaders in Taiwan.

Key Words: leadership, policy engagement, nursing.
Purpose: Nurse is the most important professional that affiliated with patient safety and quality of care in hospitals. Nurse shortage has been a universal problem, and Taiwan is not an exception in this regard, especially in remote area. This case study was to explore how the only one medical center in remote eastern Taiwan survived and developed the successful human resource management in related to recruitment and retention for nursing in this era.

Methods: The research method was case analysis. The study examined Taiwan nurse shortage and SWOT analysis and strategic planning for nursing human resource management in the medical center with respect of recruitment and retention. SWOT analysis was used to evaluate the strengths and weaknesses of the medical center, and the opportunities and threats from the external environment. Six strategies were conducted for improvement planning in nurse shortage. Ten-year data related to nursing human resource management were collected from the medical center, and were analyzed for the effects of the strategic planning on recruitment and retention.

Results: After SWOT analysis, we developed six strategies to strengthen the weakness and prevent threats by using the strength and opportunities. 1. The complete system of continuous education for nurses was developed. 2. developing strategies of integration of philosophy of Tzu Chi and nursing, and honoring nursing value is conducted to lift commitment to altruism. 3. Volunteers are arranged to lead significant living and give support in nurse retention. 4. The matched strategy is the university (college)- hospital collaboration projects to nurture nursing workforce and career development. 5. Flexible management can improve nursing workload and complexity. 6. Flexible staffing system The results showed the effects of the six strategic planning on recruitment, retention, nurturing talent, and research/ development. In the seamless recruitment planning, number of resume increased and enrolling nurses is stable. In the seamless retention planning, the new nurses turnover rate has been markedly decreased, senior nurses retained likewise.

Implications for Practice: The study revealed the six strategic planning help the medical center out of the nurse shortage chaos. Many nurses had been fostered and they utilized their talent and skills in clinical setting, education and research. Nurses were satisfied with achievement and well-being, not only improved quality of care, but also lifted reputation for the medical center and benefit to people health in remote eastern Taiwan. The case study provide an evidence for the effect of strategic planning by using SWOT analysis on recruitment and retention for other hospitals under nurse shortage.

Key Words: strategic planning, nurse shortage, human resource management, recruitment, retention.
CS10-003 Exploratory Team Cohesion and Organization Silencing Affect Job Satisfaction- A Case Study of Public Nurses

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Purpose: The shortage of nurses in recent years much attention to the issue, High turnover rate will reduce the quality of nursing care, the hospital management more difficult and increase the financial burden. The purpose of this study from the nurse's social network, from the team cohesion, job satisfaction, organization silence, turnover intention among the affected, we are hoping to reduce turnover, improve job satisfaction as a reference for future human resource management.

Methods: According to the survey of nursing staffs, and using the research structure and hypothesis, path analysis statistical method, the Partial Least (PLS) method was used to collect the data of the social network, team cohesion, job satisfaction, organizational silence and turnover intention. Squares Path Modeling, PLS Path Modeling) as a tool for model analysis which was originated from path analysis and bootstrapping method to extract XXX samples as parameter inference. It is suitable for the study of social behavior multivariable model hypothesis. The first steps are as follows: Validity, Cronbach's α test reliability, from each factor load, the average amount of variation extraction, latent variable of each facet of the square root of AVE to test whether the convergence of the validity and the difference between the validity of the second: detection path The significance and predictive power of the coefficients, the strength and direction of the relationship between the reference variables, and the causal relationship. Finally, the explanatory ability of the model is expressed by the R2 value.

Results: The higher the centrality of the friendship network can affect the cohesion and herd behavior of other members of the team; the higher the degree of herd behavior is not obvious organizational silence, and the other management Job satisfaction is higher than that of the friendship network center; the higher the team cohesion in the organization, the higher the job satisfaction of the members; those who are organized silent performers may not be satisfied with the job; but those who have lower job satisfaction, Turnover tendency is more obvious. Management meaning: Nursing staff in the workplace of the higher network center of friendship, the more able to pool the team cohesion, but their own expectations and pressure from other people are also high, poor job satisfaction, on the other hand, public health care workers in the workplace security and Welfare is still better than the private sector, low turnover, even if the performance of organizational silence, does not mean that the work is not satisfied and will not choose to leave.

Implications for Practice: Advises managers to abandon prejudice, Friendship and active concern of the higher network centrality to relieve pressure on the team to maximize the effectiveness of cohesion, while for other colleagues will meet its self, work and life needs, increase employee satisfaction, and create attractive quality care in the workplace.

Key Words: social network, team cohesion, job satisfaction, organization silence, turnover intention.
Purpose: As unpredictable, continuous disasters have been threatening people’s lives, the readiness of hospital nurses for disaster management competency has become an imperative issue. However, most hospital nurses show poor readiness for disaster responses, and strategies to promote their readiness for disaster management competency remain limited. Therefore, this study investigated the effectiveness of a structured disaster nursing training program on disaster management competency.

Methods: A quasi-experimental design study was conducted. We initially approached 1,197 registered nurses with at least 3 months of working experience. Among them, 365 agreed to participate in this study, and all of them completed the baseline test. We then invited them to attend a two-day (16-hour) ‘disaster nursing training program’ (June 19 to June 20, 2014) through an official announcement and poster recruitment campaign one month ago. Participants (n = 50) agreed and completed the program and were assigned to the experimental group (EG). Those who completed the baseline test but did not attend the training program were screened, using a one-by-one matched method (hospital-, identification-, gender-, age- and length of nursing work-matched), and assigned to the control group (CG, n = 50). Data were collected again at 12 weeks after the intervention (post-test). Disaster Nursing Competency Scale, a structured questionnaire with good reliability and validity, was used to evaluate the outcomes. Indicators of disaster management competency included four domains: preparedness competency, self-protection competency, emergency response competency and clinical nursing skill competency. Generalised estimating equations were applied to evaluate the effectiveness of the intervention.

Results: One hundred participants with a mean age of 35.2 years (SD = 8.3) and an average length of nursing work of 11.9 years (SD = 8.5) completed the study. After 12 weeks, participants in the EG had better disaster nursing competency (Z = 27.3, p < .001), preparedness competency (Z = 10.5, p=.003), self-protection competency (Z = 8.4, p< .001) and emergency response competency (Z = 3.7, p = .002) than those in the CG.

Implications for Practice: A structured disaster nursing training program can serve as an effective approach to increase hospital nurses’ disaster management competency, involving preparedness competency, self-protection competency, emergency response competency and clinical nursing skill competency; such a program can be incorporated into continuous nursing training and in future educational design.

Key Words: disaster management, disaster nursing training, nursing competency.
Self-Evaluation of Core Competencies and Related Factors Among the Metropolitan Hospitals Nurses in North Taiwan
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Ton-Yen General Hospital, Taiwan

Purpose: The purpose of this study was to investigate the job characteristic, self-evaluation of core competencies and related factors among the metropolitan hospitals nurses in north Taiwan.

Methods: The study adopted a cross-sectional study design of a clinical survey. The instrument was a structured questionnaire including items on nurse’s basic data as well as job characteristic and self-evaluation of core competencies for data collection and 210 effective questionnaires returned.

Results: The findings of this study indicate that nurses who were married and at the N3 level status deemed job characteristic with significance and variability. Nurses were performing well with basic biomedical science, caring and accountability but not adept in general clinical skills, ethics and life-long learning. Furthermore, the age and nursing level status were prediction factors which accounted for 15.3% of variance in self-evaluation of core competencies.

Implications for Practice: The results can be used as a reference when revising nurse training programs in the future to improve a facility’s nursing quality. It is anticipated that could provide hospital administrators via improvement strategy to stimulate individual motivation and enhance the ability of the nursing profession.

Key Words: nurse, job characteristic, self-evaluation of core competencies.
**Purpose:**
A preliminary report on a study of breastfeeding experiences in Thai adolescent mothers was to explore perceptions of breastfeeding failure through psychological and moral aspects. The benefits of breastfeeding to the health of infants and mothers have been well known. In comparison with all mothers, adolescent mothers have lower rates of breastfeeding duration. Adolescent mothers who are faced with breastfeeding failure are frequently abandoned with a period of negative feelings. Failed attempts at breastfeeding may produce attachment failure, discouragement and lose confidence as a mother. To help mothers in this group overcome negative breastfeeding experiences and address this problem, qualitative exploration is necessary.

**Methods:**
This qualitative descriptive study was conducted to complete individual, semi-structured, face-to-face interviews. A purposively selected, homogenous sample of 20 adolescent mothers (15-19 years) who had failed to exclusively breastfeed infants for the first six months was recruited. Conventional content analysis was used to code data from verbatim transcriptions, identify concepts and synthesize the transcriptions into emerging themes.

**Results:**
During pregnancy, the Thai adolescent mothers in this study recognized breastfeeding as a natural and easy way to feed their infants. Breastfeeding benefits for infant health increased breastfeeding expectations and intention to achieve optimal breastfeeding outcomes. Unfortunately, unexpected barriers and difficult practices encountered in real breastfeeding experiences were expressed. The experiences of breastfeeding failure were negatively perceived through emotion and moral aspects among adolescent mothers in the following five themes: 1) breastfeeding disappointment; 2) feelings of guilt; 3) low self-esteem; 4) maternal stress; and 5) a sense of being a bad mother.

**Implications for Practice:** The adolescent mothers typically perceived the stigmatization to become pregnant, noted their disappointment at never having achieved something worthy. Breastfeeding allows adolescent mothers to perceive and prove self-ability in motherhood. On the other hand, the failure to successfully breastfeed can be as damaging to adolescent psyche as a double failure. Moreover, unsuccessful breastfeeding can be judged negatively by society increasing the stigma attached to young motherhood. Thus, adolescent mothers should receive preparation for breastfeeding during antenatal care in order to promote successful breastfeeding. In addition, comprehensive breastfeeding information will encourage breastfeeding learning and eliminate breastfeeding myths, which is also needed. Breastfeeding should not focus on individual aspects, because social networks, particularly family member and health care provider support, hold the main influences over successful breastfeeding. Significant networks should not pressure or increase adolescent mothers’ negative emotions about breastfeeding failure. Supporting and encouraging...
adolescent mothers who have experienced breastfeeding failure may prevent negative breastfeeding experiences in the future and promote maternal role adaptation.

*Key Words:* breastfeeding failure, experience, adolescent mothers.
CS11-002 Common Problems of the Preterm Infants at a Medical Center on Central Java Province in Indonesia

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Mei-Chih Huang Department of Nursing and Allied Health Sciences, Medical College, National Cheng Kung University, Taiwan

**Purpose:** To find the short-term outcomes of preterm infants at age 28 to 37 weeks of gestation compared to term infant at a medical center on Central Java Province in Indonesia.

**Methods:** A comparative study using medical record data from January 1 until December 31, 2015. Fifty preterm infants at age 28 to 37 weeks of gestation who treat at NICU or level 2 neonatal of care and fifty term infants were recruited. The Chi Square and Mann Whitney U were used for statistical analysis.

**Results:** The study found that the preterm infants experienced low birth weight, and respiratory distress as principal diagnosis \((p<.01; p=.027, \text{ respectively})\). Then, they also had jaundice, and mild to moderate asphyxia as the secondary diagnosis \((p<.01; p=.011, \text{ respectively})\). The length of stay of the preterm infants had significantly higher to term infants \((p<.01)\). Surprisingly, the study found that there was no differences readmission to hospital for the preterm infant to term infants.

**Implications for Practice:** Knowing the short-term outcome preterm infants at medical center on Central Java Province in Indonesia, professionals can use the data as considerations for improving the optimal care at NICU or level 2 neonatal of care.

**Key Words:** late preterm, moderate preterm, preterm infant’s outcome, preterm morbidity, very preterm.
**Purpose:** The Human papillomavirus (HPV) infection is the most common sexually transmitted infection in the United States; related healthcare costs are about $1.7 billion U.S. annually. The high morbidity, mortality, and economic burden attributed to cancer-causing HPV call for researchers to address this public health concern. Asian and Pacific Islander American (API) females are disproportionately affected by cervical cancer. HPV vaccines provide hope to reduce disparities in HPV-related diseases. However, limited research has been conducted to understand factors associated with HPV vaccination in this population. We conducted a systematic review to synthesize evidence regarding factors associated with HPV vaccination behaviors among API population in the United States.

**Methods:** We conducted a systematic review through a comprehensive search of databases (e.g., PubMed, CINAHL, PsycINFO, Google Scholar, etc.). Studies were included if they (1) examined factors associated with HPV vaccination in API population; (2) were conducted in the United States; (3) were published in English; and (4) were published during 2006-2016, as the 1st HPV vaccine was available in 2006. Three researchers independently reviewed eligible articles and achieved 100% consensus for studies to be included in the synthesis.

**Results:** We identified 9 empirical studies that targeted on API young adults for factors related to their own HPV vaccination (n = 4) or API mothers for factors associated with their decision making regarding their children's HPV vaccination (n = 5): one RCT study tested the effect of a DVD education intervention, one quasi-experimental study pilot tested the feasibility and preliminary efficacy of a text messaging intervention, 4 cross-sectional surveys, and 3 qualitative studies were conducted using focus groups and individual interviews. The sample across studies included Chinese, Cambodian, Filipino, Korean, and Vietnamese Americans. All studies showed a low level of knowledge and awareness of HPV and HPV vaccines across different API groups. The strongest predictors of HPV vaccine uptake in the API population were if young adults or mothers with adolescent children had heard of HPV, had a high knowledge score concerning HPV, or understood English well.

**Implications for Practice:** Findings from this synthesis suggested an urgent need to increase awareness and knowledge of HPV and the vaccines in APIs communities. Linguistically and culturally tailored interventions that raise awareness and knowledge of HPV and the vaccines and that provide information about free or low-cost HPV vaccines may promote HPV vaccination in this fast-growing population.

**Key Words:** Asian and Pacific Islander Americans, HPV, systematic review, vaccines.
CS11-004 The Impact of Horticultural Therapy on Quality of Life of the Older Residents of Long Term Care Facilities

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I-Ju Chen National Yang-Ming University, Taiwan

Purpose: Background: In view of the elderly is an important issue to enhance the long-term care institutions of care quality to promote the health of the elderly. Purpose: This study used the horticultural activity to explore the quality of life on health among the elderly in the long-term care facilities. Design: A intervention research design was applied. Setting: Twelve long-term care facilities in eastern Taiwan. Participants: Eighty-six residents who lived in the selected long-term care facilities, met the inclusive criteria and unmet the exclusive criteria recruited. The information of Forty-nine residents was experimental group and thirty-seven residents was control group that was used to analyzed in this study.

Methods: A randing sampling was used. The experimental group participated 12 horticultural activities and a structured questionnaire, which consisted 4 parts: demographic information, health resources, SF-36 and was used to collect data.

Results: The scores of quality of life in the experimental group and the control group were 61.25 ± 10.26 in the physical component score group and 62.98 ± 10.25 in the control group, 72.20 ± 8.77 in the mental component score group and 65.25 ± 8.25 in the control group. (x² = 77.841; p = .172), Chi-square examination of the experimental group and control group in the quality of life of the elderly physical component score found that the two groups are not statistically significant p = .222, the two groups are not statistically significant significance of the two groups showed high homogeneity of case scores. The involvement of the 12th physical component score and mental component score was statistically significant p < .01. Further analysis using Generalized Estimating Equation found that the acceptance of horticultural activities in the experimental group than the control group in the quality of life increased by 11.34 ± 1.152, a statistically significant. The interaction variables between time and group were statistically significant (p < .01) in the experimental group and the measurement variables after the eighth week and the control group and the measurement variables after the eighth week. And the score was 3.687 ± 0.913 less than that in the 12th week

Implications for Practice: This study highlighted the importance of horticultural activities on quality of life among residents in long-term care facilities.

Key Words: elderly, quality of life, long-term care facility.
The 2nd Asia-Pacific Nursing Research Conference

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Purpose: With human longevity increases, the prevalence and the prolonged course of diabetes are predictably to burden the patients both physically and economically. Diabetes case management model is a patient-centered management system that can provide complete, continuous, professional and integrated healthcare services for patients with diabetes, as well as allow healthcare providers to monitor and control disease progress more effectively.

Methods: Adopting service-dominant logic theory, this research is to investigate the efficacy of the implementation of diabetes case management model in a hospital. Patients who visited a regional hospital in southern Taiwan and were diagnosed as diabetes (ICD-9-CM 250) were targeted research subjects. Questionnaires were distributed and 310 valid copies were retrieved (Likert scale). Five elements were extracted from the service-dominant logic for the questionnaire design (Cronbach’s α 0.937), namely patient participation, healthcare service techniques, physician-patient interaction, healthcare profession, and information provision.

Results: The results found that patient participation and information provision are positively correlated with patient satisfaction on received healthcare services (The p values were .001 and .000, respectively), whereas no such correlations exist between healthcare service techniques, physician-patient interaction, healthcare profession and patient satisfaction.

Implications for Practice: The investigation may also be conducted in patients suffer from other chronic conditions to explore patients’ needs, which may assist in improving the relationship between patients and healthcare providers, and to enhance the quality of care. In addition, if the same diabetes management model can be utilized in all diabetes patients regardless the specialty of the physician they visit, the resources will be best available for these patients and the goal of achieving a better long term diabetes management is possible.

Key Words: consumer, diabetes case management, service-dominant logic.
**PB1-03  The Effects of a Transtheoretical Intervention in Exercise Behavior for DM Clients**

Chun-Ying Chiang  
I-Shou University, Taiwan

Pei-Chi Chen  
Antai Medical Care Cooperation Antai Tian-sheng Memorial Hospital, Taiwan

Chu-Yun Lu  
I-Shou University, Taiwan

Pei-Yu Lee  
Fooyin University, Taiwan

**Purpose:** The prevalence of diabetes mellitus is high in our society. Hypoglycemic agents, diet control and exercise could help to control the blood sugar. However, the compliance for regular exercise is poor. The purpose of this study was to examined the effects of a transtheoretical intervention in exercise behavior for DM clients.

**Methods:** We designed a quasi-experimental study via transtheoretical model to test the effects of education intervention on the exercise behavior for diabetic patients. Purposive sampling has been used in our study. All the subjects were recruited from a district teaching hospital in southern Taiwan. The inclusion criteria were (1) type 2 diabetes mellitus, (2) clear consciousness, (3) free from limbs impairment, (4) willing to fill the questionnaires and follow the intervention. We excluded the patients with cardiopulmonary diseases or dyspnea on exertion. The total sample size was 60 patients in the experiment group and 60 patients in the control group. The questionnaires were including scales for exercise in stages of change, processes of change, decisional balance and self-efficacy.

We used SPSS 18.0 software to perform the statistics. The statistical methods included chi-square test, t test, Mann-Whitney U test, Pearson’s correlation coefficient and regression. The significance was set at .05. for this study.

**Results:** The results were: (1) The distribution of the stage of change was 32.5% of the participant was in pre-contemplation stage, 5% of the participant was in contemplation stage, 17.5% of the participant was in preparation stage, 15.8% of the participant was in action stage and 29.2% of the participant was in maintenance stage. (2) There was no significant difference between two groups in decisional balance, self-efficacy and glycated hemoglobin. (3) Mann-Whitney U test found that there was a significant difference between two groups in social liberation (U=1361.50, $p<.05$). The result found that the control group (RC =67.81) could access more social resource than experimental group(RE =53.19). (4) The results of regression indicated that the pretest of the social liberation is a stronger factor which could predict the posttest of the social liberation. It could explain 74.7% of the variance. (5) The results of Pearson’s correlation indicated that single (r=.192), well-educated patients (r=.280) and those who had had exercise behavior before the study (r=.241) could access more social resource.

**Implications for Practice:** We suggested diversified options of exercise in different stages of exercise behavior change for the Diabetic patients could effect on the compliance of exercise.

**Key Words:** diabetes mellitus, transtheoretical model, exercise behavior.
Purpose: This study aims to understand the determinants of lifestyle change in cancer survivors using the Theory of Planned Behavior (TPB).

Methods: Using a cross-sectional design and convenience sampling, 205 cancer survivors from oncology outpatient department of a regional hospital located in central Taiwan participated in this study. A structure questionnaire was used to collect data about demographic characteristics, health behaviors (eating more vegetables and fruits, increasing exercise, abstaining from tobacco and alcohol, and engaging in social activities) and the TPB (i.e., intention, attitude toward the behavior, subjective norm, and perceived behavioral control). Data analysis was used by SPSS 20.0 for Windows. Descriptive statistics were expressed as mean values ± standard deviation and percentage. The independent t-test and chi-square test were used to detect the association between the variables, and the hierarchical logistical regression analysis was performed to examine the predictors of health behaviors implementation.

Results: Of the total 205 subjects aged 20-87 years (58.62 ± 12.72). Age (t = 2.495, p = .013, for eating more vegetables and fruits), gender (χ² = 8.252, p = .005, for increasing exercise), and marriage statues (χ² = 5.057, p = .031, for eating more vegetables and fruits) showed significant association with health behaviors implementation. After adjustment for other variables, the hierarchical logistical regression analysis revealed that intention (β = .970, odds ratio OR = 2.638, 95%CI [1.380, 5.041]) and age (β = - .069, OR = 0.934, 95%CI [0.877, 0.994]) were significant independent predictors for eating more vegetables and fruits, intention (β = .791, OR = 2.05, 95%CI [1.349, 3.603]), gender (β = -1.824, OR =.161, 95%CI [0.039, 0.665]) and disease time (β = -.109, OR = .897, 95%CI [0.812, 0.991]) for increasing exercise, perceived behavioral control (β = .037, OR = 1.038, 95% CI [1.009, -1.068]), age (β = .125, OR = 1.134, 95%CI [1.048, 1.226]) for abstaining from tobacco and alcohol, and intention (β = .619, OR = 1.857, 95%CI [1.207, 2.857]) for engaging in social activities, respectively.

Implications for Practice: The TPB may be an appropriate model to understand the implementation of health behaviors in cancer survivors. The health care professionals should apply the TPB to confirm the perceived behavioral control and intention for health behaviors in cancer survivors and promote them to change the health behaviors.

Key Words: cancer survivors, health behaviors, theory of planned behavior.
PB1-05  Health-Related Quality of Life in Cancer Patients With Hematopoietic Stem Cell Transplantation- Mixed Methods

Tien-Li Liang  HungKuang University, Taiwan
Kuan-Pin Lin  HungKuang University, Taiwan
Mei-Li Lee  HungKuang University, Taiwan

Purpose: The purpose of this study was to explore the symptom distress(SD) and health-related quality of life(HR-QOL) of cancer patients undergoing hematopoietic stem cell transplantation (HSCT) in Taiwan.

Methods: The cross-sectional correlational study was completed on 100 patients who underwent transplantation at the bone marrow transplantation unit. Data were collected using convenient sampling and the inclusion criteria were (1) were aged 20 years or older, (2) had undergone hematopoietic stem cell transplant, (3) had no obvious cognitive impairments, (4) consented to participate in the study. The questionnaire tool contains demographic data, the Symptom Distress Scale-Chinese Modified Form, (SDS-CMF), and the Traditional Chinese version of the Functional Assessment of Cancer Therapy-Bone Marrow Transplantation Subscale( FACT-BMT). Statistical analyses were carried out using the Statistical Package for the Social Sciences (SPSS) 18.0.

Results: The research results were:(1). the mean post transplantation was 32.67 months. The mean SDS score for all patients was 40.77 were considered to have a low symptom distress. (2). the mean overall FACT-BMT score for all patients was 110.05 of patients were considered to have a good QOL. (3). symptom distress and quality of life have a significant negative correlation, the lower symptom distress, the better quality of life. (4). predictors associated with QOL in multiple regression analysis were: acute graft-versus-host disease, patients' age greater than 50 years old, and with job before HSCT.

Implications for Practice: Medical team includes physician, clinical psychologists, social workers, and care coordination nurses who are available to meet with patients needs for symptom management of graft-versus-host disease. Supporting the patients towards career planning may be beneficial and improve quality of life, an area in which research into the older age groups is particularly important.

Key Words: haematopoietic stem cell transplantation, symptom distress, health –related quality of life.
Purpose: Gastroesophageal reflux disease (GERD) is highly prevalent in patients with chronic obstructive pulmonary disease (COPD). While GERD has been suggested to be a risk factor for COPD exacerbations, no study to date has explored the perception of the symptoms leading up to an AECOPD event among COPD patients with comorbid GERD. Therefore, this study set out to utilize qualitative methodology to explore the GERD patient perception of the AECOPD experience with a focus on unraveling how patients differentiate and react to the entangled symptomatology of COPD and GERD.

Methods: Data were collected from 12 participants via semi-structured interviews. Preliminary information, including medical diagnoses, age, sex, pulmonary function test (PFT) results, and panendoscopy (PES) data were obtained through medical records by the referring physician. Data were analyzed according to the principles of Grounded Theory methodology beginning with the constant comparative method and an intensive reading of the individual interviews to account for all the important similarities and differences in language, concepts, and other ideas regarding the interview conversation. Following importation of the transcribed data into NVivo 10 software, open, axial coding methods were used to identify relationships between coded elements of the data before using selective coding to integrate and refine the categories.

Results: The analysis suggests that there were four overlapping categories of symptom presentation experienced by COPD patients with comorbid GERD during the time leading up to and during their AECOPD event. Many of the patients interviewed also had a poor understanding of both of their medical conditions, which led some to seek ineffective medical assistance as well as to use ineffective coping methods. The subsequent lack of improvement and inability to manage their conditions left many unable to engage in daily activities. This negatively affected their relationships with their friends and family and contributed to symptoms of depression.

Implications for Practice: It is the hope of the authors that a better understanding of the symptoms experience will prove useful toward the development of interventions that will help improve patient quality of life. Improved patient education and exercise supervision are two such interventions worthy of future investigation. Medical practitioners should be aware of the overlap in symptoms between COPD and GERD when making treatment decisions. GERD and COPD patients commonly experience symptoms localized in the chest, and often perceive such symptoms as COPD exacerbations.

Key Words: chronic obstructive pulmonary disease, gastroesophageal reflux disease, acute exacerbation of chronic obstructive pulmonary disease, ambiguous symptoms.
**Purpose:** Postoperative exercise rehabilitation is important for recovering and regaining joint function from total hip arthroplasty in patients with osteoarthritis. Strengthening the surrounding muscles of the replaced hip joint is the critical element of the rehabilitation. Home-based self-monitored exercise programs may provide some advantage over traditional supervised exercise rehabilitation programs in terms of cost and transportation. The purpose of the study was to investigate the efficacy of a home-based resistance band exercise program on lower limb muscle strength, dynamic balance, functional exercise capacity, hip function, hip range of motion, and health-related quality of life in patients with total hip arthroplasty.

**Methods:** The study is an experimental design with repeated measures. A convenience sample of 94 osteoarthritis patients undergoing primary total hip replacement surgeries were recruited from orthopedic words of a general hospital in Taipei. They were randomly assigned to either the intervention \((n=47)\) or the control group \((n=47)\). The intervention group received a 12-week home-based resistance training program and the control group received standard rehabilitation exercises instruction without resistance training. Data were collected at baseline, 2-weeks, 6-weeks, and 12-weeks post operation. The outcome measurements included physical measures of 30-second chair sit-to-stand test, up-and-go time, timed walking distance, Harris Hip Score (HHS), and hip range of motions as well as the self-report questionnaire of The Western Ontario and McMaster Universities Osteoarthritis index (WOMAC).

**Results:** The mean age of the study participants was 67.3 years (range: 55 to 90). The majority of the study participants were females \((n=67, 71.3\%)\). The demographics and disease characteristics were balance between two study groups. To minimize the influence of the surgery on outcomes, the study used double baseline, the preoperative and 2 weeks postoperative measures. The measures on all outcome variables were balance at these two baselines. Results of generalized estimating equations showed statistically significant between group effect for 30-second chair sit-to-stand testing \((\beta=1.69, 95\%\text{CI} [0.08, -3.29], p = .040)\), timed walking distance \((\beta=29.14, 95\%\text{CI} [-8.75, -67.02], p = .016)\), and WOMAC \((\beta=-8.38, 95\%\text{CI} [-12.94, -3.82], p < .001)\). There were also significant group by time interaction effects for hip adduction, and hip external rotation. The changes in hip range of motions from week 2nd to week 12th were significantly greater in the intervention group than they were in the comparison group \((\beta=5.48, 95\%\text{CI} [0.95, -10.02], p = .018\) for hip adduction; \(\beta=4.41, 95\%\text{CI} [0.84, -7.99], p = .015\) for hip external rotation).

**Implications for Practice:** The study results support that the home-based resistance band exercise program is effective for improving postoperative lower limb muscle strength, functional exercise capacity, hip function, health-related quality of life,
and range of motion in patients with total hip arthroplasty. In considering the low cost and convenience of a home-based resistance training program, health professionals should take such exercises into consideration while providing guidance to patients with total hip arthroplasty.

**Key Words:**
total hip arthroplasty, home based exercise, elastic-bands exercise, Harris Hip Score, WOMAC.
A Correlational Study of Continuity of Care and Recurrent Stroke in Taiwanese Young Stroke Patients

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Purpose: The mortality of stroke is the top three in Taiwan since 1972. The proportion of young stroke is 13.72% and the proportion of recurrent stroke occurs up to 30%. Continued treatment and control can prevent stroke recurrence. It is lack of research regarding the relationship between continuity of care and recurrence in young stroke patients. This study explored the correlations of continuity of care, risk factors of young stroke, and recurrent stroke in Taiwanese young stroke patients.

Methods: This study is a secondary analysis, and retrospective longitudinal cohort study. "National Health Insurance Database" is the analysis source. Data was analyzed using SAS 9.2 statistical software. Descriptive statistic and logistic regression analyses were conducted. The controlled variables included gender, risk factors, stroke type and length of hospital stay. Samples were selected from the NHI database between 2005-2010 years BC and first stroke (ICD-9: 430-438). Moreover, the age of the patients was 15-45 years old. Continuity of care (COC) index was used to measure the continuity of care for young stroke. Multiple logistic regression analysis was then applied to estimate the association between continuity of care and the recurrence of young stroke.

Results: The results show that the higher "continuity of care" cannot prevent the recurrence of young stroke. The important risk factors are high blood pressure, high cholesterol, and diabetes. These factors were associated with affect recurrence. How to effectively prevent and control chronic disease risk factors is an important factor in the prevention of young stroke recurrence.

Implications for Practice: Although the higher "continuity of care" cannot prevent the recurrence of young stroke, but there are significant correlations of hypertension, high cholesterol, and diabetes and the recurrences among young stroke patients. Therefore, the management of chronic diseases should be included in health insurance database to provide health practitioners important information about preventing stroke recurrence. The results of this study may help health professionals improve treatment and recurrence prevention.

Key Words: young stroke, continuity of care, recurrence.
**Purpose:**
Chemotherapy is one of the major treatments to control symptoms and prolong survival for advanced lung cancer patients. However, chemotherapy-induced peripheral neuropathy (CIPN) can be a debilitating and dose-limiting adverse effect of chemotherapy which profoundly affects patients’ daily activities and quality of life. This study aimed to translate the Chemotherapy-Induced Peripheral Neuropathy Assessment Tool (CIPNAT) into Chinese and evaluate its psychometric properties for Taiwanese advanced lung cancer patients.

**Methods:**
The English version of the CIPNAT was translated into traditional Chinese according to standard translation and back-translation procedure and reviewed by a panel of experts. A sample of 140 advanced lung cancer patients received chemotherapy were recruited from a medical center and its branch hospital in northern Taiwan. Convergent validity was established by exploring correlations between scores of the Chinese CIPNAT and the Functional Assessment of Cancer Therapy – Neurotoxicity (FACT/Ntx). The correlations between scores of the Chinese CIPNAT and the European Organization of Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (EORTC QLQ C30) and the Hospital Anxiety and Depression Scale (HADS) were used to examine the predictive validity. Additional 50 advanced lung cancer patients received target therapy were recruited as a known group to examine the discriminant validity. Reliability was assessed by internal consistency and test-retest reliability.

**Results:**
The Chinese version CIPNAT had high content validity with content validity index .95. The Cronbach’s alpha ranged from .85 to .96 and test-retest reliability ranged from .83 to .98 in symptom experience subscales and interference subscale. Significant differences in all subscale scores were found between chemotherapy patients and target therapy patients. A positive correlation ($r = .90$, $p < .001$) was found between scores on FACT/Ntx and CIPNAT. The scores of the CIPNAT were significantly correlated to the scores of the HADS ($r = .34 - .44$, $p < .001$) and EORTC QLQ C30 functional scales and global QOL ($r = -.33 - -.70$, $p < .001$).

**Implications for Practice:** The Chinese version CIPNAT is a valid and easily administered patient-reported outcome measure. We suggest that clinicians routinely apply this measure to assess patients’ symptom experience and impact of CIPN. Future nursing studies developing interventions to manage CIPN for cancer patients are recommended to apply this measure to evaluate the effectiveness of the interventions.

**Key Words:** lung cancer, chemotherapy-induced peripheral neuropathy, psychometric testing.
**Purpose:** We should take solid measures to enhance its prevention and care services for those with dementia. It has already been proven that laughter contributes to activate brain function and alleviate stress. Such effects also have a beneficial influence on cognitive function. However, we have not yet established appropriate measures to effectively induce laughter from the patients with dementia. Moreover, the effects of laughter have not yet been scientifically confirmed for the elderly with dementia. This is a pilot study aiming to develop a program that incorporates Facial muscle movement, which is expected to produce effects similar to laughter.

**Methods:** Changes in Brain activity measurement were measured in a 32-year-old man and a 70-year-old woman when they did verbal fluency task, uproarious laughter, and facial muscle movement and were compared by means of optical topography (SPEEDNIRS by Shimadzu Corporation). For ethical considerations, researchers explained the purpose of the research by mouth and in writing to participants to obtain their letters of consent.

**Results:** In verbal fluency task, the average value of brain activity in the Frontal lobe was a 32-year-old male 0.0294 mMol·mm, a 70-year-old female 0.0126 mMol·mm. The highest value was a 32-year-old male 0.1010 mMol·mm, a 70-year-old female 0.0459 mMol·mm. The arrival time to the highest value was a 32-year-old male 15.9sec, a 70-year-old female 39.4sec. For the 70-year-old female, Uproarious laughter was the result of the average value of brain activity in the Frontal lobe was 0.0126 mMol·mm. The highest value was 0.2222 mMol·mm. The arrival time to the highest value was 25.3sec. Facial muscle movement was the result of the average value of brain activity in the Frontal lobe was -0.0054 mMol·mm. The highest value was 0.1807 mMol·mm. The arrival time to the highest value was 53.7sec. The site where the 70-year-old female showed the highest value was ch-9, ch-15, ch-17.

**Implications for Practice:** Changes were confirmed locally in the frontal lobe by facial muscle movement. This revealed that the use of optical topography is effective in evaluating the effect of Facial muscle movement program. This work was supported by JSPS KAKENHI Grant Number 16K12225.

**Key Words:** elderly people, laughter, optical topography, facial muscle movement.
Purpose: The aim of the present study was to evaluate if an underlying malignancy, its presence and type, would determine the long-term (1-year) survival in patients with stroke.

Methods: We retrospectively evaluated stroke patients from the Veterans General Hospital Stroke Registry. Demographic information and 1-year outcome (survival) were obtained. Multivariate analyses using the Cox proportional regression model Kaplan-Meier analysis and log-rank test were performed to elucidate the relationship between malignancy and the survival rate of stroke patients.

Results: From January 2012 to April 2015, a total of 3772 stroke patients (mean age: 71.7 ±14.8 years; ischemic 72.4% hemorrhage 27.6%) were recruited. 411 (10.9%) subjects had an underlying malignancy. The most common cancer type was colon cancer (15.6%). The other cancer types include prostate cancer (10.95%), lung cancer (9.25%), head and neck cancers (6.81%), gastric cancer (5.84%), liver cancer (5.1%), breast cancer (4.87%), brain tumor (4.38%), cervical cancer (3.16%), bladder cancer (2.68%), and pancreatic cancer (1.70%). Univariate analyses showed that stroke patients with cancer had an older age (cancer versus non-cancer 73.6 ±14.1 years versus 69.7 ±15.4 years, p < .0001), more severe NIHSS at discharge (6.4 ±9.0 versus 5.56 ±8.3, p < .0001), Atrial fibrillation (14.6% versus 12.9%, p =< .0001), INR (1.1 ±0.2 versus 1.0 ±0.1, p < .0001), eGFR (59.2 ±29.1 versus 59.1 ±29.2, p < .0001), more frequent ischemic stroke (78.3% versus 71.6%, p < .0001), less hemoglobin concentration (12.4 ±5.5 versus 13.2 ±2.15, p < .0001), and more frequent UGI bleeding (16.1% versus 13.7, p < .0001) compared with stroke patients without cancer (table 1). The results of Kaplan-Meier analysis showed that lung cancer (OR = 8.1, p = <.0001), liver cancer (OR = 4.2, p = .0004), and pancreatic cancer (OR = 27.8, p ≤ .0001) respectively independently predicted a poor survival rate in stroke patients.

Implications for Practice: We have found a relationship between underlying malignancy and the 1-year outcome in patients with stroke. Malignancy type plays a major role in determining the impact of malignancy on 1-year survival rate in stroke patients. Stroke patients with lung cancer, liver cancer, or pancreatic cancer respectively, had a poorer survival rate. These findings could open new avenues in the management of stroke patients.

Key Words: Stroke, underlying malignancy, survival,
PB2-02 Implementing a Novel Model for Hospice and Palliative Care in the Emergency Department: An Experience From a Medical Center in Taiwan

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Purpose: Although hospice and palliative care (HPC) has been recognized as an essential part in emergency medicine; however, there is no consensus for optimal model to delivery of emergency department (ED)-based HPC, and therefore we implemented a novel model in a medical center in Taiwan.

Methods: In the pre-intervention period since August 1, 2012, we set up a holistic care team in the observation unit and had an attending physician trained for certified palliative and hospice specialist. In the early stage of intervention, we had attending physicians and nurses in the ED received training for HPC at public expense and residents of emergency medicine rotated to the hospice ward. In the late stage of intervention, we initiated educational programs in the ED, interdisciplinary meeting with hospice team every month, sharing information and experience by communication app in cell phone, and setting a emergency hospice room for patients with end-of-life. We compared the outcomes among pre-, during, and post-intervention periods.

Results: Comparing with 4 in the pre-intervention, the cases of do no resuscitation (DNR) per month increased significantly to 30.1 in early stage of intervention, 23.9 in late stage of intervention, and 34.6 in post-intervention (all $p < .05$ comparing with pre-intervention). Comparing with 10.8% in pre-intervention, the ratio of DNR singed in the ED/total signed DNR in the study hospital was significantly increased to 17.1% in early stage of intervention, 12.5% in late stage of intervention, and 22.8% in post-intervention (all $p < .05$). Comparing with zero in pre-intervention and early-intervention, the cases for consultation with hospice team increased to 19 cases per month in late stage of intervention and post-intervention. The ability of nurses for HPC including knowledge and the timing and method for consultation with hospice team was also significantly improved.

Implications for Practice: We successfully implemented a novel model for HPC in the ED by setting a holistic care team in the observation unit, education, and close collaboration with hospice team, which could be an important reference for other EDs in the future.

Key Words: emergency department; holistic; hospice; palliative
The Relationship Between Attitude Toward Life and Caring Behavior Among Clinical Nurses

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Purpose: The purpose of this study was to explore the relationship between attitude toward life and caring behavior among clinical nurses.

Methods: A cross-sectional, convenient sampling was employed to recruit 1100 clinical nurses from a medical center in Southern Taiwan. A total of 1069 valid responses were received with a response rate of 97.2%. The questionnaires include three parts: (1) personal information (2) attitude toward life scale, and (3) caring behavior scale. Data were analyzed using SPSS for Windows 19. Descriptive statistics and inferential statistics including t-test, one-way ANOVA, and Pearson’s correlation coefficient were used.

Results: The results indicated as follows: (1) the average score of attitude toward life is 81.92, suggesting a medium to high level of attitude toward life, (2) the average score of caring behavior is 51.06, suggesting a medium level of caring behavior, (3) attitude toward life was significant differences with religion, marriage, educational level, family total income, working unit, and if he or she has received life education courses (4) caring behavior was significant differences with age, religion, marriage, quantity of children, educational level, family total income, personal hospital-staying experience, working years, level, working unit, the experience he or she has taken care of dying family, and whether he or she has received life education courses (5) attitude toward life was statistically positively correlated with caring behavior(r = .340, p < .001).

Implications for Practice: The results provide the necessary information not only for formulating nurse recruit, manpower development, in-service educational programs, but also for enhancing the reference of positive life attitude and caring behavior.

Key Words: attitude toward life; caring behavior; clinical nurses.
Purpose: Persons suffering from end stage kidney disease (ESRD) often have the dialysis modality choice between two significantly different types of dialysis therapy. There has about 80,000 ESRD patients receiving dialysis therapies in Taiwan in year 2015. It is almost take about seven percent of total health care expenditure. Patients’ opinions were not always fully considered in the choice of dialysis modality in end stage renal disease (ESRD) patients. By providing sufficient evidence-based information to patients in chronic kidney disease stage 5, shared decision-making (SDM) helped them to choose an appropriate option.

Methods: We recruited patients who had received SDM service from January 1, 2015 to August 31, 2016, and, depending on the preference on August 31, 2016, categorized them into: 1) not yet decided, 2) on hemodialysis (HD) therapy, and 3) on peritoneal dialysis (PD) therapy. We utilized three aspects of personally subjective factors, nursing assessment and questionnaires to evaluate determinants of dialysis modality. Chi-square test, Fisher’s exact test and trend test were used to analyze the demographic characteristics, personally subjective factors, nursing assessment and questionnaires among HD and PD groups. Logistic regression was applied to access the determinants of choosing a modality.

Results: In total, 197 patients were enrolled in this study, of which 14 patients did not make the decision of dialysis modality yet, 106 patients and 77 patients preferred HD and PD therapy, respectively. PD patients prioritized strongly self-care will, good self-care ability, high degree of family support, job factors, do dialysis at home, keeping independence, flexibly daily schedule, ability to work or go to school, and concerned about appearance after starting dialysis. In stepwise selection regression for baseline characteristics and overall factors, “Higher comorbidty score”, “Strongly self-care will”, “High degree of family support/help”, “Fear complications of PD”, “Clean appearance”, “Do dialysis in your own home”, “Keeping as much independence as possible” and “Safer to go to a medical place to have dialysis” were considered most important in PD and HD patients, respectively.

Implications for Practice: Our findings support the need for interventions to improve shared decision-making on dialysis treatment options, targeting both patients and clinicians. The health care team should provide adequate information to compare the different dialysis from the patients' views and applicability, and strengthen patients positive attitude to facing treatment rather than emphasizing the individual characteristics of the different dialysis. Respect and understand patient's attitudes and values on dialysis treatment such as "quality of life", "alive" or "good death". Which is they think or preferred and why? For ESRD patients on dialysis who
experience major complications that may substantially reduce survival or quality of life, it is appropriate to reassess patient's treatment goals, including consideration of withdrawal from dialysis.

**Key Words:** end stage renal disease, shared decision-making, dialysis modality.
The Joint Effect of Circulating Levels of Alkaline Phosphatase and Hyperphosphatemia on Mortality in End Stage Renal Disease

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Purpose:
Hyperphosphatemia and higher alkaline phosphatase (ALP) levels are linked to mortality among patients with end stage renal disease (ESRD). Nonetheless, no large epidemiological study in ESRD patients has been conducted to investigate the joint effect of hyperphosphatemia and higher ALP levels on mortality.

Methods:
We analyzed 9,631 ESRD patients with complete laboratory reports requested by the Taiwan Society of Nephrology from Jan 2005 to Dec 2010. Unadjusted and adjusted hazard ratios [aHR] of death were calculated for different categories of serum phosphorus and ALP using the Cox regression model. We used the descriptive statistical analysis to study the basic data of the subjects and the relevant laboratory data of the whole study cohort, and to analyze the correlation coefficient between the serum phosphorus, ALP and various variables.

Results:
There were 3,507 deaths during the 30,363 person-years of follow-up, corresponding to an annual mortality rate of 11.6%. Both hypophosphatemia (< 3.0 mg/dl) and hyperphosphatemia (> 7.0 mg/dl) were associated with incremental risks of death (aHR: 1.25 95%CI [1.09, 1.44], and 1.15 95%CI [1.01, 1.31], respectively) compared to the lowest HR group (5 mg/dl ≤ phosphorus< 6 mg/dl). ALP levels were linearly associated with incremental risks for death (aHR: 1.58 95%CI [1.41, 1.76] for the category of ALP > 150 U/L). In the stratified analysis, patients with combined higher ALP (> 150 U/L) and hyperphosphatemia (> 7.0 mg/dl) had the greatest mortality risk (aHR: 2.25, 95%CI [1.69, 2.98] compared to the lowest HR group (ALP ≤ 60U/L and 4 mg/dl ≤ phosphorus< 5 mg/dl).

Implications for Practice: Regardless of serum ALP levels, we may control serum phosphorus levels merely toward the normal range. While considering the joint effect of ALP and hyperphosphatemia on mortality, the optimal phosphorus range should be stricter.

Key Words: levels of alkaline phosphatase, hyperphosphatemia, mortality in end stage renal disease.
Purpose: Peritoneal dialysis (PD) is characterized by continuous removal of water, uremic toxins and maintenance of residual renal function. Literature review indicates that most PD patients have the potential risk of fluid overload. Clinically, fluid overload often leads to hypertension and cardiovascular disease and therefore increases morbidity and mortality. PD therapists detect fluid overload by symptoms and patient’s appearance. However, the appearance of edema usually represents marked fluid excess. Body composition monitor (BCM) has the properties of easy use; non-invasiveness and offering real-time information. The aim of present study is to investigate the effectiveness of BCM for body fluid management in PD patients.

Methods: A quasi-experimental design is implemented in this study. Patients who have undergone PD continuously for more than 3 months are randomly divided into two groups with 100 patients in each group. Body fluid status was assessed as regular outpatient care process. Then a dedicated nurse was involved for individual evaluation and education. In the study group, three measurements of overhydration (OH) detected by BCM were provided for comparative analysis.

Results: Several major results were obtained as followings: (1) The number of patients in the control group that cannot determine fluid status were reduced from 7 patients to 1 patient. All 13 patients in the experimental group were able to assess their fluid status after education. (2) 49\% of study group patient were denoted with fluid overload by BCM although initial assessment by nurses were in neutral status. (3) There was no change in number of patients with body fluid overload detected by BCM in the experimental group. However, their OH values were decreased from $1.42 \pm 1.68$ L to $1.15 \pm 1.47$ L ($p = .013$). (4) The systolic blood pressures (SBPs) and diastolic BP (DBPs) of patients in the experimental group were significantly decreased from $147 \pm 27$mmHg to $140 \pm 25$mmHg ($p = .010$) and from $91 \pm 14$mmHg to $87 \pm 13$mmHg ($p = .014$), respectively. In the control group, their BP were similar (SBP: $131 \pm 19$mmHg vs. $133 \pm 19$mmHg and DBP: $79 \pm 13$mmHg vs. $80 \pm 12$mmHg).

Implications for Practice: We conclude that BCM is a useful assessment tool that is of help for detecting and reducing body fluid overload in PD patients. In a short period, BP can be lowered and this effect would be translated into decrease in cardiovascular complications due to fluid overload.

Key Words: peritoneal dialysis, fluid overload, body composition monitor (BCM).
PB2-08  Explore the Factors of Hospital Readmission Incidence Density After Discharge in Patients With Congestive Heart Failure

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Purpose: The purposes of this study were to (1) describe the characteristics of the population with congestive heart failure (CHF) who were admitted to acute-care hospital and (2) determine which patients are demographic, comorbidity, clinical parameters at risk for readmissions within 12 months. Various factors that relate to or predict readmissions in patients with CHF are described in the research literature. The review of research for this study focused on the variables maintained in a computerized data bank on all patients with CHF in our institution.

Methods: A descriptive correlational design, using variables maintained in a computerized data bank in patients with CHF who were admitted between Nov. 2015 and Aug. 2016, was used to describe the adult population with CHF and identify variables associated with a likelihood of readmission. Subjects were divided into 2 groups: (1) those readmitted for CHF within 6 months of discharge and (2) those who were not readmitted within 6 months of discharge. The operational definition of CHF was an admitting diagnosis of CHF. The study variables included demographics (age, race, gender); comorbidities (diabetes, hypertension, renal disease, chronic obstructive pulmonary disease, pulmonary hypertension, atrial fibrillation); clinical parameters (EF, CHF class, hospital length of stay); medications prescribed during the initial admission (ACE inhibitors, angiotensin receptor blockers, inotropic infusions, anticoagulants, beta blockers, antiarrhythmics, digoxin).

Results: Subjects were all patients with CHF (N=151) admitted to acute care regional referral medical center within 12 month period. The sample ranged in age from 32 to 97 years, with an average age of 79.25 years (SD 12.9). 56% were men and 44% were female. The length of the initial hospital stay ranged from 2 to 51 days, with a mean of 11.92 days (SD 8.8). CHF patient’s LVEF ranged from 13% to 71%, with an average LVEF of 47% (SD 14.1). CHF NYHA classification concentrated to II to III had 82%. In the 12 months after the discharge from the index admission, 42 (18%) of the patients were readmitted to the hospital at least once for CHF. The hospital readmission incidence density after discharge were 18%. Preliminary univariate analysis with chi-square and t-tests were used to compare patients who were and were not readmitted. Several variables associated at a statistically significant level with the likelihood of readmission. Weight change was associated with readmission ($\chi^2 = 14.7, p < .01$). Clinical parameters for Hemoglobin was associated with readmission ($\chi^2 = 2.34, p < .01$). There were no significant differences noted among groups for other medications such as anticoagulants, ACE inhibitors, digoxin.

Implications for Practice: Various factors that relate to or predict readmissions in patients with CHF are described in the research literature. The review of research for this study focused on the variables maintained in a computerized data bank on all patients with CHF in our institution. There is a need to develop comprehensive data banks to describe patterns of care and their outcomes. Such data should inform plans to manage this vulnerable population.
**Key Words:** congestive heart failure, readmission, incidence density.
Purpose: Relevant past studies on nursing practice environment in Taiwan showed that nurses overwork for at least an average of 2 hours per shift, and working overtime has become the common problem in nursing. This phenomenon not only affects the physical and mental load of nurses, but also the quality of care for patients. The purpose of this study was to understand the number of nurses that work overtime, length of overtime, and relevant factors, and further resolve the issue of nurses’ working overtime.

Methods: This study is an interrupted time-series design research, carried out from April 2016 to January 2017. A total of 679 contracted nurses were enrolled. This study implemented the intervention measures, including the departmental propaganda, individual care interviews, and counseling shift, in order to resolve the issue of nurses’ working overtime.

Results: This study found that the factors leading to nurses’ working overtime include the writing of nursing records (37.49 %), stay in hospital to deal with private affairs after work (36.25 %), handling of patients’ emergencies (22.32 %), and nursing shift report of new nurses (3.94 %). After the intervention, by measures including departmental propaganda and care interviews, the average number of nurses working overtime per week decreased from 333.14 ± 34.56 to 105.56 ± 97.83 nurses (p <.0001). The working overtime rate decreased from 49.06 % to 15.55 % ( p <.0001), and the number of hours of working overtime decreased from 2.09 ± 0.14 hours to 1.46 ± 0.15 hours ( p <.0001).

Implications for Practice: The results showed that departmental propaganda, individual care interviews, and counseling shift can effectively mitigate the problem of nurses’ working overtime.

Key Words: working overtime, nursing work, contracted nurses.
PB2-10 Difficulties by Nurses Providing Decision-Making Support for Patients With Acute Care Hospital Cancer Patients in Japan

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Purpose: In cancer treatment, nurses feel cancer patient-centered decision-making is not being achieved and providing support is difficult. Clarify the difficulty which nurses feel in supporting cancer patients' decision-making.

Methods: We conducted an interview on 12 nurses engaged in cancer nursing in acute care hospitals using a semi-structured questionnaire. We drafted a verbatim record based on the data obtained and analyzed it qualitatively. For ethical considerations, we obtained the approval of the research ethics board of the institution to which the researchers belong.

Results: 9 categories were selected as difficulties by nurses providing decision-making support for cancer patients. The categories were [sincerely sharing the patients' hard experiences], [having them accept cancer as a part of life], [being truly involved in spite of having little time due to workload], [situations which cannot be decided only by the patients feelings], [Support for patients who can't receive family support], [information sharing and cooperation with treatment teams], [support for patient living environments and social issues], [lack of correct answers], and [hesitation to intervene proactively and take responsibility], and were separated into 3 main categories. The contents included: 1. Difficulties in nursing being close to the patients: Difficulty sharing the pain and hardship experienced by patients with cancer, which is hard to see visually; Difficulty providing support for patients' lives as they accept the progress of the cancer and changes to their body caused by treatment; Concerns about not being able to listen deeply to what the patients say involving in decision-making due to lack of time; 2. Difficulties relating to relationships and cooperation with patients and the people around them: Having differences of opinion with the patients' families and doctors regarding treatment and recuperation locations and difficulty finding points of agreement; Difficulty coordinating/cooperating with members of the treatment team and related facilities; Difficulty intervening to support the patient with financial and social problems; 3. Difficulties providing support with no correct answers in spite of a sense of responsibility: Desire to support patients in harsh conditions of cancer relapse and metastasis, etc., but difficulty of support with unclear results and evaluation of the support, etc.

Implications for Practice: In order to reduce the difficulties by nurses in acute care hospitals and support decision-making by cancer patients, it was suggested that enriching education for improvement of skills required in nursing, creating an environment for making adjustments and cooperating with surrounding concerned people, and evaluating the decision-making support process have the potential to lead to better
support.

**Key Words:** cancer patients, decision-making support, difficulties of nurses.
Testing Efficacy of a Pulmonary Rehabilitation Program for Post-Operative Oxygenation and Pulmonary Complications Following Lung Cancer Resection Surgery

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Purpose:
Lung cancer remains the number one cancer-related cause of death among Taiwanese. Surgery is to eradicate cancer cells and thus offer a cure. However, the surgery may decrease lung capacity due to the removal of the entire lobe of a lung and decrease the lung expansion due to the surgical damage of intercostal or phrenic nerves. These may increase risks for postoperative pulmonary complications and therefore prolong the length of hospital stay. Pulmonary rehabilitation enhancing lung expansion and ventilation may help to improve oxygenation and reduce postoperative lung complications in patients with lung resection for removing lung cancer. However, few studies have been reported in this area.

Methods:
An experimental design was used in the study. 90 lung cancer patients scheduled for a lung resection surgery were recruited and randomized to the control or intervention group. Patients in the control group received routine postoperative care. Patients in the intervention group practiced pulmonary rehabilitation exercise in home for 5 days before the surgery and post-operative pulmonary rehabilitation while in the hospital. Data on six-minute walk distance and level of fatigue were collected at the baseline and before discharge. Information on diagnosis, stage of cancer, pre-operative lung capacity, surgery procedures, oxygen saturation, postoperative pulmonary compilations, and length of hospital stay were collected from the patients’ charts. Descriptive analyses were used to describe patients’ demographics, disease variables, and outcome variables. The chi-square, T-test, and generalized estimating equation(GEE) were used to test the efficacy of the study interventions.

Results:
Two groups were similar at baseline. The result of GEE showed signification effects on S/F ratio, indicating the intervention group had better oxygenation compared with the control group(β = 34.13, Wald $\chi^2 = 8.32, p = .004$). There was only one patient in the intervention group reported clinical significant postoperative lung complications which was statistically significantly less ($\chi^2 = 8.389, p = .001$) than what ($n = 10$) was reported in the control group. The average duration of chest drainage in the intervention group was 2.0 days ($SD = 1.00$) which was significantly shorter than ($t =-2.324, p = .022$) 2.56 days ($SD = 1.25$) reported in the control group. The duration of hospital stay was no significant difference between the two study groups. The six-minute walk distance was activity tolerance, The decrease in the six-minute walk distance from pre to post-test in the intervention group was significantly lower than it in the control group ($t = 3.594, p = .001$). The increase in the level of fatigue from pre to post-test in the intervention group was significantly lower than it in the control group ($t = 5.906, p = .001$).

Implications for Practice:
Results of the study support the efficacy of the pulmonary rehabilitation program for improving oxygenation and aerobic capacity, as well as reducing pulmonary complications and level of fatigue in lung cancer patients after cancer resection surgeries.
Key Words: lung cancer, lobectomy of lungs, pulmonary rehabilitation, oxygenation, postoperative pulmonary complication.
PB3-01 The Study of the Changes of Depressive Symptoms and Its Associated Factors in the Patients Who Receive Heart Surgery During the 3-Month Follow Ups

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Purpose: This study aimed to examine (1) the changes of depressive symptoms from 7-14 days to 3 months after cardiac surgery and (2) their associated factors among the patients with cardiovascular disorders who received cardiac surgery during the 3-month follow-up period. The potential predictors included demographic data, disease & treatment factors (such as types of surgery, chronic disease, past history of depression), health behavior (regular lifestyle, total sleep hours, time of sedentary, physical activity), emotional regulation styles (cognitive reappraisal and suppression).

Methods: This study adopted a longitudinal design. The inclusion criteria of the participants were aged 20 years and above, and received cardiac surgery. The longitudinal data are collected at two time points: baseline assessment: 7 to 14 days after cardiac surgery and the 3rd month after baseline. The structured questionnaires included International Physical Activity Questionnaire (IPAQ-S), Emotion Regulation Questionnaire (ERQ), the Beck Depression Inventory (BDI-II).

Results: There were no significant changes in BDI scores from 7-14 days to 3 months after cardiac surgery. Scores of BDI in clinical depression level (>13 scores) were 11.7% and 15.5% of the participants in 7-14 days after cardiac surgery and 3 months. Majority of the participants did not appear to have clinical depression. Life stress events predicting depression at 7-14 days after cardiac surgery achieved the borderline significance ($p = .05$). Patients with life stress events within two years before cardiac surgery appeared to have higher levels of depression. There were significant changes from 7-14 days to 3 months after cardiac surgery including longer total sleep hours, higher levels of physical activities, shorter time of sedentary, and higher levels of cognitive reappraisal style of emotional regulation. The main predictors of the depressive symptoms during 3-month follow-ups were age and levels of physical activities. High levels of depression were associated with younger age and lower levels of physical activities.

Implications for Practice: The potential predictor of depressive symptoms at 7-14 days after cardiac surgery is life stress events. The main predictors of depressive symptoms during 3-month follow-ups are age and levels of physical activities. Future depression can be developed by targeting at these predictors for the patients who receive cardiac surgery.

Key Words: cardiac surgery, depressive symptom, life stress events, physical activity, emotional regulation.
PB3-02 Depressive Status, Self-Care and Degree of Family Support Among Diabetes Patients in PengHu District

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Purpose: This study aims to determine the diabetes control, depressive status, self-care, degree of family support and correlation among these factors in diabetes patients. The results will be used to develop multidiscipline nursing care for diabetes patients.

Methods: Patients included in the diabetes care network were enrolled. A structure questionnaire was used to understand the depressive status, self-management condition and degree of family support of diabetes patients in PengHu district. The data were analyzed by using SPSS ver. 19. Descriptive and inferential statistics were performed.

Results: There is no significant difference among the demographic data of the 198 patients. The mean score was 6.92±2.85 (the full grade was 15) for the “Simplify Geriatric Depression Scale”, 28.82±8.53 (full grade, 72) for the “Taiwaness Depressive Scale”, 75.80±14.12 (full grade 100) for “Self-care of Diabetes Mellitus”, 52.07±12.37 (full grade, 75) for the “Family Support Degree Scale”.

Implications for Practice: The study found that diabetes patients in Penghu District had mild depression, good mental health and family support system. In recent years, domestic and foreign studies have also pointed out that family support system, mutual care from diabetes patients group, volunteer telephone interview and group therapy could be used to promote positive thinking in these diabetes patients. We hoped that the results of this study can be a reference in the future planning for diabetes health education and provide a direction for future study.

Key Words: type II diabetes mellitus, depressive, family support, self-care.
Intervention Effect on a Self-Management Program for Mental Health Patients

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Purpose:
To control and prevent recurrence of depression and anxiety disorder, self-management is indispensable. This includes stress management and living environment adjustment other than medical treatment. The researchers used intervention with a self-management program to psychosomatic medical clinic patients and examined the effect.

Methods:
This study compares “intervened” and “non-intervened” groups. Subjects were 12 depression and anxiety disorder patients who regularly see psychosomatic medical doctors. The “intervened” and “non-intervened” comparison was conducted on the same subjects. Questionnaires were completed before, right after and 1 month after the subjects participated in three 2 hour sessions. Survey contents included a feeling of self-efficacy scale, autogenous suppression type and problem resolution type scales of behavior traits, and a self-rated depression scale. The sessions were comprised of psychiatric education for mental health patients, image therapy, and an encounter group. Wilcoxon rank sum test was used for verification before and after the intervention, with \( p < .1 \) set as statistically significant.

Ethical Consideration: Participants were informed about the study’s purpose, freedom of participation and leaving mid-study, and privacy protection both orally and by written documents, and obtained their consent. This study was conducted with the approval of the research ethical committees of the researchers’ organizations.

Results:
Survey slips were collected from 11 (92%) in intervened group and 12 (100%) in non-intervened group. Comparison before and after the intervention confirmed significant improvement with feelings of self-efficacy (\( Z = -2.21, p < .1 \)), and depression (\( Z = -2.82, p < .1 \)). No significant improvement was seen in autogenous suppression type behavioral traits (\( Z = -0.68, p > .1 \)), or problem resolution type behavioral traits (\( Z = -0.31, p > .1 \)). A comparison of scales between zero point and 1 month later for the non-intervention group showed no significant difference. This means it is highly possible the changes of scales in the intervened group are due to the intervention. Additionally, with no significant difference between right after intervention and 1 month later on any scale, it appears the intervention’s effect was maintained a month later.

Implications for Practice: Scales of depression showed improvement from light depression to normal score before and after the intervention. The values of feeling of self-efficacy scale before and after were both low, but there were some significant improvement. For this program, the researchers confirmed improvement in subjects’ mood and effect on cognition change. Conversely, there was no improvement in autogenous suppression type or problem resolution type behavioral traits, but generally, behavioral change starts about 3 to 6 months after cognitive change, so the researchers could not confirm this point at this time. Introducing this program
clinically requires training people to conduct the program, and dates, time and frequency that suit patients’ needs to provide it. It is necessary to conduct the program often to acquire data.

**Key Words:** depression, mental health, self-management, program, psychiatric nursing.
Predictors of Depression Among Older Women Residing in Assisted Living Facilities

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**Purpose:** The purpose of this study was to explore the predictors for depression among older women residing in assisted living facilities.

**Methods:** A cross-sectional design was adopted. A convenience sample of 134 female residents was recruited from four assisted living facilities in central Taiwan. Data were collected through structured questionnaires, including age, marital status, number of chronic diseases, self-rated health, Barthel Index, the Seven-day Physical Activity Recall, and the Geriatric Depression Scale Short-Form. Stepwise multiple regression analysis was conducted to identify the predictors of depression.

**Results:** The average age of participants was 80.59 (SD = 7.1) years. The average score of depression was 4.43 (SD = 4.66). The results indicated that depression was significantly associated with number of chronic diseases (p < .001), self-rated health (p < .001), functional status (p < .001), and physical activity (p < .001). Stepwise multiple regression analysis indicated that the predictors for depression were number of chronic diseases (β = .12, p = .009), functional status (β = -.69, p < .001), and physical activity (β = -.16, p = .007). All of these predictors explained 71.8% of the total variance in depression.

**Implications for Practice:** Depression is a well-recognized problem in older adults. Depression in older adults is associated with disability and increased mortality. The prevalence rate of depression among institutionalized older adults is even higher than that among community-dwelling older adults. Especially, more older women than men suffer from depression. The results of the present study can provide information for healthcare personnel in developing interventions to prevent depression and the subsequent decline in health status for older women.

**Key Words:** assisted living facilities, older women, depression.
The Effect of Rehabilitation Program on Self-Stigma Among Patients With Mental Illness in Taiwan

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Purpose: Mentally ill patients have been long stigmatized. Deinstitutionalization for mentally ill patients is the final goal of treatment. The patients cannot avoid the social prejudice and the mental health professionals cannot create a protective environment for the patients to escape from the social stigma forever. Conversely, mental health professionals should help the patients how to face those stigma positively and reflect their own responsibility on rehabilitation. The purpose of the study was to examine the effect of rehabilitation program provided by a psychiatric center on self-stigma of mentally ill patients.

Methods: Purposive sampling was conducted from a psychiatric center in central Taiwan. Priori sample size was estimated by G*power for repeated MANOVA, α was set as .05, effect size .25, 0.9 for power and 3 measurements, total sample was 206. In order to prevent invalid response, total 250 patients were recruited from OPD, chronic ward, half way house, home visiting, rehabilitation center and day care. Rehabilitation program was classified two levels (high/low) and two areas (community / hospital based rehabilitation institutions). Internalized Stigma of Mental Illness Scale (ISMIS) was adopted to assess patients’ self-stigma. Data were collected at first interviewed and following first and third month. Generalized estimating equation (GEE) was used to analyze data.

Results: 250 participants were recruited. The mean age was 47.96 (20-60) years and the mean of ill history was 28.26 years. The average score of self-stigma was 68.16 (range 29-112). Self stigma was found to be significant difference based on gender, couple, rehabilitation level, and rehabilitation areas. Time interaction was found among rehabilitation areas and couple. That is, self-stigma of the participants from community based rehabilitation program was higher than those from hospital based rehabilitation program but with time goes by, the effect of self-stigma improvement of the participants from community based rehabilitation center was better than those from hospital based rehabilitation. “Having couple or not” was the same way. Self-stigma of participants having couple is higher than those without couple but with time goes by, self-stigma improvement was better than those without couple.

Implications for Practice: Institution based rehabilitation is the main stream in Taiwan currently. People take for granted that patients adjust well in the society if they are well prepared in institution. However, according to the study result; in terms of long term effect, community based rehabilitation program is better than hospital based rehabilitation program. The government actively promote de-institutional program in nearly a decade and this study results support that the importance of developing a community based rehabilitation program.

Key Words: self-stigma, mental illness, generalized estimating equation (GEE).
Effectiveness of a Releasing Exercise Program on Anxiety Among Adolescents

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Purpose: The purpose of this study was to evaluate the effectiveness of a releasing exercise program (REP) on anxiety among adolescents in Taiwan.

Methods: This used a quasi-experimental design, and the participants were recruited from two universities in the Tainan area, Taiwan. The adolescents were randomly divided into an experimental group (50) and a control group (49). The experimental group received 50-min REP sessions 3 times a week or a control group that did not receive REP. The participants were followed for 16 weeks. The outcome measures were the visual analog scale for anxiety (VASA), the Chinese version of the Beck anxiety inventory, and the exercise self-efficacy scale scores. SPSS18.0 software was used for analysis and testing, and statistic calculation methods, such as percentage, chi-square test, and repeated measure ANOVA, was used.

Results: The 99 adolescents (age, 19.38 ± 5.38 years) included had an average VASA score of 5.63 ± 1.44 at baseline. At weeks 8 and 16, the experimental group had significantly lower anxiety levels and higher exercise self-efficacy scores than the control group ($F=2.945$, $p=.04$ and $F=9.299$, $p=.003$, respectively).

Implications for Practice: This study demonstrates that REP is effective in reducing anxiety and enhancing self-confidence in exercise capability.

Key Words: releasing exercise program, anxiety, adolescents.
A Cohort Study of Depression in Menopausal Disorders Among Middle-Aged Women in Taiwan

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Purpose:
To understand demographic variables compared to the impact with / without of menopausal disorders among middle-aged women and to track risk factors for depression; In addition, the impact of hormones-related diseases and age-time series were also discussed.

Methods:
We obtained a National Health Insurance Research Database from Taiwan National Health Insurance program. One million beneficiaries randomly selected from the NHI program and it included all medical records of each beneficiary between 1996 and 2011. We collected 45-59 years-old women with newly diagnosis of menopausal disorder (ICD-9-CM 627.2) form 2000 to 2005. To ensure the accuracy of diagnosis, patients were confirmed on at least three medical records. The date for menopausal disorder diagnosis was defined as index date. We excluded patients with depression (ICD-9-CM 296, 300.4 and 311), and other menopausal disorder (ICD-9-CM 626.0-626.3, 626.4, 627.0, 627.1, 627.3, and 627.4) diagnosis before the index date. On the same index date of one menopausal disorder women, two age-matched women without any menopausal disorder and depression history were selected to comparison cohort.

Results:
All selected 11123 menopausal disorder women and 22246 age-matched comparisons in this respective cohort study. Menopausal disorder women were likely with comorbidity including diabetes, hypertension, ischemic heart disease, hyperlipidemia, anxiety, sleep disorder and thyroid disorder. During the study period, there were 874 and 1305 women with depression occurred in menopausal disorder and comparison cohort. Depression incidences in menopausal disorder women was 3.08-fold compared to comparisons (40.56 vs. 125.13 per 1000 person-years). After 12 follow-up years, menopausal disorder women has a 8.14% higher depression incidence than comparisons. Adjusted age, occupation, urbanization level, diabetes, hypertension, ischemic heart disease, hyperlipidemia, anxiety, and sleep disorder, menopausal disorder women had a 2.37 depression risk (95%CI [2.16, 2.60]). Compared to white collar workers, blue collar workers and other workers had higher depression risk (HR = 1.17 and 1.32, 95%CI [1.07, 1.28] and [1.14, 1.52], respectively). Anxiety and sleep order women had 2.50- and 2.12-fold depression risk than non-anxiety and non-sleep order women. The age-, occupation-, and comorbidity strum-stratification analysis in adjusted Cox model. The effect between depression and menopausal disorder in younger women was higher than in older women (HR = 2.79 vs. 2.11, 95%CI [2.40, 3.23] vs. [1.74, 2.55]) (Interaction p = .006). However, compared to women without menopausal disorder, anxiety and sleep disorder, patients only with one disease had a significant higher depression risk

Implications for Practice: The study results provide clinical evidence and suggest for nurses to assess about the middle-aged depression effect increased with the number of
diseases increasing, and the highest risk with menopausal disorder, anxiety and sleep disorder (HR = 12.3, 95%CI [10.5, 14.3]).

**Key Words:** depression occurred in menopausal disorder; middle-age women; age-time series.
Relationship Between Executive Function and Broader Autism Phenotype in Children and Adolescent With Autistic Spectrum Disorder: A Study in Southern Taiwan

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Purpose:
The study aims to investigate the autism spectrum disorders (ASD), ADHD and broader autism phenotype in normal children and adolescents and to look into their differences in sibling. Studies of families ascertained through a autistic proband suggest that the genetic liability for autism may be expressed in non-autistic relatives in a phenotype that is milder but qualitatively similar to the defining features of autism. The broader autism phenotype (BAP) is a set of trait and language characteristics that reflect the phenotypic expression of the genetic liability to autism, in non-autistic relatives of autistic individuals. The broad autism phenotype is used to refer to the non-autistic diagnosis criteria, relatives of people with ASD who manifest expressions of autism-specific deficits and mild of autistic like traits and charact

Methods:
A cross-sectional survey of normal-case sibling pairs was adopted in the study with structural questionnaires given for tests on the participants consisting of the siblings with ASD, or with ADHD, normal children and adolescent. We compared the broader autism phenotype and Executive function of siblings with that of ASD children and adolescents, as well as a group of ADHD and non-disorders groups. Participants were 8-18 years old with an average age of for the three groups. The survey was conducted with basic demographic questionnaires, along with WCST-CV4, AQ. The study have been certified by the Institutional Review Board (IRB), and consents were received from the participants and their parents who were informed of the test contents by the explanation made by the researcher before related data were collected from a psychiatric hospital in southern Taiwan.

Results:
There were totally 69 sibling subjects. 32 of them were normal control group, 19 of them were of ASD group and 18 of them were of ADHD group. The results show that AQ of the broad autism phenotype of the three groups shows significant differences in the aspects of social skills and the attention to details. There are significant differences among the continuity interruption of WCST-CV4 for broad autism phenotype of the three groups. Within-group correlational analyses were conducted between BAP traits of the AQ and WCST as well as between BAP traits and executive functions, there were significant relationships between the perseverative responses (PR) and % perseverative errors. The correlation was not significant of the AQ attention to detail with the WCST PR, Perseverative error (PE), and the % perseverative errors. The broader autism phenotype trajectories from 8 to 18 years old for AQ raw scores and WCST scores by the sibling group.

Implications for Practice:
This study would like to raise social attention on the siblings of autism and go further on the research of the genetic characteristics of the BAP. The results can be used provided as the reference for healthcare practitioners to conduct further in-depth evaluation and for their knowledge of the broader autism disorder cases. It is also expected that they can further develop and provide individual psychological caretaking activities and healthcare so as to improve the sibling
adaption.

**Key Words:** autistic spectrum disorders, executive function, broader autism phenotype.
PB3-09  Discussion of Working Loading of Nursing Care Providers for the Burn Patients of Formosa Fun Coast Explosion

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Purpose:  This study aimed to investigate caregiver burden and related factors among nursing staff who responded to the Formosa Fun Coast explosion.

Methods:  We adopted a cross-sectional, descriptive, and correlational study design, and a convenience sampling method. Data were collected on demographic characteristics; additional measures included the Perceived Stress Scale (PSS), Pittsburgh Sleep Quality Inventory, Occupational Burnout Inventory (OBI), Social Support Scale, and Professional Care Team Burden Scale (PCTB). Participants were 199 nursing staff in a medical center in North Taiwan. We performed univariate inferential statistics including t-tests, one-way ANOVA, Pearson’s correlation coefficients, and a general linear regression model to analyze the factors affecting care burden among nursing staff. A threshold of $p < .05$ was set as the level of statistical significance.

Results:  Nurses who had more years of experience ($p = .009$), higher social support ($p = .009$), and who had received a burn related training program ($p < .001$), had significantly lower PTCB scores. Otherwise, nurses with higher levels of PSS ($p < .001$) and OBI ($p < .001$) had higher PTCB scores.

Implications for Practice:  Based on this study, it is proposed that seniority, having received a burn related training program, social support, perceived stress, and the level of occupational burnout were the important predictors of professional team care burden among nursing staff who cared for casualties of the Formosa Fun Coast explosion. We suggested to provide burn-related training programs, increase social support from friends and colleagues, and create friendly workplaces to decrease stress and fatigue in order to reduce the professional care burden and improve retention rates of nurses.

Key Words:  Formosa Fun Coast explosion, burn injury, professional care team burden.
Is Self-Focus Associated With Nursing Competency in Psychiatric Nurses? A Cross-Sectional Study

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**Purpose:**
In psychiatric nursing, reflecting on one’s own nursing practice, known as self-focus, is needed in order to improve nursing competency. However, self-focus has also been found to have negative effects which lead to depressed emotion. Self-focus can be divided into 2 sub-types: rumination, which is inadequate self-focus motivated by threat and loss etc.; and reflection, which is adequate self-focus by motivated by intellectual curiosity. Nevertheless, previous research exploring the factors influencing nursing competency did not consider or include self-focus; thus, it is unclear whether self-focus contributes to nursing competency in psychiatric nurses. Therefore, the purpose of this study was to clarify whether self-focus contributes to nursing competency in psychiatric nurses, and provide suggestions for nursing education in order to improve the quality of care.

**Methods:**
A total of 507 nurses working in 3 psychiatric hospitals in Japan were circulated a questionnaire investigating demographics; job related stress using the Brief Job Stress Questionnaire (BJQ); self-focus using the Japanese version of the Rumination-Reflection Questionnaire (RRQ); other-consciousness using the Other-consciousness Scale (OCS), and nursing competency using the Self-Evaluation Scale of Oriented Problem Solving Behaviour (OPSN). The BJQ consists of 9 subscales assessing stress factors, 6 subscales assessing response to stress, and 4 subscales assessing modifiers. The RRQ consists of 2 subscales: the rumination subscale, which measures maladaptive self-focus, and the reflection subscale, measuring adaptive self-focus, with higher scores indicating a higher level of self-focus. The OCS consists of 3 subscales: external aspects, internal aspects, and fantastic aspects, with higher scores indicating higher levels of other-consciousness. The OPSN scores range from 25 to 125, with higher OPSN scores indicating higher nursing competency. Multiple regression analysis with a stepwise method was performed to explore the factors predicting nursing competency. All statistical analyses were conducted using SPSS version 23.0. Significance was set at $p<.05$. The research protocol received ethical approval before the beginning of the study.

**Results:**
Although 328 questionnaires were collected, 316 contained complete data and were therefore analysed. Most participants were in their 40s, and average nursing experience was 16.7 ± 10.9 years. The average OPSN score was 85.2 ± 18.0. Multiple regression analysis showed that higher nursing competency was predicted by lower adequate sense for job ($\beta=.176$), higher reflection ($\beta=.198$), lower rumination ($\beta=-.214$), higher consciousness of internal aspects of others ($\beta=.178$), more burden of qualitative psychological working ($\beta=.129$), shorter nursing experience ($\beta=-.114$), higher frustration ($\beta=.136$), more supports received by boss ($\beta=.134$), and lower consciousness of fantastic aspects of others ($\beta=-.127$). These factors accounted for 20.4% of the variance in nursing competency.

**Implications for Practice:** These results suggest that self-focus is associated with nursing
competency; especially, reflection is associated with higher nursing competency. In contrast, rumination is associated with lower nursing competency. Nursing education needs to facilitate nurses’ reflection and prevent exceeding rumination.

**Key Words:** psychiatric nurse, nursing competency, self-focus, reflection, rumination.
Use of Time-Series Method to Investigate the Changes in Perception of Self-esteem and Quality of Life of Patients Undergoing Laparoscopic Sleeve Gastrectomy

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Purpose:
Laparoscopic sleeve gastrectomy is a common bariatric surgery in Taiwan. However, there is a lack of research on the changes in perception of self-esteem and quality of life for patients undergoing this surgery. The purpose of this study is to understand the continuous changes in the perception of self-esteem and quality of life of obese patients undergoing laparoscopic sleeve gastrectomy and their correlation.

Methods:
The research design is a prospective time-series study, using purposive sampling to recruit 33 adult obese patients as the research subjects who were going to undergo laparoscopic sleeve gastrectomy in a teaching hospital in northern Taiwan. This study employed structured questionnaires with good reliability and validity to collect the data of perception of self-esteem and quality of life of the research subjects before the surgery, 1 month after surgery, and 3 months after surgery. The research process was reviewed and approved by the Institutional Review Board (IRB). Descriptive statistics, Pearson’s correlation analysis, multiple regression analysis and generalized estimating equation (GEE) were employed to analyze data through statistical package software SPSS version 20.0 for Windows. In this study, statistical significance was indicated by a p value of less than .05.

Results:
The research results showed that: 1) the subjects’ positive perception of self-esteem and quality of life significantly improved with the progress of time($p = .021; p < .001$); 2) although there was not a significant correlation between changes in the subjects’ perception of self-esteem and quality of life, there was a positive correlation between their weight improvement and increase in perception of self-esteem($p = .013$); there was also a positive correlation between improvement of physical symptom distress and improvement of quality of life($p = .003$); 3) the increase in positive perception of self-esteem for older patients was more significant with the change of time($p = .029$).

Implications for Practice: The research results can help nurses better understand the changes in patients’ psychological and social aspects undergoing laparoscopic sleeve gastrectomy and be taken as references for care management and future research.

Key Words: laparoscopic sleeve gastrectomy, bariatric surgery care, self-esteem, quality of life, time-series study.
PB4-01 The Challenges of Being an Infection Control Nurse in the Psychiatric Hospital in Taiwan

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Purpose: Infection control nurses (ICNs) play an important role in healthcare system, as they specialize in recognizing, isolating, and preventing healthcare-associated infections that impact on quality of care and the safety of both patients and healthcare professionals. Meanwhile, the characteristics of psychiatric patients increase the difficulties of conducting the work of infection control in the psychiatric wards. The purpose of this study was to understand how the psychiatric ICNs perceive their experiences of being an ICN in the psychiatric hospital, additionally, the challenges they faced and their strategies to overcome these challenges.

Methods: A descriptive qualitative research approach was used in this study. We interviewed with 13 psychiatric ICNs who work in the middle Taiwan to understand their experiences and perceived challenges of being an ICN in the psychiatric hospital. Semi-structured, in-depth interview were utilized to collect the data. Data were transcribed and then analyzed by thematic analysis.

Results: Four themes were merged form the process of data analysis, which are: (a) insufficient orientation training; (b) limited resources; (c) patients cooperation (d) Inter-professionals cooperation; (e) a need for support from the administrator. Most of the participants perceived the orientation training courses was not so helpful for their current work. According to the participants’ perspectives, the quality of infection prevention and control in the psychiatric hospital is highly related to the space, settings, staffing, patients’ characteristics and the involvement of the administrators and cooperation of the professional staff. The participants shared their experiences of not so perfect realities and how they maintain and improve the quality of infection control when conducting the work.

Implications for Practice: These findings increase our understanding about the ICNs’ experiences and the challenges they encountered and their strategies of infection prevention in the psychiatric hospitals. It is recommended to design a specific orientation training course for newly psychiatric ICNs for a better preparation in professional knowledge, skill and confidence. The administrators of psychiatric hospital are suggested to value the importance of infection control in the hospital, provide more resources, staffing and increase the team cooperation. Additionally, create a culture of infection control and safety should also be promoted and build a warm and supportive climate for ICNs and other professionals.

Key Words: infection control nurses (ICNs); experiences, challenges, qualitative research.
PB4-02 The Role of Nurses in Cooperation With Certified Care Staff

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Purpose: In the elderly care settings in Japan, care in cooperation with nurse, care-giving profession (CGP) and certified care giver (CCG) is required for service users. There are two training courses to be care staff, CGP and CCG. The qualification of CGP is granted to one who completes a CGP training facility and acquires a license. Those who finish a training session for new CCG (130 hours of lecture and practical training session) can work as a CCG. The CGP training facility is required to have a full-time teaching staff who is certified as a nurse and the staff gives a lecture about anatomical physiology, support for patients with diseases peculiar to elderly and medical care. On the other hand, education by a nurse is not required for the training session for new CCG. In order to provide safe and secure care for service users in the elderly care settings, nurses need to understand other professionals’ awareness about care and cooperate with them. We thus investigated if there is a difference in the awareness about care between CGP who completed the CGP training facility and CCG who finished the training session for new CCG. In the present study, we purpose to obtain a suggestion on the role of nurses in care from the investigation results.

Methods: We examined 1250 care staff of group home for the elderly with dementia. These questions concern the basic attributes of care staff and the awareness of care to service users. We classified the responses into the CGP group and CCG group and analyzed them using Mann-Whitney u-test.

Results: We obtained the questionnaire responses from 383 care staff (31%). We selected 199 care staff (CGP and CCG) for this study. There was no significant difference in the number of care staff who were aware about “support considering service users’ individuality” between CGP (n=93) and CCG (n=106) (p=.14). Significantly more CGPs were aware about “support considering service users’ independence” (p=.02). There was no significant difference in the number of care staff who were aware about “support considering end place of life” (p=.64). There was also no significant difference in the number of care staff who were aware about “physical assessment” (p=.81). Significantly more CGPs were aware about “support for safe and secure life” (p=.04). There was no significant difference in the numbers of care staff who always worked for self-improvement (p=.56).

Implications for Practice: This study revealed that care staff consider service users’ individuality and end place of life and care staff always work for self-improvement. This study also revealed that more CGPs give care considering service users’ independence and safety than CCGs. We think that this is caused by the difference in education between CGP and CCG. This study suggests that nurses need to lead care staff and cooperate with other professionals to provide safe.

Key Words: nursing leadership, care staff, cooperation.
Purpose: Nursing is the largest segment of the healthcare workforce in the country. Strong nursing leadership will be required to lead the profession to healthcare reform. Core competencies for nursing leadership in Taiwan have not been identified. The key aims of the study were to validate leadership and communication assessment tools, and identify key leadership and communication competency priorities for nursing in Taiwan.

Methods: The ICN leadership and communication assessment tools were first translated into Chinese and validated through back-translation procedures. Then key informant interviews with hospital superintendents were used to validate the content of the competency assessment tool. Finally, a nationwide web based survey of chief nurses [N=424] were used to prioritize the core leadership and communication competencies for nursing in Taiwan.

Results: The translation of the tools were validated [leadership assessment tool (CVI=.89) and the communication assessment tool (CVI=.91)]. The survey response rate was 53%. The most important leadership competencies were identified as: problem solving, team building, influence and negotiation, confidence and trust, and vision and being strategic; the most important communication competencies identified were: listening, being articulate and means of communication.

Implications for Practice: Identification of the most important leadership and communication competencies for nursing in Taiwan has provided important information for prioritization of training program topics. These findings have been shared with the professional nursing associations, and the assessment tools have been made available for any Chinese speaking countries.

Key Words: nursing leadership, competencies.
Role of Violence Prevention Climate on Turnover Intention of Nurses Experiencing Workplace Violence and Work Frustration

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Purpose: This study was conducted to determine moderating effect of violence prevention climate and mediating effect of work frustration on the relationship between workplace violence and nurses’ turnover intention.

Methods: A cross-sectional research design with self-administered questionnaires was used in this study. Nurses from general units in three hospitals of southern Taiwan were invited to participate in the study. Three questionnaires covering violence prevention climate, work frustration, and turnover intention were coupled with a checklist detailing violent events in the workplace for use as measuring tools. Data were verified by regression analysis and Johnson-Neyman method. Valid questionnaires were completed by 973 nurses, with a 63.6% response rate.

Results: The result showed that 66% of the nurses (n=640) had experienced workplace violence. Among them, 60% (n=382) intended to leave their profession. The results also demonstrated that a significant partial mediation effect of work frustration was a result of witnessing workplace violence on coworkers, which further promoted turnover intention (β=.089**, p<.05). In contrast, complete mediation effect of work frustration related nurses’ own experience of workplace violence well with turnover intention (β=.179, p<.01). In addition, the study also found that through traditional statistical methods, violence prevention climate could not effectively illustrate the influence of workplace violence on work frustration and turnover intention. However, by employing Johnson-Neyman method it was found that violence prevention climate had a significant moderating effect within a certain range of values.

Implications for Practice: The workplace violence experience may influence nurses’ turnover intention. Work frustration could mediate the workplace violence and turnover intention. Therefore, nursing managers should develop strategies to improve nurses’ work conditions so as to promote the efficiency and quality of nursing as well as the retention of nurses. Nursing leaders are encouraged to create a positive and friendly work environment through the observation of signs of workplace violence and taking prompt actions to ensure a safety climate for all nurses.

Key Words: violence prevention climate, workplace violence, work frustration, turnover intention.
PB4-05  Designing a Training Program on Flipped Teaching Competencies of the Modular-Based Curriculum on Emergency Nursing Care for Nurse Preceptors

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Purpose: The aim of this study was to plan the Flipped Teaching Competency Training Program so instructors could implement flipped teaching during the “Emergency and Nursing Care Modular Curriculum” (ENCMC).

Methods: This study is comprised of two stages: (1) designing a flipped lesson plan, and ensuring that the instructors possess the required teaching competency to implement it; (2) assessing their teaching competency needs and planning a training program in flipped teaching. Phase 1 focused on collecting and analyzing data using qualitative research methods, including a literature review and focused group interview. The ENCMC lesson plan was designed based on the flipped learning model. According to the literature review, a draft of the teaching competencies necessary for ENCMC lesson plan (ENCMC flipped teaching competencies) was compiled. Focus group interviews were organized subsequently, and nine experienced clinical nursing preceptors were invited to confirm the identified flipped teaching competencies; those that were confirmed were used in Phase 2 of the study to construct the research tool, the “Survey of Required ENCMC flipped teaching competencies.”

Results: This study had three findings. (1) The ENCMC flipped teaching plan included the instructor’s name, name of the task, location, trainee prerequisites, number of students, learning objectives of both phases, passing criteria, teaching assessment, training dates and times, training venue, and learning resources. (2) Highly desirable items of teaching competency (with a score of three points or above) for flipped teaching. (3) An instructor training proposal for flipped teaching, which included the training program’s name, its aims, course name, course objectives, target participants and their number, date, location, organizing and co-organizing unit, course list, lecturer introduction, and course rules.

Implications for Practice: For clinical nursing instructors from internal medicine and surgical wards, the flipped teaching plan generated from our research findings can be a teaching tool for supervising novice nurses taking the ENCMC. Hospitals can use the questionnaire on ENCMC flipped teaching competency requirements to assess the training needs among new clinical nursing instructors for the ENCMC. The “Training Proposal for Teaching Competency in Internal Medicine and Surgical Ward Emergency Care” can be incorporated into the planning of continuing education in teaching competency organized by hospitals for clinical nursing instructors, and can serve as a reference. Furthermore, the study also provides recommendations for clinical nursing preceptors regarding research and education training in flipped teaching competency for the ENCMC.

Key Words: flipped lesson plan, teaching competence training program, modular-based curriculum on emergency nursing care.
An Exploration of Relationships Among Clinical Nurses’ Cultural Competence, Job Satisfaction, Professional Commitment, and Their Related Factors

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Purpose: Cultural diversity is blooming in Taiwan, and the clinical nurses must possess cultural competence ability and deliver cultural competence care to patients. This ability impacts not only the outcomes of nursing care and patients’ prognosis, but also job satisfaction and professional commitment of nurses. But, the issue has not been well studied in Taiwan. Therefore, the purpose of this study was aimed at exploring the relationships among cultural competence, job satisfaction, professional commitment, and their related factors in clinical nurses.

Methods: The study adopted cross-sectional correlational study design, and recruited 188 clinical nurses who had working experience more than 1 year by convenience sampling in a medical center in southern Taiwan. The effective response rate was 98.4%. The structural questionnaires of nurse demographics, Cultural Competence Assessment Tool-Chinese Version, Minnesota Satisfaction Questionnaire, and Professional Commitment of Nurse were applied to collect relevant information. The results were analyzed by SPSS18.0 for Windows.

Results: The result of this study revealed: (1) In light of clinical nurses’ cultural competence, there were no significant differences on age, working experience, working unit, education, marital status, children, religion, and social support, but significant on different professional nursing level. (2) The nurses who possess higher cultural competence ability tend to have higher level of job satisfaction and professional commitment. (3) Cultural competence can be the predictor to forecast that the intention to turnover among clinical nurses.

Implications for Practice: The study indicated that the nurses who possess higher cultural competence ability tend to have higher level of job satisfaction and professional commitment, and result in less intention to turnover. In advance of promoting job satisfaction, professional commitment, and improving consequential retention rate, the executives of hospitals should consider assisting the clinical nurses for acquiring cultural competence ability in accordance with design cultural competence interventions.

Key Words: cultural competence, job satisfaction, and professional commitment.
PB4-07 Effects of Flipping the Classroom With Team-Based Learning in a Medical-Surgical Nursing Course Among Nursing Students
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Purpose: Recent calls for health education innovation in Taiwan highlights the development of professional competence of nursing students to ensure patient safety. The flipped classroom and team-based learning that engage students and promote active learning have been increasingly used within medical education but remain limited in nursing education. This study aimed to evaluate the effects of using the flipped classroom and team-based learning (FCTBL) in a medical-surgical nursing course among nursing students.

Methods: A quasi-experimental design was conducted with 108 undergraduate senior nursing students taking "Medical-Surgical Nursing" course at a university in northern Taiwan from 2014 and 2015. Six classes of the course were selected for redesign by using FCTBL as teaching strategies. In those selected classes, control group students (n = 58), who took the 2014 course, received traditional lectures; and experimental group students (n = 58), who took the 2015 course, experienced the FCTBL. The FCTBL classes mainly consisted of preview of teaching video at home, quiz and discussion for preview videos, group task, group discussion, group presentation, and mini-lectures. The test scores of both groups were compared. The satisfaction with the FCTBL, the benefit of the FCTBL and reflective reports following the FCTBL among the experimental group students were evaluated.

Results: The mean test score in the experimental group (M = 73.51, SD = 11.00) was higher than the score in the control group (M = 69.33, SD = 12.18). Independent T-test showed that there was no significant difference in test scores between the two groups (t = -1.87, p = .06). Results from the experimental group showed that with 5-point Likert scale, the overall satisfaction with the FCTBL was 4.12; the overall benefit of the FCTBL was 3.99; and the suggestion for continuously using the FCTBL was 4.04. One sample t test indicated that each mean score of the 10 items for satisfaction with the FCTBL; the 12 items for benefits of the FCTBL and the single item for continuous use of the FCTBL was significantly higher than 3.5, the accepted mean for 5-point Liker scale (p < .05). The interaction with teacher (M = 4.5) is at the highest satisfaction with the FCTBL, followed by abundant content (M = 4.4), practical content (M = 4.4), and the interaction with peers (M = 4.4). Gaining professional knowledge (M = 4.25) and facilitating interaction with peers (M = 4.4) are at the highest benefits of the FCTBL. Reflective reports revealed that the FCTBL could create an active learning environment, foster students’ self-learning and engagement, and facilitate the interaction between the teacher and students and the interaction among the student peers.

Implications for Practice: The flipped classroom and team-based learning could help nursing students engage in self-directed learning and improve learning outcomes. The findings of this study may help nursing faculty to incorporate the flipped classroom and team based learning as teaching strategies into nursing education to improve teaching effectiveness and students’ learning outcomes.

Key Words: flipped classroom, team-based learning, nursing education.
A Comparison of the Learning Impacts Between Traditional and Holistic Care-Based OSCE (HOSCE) Model: Nursing Students’ Perspectives.

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**Purpose:** In more recent years, objective structured clinical examination (OSCE) has been increasingly utilized to assess students in the nursing and the allied health professions. In order to optimize the reliability and validity of OSCE and to rectify the weakness of OSCE undermining holism (fragmenting holistic patient care into discrete and unrelated elements as students moving between stations), a modified version of OSCE, a holistic care-based OSCE (HOSCE) model had been developed, implemented and evaluated in last year by the research team. The purpose of the study is to compare the effects of the traditional OSCE with those of the holistic care-based OSCE (HOSCE) model from nursing students’ perspectives.

**Methods:** Both quantitative and qualitative research methods were used to collect and analyze data in this study. A total of 24 grade 4 nursing students voluntarily participated in this study. After having experienced both models of clinical examinations, students reported their perceptions about the learning effects of the models via a structured questionnaire. In addition, a focus group of 10 students was conducted to collect more in-depth data.

**Results:** The students perceive positively toward both OSCE and HOSCE (mean=4.49 and 4.52 in a 5 points scale). To compare with the traditional OSCE, students perceive that the HOSCE model has a better effect ($p=.00$) on increasing their confidence in the clinical practice and future employment. From the qualitative data, students validate the helpfulness of the HOSCE, and perceive the HOSCE model is more close to the real clinical situation since the nursing process and the concept of holistic care were implemented.

**Implications for Practice:** The HOSCE model in nursing can serve as a guidance to enhance future OSCE examinations and makes a helpful and meaning contribution to the nursing education profession.

**Key Words:** holistic care, OSCE, competency-based evaluation.
PB4-09  Predictor of Self-Perceived Nursing Competency Among New Nurses in Taiwan
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Purpose: In Taiwan, the shortage of nursing personnel is a serious problem. Nursing competency is an important outcome in manpower quality and health care quality. The aim of this article is to identify factors that predict self-perceived nursing competency among new nurses in Taiwan.

Methods: This quantitative cross-sectional survey was performed in a convenience sample of 105 new nurses. Data were analyzed using SPSS/PC software Version 17.0. Descriptive statistics were used to describe the overall population. The univariate analysis included at-test, an ANOVA test and a Pearson correlation test to investigate relationships among participant characteristics, hospital-related factors, and self-perceived nursing competency.

Results: Regarding self-perceived nursing competency-adequacy, the statistical analysis revealed that satisfaction with the current nursing job, participation in inter-professional education conferences, satisfaction with the current preceptor, and benefit of preceptor policies to personal nursing capacity had a significant positive association with self-perceived nursing competency-adequacy ($p < .05$). Satisfaction with the current nursing job, satisfaction with the current preceptor, and perceived benefit of preceptor policies to personal nursing capacity also had significant associations with all subscales of self-perceived nursing competency-adequacy ($p < .05$). Unit type had significant associations with the teaching competency subscale ($p < .05$). The months of clinical experience had significant associations with the caring competency subscale ($p < .05$). Participation in inter-professional education conferences had significant associations with the caring and management competency subscale ($p < .05$). Two separate multiple linear regression analyses were performed using self-perceived nursing competency-importance and -adequacy as dependent variables. For variables dependent on self-perceived nursing competency-importance, two independent variables used as predictors accounted for 21.1% of the variance in dependent variables ($p < .001$). The perceived benefit of preceptor policies to nursing capacity and age separately accounted for 12.3% and 8.8% of the variance, respectively, in dependent variables. In contrast, for variables dependent on self-perceived nursing competency-adequacy, 3 independent variables used as predictors accounted for 22.0% of the variance in dependent variables ($p < .05$). Satisfaction with the current preceptor, satisfaction with the current nursing job, and participation in inter-professional education conferences separately accounted for 14.6%, 4.0% and 3.4% of the variance in dependent variables, respectively.

Implications for Practice: Because of the difficulty of recruiting qualified clinical nursing personnel and because of the high turnover rate of clinical nurses, hospitals should improve self-perceived nursing competency in new nurses to increase...
retention and to increase health care quality. This study showed that self-perceived nursing competency-adequacy is moderate in new nurses and several hospitals-related factors are the predictors of self-perceived nursing competency-adequacy. By applying the findings of this study in clinical practice, hospital managers can increase self-perceived nursing competency in new nurses. Competence assessment and targeted interventions are recommended to improve management of career development and continuing education to ensure that new nurses have the competence and motivation to provide high-quality care. In addition, managers should cultivate a caring atmosphere, establish mentoring relationships, and encourage nursing staff to participate in inter-professional education conferences to facilitate their development of professional competence and promote retention of new nurses.

Key Words: predictor, nursing competency, new nurses, preceptor.
Effectiveness of Evaluating the Fundamentals of Nursing Techniques Using Objective Structured Clinical Examination (OSCE)

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Purpose:
Sometimes the examination of written tests is unable to examine the judgment ability in clinical nursing situations. Thus, objective structured clinical examination (OSCE) emerges accordingly. This study examines the effectiveness of OSCE on fundamental nursing techniques.

Methods:
A cross-sectional research design was used in this study. Three techniques were evaluated, including assessment of pre-intermittent catheterization, intermittent catheterization for female, and intramuscular injection (IM). The participants were 132 nursing students (SN) who took courses in fundamentals of nursing techniques and the study was measured by courses satisfaction scales, degree of difficulty, technical tests scores, and qualitative evaluation. Satisfaction scales consisted of 9 items and were ranked between 0 and 5 grades, with higher scores indicating higher satisfaction. The degree of difficulty consisted of only 1 item, and was ranked between 0 and 5 grades, with a higher score indicating a higher difficulty. Technical test scores were from 0 to 100, with higher scores indicating higher grades. Course development procedures were adopted according to the experts' opinions, proceeding with course arrangements and preparations of experiments, developing blueprints and setting up teaching plans through teaching discussions in groups. After the expert validity examination, the teaching plan is revised into a formal lesson plan. The films were shot according to the lesson plan, including standard trainings on patients, examiner’s trainings, and SN seminar.

Results:
Overall satisfaction average of the test was 4.17 (SD=0.6), degree of difficulty average of the test was 2.21 (SD=0.62), and the average of test scores was 82.08 (SD=10.15). Test scores were significantly positively correlated with satisfaction score ($r = .23, p = .01$) and degree of difficulty ($r = .21, p < .05$). Moreover, satisfaction score was significantly positively correlated with degree of difficulty ($r = .03, p = .001$). In the qualitative evaluation feedbacks, nursing students stated positive feedback and suggestions. The positive feedback included that they felt stressful when testing, this test could help them to learn techniques more seriously, and the SN could test critical thinking ability when standard patients performed in really situation. We suggest that consistency of the examiners needs to improve, the instruments and environments needed to be visited in advance, and the time of IM needs to be extend.

Implications for Practice: The results of this study can be taken as the reference of developing nursing departments and promoting OSCE.

Key Words: objective structured clinical examination (OSCE), satisfaction, course development procedures, critical thinking.
PB4-11 The Study of Perception of Hospice and Death Competence of ICU Nurses
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Purpose:
By introspection over death and nursing care experience of the author, explore the perception of hospice and the attitude toward dealing with death of ICU Nurses; hope that can take the results as a reference to promote palliative care training courses.

Methods:
The research objects of this study were ICU nurses of Taipei M Hospital, which including MICU, SICU, CVSIC, CCU, NICU, and PICU. This is a cross-sectional retrospective study by structured questionnaire. The tool that was used in this research includ four parts: A. personal information B. environmental exposure experience C. hospice concept Scale D. Scale of competence in handling death. A total of 341 questionnaires were distributed and 335 were returned (return rate is 98.24%). A structural questionnaire was used to collected data from these nurses, and statistically analyzed by means of descriptive analysis, independent sample T-test, one-way ANOVA, Pearson correlation analysis with software SPSS 20.0 version.

Results:
The results show that: A. There is a significant difference in personal information of ICU nurses’ perceptions of hospice. People who are 21-30 years old tend to willing to sacrifice and hoping to illuminate the afterlife. People who are divorced, separated or widowed emphasize on the worthwhile life, leaving without regret. Married people tend to respect and follow the guidance of religion. B. In competence in handling death. People who are 31-40 years old tend to accept the view about death acceptance easier, and believe it’s important to have enough time to think and prepare dying. People who are married, divorced, separated or widowed being able to face death and adapt it well. C. There is a significant difference in environmental exposure experience of ICU nurses’ perceptions of hospice. Nurses with working experience 0-5 years more enthusiasm than nurses with over 21 years working experience. People who attend the funeral ceremony 2-4 times more can accept the view of the health care teamwork easier than people who attend 1 time. D. In dealing with death, nurses with 16-20 years working experience are more courageous to discuss about death with others than nurses with less working experience. Nurses in different units have different ways accompany with the dying patients, and thinking and expressing about death differently. People who attend the funeral 2-4 times emphasis on quality of life than people who has never attend the funeral. The more often attending life education courses, the more positive thinking of life and talking about own death. E. There is a positive correlation between the overall concepts of hospice and competence in handling death in this study. The more identifiable with the concepts of hospice, the better well-prepared to face the thoughts, skills and behaviors related to death.

Implications for Practice: The study proposes several directions to set up positive outlook in life and integrate the concept into the life curriculum.

Key Words: nurses in ICU, palliative care, competence in handling death.
PB5-01  Efficacy of Therapeutic Play Interventions on Child Undergoing Invasive Procedures: A Systematic Review and Meta-Analysis
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Purpose: Therapeutic play interventions have been widely used to prevent anxiety on children undergoing invasive procedures in clinical setting. Extensive researches have shown the benefits of therapeutic play, but there are lacks of systematic reviews regarding their outcomes. The purpose of this study was to explore the efficacy of therapeutic play interventions on child undergoing invasive procedures through systematic review and meta-analysis.

Methods: The research procedures were followed according to the Cochrane systematic review guideline. Seven Chinese or English databases (Airiti Library, Index of Taiwan Periodical Literature System, Cochrane library, PubMed/MEDLINE, CINAHL, ProQuest, and PsycNET) were searched from the earliest year available to September 2016. The search was limited to randomized controlled trials (RCTs) or controlled clinical trials (CCTs) by using (“therapeutic play” OR “play”) AND (“invasive procedure” OR “surgery”) as key words. Six hundred forty-three studies were identified, and sixteen studies were ultimately included in the meta-analysis. The two researchers independently assessed the quality of studies using the Cochrane collaboration's 'risk of bias' tool. Extracted data were entered and analyzed using Review Manager 5.3.5 software.

Results: Eleven RCT and five CCT articles (2011 Oxford Centre for Level of Evidence: Level 2–3) regarding the effects of therapeutic play on child undergoing invasive procedures as compared to those of usual care were reviewed. The qualities based on Cochrane collaboration's 'risk of bias' tool were 1 to 6 scores (7 items, each item is scored from 0–1). Two reviewers’ consistency Kappa value was .931 (p < .0001). Meta-analysis results showed that therapeutic play significantly decreased anxiety of child (six trials, 728 participants, Standardized Mean Difference [SMD] = -0.62, 95%CI [-1.11, -0.13], p = .01; sensitivity analysis delete one study of use anxiolytic drugs in control group), negative emotion (six trials, 645 participants, SMD = -0.66, 95%CI [-0.94, -0.39], p < .00001), postoperative pain (two trials, 298 participants, SMD = -0.29, 95%CI [-0.52, -0.06], p = .01), and significantly increased parents’ satisfaction (two trials, 311 participants, SMD = 0.60, 95%CI [0.37, 0.83], p < .0001). No statistically significant effect on anxiety of parent (three trials, 406 participants, SMD = -0.03, 95% CI [-0.29, 0.24], p = .83).

Implications for Practice: The current evidences support the benefits of therapeutic play on decreased anxiety, negative emotion, and postoperative pain of child undergoing invasive procedures. Before implementing, healthcare institutions need to provide environment, equipment and training programs related to therapeutic play. Health professionals need to design useful and feasible programs of therapeutic play, and overcome barriers (e.g., time, manpower, cost, etc.) to implementing therapeutic play in clinical settings.

Key Words: therapeutic play, invasive procedures, systematic review, meta-analysis.
Purpose:
Stillbirth defined as a loss after the 20th week of pregnancy in which the baby dies before being born. Term stillbirth occurred between 37 and 42 weeks of gestation. It is a tragedy event when a baby is preparing to start life outside the womb. Rates of stillbirth indicate the sanitary development of country. The purpose of this study is to determine the trend of stillbirth rates at term and its risk factors in Taiwan.

Methods:
Data were collected from the Taiwan Birth Registry between 2006 and 2013. The sample included 1,449,776 live births born and 1,375 (0.1%) stillbirths between 37 and 42 weeks of gestation. Chi-squared test for linear trend across years was used to test the difference of rates of term stillbirth. Crude odds ratios (ORs) and 95% confidence intervals of term stillbirth were estimated using logistic regression analysis. Predict variables of risk included maternal age, numbers of delivery, high risk pregnancy, congenital defects, birthplace, birth weight, perform amniocentesis, and maternal ethnicity. The odds ratio for risk factors with 95% confidence interval for stillbirths was calculated using the logistic regression model.

Results:
Rate of term stillbirth was 0.1% and had the similar rate during eight years ($p = .352$). There were greater odds ($p < .001$) of term stillbirths with congenital defects, high risk pregnancy, and multiple births when comparing to healthy newborn ($OR=0.14; 95\%CI [0.11, 0.18]$, no high risk pregnancy ($OR=0.44; 95\%CI [0.37, 0.52]$) and singleton birth ($OR=0.56; 95\%CI [0.45, 0.70]$). When maternal ages were analyzed categorically, results indicated less than 20 years ($OR=1.40; 95\%CI [1.03, 1.88]$, 35-40 years ($OR=1.45; 95\%CI [1.18, 1.78]$, and above 41 years ($OR=2.63; 95\%CI [1.85, 3.73]$ age groups had greater stillbirths comparing with 21-25 years. When infant birth weight was analyzed categorically, results indicated $\leq$ 2499 grams ($OR=9.55; 95\%CI [8.18, 11.16]$, 2500-2999 grams ($OR=1.70; 95\%CI [1.48, 1.95]$, and above 4000 grams ($OR=3.69; 95\%CI [2.82, 4.82]$) groups had greater stillbirths comparing with group of 3000-3500 grams. Comparing with birth at hospital, birth at clinical had a lower rate ($OR=0.74; 95\%CI [0.64, 0.84]$) and birth at midwifery or other places had a greater rate ($OR=2.84; 95\%CI [1.40, 5.77]$) of term stillbirths.

Implications for Practice: There is a relationship between maternal age, congenital defect, birth weight, birth place, high risk pregnancy and stillbirth. Thus, we can considerably prevent stillbirths with prenatal care and sanitary remedial interference on these risk factors.

Key Words: trend, term, stillbirth, risk.
A Quasi Experimental Study of Promoting the Intention of Human Papillomavirus Vaccination: A Multimedia Education Approach

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Purpose:
Cervical cancer is usually caused by infection with the human papillomavirus (HPV). Adolescents are the vulnerable group for HPV infection; however, they have a lower rate of HPV-related knowledge. Prophylactic vaccination of both male and female preadolescents and adolescents is recognized as a cost-effective mean of preventing infection for those who have not been previously exposed to specific HPV. The aim of this study is to bring human papillomavirus (HPV)-related knowledge to adolescent girls’ attention, improve their attitude toward HPV vaccination, perceived behavior control, and increase their intention to receive the HPV vaccination to maintain their sexual health by the multimedia HPV education approach.

Methods:
A quasi-experimental study design was implemented. We recruited 449 adolescent girls in grade ten from 4 senior high schools in Southern Taiwan through convenience sampling. Self-administered questionnaires were used to appraise the effects of the multimedia education approach on the participants’ knowledge of HPV, attitude toward HPV vaccination, and intention to receive the HPV vaccination. The pair t-test was used to determine whether there are any significant differences between pre and post-test score.

Results:
The results showed that the mean age of the participants was 15.56 (± 0.66) years. The baseline mean score about HPV knowledge was 10.61 (± 4.81), attitude toward HPV vaccination was 5.03 (± 0.62), perceived behavior control was 4.35 (± 0.74) and intention to receive the HPV vaccination was 4.91 (± 0.86). The post-intervention mean score about HPV knowledge was 17.88 (± 4.80), attitude toward HPV vaccination was 5.33 (± 0.57), perceived behavior control was 4.50 (± 0.72), and intention to receive the HPV vaccination was 5.09 (± 0.72). Multimedia education approach was statistically different on HPV knowledge (t= 208.420, p< .001) and attitude toward HPV vaccination 4.70±0.45 ( t= 14.654, p< .001), perceived behavior control (t= 1.270, p= .282 ) , and intention to receive the HPV vaccination ( t= 5.778, p=.003).

Implications for Practice: Multimedia education approach is brief and easy to implement and disseminate sexual health message. This study provides useful information for healthcare professionals in clinics and schools to develop a thorough HPV-related cervical cancer program, as well as contribute to public health that encourages preventive health care.

Key Words: cervical cancer, human papillomavirus vaccination, multimedia approach, quasi-experimental study, adolescent girls.
Support Persons Consulted and Tools Used by Japanese Parents When Their Children Fall Sick
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Purpose: When children fall sick, parents feel anxious and a sense of uncertainty. We hypothesized that when their children fall sick, parents seek to obtain a variety of information from various people or by using certain tools. This study aimed to reveal these tools that Japanese parents use and the support persons that they consult when their children fall sick; further, it aimed to determine the usefulness of these tools and the advice given by the consulted people.

Methods: We recruited 280 parents whose children had been hospitalized for acute childhood illness between November 2015 and February 2016 in Japan. We distributed an anonymous self-administered questionnaire and information sheet to these parents within 24 hours after their children had been hospitalized. The questions on the questionnaire were as follows: (1) “From whom did you obtain advice about your child’s illness? And how useful was this advice?” (2) “What tools did you use to obtain information about the illness? And how useful was this information?” The degree of usefulness was measured using a five-point Likert-style scale (1 = not at all to 5 = extremely). The parents put the completed questionnaire in a lockbox placed in the ward once they had read the information sheet and wished to participate in the study. We analyzed the data using descriptive analysis. This study was approved by the ethics committee of our university and of the hospital.

Results: A total of 235 participants successfully completed the questionnaires, and out of these, 220 were mothers. The mean age of the participants was 34.4. One hundred and eighty-nine participants obtained advice from other people. Most of the participants (128 participants; 54.4%) obtained advice from their spouses, and the next most frequently cited person that the participants obtained advice from was their mothers (90 participants; 47.6%). However, in terms of usefulness, the participants rated the advice provided by their mothers as more useful (mean: 3.9 points) than the advice provided by their spouses (mean: 3.8 points). Other people who gave advice to the participants comprised a small percentage (less than 16%). Two hundred and eleven participants obtained information about their child’s illness from a tool(s). The most used tool was the Internet (179 participants; 86.1%) and the next most used tool was the emergency pediatric telephone consultation service (34 participants; 16.3%). However, the latter was rated as more useful (mean: 3.7 points) than the former (mean: 3.5 points). The other tools that were used by the participants comprised a very small percentage (less than 10%).

Implications for Practice: Parents obtain advice from people and information from tools when their children fall sick. The Internet, in particular, is convenient and can be accessed all over the world. However, it is not always useful for parents. Therefore, it is necessary to develop Internet-based reliable and useful tools. Further, healthcare professionals need to provide medical information to uncertain parents adequately and effectively.

Key Words: information, parents, pediatric, usefulness.
The Relationship Between Postpartum Sleep Quality and Postpartum Depression: A Longitudinal Study

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Purpose: The prevalence of postpartum depression was up to 50% in Taiwan. Continuous postpartum depression may result in long-term negative consequences for the mother and child. Though sleep quality is an important indicator for the physical and mental well-being, there were few studies exploring the influence of PPD on women’s sleep quality. This aim of the study was to understand the time line of women’s sleep and PPD and its predicing factors.

Methods: A longitudinal study was conducted on participants recruited in a hospital in northern Taiwan. Participants were postpartum women without any diseases before pregnant. Data were collected in the first month and the third month after giving birth with a structured-questionnaire. Data collected included demographic data, results of Edinburgh Postnatal Depression Scale (EPDS) and Pittsburgh Sleep Quality Index (PSQI).

Results: The result showed that sleep quality of postpartum women worsen (37.3%) in the first month after giving birth. 66.1% of participants reported to have possible depression. 23.4% reported worse sleep quality in the third month after giving birth while 59.6% reported having possible depression. Women with complications had higher depression inclination in the first month after giving birth than those without any complications, and significant difference was found (22.7% vs 5.4%, \( p < .05 \)). The study found no significant difference among other variables and depression in the first month after giving birth \( p > .05 \). The scores for “emotional support” and “information support” were lower among women who reported having depression than those who did not sense depression. The difference was statistically significant (9.0 vs 12.0 & 8.4 vs 11.1 , \( p < .05 \)). Difference in sleep quality was higher among women who reported having depression in the firth month, and the The difference was statistically significant (86.4% vs 54.1% , \( p = .01 \)). There was no significant difference found in the third month. With the time went by, the scores of sleep quality and depression went down.

Implications for Practice: The result could help clinical nurses understand the mental health of postpartum women, to perform nursing evaluation, and to design health care for different needs.

Key Words: sleep quality, postpartum depression, longitudinal study.
**PB5-06 Implementation of 24-hour Rooming-In for Increasing the Breastfeeding Rates: An Evidence-Based Approach**

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**Purpose:** Implementation of 24-hour rooming-in is important in the breastfeeding-friendly policy. Previous studies found that a mother and her baby stayed longer in the same room, the more can increase the breastfeeding rates and successful breastfeeding during the early postpartum period. However, some mothers suffered great discomfort of 24-hour rooming-in. Few studies have evaluated the benefits and harms of 24-hour rooming-in. Therefore, the aim of this study was to explore whether implementation of 24-hour rooming-in promoting breastfeeding rates using evidence-based steps.

**Methods:** We administered a systematic literature search in four databases, Pub-Med, CINAHL, Cochrane Library and CEPS, with the search terms “Parturients, Rooming-in, Separate care, Breastfeeding”, using the Boolean operator. We applied the following limits: English language and full-text review. We expanded the search to the past 5 years to allow overlap with the most recent review and clinical trials which covered the topic about the impacts of 24-hour rooming-in on breastfeeding rates from 2011 to 2016. Critical appraisal skills programme (CASP) tool was used for the critical appraisal of health research papers. Oxford Centre for evidence-based medicine levels of evidence was administered to stratify the degrees of evidence and the quality of the study design. According to the results of critical appraisal and evidence stratification, we applied them to clinical practice.

**Results:** Between 1 May 2016 and 30 June 2016, 206 consecutive mothers and their newborn babies were enrolled in our study. Among them, 28 mothers and their newborn babies performed 24-hour rooming-in were identified as the study group and the other 178 mothers and their newborn babies performed separate care were identified as the control group. The mothers performed 24-hour rooming-in had significantly higher percentage of successful breastfeeding (78.6%) compared with mothers performed separate care (55.6%; \( p < .05 \)). In this study, we provide evidence supporting that 24-hour rooming-in promote breastfeeding rates.

**Implications for Practice:** In our hospital, a medical center in northern Taiwan, there was an obvious improvement of breastfeeding rate in 2016 compare to that in 2015 (58.95% vs 50.52%) after implementation of 24-hour rooming-in.

**Key Words:** 24-hour rooming-in, breastfeeding, evidence-based.
PB5-07  Neurodevelopmental Outcomes in Children With Transposition of the Great Artery: A Case Control Study

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Purpose: Recently, the use of advanced surgical procedures and high-quality nursing care have lowered the mortality rate of children with congenital heart disease. Transposition of the great artery (TGA) is one of the most common cyanotic heart diseases, mostly affecting prenatal, neonatal, and infant growth and development. Here, we evaluated the neurodevelopment of TGA children to recommend development-appropriate nursing care.

Methods: We conducted a case–control study to compare the neurodevelopmental outcomes between control (n = 28) and TGA (n = 28) children born between September 2011 and September 2015 in a university children’s hospital in Taiwan. Data of clinical characteristics, family resources, disease status, and growth curves were collected to analyze the impact factors and predictors. Categorical data were analyzed through chi-square and Fisher’s exact tests, and continuous variables were obtained through t tests and Mann–Whitney U tests. Receiver operating characteristic (ROC) curves were analyzed to identify a cutoff length of intensive care unit (ICU) stay affecting the development.

Results: Compared with the control group, significant neurodevelopmental delays, especially in gross motor (p = .01) and language development (p = .01), were observed in TGA children (p = .001). The major risk factor for gross motor delay was extracorporeal membrane oxygenation treatment (p = .01); conversely, the factors affecting language development were length of ICU stay (p = .004), retention of nasogastric tube feeding until discharge (p = .039), age at surgical correction (p = .042), and family structure (p = .042). The length of ICU stay was significantly related to those who needed speech and language therapy (p = .002) and physical therapy (p = .002). Critically, ICU stays of > 28.5 days were a predictor of the need for language therapy (sensitivity = 100%, specificity = 73.9%, AUC = 0.913) in TGA children. In addition, ICU stays of > 32.5 days were a predictor of the need for physical therapy (sensitivity = 69.2%, specificity = 93.3%, AUC = 0.831) in TGA children.

Implications for Practice: TGA children are at a higher risk of developmental impairment. The length of ICU stay and associated predictors should be considered when treating TGA children requiring early intervention. Early evaluation and rehabilitation programs are crucial for these children and their families.

Key Words: congenital heart disease, transposition of the great artery, pediatric development, Taipei Preschooler Developmental Checklist 2nd Version, Denver Developmental Assessment-II.
Predictors of Maternal Fatigue During the First 6 Months Postpartum

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**Purpose:**
Many new mothers report fatigue after childbirth. Specifically in Japan, up to 67% of new mothers report fatigue at 1 month postpartum. The demands of early infant care-giving, sleep disturbance, lack of social support, and maternal role adaptation can all contribute to mothers’ experiences of fatigue. Maternal fatigue has potentially adverse effects on maternal well-being and parent-child interaction. However, maternal fatigue is often overlooked as an expected part of parenting especially during the early postpartum period. Furthermore, existing findings are mostly based on cross-sectional studies and little is known about predictors of maternal fatigue based on longitudinal studies. The present study aimed to identify predictors of maternal fatigue during the first 6 months postpartum.

**Methods:**
We used data of a prospective cohort study. Participants were recruited in 13 Japanese hospitals between 2012 and 2013. A total of 2697 (response rate 71.6%) women provided longitudinal data using self-report questionnaires at five time points: during hospital stay after childbirth, and at 1, 2, 4 and 6 months postpartum. Maternal fatigue was assessed using the Postnatal Accumulated Fatigue Scale. We sought to explore predictors of maternal fatigue in two time periods: from hospital stay to 1 month postpartum; and from 1 to 6 months postpartum. The reason to divide a 6-month period into these two time periods was that our previous study indicated a change of course of maternal fatigue at 1 month postpartum. Data were analyzed using stepwise multiple regression. This study was approved by the university and hospital institutional ethics review boards. All participants gave written informed consent.

**Results:**
After adjusting for maternal age, type of delivery, parity, and the initial level of maternal fatigue within each time period, common factors that were associated with an increase level of maternal fatigue in two time periods were: dissatisfaction with sleep, more concerns about child-rearing life, financial burden, shorter meal times per day, and dissatisfaction with emotional, informational, and appraisal support. Unique factors that were associated with an increase level of maternal fatigue from hospital stay to 1 month postpartum were: longer duration between feeding and infant bedtime, and employment. Unique factors that were associated with an increase level of maternal fatigue from 1 to 6 months postpartum were: dissatisfaction with instrumental support, more frequencies of feeding during night, hospitalization during pregnancy, and unmarried status.

**Implications for Practice:** Providing education to pregnant women about importance of sleep, meals, and social support will help them manage effectively in alleviating maternal fatigue during the early postpartum period. Our findings also highlight the importance of regular assessment of these factors. After childbirth, continued assessment of maternal sleep, eating conditions, social support, and women’s concerns about child-rearing life, including concerns about infant health and
feeding, and women’s own life, is important to provide appropriate care.

Key Words: fatigue, multiple regression, postpartum mother, predictor.
Purpose: The prevalent rate of ventilator-dependent children has been increasing in recent years. The elderly people are the main population to receive the long-term care. However, children with ventilator have the same long-term care needs as the elderly patients with ventilator, but their needs are streemely overlooked, resulting in insufficient home care services and decreased quality of life in children and main caregivers. To explore the relationship among caregivers burden, social support, and quality of life for primary caregivers of ventilator-dependent children.

Methods: This study’s design was cross-sectional and descriptive qualitative study. The samples were referred from the “Association of Let-Children-Breathing Happy”. The instruments included "the basic information for children," "caregivers basic information", "caregiver burden scale", "social support scale" and "quality of life scale". Data was analyzed by SPSS Windows ver. 19.0 such as descriptive statistical analysis, t test, One-Way ANOVA, and Pearson’s correlation, and multiple regression.

Results: The major findings of this study were as follows: (1) using the "Caregiver burden scale" the mean score of overall burden of caregivers was 45.31 out of 96, in the domain of "financial burden" got the highest, (2) the "social support scale" were used to family members and relatives of primary caregivers, the mean score of overall social support of caregivers was 26.1 out of 48, In terms of social support experience by the subjects, "emotional support" was seen as most helpful, medical team support the mean score of overall social support of caregivers was 30.69 out of 48, while medical support in term of "informational support" was regarded helpfully, (3) using the "quality of life scale" the mean score of overall quality of life of caregivers was 90.41 out of 140, the degree of the quality of life that obtained the highest satisfaction was the "social-oriented " (4) The social support accounted for 32.41% of quality of life (p< .01). It was concluded that social support was a mediator between care burden and quality of life.

Implications for Practice: The findings of this study contribute to nurses’ practice, administration, education and research as a reference for providing care for ventilator-dependent child patients and their main caregivers.

Key Words: ventilator-dependent, caregiver burden, social support, quality of life.
Purpose: The purpose of this study was to examine the effectiveness of a play program in reducing hospitalized stress responses (physiological, psychological and behavioral responses) of preschool-aged children with respiratory infection.

Methods: A randomized controlled trial with repeated measures was conducted. A convenience sample of 105 preschool-aged (3-6 year-old) children were recruited from a regional teaching hospital in southern Taiwan. Participants were randomly allocated to either a control group (n = 53) or an experimental group (n = 52). The measurement instruments of this study included questionnaire of demographic characteristics, Digital Blood Pressure Monitor, Children’s Emotional Manifestation Scale (CEMS), and Salivary Cortisol ELISA Kit. The data obtained were analyzed using SPSS Version 20.0 software, including a x2 test, two-sample t-tests, and Generalized Estimating Equation (GEE).

Results: A x2 test and two-sample t-tests showed that there were no significant differences in demographic characteristics between two groups. Using GEE to examine the effectiveness of the play intervention, we found significant differences in physiological responses of hospitalized stress - heart rate (-7.87 beats/min, \( p = .010 \)), blood pressure (-7.29 mmHg, \( p = .010 \)), psychological response of hospitalized stress - CEMS (-1.18 points, \( p < .001 \)), and behavioral responses of hospitalized stress - resistance behaviors during medical care (-1.07 times, \( p = .001 \)) after adjusting for age and pretest of research variables. However, there was no significant difference between the two groups in one of physiological responses of hospitalized stress - salivary cortisol.

Implications for Practice: This study supports that structured play intervention is a feasible tool to relief psychological and behavioral responses in stress of hospitalization. These findings provide empirical evidence to health professionals, but mainly for preschool-aged children. Stress marker-salivary cortisol was no significant difference between the two groups, and more studies are necessary to try to understand what exactly happens. Future studies could apply the play to different aged children and health issues before recommending it as a suitable approach to be used in the paediatric health settings.

Key Words: preschool-aged children, hospitalized stress, play.
PB6-01 The Experience of Caring for Elderly Persons With Dementia
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**Purpose:** Over the past two decades there has been a substantial growth in long-term care services across Taiwan; however, most services have primarily focused on providing care for individuals with physical impairment. With the increasing aging population and the growing prevalence of chronic diseases, the population with cognitive impairment is increasing rapidly, which leads to a rising demand for long-term care human resources and a heavier burden on existing nursing aides (NAs). Since dementia is not amenable to cure, the focus of nursing care is to improve the elder’s level of comfort and to meet their physical, psychological, and social needs. The importance of providing care for elderly persons with dementia is now well recognized. NAs play a major role in the delivery of such care; however, limited research has investigated their experiences of dementia care practice. This study aims to derive a better understanding of NA' experiences of caring for elders with dementia in long-term care settings.

**Methods:** Based on qualitative research, the methodology includes purposive sampling and semi-structured in-depth interviews to collect data concerning the experiences of 11 NAs from a dementia day-care center in Miaoli and a dementia care center in Taichung. The survey spanned June 2015 to October 2015. Data were analyzed thematically.

**Results:** The research results are divided into three dimensions: (1) positive caregiving experiences, (2) multiples forms of caregiving stress that are neglected, and (3) formulating self-coping strategies. The results show that despite a considerable amount of stress, most NAs interviewed possess positive caregiving experiences. In addition to stress, the nursing skill mix, which is difficult for NAs to master, also affects their work enthusiasm, but they also agree that mutual support among colleagues and their ability to formulate self-coping strategies motivate them to carry on in their work.

**Implications for Practice:** This in turn has brought about the phenomenon that a growing number of elders with dementia are now utilizing long-term care services. In such services, NAs are the front-line service staff, but their experiences in attending to dementia clients have been explored relatively less than other topics related to dementia. The results are expected to serve as a reference in clinical practice, education, and policy formulation for long-term care services and related government agencies. In particular, it will provide a framework for investigating key determinants of quality dementia care for elders with dementia utilizing long-term care services.

**Key Words:** elderly, dementia, cognitive impairment, qualitative research.
PB6-02  An Investigation of Care Capability and its Related Factors Among Foreign Female Caregivers in Taiwan

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Purpose: Since in Taiwan population aging and the fertility rate is getting lower, the number of foreign caregivers needed by inpatients is increasing. Taiwanese people tend to employ foreign female caregivers to take care their ill family in hospital. Few studies have addressed care capability for foreign caregivers in Taiwan. Therefore, this study was to investigate care capability and its related factors among foreign female caregivers.

Methods: This cross-sectional study enrolled 200 foreign female caregivers. All were over 20 years of aged, fluent in English, Mandarin or Taiwanese, and resided in Taiwan recently. Recruitment was done in the medical and surgical wards at one university hospital. An validated questionnaire was used to collect data by interview. For this study, Cronbach’s α for the scale was calculated at 0.81. Data were encoded, entered and analysed using SPSS 18.0 software.

Results: Most participants were Indonesians (85.6%), compare to Vietnamese (11.4%) and Pilipino (3%). Education level for all participants were high school or above. Nearly 80% of participants have completed a pre-employment training program, despite the fact that 10% of participants were registered nurse in their countries. Furthermore, history of working experience, the days of current patient under care, and ability of language communication were associated with care capability (all p < 0.05).

Implications for Practice: Overall, foreign female caregivers who work longer had better care capability. This study suggest that better support and training provided in Taiwan may help foreign caregivers gain significantly better care capability. The government authority should establish a testing system of caring knowledge and skills to foreign caregivers, provide service of Chinese language education, extend their working time limitation, include foreign caregivers under normal long-term care supervision system, and require them to receive continuing education.

Key Words: care capability, foreign, caregiver.
The Effect of "Line App" for Oncology Management on Patients With Oral Cancer

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**Purpose:**
To investigate the effects of applying Applications

**Methods:**
Experimental design method is used in this study. Participants are 100 oral cancer patients. The inclusion criteria were (1) diagnosis of oral cancer more than 6 months of hospital or outpatients who meet the International Classification of Diseases ICD • 9 • CM disease classification code: 140.0-149.9 (2) aged more than 20 years old. (3) own or primary caregivers have access to smartphones. They were randomly divided into two groups by computer-generated random number table. The experimental group included 55 patients. The control group included 45 patients. The experimental group used Line App to provide them with self-care information, event messages in a timely manner, and one-on-one health care advice. The control group used the general pattern of health care.

**Results:**
There are ten participants who make use of the one-on-one health care advice (20.00%). Their questions are about oral infections, language and swallowing problems, nutrition, chemotherapy precautions, psychological support needs of cancer recurrence, the registration requirements and activities registration. Line App timely sender has a significant effect ($p < .05$) on patients' participating rate in patient-support group activities. But there is no significant impact ($p > .05$) on patients' symptom distress, and health-related needs. GEE analysis showed a significant differences between the two groups regarding the overall quality of life in the past 7 days ($p = .023$).

**Implications for Practice:** Apps use in oncology case management can increase patients' self-management and empowerment. It also enhances oncology case managers to track long-term follow-up effectiveness. Apps use also reinforces that the case managers are of the cancer patients' family therapists. They play the role of providing a single window of service that exempts patients from having nowhere to turn, needing multiple registration or referral plight. Therefore, this study recommends that case manager systems be built to provide Apps health care messages, timely sender, and one-on-one remote consulting services to increase the sustainable management, accessibility, effectiveness and satisfaction of oncology manage system.

**Key Words:** oral cancer patients, cancer patient survival, application (Apps), oncology manage system.
PB6-04  Improvement of the System to Build More Active Online Community Among Diabetic Patients

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Purpose: The development of Information and Communication Technology (ICT) has been an opportunity for diabetes patients to conduct self-management. On the other hand, there have been problems found in the operability of devices and content as well as the issue of whether patients can continuously use them. The researchers developed a one year ICT peer support system on which type 2 diabetes patients could share their living experiences and support each other. As a result, those patients who used ICT obtained new knowledge and information and improved their self-management awareness. However, it was revealed that they couldn’t gauge what the other members were like because their communication was conducted in virtual space and some users found the patient community difficult to activate. Taking these results into consideration, the researchers improved the system to encourage patient community activity. This is a report about the process.

Methods: Problems in our initial system operation that affected their communication included: 1) difficulty in gauging what the other members were like, 2) difficulty in rejoining conversations after a long break from prior conversations, 3) difficulty in conveying ordinary self-management condition, and 4) finding it troublesome to type texts. Based on these problems, the researchers examined the system’s operability and operational method and attempted to improve the system.

Results: In our new system, the researchers made the following 5 improvements: 1. Small grouping: Grouping about 5 members to communicate to each other so that they could learn more about each other. 2. Adding a facilitating system: The researchers took on the roles of being facilitators with the purpose of intentionally building themes to share and to help the group’s communication flow. 3. Reinforcing the information providing system by adding experts writing: We wished to secure the validity of information by experts and to create opportunities to build active conversation. The experts include nutritionists, pharmacists and nurses who took turns providing articles in “Sumairu Tsushin” correspondence. 4. Adding emoticon stamps: Emoticons were added to easier describe members’ thoughts and feelings and to respond to those waiting for responses from others. Emoticons are for both informational and emotional support. 5. Compatible multimedia: Taking system operability into consideration, the researchers improved the system so it could operate in various environments including different OS and devices.

Implications for Practice: Each diabetes patient has different living conditions and symptoms. Therefore, variances in their interest can affect the online community they are in. It is necessary to operate the system taking into consideration how the ICT is used, and the community’s size and composition. In this study, the researchers improved the system by taking into consideration the operability of devices and promotion of
the community. In the future, the researchers would like to examine how usage of this system influences members’ self-management.

Key Words: diabetes patients, online community, peer support, system.
Applying Energy Theory to Community Health Assessment - A Case Study of an Urban Community in Taiwan

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Purpose:
Taiwan's high population density frequently blurs the administrative boundaries between communities, leading to indistinct community identifications among the populations. The purpose of this study is to conduct community health assessment by using Helvie’s Energy Theory Model as a basis for the development of the community health program (HCP).

Methods:
Ethnography Research Method was utilized to collect community-based data and an 18-week community assessment was conducted by literature review, windshield survey, in-depth interviews, participant observation, questionnaires, sound recording and taken a picture. The data were divided into the core (population), four internal energies (chemical, physical, biological and psychiatric) and nine environment subsystems (transportation, health, education, entertainment, economy, politics, communication, culture, and welfare) for classification, comparison, integration, and analysis to identify the community health problems.

Results:
Through data analysis and the identification of the community problem, we reported the findings to community residents and sought feedback, prioritized those problems to promote community health care issues in the future. Muecke’s Community Health Assessment Theory was utilized to identify and prioritize the community health problems as follows. (1) The unhealthy lifestyle among people over 40 leads to increased threat of metabolic syndrome. (2) High risk roads are the safety threat to the pedestrians in the community. (3) Due to cultural change and adaptation problems, foreign spouses may have inadequate coping skills in life.

Implications for Practice:
The energy and potentials of the community can be discovered, and the process of the community energy flow and its influence on the health can also be understood by using the energy theory in the community health assessment. By means of a complete community assessment process, the real health needs of the community can be reflected and the multi-level professional roles of the community health nurses (CHNs) can be carried out. This study can inspire CHNs to define the critical health problems in their communities and serve as reference in implementing health plans. In addition, it is hoped that the application of the rare energy theory in the community assessment can be used as a reference for the community nurses as the community health assessment tool in the future.

Key Words:
energy theory, community health assessment, community health diagnosis.
**Purpose:**
At present, the elderly at home are more dependent on foreign caregiver as the main caregiver, good care skills to reduce the risk of hospitalization and death, but foreign caregiver always did not receive formal training and language barriers to communication, making care quality can not be improved. The purpose of this study was to examine the risk of hospitalization and mortality among home care older adults who were taken care of by foreign care workers and family caregivers.

**Methods:**
The data from July 2003 to May 2015 was retrieved from the home care records of a home care agency in new Taipei city. A total of 273 older adults were included for analyses. Cox proportional hazards models and recurrent event model are applied to compare the risk of mortality and hospitalization for the elderly between foreign care workers and family caregivers related to different genders and relatives.

**Results:**
The older adults who were taken care of by women (HR = .71), daughter or daughter in law (HR = .65) have significantly lower risk of hospitalization than those who were taken care of by foreign care workers. Being taken care of by children during the early episode of disability also showed better outcome than those being taken care of by foreign care workers (HR = .552). However, there was no significant differences between older adults who were taken care by these two groups of caregivers if the duration of care is over 1.1 years.

**Implications for Practice:** The study findings showed that the quality of care provided by family caregivers is better than foreign care workers. The government should re-evaluate the open door policy for foreign care workers and provide more long term care resources and assistance for family caregivers who are willing to take care of the elderly.

**Key Words:**
foreign care worker, family caregivers, home care elders.
Efficacy of A Horticultural Activity Program on Depression and Loneliness in older Residents of a Nursing Home in Taiwan: A Pilot Study

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Purpose:  
This pilot study examined the efficacy of a horticultural activity program for reducing depression and loneliness in elderly residents of a nursing home in Taiwan.

Methods:  
Elderly people were recruited by convenience sampling from a nursing home in Tainan, Taiwan from February, 2016 to May, 2016. The 20 participants recruited for the study were randomly assigned to either an experimental group or a control group. The experimental group (n=10) participated in a 8-week horticultural activity program, entitled “Experiencing gardening: full of fun and vitality”. The theme of the program included Green Fields Trace, Enameled Clay pottery, Evergreen Planting, Grass Doll, The New Clothes for Flowers, Sachet Dolls, Important Memory, and Welcome by Flowers. The control group (n=10) received routine care. Data were collected using Geriatric Depression Questionnaire, Loneliness Questionnaire, and Personal Characteristics Questionnaire. Wilcoxon test and Mann-Whitney U test were used to analyze differences in depression and loneliness variables within and between experimental and control groups.

Results:  
From pre-intervention to the end of the intervention, the total depression scores and total loneliness scores in the experimental group significantly improved, and the improvements were significantly larger than those in the control group.

Implications for Practice:  
A horticultural activity program can improve loneliness and depression in elderly residents of Taiwan nursing homes. Healthcare providers in nursing homes should receive horticultural training and consider practicing an appropriate horticultural activity program.

Key Words:  
horticultural activity program, depression, loneliness, elderly residents, nursing home.
The Efficacy of Auricular Acupressure on Improving Sleep Quality in Community Care Center for the Elderly- A Pilot Study

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Purpose:
The impact of sleep disorders on the elderly is very important, including negative psychophysiological aspects that will reduce the quality of life. The present studies have confirmed that auricular acupressure can improve postpartum women, nurses, menopausal women sleep problems, and now the study has not yet applied to the elderly in Community. Therefore, the purpose of this study will discuss the auricular acupressure to improve the quality of sleep for the efficacy of the elderly in community.

Methods:
A prospective quasi-experimental design was used and 20 elderly with insomnia who scored at least 5 on the Chinese version of the Pittsburgh Sleep Quality Index (CPSQI) were recruited at one community care center in Taichung, Taiwan. The exclusion criteria included sleeping pills taken, young then 65 years old, heart disease, and skin allergy. The one-group pretest-posttest group design, the experimental group received pasted Wang Vaccaria seed and acupressure on the Shenmen, Heart, Subcortex and Occiput points for 6 weeks. Questionnaires that used the Pittsburgh sleep quality index (PSQI), sleep diary and sleep quality interview were completed at baseline, and after a 6-week intervention. The intervention effects were analyzed using the nonparametric statistics (Wilcoxon Rank Signed test).

Results:
A total of 17 participants and completed the study and questionnaires. The mean global PSQI score was significantly decreased after auricular acupressure (AA) intervention ($Z = -0.087, p < .01$). Participants report improved sleep quality ($Z = -2.877, p < .01$), shorter sleep latency ($Z = -2.673, p < .01$). From the interview, 13 participants (76.47%) also reported sleep quality improvements in a 6-week intervention.

Implications for Practice: In this pilot study, complementary AA in community care center for the elderly with insomnia was feasible and well tolerated and showed encouraging results for sleep quality. Especially it has already been a global topic on aging; this result can provide a reference for health care professionals in treating community elderly with insomnia, to improve their quality of sleep.

Key Words: auricular acupressure, insomnia, elderly, community care center.
The Research Trend Pertaining to the Practice of an Expert Visiting Nursing Station Administrators

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Purpose: There were 9070 visiting nursing stations in 2016 in Japan, 800 more than 2015. In many cases, the administrators of stations were nurses in hospitals, who then became home care nurses and then administrators. Every year, there are over 300 stations that close because these administrators do not have business management experience. In research on nursing until now, many dissertations that define the research trend of nurses quote Benner (1984)’s expert level. “The expert nurse, with her/his enormous background of experience, has an intuitive grasp of the situation and zeros in on the accurate region of the problem without wasteful consideration of a large range of unfruitful possible problem situations.” Improving the administrators’ practice will result from visualizing the experience he/she can gain over many years. Station management over a long period of time will then be made possible. However, there are no dissertations that give an account of how to visualize improving administrators’ practices. The purpose of this research is to identify how to improve administrators’ practices.

Methods: The literature for identifying how to improve the practice of station administrators in Japan. Three types of databases, “Japan Medical Abstracts Society Web Ver. 5”, “CiNii”, and “The Current Web Index to Japanese Nursing Literature” were used. The keywords “home care nursing station”, “administrators”, and “practice” were searched (12/2016). Articles about the practice of stations were screened based on their title and abstracts. The full text was then purchased and meticulously read, and the articles to be used were determined. The analysis method was organized by purpose, research method (research subject, design, survey content), the definition of practice, and the elements of practice interpreted from the results.

Results: After eliminating duplications, conference minutes, and feature segments from the results of the keyword searches in each database, five target literature were extracted. In all the articles that used the concept of practice in their title, there was only one dissertation that defined practice. Although the definition of practice was not stated, there were three articles that set the prerequisites of an improved administrator in practice. The practice of an improved administrator has “ability to sympathize”, or ability to become close to family and patient, and “ability to perceive” and “ability to be intuitive”, or ability to detect a situation from a scene.

Implications for Practice: Benner (2001) says that an expert who puts things into practice has considerable experience, therefore he/she can understand each situation intuitively and generally, and target the problematic area appropriately. It is recommended that station administrators have that same ability. The literature review revealed the definition of the concept of practice, and the ability is limited to the content related to nursing. There was no account relating to station administrators. Hereafter, there is a need to reveal how administrations of long term stations are managing their practices.

Key Words: expert, visiting nursing station, administrators.
Effective Non-Pharmacological Interventions for Dementia as Perceived by Certified Nurses in Dementia Nursing and Senior Dementia Carers Qualified in Japan

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Purpose: While non-pharmacological interventions for behavioral and psychological symptoms of dementia are recommended as first-line therapies, many lack clear evidence or have no proven efficacy. At present, no consensus has been formed with regard to effective non-pharmacological interventions for patients with dementia. As such, identification of desirable components of non-pharmacological interventions for patients with dementia is needed. This study aimed to clarify the effects of non-pharmacological interventions for patients with dementia as perceived by dementia care specialists using the Delphi method.

Methods: Subjects: Subjects were dementia care specialists, including all certified nurses in dementia nursing and senior dementia carers qualified in Japan. Methods: A self-administered questionnaire survey was performed using the Delphi method. Questionnaire Items: The questionnaire comprised a total of 71 items including 22 items under the “complementary and alternative therapies” category, 22 items under “communication,” 4 items under “Incorporating familiar things,” 6 items under “support living function,” 2 items under “support social participation,” 3 items under “support communication with others,” and 12 items under “creation of an environment.” These items were extracted from previous studies of non-pharmacological interventions for dementia. Response Method: For each of the items listed above, participants were asked to indicate the level of importance on a 4-point Likert scale (1. Not important - 4. Very important). Ethical Considerations: This study was approved by the ethical review board of the Japanese Red Cross Hiroshima College of Nursing (approval number: 1602).

Results: A total of 1171 participants were included in this study (certified nurses in dementia nursing, 54.5%; senior dementia carers qualified, 42.2%). The recovery rate was 23.7% (n=277). The three highest mean scores were obtained, in descending order, for “adopt a calm attitude to patients” (3.91), “empathize with elderly patients with dementia” (3.83), and “express understanding for the feelings of elderly patients with dementia and not the details of their hallucinations or delusions” (3.81), all of which are items of “communication.” On the other hand, the lowest three mean scores were obtained, in descending order, for “Psychoeducation” (2.96), “memory extension” (2.79), and “memory training,” (2.78), all of which are items of “complementary and alternative therapies.” Overall, the scores for “communication” items tended to be high. As for “complementary and alternative therapies,” scores tended to be low, with the highest score (3.52) obtained for “music therapy or interactions utilizing music.”
**Implications for Practice:** Dementia care specialists perceived “communication” as being effective in patients with dementia, suggesting that this method is close to being established. On the other hand, they perceived “complementary and alternative therapies” as being less effective compared with other interventions. Further efforts will be needed to establish evidence for the effectiveness of these therapies.

**Key Words:** non-pharmacological interventions for dementia, dementia care specialists, the Delphi method.
Comparison the Effectiveness Between Cupping Therapy and Heating Therapy on Chronic Neck and Shoulder Pain

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Purpose: The study aimed to investigate the changes in heart rate variability (HRV), meridian resistance and length of time post intervention for the relief of chronic neck and shoulder pain (NSP) using cupping therapy (CT) and heating therapy (HT).

Methods: Participants comprised 48 volunteers with self-perceived NSP. The experimental group underwent CT at SI 15, GB 21, and LI 15 acupoints for 10 min, on both sides of the body for a total of 20 min. The control group was given HT for the neck and shoulder regions for 20 min. Post intervention, the changes in NSP, HRV, and meridian resistance were collected. Participants were evaluated over a 5 day period to evaluate efficacy of fire CT.

Results: The results show statistically significant difference in neck pain intensity before and after intervention when compared between the two groups. The CT group demonstrated greater significant differences than the HT group. The HRV in the CT group showed decreases in high frequency (HF), and increases some meridians resistance. The heating group demonstrated decreases in lower frequency (LF), HF, and increases some meridians resistance. However, there were no significance differences between groups in HRV, and meridian resistance.

Implications for Practice: Findings from this study suggest that cupping therapy is beneficial for relieving pain with no known adverse effects. It is essential for nurses to be educated about the use of CT for providing care to subjects with chronic neck and shoulder pain. This technique can be performed by nurses after appropriate training and is applicable to nursing practice.

Key Words: cupping therapy, heating therapy, chronic neck and shoulder pain, heart rate variability, meridian resistance.
PB7-01 Association Between Proton Pump Inhibitors Use and Spontaneous Bacterial Peritonitis in Cirrhotic Patients
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Purpose: The relationships between proton pump inhibitors (PPIs) use and spontaneous bacterial peritonitis (SBP) in cirrhotic patients are still controversial. We aimed to test whether frequent PPIs use was associated with increased occurrence of SBP in a cohort of cirrhotic patients from a large cohort in Taiwan National Health Insurance Database.

Methods: We performed a retrospective cohort study to analyze the incidence of SBP in cirrhotic patients with/without use PPI in a 12-year period (2000-2012). A total of 16,295 cirrhotic patients were identified. The patients were grouped into those patients with (PPI group, n=8,239) and without PPI use (non-PPI group, n=8,056). The incidence rates of SBP were determined. Adjustments for co-morbidities that may predispose to SBP, including hypertension, diabetes, hyperlipidemia, chronic renal failure (CRF), peptic ulcer diseases, gastroesophageal reflux disease (GERD), hepatic coma, hepatoma, and gastroesophageal varices were performed. Cox regression analyses were performed to compare the risk of SBP between the two groups.

Results: During the 12-year follow-up period, 710 and 449 SBP patients belonged to the PPI group and the Non-PPI group, respectively. The adjusted hazard ratios (AHR) of SBP in PPI group was higher (AHR: 1.51; 95% CI: 1.34-1.70; P < .05) than Non-PPI group during the 12-year follow-up. The occurrence of SBP was not related with the length of PPI use.

Implications for Practice: This population-based study reveals that PPIs use is associated with an increased risk of SBP in cirrhotic patients. The administration of PPIs should be careful in patients with advanced liver cirrhosis.

Key Words: cirrhotic patients, proton pump inhibitors, spontaneous bacterial peritonitis.
Factors Associated With Delay in Seeking Medical Treatment in Patients With Acute Myocardial Infarction

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Purpose: Early medical treatment is important for saving myocardium and improving prognosis in patients with acute myocardial infarction (AMI). While the “door-to-balloon time” of AMI has been largely shortened through the quality improvement process, increasing attention has been directed toward the potential delay in seeking treatment by the patient him/herself. In this study we aimed to sort out the factors associated with the delay in seeking treatment in patients with AMI, based on which further nursing care and patient education can be oriented and improved.

Methods: From June 1, 2015 to Jan. 31, 2016, the patients presenting with AMI (ICD-9 410.9) to a medical center in Taipei, Taiwan were included. The demographic and relevant clinical data were recorded. Based on a self-regulation model, information using a structured response-to-symptoms questionnaire were also collected. These data were then correlated with the time from symptom onset to seeking for medical treatment. Univariate analysis was first done. Those reaching \( p< .05 \) were then included in multiple regression analysis.

Results: A total of 201 patients (mean age 65.1 years old, male 79.6%) were included during the study period. There were 125 patients with ST-elevation MI (STEMI) and 76 with non-ST-elevation MI (NSTEMI). The time from symptom onset to medical treatment was 23.8 (0.4~739.5) h for STEMI and 46.6 (0.5~459.5) h for NSTEMI (\( p< .05 \)). In univariate analysis, history of hypertension (\( p< .05 \)), absence of chest pain or tightness (\( p< .05 \)), no typical radiation pain (\( p< .01 \)), no awareness of the symptoms due to heart problems (\( p< .01 \)), lower symptom severity (\( p< .001 \)), lower pain score (\( p< .001 \)), and families or caregivers instead of the patient him/herself as the decision maker (\( p< .05 \)) were associated with longer time to seeking treatment in patients with STEMI. For NSTEMI, diabetes mellitus (\( p< .05 \)), absence of chronic obstructive pulmonary disease (\( p< .01 \)), no awareness of the symptoms due to heart problems (\( p< .01 \)), concerns about the result of seeking medical help (\( p< .05 \)), and fluctuations of the symptoms (\( p< .05 \)) were associated with delay in seeking treatment. In multiple regression analysis, hypertension, absence of radiation pain, low symptom severity, and families or caregivers as the decision maker serve as independent factors for delay in seeking treatment. For NSTEMI, female gender and low symptom severity were independently associated with delay in seeking treatment.

Implications for Practice: In conclusion, multiple factors including past medical history, symptom characteristics, and patient’s self-awareness and perception were significantly associated with the delay in seeking treatment in patients with AMI. Patient and public education focusing on these factors should be launched in order to shorten the time of delay in these patients.
**Key Words:** Acute Myocardial Infarction delay in seeking medical treatment response to symptoms.
Purpose: To explore the influence and predictor of geriatric syndromes on long term Katz's Functional Index changes in older adult survivors from intensive care.

Methods: A prospective descriptive study. Convenient sampling method was used to recruit participants from two medical ICUs of a medical center in southern Taiwan. The inclusion criteria were 1) age ≥ 65 years old, 2) within 48 hours of admission to ICUs and GCS ≥ 10, able to provide information, 3) or have a primary caregiver to provide collateral information. Participants who died during hospitalization were excluded. Demographic data and health-related information and six most common geriatric syndromes (fall, pressure sore, delirium, urination incontinence, defecation incontinence and mobility problem) were assessed within 24 hours of ICU. Treatment strategy and medical outcome were recorded during hospitalization. Katz’s functional Index changes were collected at six points (upon ICU admission, leave the ICU, at discharge, post-discharge 1, 3 and 6 months).

Results: A total of 146 older adult patients (age 77.4±6.9, 47.9% male) participated in this study. The mortality rate after discharge six months follow-up was 48.4%. The Katz’s functional Index significant decrease from the baseline (9.31±3.6) to six months after discharge (6.43±4.3). The most frequent geriatric syndromes before hospitalization were urination incontinence (63.0%), followed by defecation incontinence (47.4%), mobility problems (39.1), fall (21.4%), at least once pressure sore (20.3%) and delirium (15.6%). Living in nursing home before hospitalization (β = -6.18, p < .00), APACHE score (β = -0.08, p = .02), used of ventilator during ICU period (β = -1.23, p = .01), before hospitalization pressure sore (β = -1.96, p < .00), delirium (β = -1.66, p = .01) and mobility problems (β = -2.45, p < .00) were significant predictor of Katz's functional Index decline among 6 months. Overweight (BMI ≥ 25.0 to < 29.9) (β = 1.94, p = .01) was the only one significant predictor of Katz's functional Index improve during follow-up.

Implications for Practice: Disease severity and treatment strategy during critical care influenced the mortality, long-term prognosis and functional status in older adult survive from intensive care have been confirmed. The impact of the geriatric syndrome is gradually being valued and discussed, but less attention in critical care field. This is the rare studies that described the geriatric syndromes how to influence and predict the long-term functional status changes in elderly who survive from intensive care. The finding suggested that geriatric syndromes, especially pressure sore, delirium, and mobility problems, may be as important as disease severity and treatment strategy were predictors of critical illness in older adults survives. Geriatric syndromes should be included in the intensive care admission assessment necessary items.

Key Words: Geriatric Syndromes, intensive care, older adults, Katz's Functional Index.
**Purpose:**
School nurses play a crucial role in promoting the health of students. In the face of this diverse professional role, school nurses frequently experience high stress. This paper discusses the current status regarding the perceived role and job stress of school nurses at elementary schools in Yilan, Taiwan; the relationship these 2 factors; and the antecedent factors regarding the effect of the role perception on job stress.

**Methods:**
A related questionnaire survey developed by Chen (2006) was administered to public elementary school nurses in Yilan in the 2016 academic year. A total of 79 questionnaires were distributed, 76 of which were returned (return rate: 96%, valid return rate: 100%). The survey data were analyzed through a descriptive statistical analysis, t test, one-way analysis of variance, Scheffé post hoc test, and Pearson’s product–moment correlation analysis.

**Results:**
The descriptive statistical analysis revealed that the school nurses had clear perceptions regarding their role; in particular, their perceived role as healthcare service providers attained the highest score ($M = 3.49; SD = 0.40$). Overall perceived job stress was acceptable ($M = 2.22; SD = 0.36$), with workload attaining the highest score ($M = 2.46, SD = 0.45$). Second, the nurses’ demographic and school background characteristics, such as in-service training status, managerial support, marital status, employment duration, and school district, significantly affected their perceived role and job stress ($p < .05$). Third, the correlation analysis showed that their overall perceived role correlated negatively with their overall perceived job stress ($r = −.34; p < .05$). Finally, regarding the antecedent factors, the perceived role as a healthcare service provider was the strongest predictive factor on the nurses’ interpersonal relationships ($R^2 = .162; p < .001$), professional competencies ($R^2 = .271; p < .001$), and overall perceived job stress ($R^2 = .147; p < .001$).

**Implications for Practice:**
Accordingly, school administrators are recommended to encourage school nurses to receive in-service training, provide school nurses with professional and diverse means for learning, and formulate systematic preservice and in-service training programs to improve the professional knowledge and skills of school nurses in elementary schools, strengthen their perceived professional role, and reduce their job stress.

**Key Words:**
school nurse, perceived role, perceived job stress.
PB7-05 The Experience of Nursing Students Using Mandala Thinking in Internship in Taiwan
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Purpose: Taiwan Nursing Accreditation Council (TNAC)(2010) has established eight core competencies for college nursing departments, few students could applied skills easily in their internship. Mandala, originated from Sanskrit, was the way of innovation brainstorming which could convert generic knowledge into applied wisdom and creativity, and flexibility of thinking when students were in the clinical setting. This study was to use creative thinking method, Mandala thinking, exploring the experience of nursing students in internship in Taiwan.

Methods: A qualitative study design was used. Mandala scripts were used to collect the experience of participants, and a sample of 8 nursing students (including 8 female students) currently studying at a nursing junior college in the northeastern Taiwan. All participants had clinical practice experiences for 3 months, but never learned Mandala thinking. Data were analyzed by content analysis method by Waltz, Strickland, & Lenz (2010). Clinical journal writings were transcribed into the procedural record.

Results: Based on participants practical experiences in the clinical setting, Analysis of interview showed two main themes, first theme was “Accumulation of professional competence”, included three sub-themes: 1.proactive clarify questions; 2.expand thinking; 3.improve reasoning and problem solving ability; Second theme was “Growth and Transformation”, included four sub-themes: 1. improve self-directed learning; 2.change their thinking process; 3. self-reflection.

Implications for Practice: The Mandala thinking allowed nursing students to understand and improve professional competence in clinical practical setting, especially encouraging them to think more logical about how to take care subjects, as well as applied the eight core competencies gradually. The results will be expected to provide nursing education, especially nursing curriculum, a new methods for students to learning nursing care.

Key Words: Mandala, nursing students, internship.
The Establishment and Effectiveness of the New Last Mile Model for the 2-Year Bachelor Nursing Program Students

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Purpose: The aim of this study was to establish an effective ‘Last Mile Model’ for the two-year bachelor nursing program students and to examine the effectiveness of job performance, stress perception, job satisfaction, and retention rates for new graduate nurses.

Methods: A quasi-experimental design and the purposive sampling were used. Students who graduated at 2014 academic year in a two-year nursing program at a university of science and technology in Taiwan were recruited in this study. For ethical considerations and interaction avoidance, 179 students in the north campus who participated in the new “Last Mile Model” clinical practice were assigned into the experimental group. 105 students in the south campus who participated in the traditional Last Mile clinical practice were in the control group. Data were collected at the end of the Last Mile clinical practice (pre-test) and 3-month after graduation (post-test). The instruments were used to collect data for two groups in this study including Job Performance Scale, Perceived Pressure Scale, and Nurses’ Job Satisfaction Scale. The retention rates were measured, too. To test the effectiveness of new “Last Mile Model” on outcome measures over time, the differences between group means were compared using the generalized estimating equations (GEE).

Results: GEE analysis showed that the decreased scores for means of perceived pressure in the experimental group were significant greater than the control group from pre-test to post-test (B = -0.47, p < .05). This result demonstrated that the new “Last Mile Model” effectively decreased the ‘perceived pressure’ of subjects at post-test. Also, the experimental group had higher retention rates than control group at the end of the Last Mile clinical practice and 3-month after graduation (69.9% vs. 57.1%, p < .05; 73.7% vs. 61.0%, p < .05). No significant differences in the job performance and job satisfaction scores existed between the experimental and control group subjects from pre-test to post-test.

Implications for Practice: The new “Last Mile Model” demonstrated a beneficial effect on the reduction of stress perception and promotion of retention rates. The findings can provide information for nursing schools to develop the Last Mile clinical practice curriculum and provide a reference of effective retention strategy for hospitals.

Key Words: last mile, job performance, stress perception, job satisfaction, retention rates.
Purpose:
Link-nurse is a system started in the UK. Link-nurses working in Japanese hospitals belong to each division of hospitals and disseminate decisions making with the hospital’s committee activities concerning their specialized fields to their staff. And they clarify problems in hospitals / each division, solve them and train the staff of each division. The purpose of this study is to clarify current state of link-nurse supporters and supports of nurse administrator in hospitals within one prefecture (hereafter referred to as “A pref.” ) in Japan to develop the educational program for link-nurse.

Methods:
1. Subject: Nurse administrators working in 142 hospitals within A pref. in Japan. 2. Data collection: Survey by mail was conducted using the questionnaire which was developed by ourselves. 3. Data analysis: Descriptive statistics was used to analyze the answers for closed-ended questions. To analyze the answers for open-ended questions, "questions and answer sentence for this research" was set, the record unit from original qualitative data was selected, and inductively classified upon similarity of meaning. Answers which was highly abstractive and not applicable descriptions in answers was removed. 4. Ethical considerations: Approved by Ehime Prefectural University of Health Sciences’ IRB (Approval number: 15-014).

Results:
1. overview: Eleven hospitals (26%) within 42 hospitals which sent back the questionnaire (collection ratio: 29.6%) had link-nurse system. Those hospitals had link-nurse supporters. The most popular supporter was head nurse in committee, followed by head nurses of their division. Also, the other popular supporter was certified nurse. The most popular supporter at large hospitals was head nurse in committee, followed by head nurse of their division and then certified nurse. At medium, head nurse in committee, followed by head nurse of their division, at small one, head nurse and vice-head nurse (leader) in each committee and division were popular. 2. supports from nurse administrator: Derived 45 codes as supports formed 14 subcategories, 5 categories. Those were as follows: “support to form awareness by role performance”, “support to promote participation to learning opportunities outside hospitals”, “financial assistance and work adjustment support”, “support to provide learning opportunities inside hospitals for knowledge / skill required for link-nurse”, “time adjustment for learning”.

Implications for Practice: It was clarified that link-nurse supporters were head nurse in committee or their division. At large hospitals they are supported by certificated nurses, at medium and small one, by head nurse and vice-head nurse (leader) in each committee and division. Therefore, it is difficult to say they provide sufficient human resource environment concerning link-nurse support. Also, it was clarified that nurse administrator creates environment where link-nurse can easily work. However, there weren't descriptions clearly to identify mental support for link-nurse. We can assume that the other person might mentally support for link-nurse except nurse administrators. It will be necessary to identify the state of
supports from the perspective of link-nurse.

**Key Words:** link-nurse, educational program, supporter.
PB7-08 The Relationships Between Personality Traits, Nursing Images, and Work Values Among Taiwanese Baccalaureate Nursing Students
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Purpose:
To explore the interrelationships among nursing students’ personality traits and their perceptions on images of nursing and work values.

Methods:
A cross-sectional design involving 164 junior and senior baccalaureate student nurses in Southern Taiwan was employed. Surveys, completed anonymously, contained four categories: demographic characteristics, the Chinese version of the short-form revised Eysenck Personality Questionnaire (Liao, 2001), the Chinese version of the Revised Nursing Image Scale (Yu & Ma, 1992), and Adolescents' Work Values Inventory (Li & Ou, 2011). Internal consistency, measured via Cronbach’s Alpha, ranged from .042 to .722 on the dimensions of extraversion, neuroticism, lying, and psychoticism on the personality questionnaire, .724 to .902 on the dimensions of lay, traditional, and advanced professionals on the nursing image scale, and .856 to .942 on the dimensions of beyond, realistic, growth, respect, organization, relationship, security, and comfort on the work values inventory. The first four dimensions of the work values inventory represented intrinsic values, while the latter four dimensions represented extrinsic values. Descriptive statistics, Pearson correlation coefficient, and stepwise multiple linear regression analyses were carried out through SPSS 18.0.

Results:
Highest and lowest scores were recorded on lying personality ($M \pm SD = 7.14 \pm 2.00$) and neuroticism personality ($M \pm SD = 5.45 \pm 2.64$). Most students perceived nursing as advanced professionals ($M \pm SD = 51.02 \pm 5.54$), with fewer perceiving them as lay ($M \pm SD = 30.81 \pm 4.52$). Students perceived security ($M \pm SD = 30.24 \pm 4.98$) and beyond ($M \pm SD = 24.38 \pm 5.14$) as their most and least important work values. The personality trait of extraversion was significantly positively correlated with perceptions of nurses as traditional and advanced professionals, and also with work values of beyond, growth, and relationship ($p < .05$). Additionally, the personality trait of psychoticism was significantly positively correlated with the perception of nurses being traditional and with the work value of growth ($p < .05$). The study found that extraversion and satisfaction toward the clinical practice arrangement not only explained 15.0% of the variance in predicting students’ intrinsic work values ($p < .001$), but also accounted for 8.4% of the variance in predicting their general work values ($p < .001$). It also showed extraversion and family encouragement as the reason for admission explained 6.4% of the variance in predicting students’ perceptions of nurses as traditional and advanced professionals ($p < .05$).

Implications for Practice: It is important for nursing educators to assist extroverted students to find satisfaction with the clinical practice arrangement and enforce their positive nursing images, as doing so could shape their intrinsic and general work values. Nursing administrators could consider strategies to enhance newly graduated extroverted graduates’ intrinsic work values in order to attract and retain them in the nursing workforce.

Key Words: personality trait, nursing image, work value, nursing education.
PB7-09 Intervention In Creativity With Nursing Students in Taiwan: Impact of a Capstone Course on Creativity Enhancement

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Purpose: The purpose of this study was to evaluate the effects of creativity capstone course with intervention on nursing students’ creativity enhancement.

Methods: A quasi-experimental, two-group, repeated measures design was used to compare creativity for students who took 18 weekly creativity capstone courses with learning resources intervention \( (n=39) \) or without intervention \( (n=39) \). This study used quantitative and qualitative approaches. The learning resources intervention included the competition of creative products implementation, invitation for intellectual property rights experts, clinical experts, and design experts for their advices on students’ creative products. Creativity was measured, before and after course using a standardized assessment of creativity: the Torrance Test of Creative Thinking (TTCT) scores of 4 creative thinking indicators namely fluency, flexibility, originality, elaboration. Explanatory variables were measured, before and after course including creative personality inventories and creativity learning environments. In addition, we used self-reported creative thinking abilities scores from the course feedback of experimental group of students to examine whether their creative thinking abilities increased after the courses were taken.

Results: Compared to the control group, the results of generalized estimating equations (GEE) reveal that the experimental group has the significantly lower scores of flexibility \( (p< .05) \) and elaboration \( (p< .01) \). Interestingly, self-reported creative thinking abilities from the course feedback of experimental group of students told a different story. They reported increased scores on their creativity. In addition, the results from GEE indicate that creativity learning environments have significantly positive effects on fluency \( (p< .05) \) and originality \( (p< .05) \). However, creative personality inventories have no significant positive effect on creativity.

Implications for Practice: The results shown in GEE are not consist with students’ course feedback of experimental group in creative thinking abilities may imply it is important to develop measurements of creativity focusing on specific domains such as nursing when assessing nursing students’ creative thinking abilities. The results from GEE also reveal the important implication that the creativity learning environment should take into consideration when designing the curriculum of nursing creativity capstone course.

Key Words: creativity, learning resources intervention, nursing students, capstone courses, GEE.
Purpose:
The Code of Ethical Practice for nurses states, “Nurses should work toward promoting the maintenance of their own mental and physical health to provide higher quality nursing care.” However, students in university level nursing departments in Japan tend to have poorer diets than when they were in high school, leading to health problems such as anemia. Thus, we implemented a program designed to improve the ability of university level nursing students to manage their diets through a peer support method, and we investigated the effectiveness of this program.

Methods:
Subjects: In total, 20 female nursing students of 32 students in the Department of Nursing at A University were included. All subjects gave their consent to participate in this study, and all entered the university in 2012 and were living alone. Study period: November 2012 to May 2013 Methods and contents: The study subjects were divided into control and test groups, each with 10 individuals. Those in the test group completed a single meal survey and three student group meetings (60 min each). All subjects completed questionnaires regarding breakfast intake, behavior modification stage, diet management self-efficacy, subjective health assessment, and diet-related quality of life (QOL) at the start of the program, after 3 months, and after 6 months. Physiological data, such as height, weight, body mass index, muscle mass, and somatic fat rate, as well as bone density were measured at the start of the program and after 6 months. Analytical methods: Data were analyzed for the 10 individuals in the control group and 8 individuals in the test group who completed the 6-month program. The analytical software used was SPSS 20.0. We compared the control and test groups using t tests or Wilcoxon matched pairs tests. Ethical consideration: The researcher had no conflict of interest and ethical issues were in place to keep research participants safe and protected and data confidential. The Research Council of A University approved the study.

Results:
Compared with the control group, the test group showed marked improvement in self-efficacy in diet management, a change in eating behaviors toward more frequent intake of green and yellow vegetables, and an increase in the behavior modification stage was observed in 75.0% of the subjects. In addition, improvements in subjective assessments of health, increase in muscle mass improving in excessive thinness, and significant improvement in diet-related QOL were observed (p <.05).

Implications for Practice: This study elucidated the benefits of providing university level nursing students with opportunities to exchange opinions and information regarding diet with other students in the same residential and learning environments. Specifically, students were able to reflect on diet as a way to maintain their own health, which improved their ability to manage their diet. These results suggest that our program can help mitigate the diet-related health problems of students in the nursing departments of universities.

Key Words: nursing students, dietary education, program, support.
The 2nd Asia-Pacific Nursing Research Conference

REGULAR POSTER
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P1-093  C11-396  The Adjustment Process of New College Nursing Lectures
Hui-Wen Wu, Shu Zen College of Medicine and Management, Taiwan
Purpose:
The purpose of this study was to understand the experiences and views of nurses in emergency departments (ED) regarding workplace violence against them. Workplace violence has been identified as one of the most serious issues worldwide. Nurses who work at in eds are in the highest risk group for violence. Workplace violence in an ED can occur for many reasons. To date, there are limited studies that have focused on the issue of workplace violence in the ED.

Methods:
The qualitative approach was chosen to identify and describe the experiences of nurses who had encountered ED violence. Twenty nurses from three EDs in Taiwan were asked to describe their experiences and understanding of being a victim of ED workplace violence. Semi-structured interviews were audio-taped and later transcribed verbatim. The data analysis process focused on identifying and describing the experiences and understanding of these nurses.

Results:
The findings of this study include the following four categories of description. Nurses experienced and viewed ED violence as “a direct threat on life,” “a continued nightmare,” “a part of daily life,” and “a factor that diminished their passion for delivering emergency care.”

Implications for Practice: ED violence adversely affects the physical, psychological, social, and professional aspects of nursing. It is essentially a kind of bullying of emergency nurses. The findings of this study will help nursing educators to organize in-services training programs, hospitals and administers to improve the safety of ED environments, and legislatures to establish policies to make EDs safe workplaces for all staff.

Key Words: workplace violence, emergency nursing, phenomenography.
Purpose: Resignation of basic nursing staffs is always an important issue in hospital management. Demographic change has deepen the problem. This study is trying to estimate the length of stay of basic nursing staffs, based on divisions, gender, age, religious, married status, education, job experience and reasons for resignation. We try to understand the factors that affect length of stay by analysis these elements.

Methods: We perform regression analysis on 113 resigned nursing staffs from 2014-November to 2016-october. Data are collected from database of nursing division of Shuang-Ho Hospital, each resignation is supplied with reason of resignation. cross-sectional correlation method has been applied in the analysis.

Results: We found that 1. Division, gender, age, religious, education and job experience is not correlated to length of stay, while 2. Married status is correlated to affect length of stay (R²=.200, F change value=4.616, p=.034), and 3. Resignation reasons is significantly affect length of stay (R²=.299, F change value=10.883, p=.001). 4. A regression analysis on married status and resignation reasons shown that only resignation reasons is significant in prediction of length of stay (beta=0.513, p=.004). Among all resignation reasons, length of stay of “unfit to job” is shortest, other reasons, in order of length of stay, are health, family, personal, commute. Staffs which consider nursing as career stay longest.

Implications for Practice: We suggest that hospital should treat staffs with different resignation reasons differently in order to persuade them to stay, especially staff with unfit problem. Management staffs should encourage and emphasis on basic skill of unfit nursing staffs.

Key Words: length of Stay, basic staffs, nursing.
The Experiences and Scope of Practice and of the Nursing Practitioner in Taiwan - A Qualitative Study

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Tauyuan General Hospital, Ministry of Health and Welfare,

Chin-Yen Han  
Chang Gung University of Science and Technology,

Chun-Chih Lin  
Chang Gung University of Science and Technology,

Purpose:
The purpose of this study was to identify and describe the experiences of nurse practitioners in Taiwan, to understand the qualitatively different ways in which they view their scope of practice. Nurse practitioners play an important role in the healthcare system. The literature indicates that they face problems in terms of role positioning, and in the lack of both legal practice guidelines, and peer support. These issues may result in their care being devalued and in nurse practitioners not being given full authority to perform the roles of their profession, which could affect the quality of care they provide.

Methods:
The qualitative approach of phenomenography was used in the study. Eighteen nurse practitioners were recruited from two hospitals between May and August 2016. The inclusion criteria were nurse practitioners aged 20 years or over who were providing direct care to patients. Semi-structured interviews were used for data collection. The seven steps of qualitative data analysis for a phenomenographic study were employed to develop an understanding of the participants’ experiences and concerns.

Results:
The experiences and understanding of nurse practitioners with respect to their scope of practice include five categories of description and represent different levels of professional practice. These are “assisting with medical administrative work,” “providing routine care,” “being responsible for accountability,” “offering autonomous nursing practice,” and “demonstrating professional nursing care.”

Implications for Practice: The results of this study provide assistance in understanding the experiences of nurse practitioners in their practice and establish theories regarding their scope of practice and care models. The findings from this study will provide the evidence for future policy-making regarding the professional practice of nurse practitioners.

Key Words: nurse practitioners, scope of practice, phenomenography.
To Explore the Reasonable of Nursing Hours in Acute Ward of Hospital in Taiwan

Chiou-Fen Lin  National Taipei University of Nursing and Health Sciences, Taiwan
Meei-Shiow Lu  Taipei Medical University, and Chairperson of Board of Controllers, Taiwan Union of Nurses Associati, Taiwan

Purpose: The purpose of this study was to explore the reasonable of nursing hours in acute ward of hospital in Taiwan.

Methods: This research methods including systematic review of literature, survey, expert focus group discussion and nurses consensus.

Results: The result of this study indicated that there were differences in nursing manpower allocation among medical centers, regional hospitals, and local hospitals. The consensus was that the standard of nursing manpower allocation should be based on nursing hours.

Implications for Practice: Suggest the currently nursing hours should be 2.8 hours for medical centers, 2.6 hours for regional hospitals, and 2.1 hours for local hospitals with at least 50 beds. Three years later, the nursing hours should be increased to 3.0 hours for medical centers, 2.8 hours for regional hospitals, and 2.3 hours for local hospitals with at least 50 beds. Five years later, the nursing hours should be further increased to 3.2 hours for medical centers, 3.0 hours for regional hospitals, and 2.5 hours for local hospitals with at least 50 beds.

Key Words: nursing hours, acute ward, nursing manpower.
**Purpose:** Improvement in medical care has led to higher demand of hospital services. This increases the workload of nursing staff in health facilities that are often seen as a work place full of stress. The aim of the study was to explore nurses’ work stress and the predicating factors.

**Methods:** Data were obtained from a cross-sectional study of nurses working over six months in a regional hospital in New Taipei City. A total of 400 questionnaires were sent with 367 returned (a response rate of 91.7%). After eliminating 25 invalid questionnaires, the study studied 342 copies of valid questionnaires. The components of the structured-questionnaire included demographic data and the work stress measurement scale. Four categories under work stress scale included personal reaction, attention in work, capability and failure in task completion. Higher scores indicated greater stress. Frequencies, percentages, means and standard deviations were obtained to represent descriptive data while one-way ANOVA, t test, Pearson correlation and scheffe were performed for inferential statistics analyses.

**Results:** The result showed that the average score for work stress in one month was 76.45±18.83, indicating a mid-level stress. The highest average score for attention in work was 27.89±7.05. Under this category, “shortage of staff” had the highest score (3.63±1.19), followed by “report filing” (3.27±1.29). Significant difference was found in nurses with children \((t= .84, p< .01)\), of different ages \((r= -.12, p= .03)\) and in individual reactions. There was a significant difference in capability among nurses of different ages \((r= -.14, p= .03)\). There was also a significant difference in failure in task completion among participants of different work experiences \((r= -.14, p= .03)\).

**Implications for Practice:** Health facilities should pay attention to the work stress faced by nursing staff. For entry level younger nurses, there should be ways to help them cope with stress. Senior staff could play a role in guiding junior staff to manage their time. Understanding the working condition and requirements, nursing staff should attempt to lower work stress by improving their professional skills and adapt to the environment with a positive attitude.

**Key Words:** work stress, nursing staff, cross-sectional study.
Application of Data Mining Decision Tree Model to the Study of Nursing Staff in Hospital and its Related Factors

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Hui-Chen Hus  Department of Nursing, Chiayi Branch, Taichung Veterans General Hospital, Taiwan
Bi-Chen Chen  Department of Nursing, Chiayi Branch, Taichung Veterans General Hospital, Taiwan

Purpose: To investigate the relationship between learning styles and related factors and to arrange appropriate departments to improve the self-affirmation of nurses and to enhance the retention rate of nursing staff.

Methods: Step1. The study design and object: In this study, a cross-sectional correlation study was designed to facilitate the sampling of a teaching hospital in southern Taiwan. The structured questionnaire was used as the research tool. All the nurses who participated in the advanced system of professional competence were excluded. Time nurses, internship nurses and research nurses, and are willing to participate in this study are accepted object. Step2. Data collection process and research ethics: To ensure the rights of the subjects, the research team first applied for review by the human trial ethics committee of the hospital study review panel. The investigator then explained the purpose of the research to the study participants, obtained the consent of the study participants and signed the consent form. May terminate participation at any time. Step3. Research tools and data analysis: (1) The basic attributes: age, level of age, education, marital status, children, rank, license and other demography information, service years, work experience. (2) The demographic data and the Memetic Learning Scale were used to assess. Step4. The data of the collation and analysis: The data were analyzed statistically by spss 18.0, and descriptive statistics, chi-square test, t-test and logistic regression were used to analyze the data.

Results: The results were analyzed according to the type of study and different types of learning styles, and the results of the study were applied to the criteria of the new staff distribution unit. It is hoped that this study will be effective in the reference of the new staffing units, thus enhancing the self-affirmation of job satisfaction and retention rate.

Implications for Practice: In addition to this result can be used as nursing department of nursing units assigned to the reference, but also help clinical care managers understand their learning style, clinical teachers to teach students in accordance with their ability to provide appropriate teaching methods to enhance the learning outcomes of nurses and produce more interest in learning, increase job satisfaction and enhance retention.

Key Words: nursing staff, learning style, retention rate.
P1-007 Relationships Between Organizational Climate, Job Satisfaction and Practice Outcomes of Taiwan Nurse Practitioners
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Shiow-Luan Tsay College of Nursing & Health Sciences, Da-Yeh University, Taiwan

Purpose: Currently, there are 6414 certified nurse practitioners (NPs) in Taiwan providing medical and nursing services in health care organizations. Their roles and functions have been gradually recognized and affirmed by the medical profession and the public. However, the working environment affects the health care providers' job satisfaction and the care quality that patients received, and the related research is rare. Therefore, the purpose of this study is to explore the relationships between organizational climate, job satisfaction and practice outcomes of taiwan nurse practitioners.

Methods: This study is a descriptive and exploratory designed. Participants are certified nurse practitioners in Taiwan. The sample is estimated by g-power, and the sample size needs 246 NPs for reaching 80% power of study. The research tools include: basic data table, The nurse practitioner primary care organizational climate questionnaire, misener nurse practitioner job satisfaction scale, and the nurse practitioner practice outcomes scale. Data will be collected after receiving research certification from ethics committee of a medical center. Data will be collected through the website of taiwan association of nurse practitioners. SPSS 22.0 statistical software is used to record and analyze the data. statistical methods include descriptive statistical analysis and inferential statistics, and statistical analysis based on research hypotheses.

Results: The results of this study will be summited in the near future.

Implications for Practice: We hope that the results of this study will provide a reference for nurse practitioner practicing in health care organizations.

Key Words: nurse practitioner, organizational climate, job satisfaction, practice outcomes.
P1-008  A Study on Personality Traits and Teaching Effectiveness of Clinical Nursing Preceptors - in Regional Teaching Hospitals  
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Purpose: Clinical nursing preceptors are essential for new nurses to cope with clinical situations and stresses. They help the new nurses in aspects of clinical skills and environmental adjustments, so that the new nurses can be much stabilized in the beginning of their professional carriers. This study aimed to explore the major predictive factors for teaching effectiveness, so as to provide suggestions to the selection and training of clinical nursing preceptors.

Methods: The research subjects were 183 clinical nursing preceptors who have been working for more than three years in regional teaching hospitals by descriptive research method. Data on demographic characteristics were collected, and two instruments, including Big Five Questionnaire and Teaching Effectiveness Questionnaire were assessed.

Results: The average score on personality traits of clinical nursing preceptors was highest in agreeableness, followed by conscientiousness, and lowest in emotional stability. The average score on teaching effectiveness was highest in professional competence, followed by teaching evaluation, and lowest in teaching self-efficiency belief. Conscientiousness and openness to experience in personality traits of clinical nursing preceptors combined with willingness to be a clinical nursing preceptor and working in critical care department explained 53% of the total variance of the teaching effectiveness. Among which, conscientiousness individually explained 40% of the total variance with highest correlation.

Implications for Practice: Nursing managers in the selection of clinical nursing preceptors, in addition to taking into account the expertise, can be considered by measuring the level of personality traits and taking into account the willingness and the wanted division of preceptors, and will incubate appropriate clinical nursing preceptors as well as improve teaching effectiveness.

Key Words: clinical nursing preceptors, personality traits, teaching effectiveness.
P1-009  
To Explore the Correlation Between Professional Quality of Life, Perceived Health and Intention to Stay Among Registered Nurses in Two-Year Trained Program

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Purpose:  
The purpose of study is to explore the correlation between professional quality of life, health and intention to stay among two-year trained program registered nurses.

Methods:  
The study design is a cross-sectional study. Purposive sampling will be conducted at a medical center in a center Taiwan. A total of 120 nurses will be recruited. The measurement is self-reported questionnaire including the professional quality of life scale, proqol composed of 30 items: perceived health from SF-36; and level of intention to stay.

Results:  
The data will be analyzed by the purpose of study. number of distribution, percentage, mean and standard deviation to describe the participants’ characteristics and the scores of each scale, independent sample T test, one-way anova, and pearson correlation will be used to analyze the difference and correlation. And regression will be tested for predicted factors of intent to stay in two-year trained nurses.

Implications for Practice:  
The result will reveal the correlation between the professional quality of life, perceived health and intent to stay among registered nurses in a two-year trained program. The result could be used in improving the training of medical personals, and providing references for training of clinical professionals.

Key Words:  
nursing professional quality of life, perceived health, intention to stay.
Effects of Caring Consultation on Work-related Frustration and Intention not to Leave in Novice Nurses

Purpose: The purpose of this study was to examine the effects of the caring consultant on work-related frustration (WRF) and intention not to leave in novice nurses.

Methods: The quasi-experimental with two group and pre-test and post-test study design was conducted. The participants were the novice nurses just graduated from nursing schools. Using simple randomize sampling method, eligible nurses were assigned to the caring group ($n=50$, receiving caring consultation and usual training) or the control group ($n=50$, receiving usual training), outcome measurements included WRF scale (three subscales; Interpersonal interaction, resource utilization, and job arrangements; a higher score indicated a higher frustration), intention not to leave, and personal characteristics. The base line data was collected at the first day of training course, and the post-test was at the third month after new nurse registered.

Results: Participants in caring group reported significant and lower overall WRF score than those in control group ($p<.001$) particular in the interpersonal interaction dimension. However, there were no significant difference on other two subscales and intention not to leave between two groups.

Implications for Practice: This study demonstrated that caring consultation is beneficial to reducing the level of WRF; for novice nurse, especially in interpersonal interaction dimension. These results could recommend for nursing manager to assist novice nurse in developing interpersonal interaction during the adaptation period.

Key Words: novice nurses, work-related frustration, intention not to leave, caring consultation.
Purpose: Among working individuals, nurses often have lower back pain. Its causes include psychosocial factors such as the climate in the workplace. This study sought to ascertain the relationship between whether nurses had lower back pain and the organizational climate at acute care hospitals.

Methods: Three hundred acute care hospitals were randomly selected from 1,777 such hospitals in Japan, and 2,308 ward nurses working at 32 hospitals were surveyed by questionnaire in October 2015. The anonymous, self-administered questionnaire included 38 questions from an organizational climate scale (OCS) that was created previously (Kawase et al., 2013) and asked whether one had lower back pain and demographic characteristics. Responses were received from 808 nurses, and a total of 689 complete responses were analyzed. A factor analysis of the OCS was performed to gauge how nurses perceived the organizational climate where they worked, and the reliability and validity of the OCS were examined. The relationship between whether one had lower back pain and subscales of the OCS was examined using a Mann-Whitney U-test and binomial logistic regression analysis. Statistical analysis was performed using SPSS ver24. This study was approved by the research ethics committee of the Department of Nursing, the University of Shimane.

Results: Valid responses were received from 653 females and 36 males with a mean age of 35.9±9.5 years and an average of 12.9±8.9 years of experience. Six hundred and 10 subjects had lower back pain while 79 did not. One question with differing responses based on the organizational climate and 3 questions with a factor loading of less than 0.4 were excluded. According to factor analysis, organizational climate consisted of 7 factors: Leadership of Head Nurses, An Oppressive Workload, Beneficial On-the-job Training, Staff Indifference, A Constructive Atmosphere, An Atmosphere Conducive to Research, and Unjustified Appraisals of Nurses. Cronbach’s α for each ranged from 0.73-0.84, and factors were used as subscales. A Mann-Whitney U-test indicated that subjects who had lower back pain had significantly higher scores (p<.01) for Staff Indifference and unjustified appraisals of nurses. Subjects who did not have lower back pain had a significantly higher score (p<.05) for a constructive atmosphere. Binomial logistic regression analysis revealed that the score for Unjustified Appraisals of Nurses differed significantly (odds ratio: 2.36, 95% CI [1.48, 3.76], p<.001) depending on whether one had lower back pain.

Implications for Practice: Nurses with lower back pain tended to perceive the organizational climate as one that precluded cooperation from or justified appraisals by nurses or others while nurses who did not have lower back pain tended to perceive the organizational climate as one that facilitated constructive discussions. An organizational climate featuring justified appraisals by others and transparency can help to prevent lower back pain among nurses in an acute care hospital. This study was part of research supported by the Health Science Center Foundation.

Key Words: nurse, acute care hospital, organizational climate, lower back pain.
P1-012  Creating Positive Working Environment to Reduce Turnover Rate of Nursing Staff
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Yun-Siou Liao  Lee General Hospital, Taiwan

**Purpose:** The current nursing shortage is related to difficulty recruiting young nurses, and high turnover rate in Taiwan. Nurses’ working conditions have been associated with medication errors and falls, increased deaths, and nosocomial infection. The purpose of this study is to creating positive working environment to reduce turnover rate of nursing staff.

**Methods:** We divided the study into two periods: the baseline period was between January 2011 and December 2012, and the intervention period was between January 2013 and December 2015. Interventions of positive working environment were done, which included (1) leadership continuing education of head nurses, (2) holding travel, birthday party, (3) salary increase, (4) strategies for continuing education and upgrading, (5) sufficient equipment and supplies, and (6) streamline processes and safe environment. Data analysis was performed with 17.0 SPSS software. Comparison between study periods was performed using $\chi^2$ statistic for turnover rate of nurses.

**Results:** Overall turnover rate improved from 1.4% to 0.5% ($\chi^2=23.02$, $p<.05$). Leadership continuing education of head nurses increase from 6 to 16 hrs/year.

**Implications for Practice:** This study showed creating positive working environment to reduce turnover rate of nursing staff.

**Key Words:** positive working environment, turnover rate of nursing staff.
**P1-013**  
**Stress and Satisfaction of Emergency Nurses From Social Network Viewpoint: A Case Study of a Medical Center in Southern Taiwan**  
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**Purpose:** Acute and severe medical environment is the workplace full of work pressure. Nurses need to not only take care of the patients, but also work with family members and colleagues. Over time, the pressure they encounter is often multi-directional, which is often from the patients and medical colleagues. Research shows that interpersonal support is a function of social networks. Interaction with people can improve job satisfaction, and it can help individuals adapt to life and ease work pressure. This study attempts to analyze the impact of the position of emergency nurses in the social networks and their impact on job stress and job satisfaction from the perspective of Social Network. Administrators can take this measure to understand the source of care work pressure so that they can manage and make appropriate adjustments.

**Methods:** A cross-sectional survey was conducted by using the structured questionnaire (and IRB review) used by Zeng (2012), using research framework and hypothesis, path analysis and statistical methods, partial least squares and PLS as analytical tools.

**Results:** The social network of emergency nurses can effectively derive organizational citizenship behavior, and through direct and indirect form, resulting in "altruism", thereby enhancing job satisfaction and reduce the work pressure of nurses. The strength and direction of the relationship between the variables are analyzed by the path coefficient: the hypothesis is established; and the degree of correlation of each facet is higher than the significant level.

**Implications for Practice:** The study found that the emergency care staff for special units, the environment often co-operation opportunities with others, such as first aid, more opportunities to work, not only get a sense of accomplishment, so feel the job satisfaction is also higher. Colleagues in the minimum wage satisfaction programs, showing that the hospital's pay and benefits system is still nearly 20 years, the most unsatisfactory factors in the work of nurses, which is worthy of hospital managers to think about how to retain the focus of human care. The study found that the emergency care staff for special units, the environment often co-operation opportunities with others, such as first aid, more opportunities to work, not only get a sense of accomplishment, so feel the job satisfaction is also higher. This study demonstrates that the higher the organizational citizenship behavior, the lower the work pressure; the lower the job stress, the higher job satisfaction; the OCB will positively affect the job satisfaction. The main limitation of this study was that the sample was only from a southern medical center and suggested that the study could be extended vertically up to the staff of various medical institutions or parallel to the nurses in the emergency department of other institutions to carry out large-scale.

**Key Words:** social networks organizational citizenship behavior work stress.
Job Demands on Hospital Nurses and Workplace Well-Being

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Purpose: This research aimed to examine the relations between job demands on hospital nurses (workload, cognitive, emotional and sensory demands) and workplace well-being (job satisfaction, employer’s respect for employees, care for employees and work intrusion upon private life).

Methods: This research adopted a cross-sectional questionnaire survey to collect data from nurses of two hospitals. Three hundred and twenty valid questionnaires were received, accounting for a response rate of 94.12%.

Results: Nurses with different background variables showed significant variations in their job demands and workplace well-being, i.e. cognitive demands were lower among nurses under age 30 than those over age 40($p < .05$); the unmarried had greater awareness towards workload and emotional demands than the married($p < .05$); managerial staff had greater awareness towards workload and cognitive demands than the others($p < .05$); and nurses working two shifts had greater awareness towards intrusion of work into their private life than their non-shift co-workers or those working three shifts($p < .05$). Job demands and job satisfaction of nurses showed significant negative correlations ($p < .5$), reflecting that the more demanding the job, the less satisfied the staff; work intrusion and private life showed significant negative correlations ($p < .001$), meaning that the more demanding the job, the more severely influenced the staff’s private lives; overall workplace well-being and workload showed significant negative correlations ($p < .001$), meaning that the less the workload, the more the overall workplace well-being; overall workplace well-being and emotional demand showed significant negative correlations ($p < .001$), indicating that the less emotionally demanding the job, the higher the workplace well-being; job demands and overall workplace well-being showed significant negative correlations ($p < .001$), indicating that the more demanding the job, the less the workplace well-being. Regression analysis showed that emotional demand was a negative predictor of employer’s respect for its employees ($p < .001$), meaning that the more emotionally demanding the work, the lower the staff’s sense of respect from the employer.

Implications for Practice: The results of this research can serve as a reference for hospital managers as regards providing their nurses with appropriate support and substantial care.

Key Words: job demands, workplace well-being, nurses.
**Purpose:** Retaining employees depends on the effective management of managers. The leadership skill of the manager has a significant impact on the satisfaction of their jobs. Management competences refer to the knowledge and skills required for supervisors to perform specific duties or roles. Trustworthy are those in which the employee feels that the supervisor is trustworthy in their words and deeds and is willing to trust the supervisor. This study was designed to investigate the relationship between nurses’ perceptions of management competence and trustworthiness of head nurses, so as to improve nursing administrative ability.

**Methods:** This was a cross-sectional study using a convenience sample. The data were collected by applying questionnaires of structural “manager’s management competence scale” and “manager’s trustworthiness scale”. The manager’s management competence scale is divided into 6 factors: ability of organization, ability of planning, ability to control, leadership skills, ability of development, and employment relationship management; the cronbach’s α coefficient is .99. The manager’s trustworthiness scale consists of integrity, consistency, benevolence and ability; the cronbach’s α coefficient is .95. Data were collected on March, 2016 at a regional hospital in southern Taiwan. The number of participants was 280, and the overall response rate of the nurses was 97.2%. The SPSS software was used for statistical analysis on the data. The statistical techniques used in this study were descriptive statistical analysis, analysis of variance, and Pearson correlation to process information.

**Results:** The followings are the main findings of this study: 1. The “ability to control” aspect was ranked top one in management competence of head nurses, and the “benevolence” was ranked top one in trustworthiness of head nurses. 2. The head nurses’ management competence and the head nurses’ trustworthiness had positive correlation. The better the nurses thought the head nurses’ management skills were, the more trustworthy they thought the head nurses were. 3. There was no significant difference among age, education level, civil services, work experiences and the competence and trustworthiness of the management.

**Implications for Practice:** This study provides reference for head nurses to introspect on and adjust their management style. Moreover, it also points out some basic ideas of planning training programs for nurses management.

**Key Words:** nursing staff, management competence, trustworthiness.
P1-016 Relationship Between Nurses’ Work Stress and Well-Being: A Case Study of Two Teaching Hospitals in Taoyuan

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Purpose: The retention of nurses has been a mounting challenge for the health care industry in Taiwan. Because Taiwanese nurses encounter work stress for various reasons, determining whether improving their well-being can increase their retention warrants investigation. Thus, this paper explored the relationship between nurses’ work stress and well-being.

Methods: A cross-sectional, correlational design was adopted in which a structured, close-ended questionnaire was administered to a purposive sample of two teaching hospitals in Taoyuan in northwestern Taiwan from January 11, 2016, to March 25, 2016. The questionnaire comprised a demographic information form, a scale about the stress of Taiwanese nurses, and a Chinese well-being inventory. In total, 187 valid responses were obtained. Data were analyzed through descriptive statistics, chi-square tests, Pearson’s correlation, one-way analysis of variance, and linear regression.

Results: Notably, higher stress was associated with lower overall well-being ($p < .001$), higher religious participation was associated with lower overall well-being ($p < .05$), and higher monthly salary was associated with higher overall well-being ($p < .05$). In addition, nurses working in the regional teaching hospital reported significantly lower well-being for the dimension of achievement on the questionnaire, than those in the local teaching hospital ($p < .05$).

Implications for Practice: Given the significant relationship between nurses’ work stress and well-being, and the noticeably lower achievement-related well-being among the nurses of a regional teaching hospital than of a local hospital, interventions should be implemented to improve the well-being of regional teaching hospital nurses, thereby increasing their retention.

Key Words: nurse, work stress, well-being.
A Study on the Factors Associated With Occupational Burnout Among Married Female Shift Working Nurses

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Purpose: The purpose of this study is to investigate the influence of work-family conflict, social support and occupational burnout among married female shift working nurses.

Methods: This is the correlation for the cross-sectional study design, the object of study is the married female shift working nurses in a medical center in Taipei. A convenience sampling of 136 nurses was selected, and were invited to complete a structured questionnaire, with a recovery rate of 88.89%. The research tools include "Work-Family Conflict Scale", "Social Support Questionnaire", and "Occupational Burnout Inventory". With the use of statistical analysis software, SPSS 19.0, a descriptive statistics, independent-samples t-test, one-way ANOVA, Pearson’s correlation, and multiple regression were carried out for statistical analysis.

Results: Results of the research showed: (1) the level of work-family conflict and social support for married female shift working nurses were both moderate high-level, the burnout is the moderate level. (2) the difference between the demographic and job characteristics for the married female shift working nurses, Statistics on “Age”, “Living conditions”, “Shifts”, “Average weekly overtime hours” reached significance level (p < .05). (3) The work-family conflict, the social support and occupational burnout for married female shift working nurses are considerably associated. Work-family conflict and social support had a significant negative correlation (r = -.29, p < .001), whereas work-family conflict and occupational burnout had a significant positive correlation (r = .61, p < .01), Social support was also negatively correlated with occupational burnout (r = -.25, p < .01). (4) The predictors of occupational burnout for married female shift working nurses are “shifts”, “average weekly overtime hours”, “work-family conflict” and “work social support”, a total of 46.8% of the measures of variation can be explained.

Implications for Practice: Based on the results of this research, the supervisors should refer to the research’s identified impact factors, develop strategies for improvement and assist married female shift working nurses in reducing their work-family conflict effectively. In this way, the occupational burnout may be reduced while quality of nursing care may be enhanced.

Key Words: shift work, work-family conflict, social support, occupational burnout.
The Influences of Nursing Workplace Bullying on Job Burnout and Healthcare Productivity
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Purpose: The purpose of this study was to explore the experience of suffered workplace bullying among new graduate nurses and its impact on job burnout and productivity of health care.

Methods: This study adopted a cross-sectional study design, 234 new nurses from a medical center of northern Taiwan. Bullying workplace behaviors were identified by participants utilizing the survey tool, the Negative Acts Questionnaire-Revised (NAQ-R), and Questionnaire, and job burnout and healthcare productivity questionnaires on work relationships and bullies recognized in the workplace. Data were analyzed using SPSS19.0 software. Quantitative methods and a descriptive design process included Multiple linear regression and descriptive statistical analysis.

Results: The results show that: the subjects are 24.96 average of years old, service years are 1.78. 27.8% of respondents had been bullied experience when they looking back over the past six months; In terms of workplace bullying Care Survey Scale (NAQ-R) distribution, is as high as 64.8% of people have the experience of being bullied during the previous 6-month period. Due to the different data collection methods lead to the different result in prevalence of workplace bulling. We are comparing the outcome should be more cautious. Who suffered bullying experience higher, Increase job burnout and decrease healthcare productivity.

Implications for Practice: Nursing administrators should address the problem of workplace bullying, improve the awareness of both the new nurses and nurse managers workplace bully, provide assistance, intervention and create a supportive and friendly working environment.

Key Words: nursing workplace bullying, job burnout, healthcare productivity.
A Study in Hospital Nurses’ Positive Practice Environment, Psychological Capital, and Intent to Stay

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Purpose: The purpose of this study was to explore the role of Hospital Nurses’ Positive Practice environment, Psychological capital, and Intent to stay.

Methods: Total 300 sample copies were distributed and 291 valid questionnaires were analyzed. The research tool of this study includes Positive practice environment scale, Psychological capital scale and, Intent to stay scale, and SPSS 20.0 was used for statistical analysis.

Results: The results of this study demonstrate as followings: Hospital nurses’ for positive practice environment awareness level is in the upper one of them ‘manager leadership’ facets Score is the highest, shows hospital nurses’ think in the workplace manager can provide support and understanding staff work is difficult or frustration, is a positive practice environment in the most representative of the project. And hospital Nurses’ for psychological capital awareness level is in the upper either one of them ‘resilience’ facets score is the highest, and the relationship between psychological capital another one facets ‘self-efficacy’, ‘hope’ and intent to stay has significant correlations. Shows when hospital nurses’ face the pressure and predicament very adaptive. research shows: Taking hospital nurses’ as the research object the relationship between psychological capital and Intent to stay has significant correlations ($p<.001$). And positive practice environment that operates in between psychological capital and intent to stay of hospital nurses ($p<.001$).

Implications for Practice: The results of the above study can provide the hospital managers for the nursing staff to give appropriate support and care activities of the reference

Key Words: hospital nurses, positive practice environment, psychological capital, intent to stay.
A Study on Relationships Among Nursing Staff Job Stress, and Organizational Commitment

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Purpose:
Nursing is a profession of high-pressure, nursing staff’s willingness to be employed are usually swayed by pressure at work. Organizational commitment is like a mental contract, holding employees’ royalty, sense of identity, and the active level at participating organizational activities together. Hospitals are highly-professional organization, nursing staff and patients are directly face to face. If nursing staff are highly committed to their profession, the operational and training cost can be reduced to the maximum, and elevate the working efficiency.

Methods:
This research adopts constructional questionnaire, the participants are the faculty of a teaching hospital in an area in the southern part of Taiwan. 300 questionnaires were distributed, 267 effective questionnaires were collected. After tidying up, the questionnaires were analyzed through SPSS’s difference, correlation, multiple regression, etc.

Results:
257 interviewees felt pressure about their profession, through difference analysis, overall working pressure and department (F=4.881, p = .000), ability levels (F=2.859, p= .037), individual working shift (F=5.543, p= .004), length of service (F=1.359, p = .039) were all highly significant (p< .05). After Scheffe’s post test, psychiatry are higher than outpatient, three shifts are higher than fixed shifts, they were all highly significant. Overall organizational commitment and age (F=5.02, p = .001), marriage (t=0.429, p = .014), ability level (F=6.13, p = .000), hiring types (t=0.277, p = .02), positions (F=5.413, p = .005), individual shifts (F=5.783, p = .003), salary (F=3.677, p = .006) were all highly significant (p< .05). In Scheffe’s post test, people’s age over 40 are higher than 26-30, N3 (and above) are higher than N1 and N2, head nurse are higher than nurse, fixed shifts are higher than three shifts, were all highly significant. Overall work shift and pressure are negatively significant (r=- .144, p < .05). Pressure and organizational commitment are negatively significant (r = -.405, p < .01). In pressure, administrative aspect has negative predictive power in organization (β=-.508).

Implications for Practice:
The administrative pressure, the clinical situation’s variation, overwhelming workload, communication between teams, over asking and the unsafety environment pressure were all reasons swaying nursing staff’s working willingness. Staff with higher salary were more positively influenced by organizational commitment. Hence, reasonable salary can elevate nursing staff’s organizational commitment.

Key Words:
job stress, organizational commitment.
P1-021 Prevalence and Associated Risk Factors of Hyperglycemia Among Nurses

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**Purpose:**  
Hyperglycemia is a risk factor for cardiovascular diseases, hypertension, diabetes, and metabolic syndrome. The major causes of hyperglycemia are related to work, diet, and lifestyle. Nurses are typically at high risk of contracting hyperglycemia because of their heavy workloads, significant physical and mental stress, and irregular work schedules. In the present study, a cross-sectional research design was employed to examine the prevalence of hyperglycemia in nurses and the correlation between hyperglycemia and nurses’ demographics, lifestyles, and work patterns. The data used for analysis were collected from a health database and a questionnaire pertaining to the lifestyle and work patterns of nurses.

**Methods:**  
The participants of this study were recruited from an anonymous medical center in Taiwan. A total of 1,200 questionnaires were distributed, recovering a total of 1,129 valid questionnaires. The study tools included a physical examination with physiological indicators and a self-administered questionnaire. According to the Health promotion administration, ministry of health and welfare in 2007, hyperglycemia is defined as a fasting blood glucose $\geq 100$ mg/dl. Data were analyzed using the SPSS 18.0 statistical software, where a descriptive statistical analysis, independent-samples t-test, analysis of variance, and a chi-square test were employed. Logistic regression analysis was also performed to analyze the related risk factors.

**Results:**  
The prevalence of hyperglycemia measured 7.3%. Nurses aged one-year-old increase the odds of the occurrence of hyperglycemia increased 1.11 times. The odds ratio analysis for hyperglycemia showed that the participants with a family history of hyperglycemia were 1.73 times more likely to develop hyperglycemia than those without, and that nursing personnel with a current history of chronic disease were 2.54 times more likely to develop the disease compared to those without. Concerning diet, 78.9% of the participants regularly consumed sugared beverages. Lifestyle intake of low-fat dairy 0-1 cup/day than consumption of 1.5-2 cup/day to produce hyperglycemia, the odds to reduce the 59%; Fats and oils 0-2 teaspoons / day than consumption of 3-7 teaspoons / day to produce hyperglycemia to reduce the odds of 41%. Nurses with physical activity habits were 48% less likely to develop hyperglycemia than those who inactivity.

**Implications for Practice:**  
Furthermore, for nursing personnel diagnosed with hyperglycemia, the hospital health promotion center should regularly monitor their physical examination results and offer assessments and recommendations concerning their dietary and exercise habits. Regarding the diet of nursing personnel, the nursing unit must design an appropriate inter-personnel support mechanism for meal times to provide nursing personnel sufficient time to finish meals without having to consider patient conditions. The nursing unit should aim to eliminate instances where nursing personnel opt to consume sugared beverages over regular meals in an attempt to reduce meal time. Because of the lack of literature on the related factors that contribute to hyperglycemia for nursing personnel, the results of this study can offer relevant data for improving the health of nursing personnel.
**Key Words:** prevalence, nurses, hyperglycemia.
P1-022 A Theoretical Study on Japanese Visiting Nurses Leadership- From the View of Organizational Learning
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Purpose: In Japan, home care patients generally use visiting nursing stations and visiting nurses take care of them. There are two aspects that visiting nurses are different from hospital nurses. First, while the hospital nurses work with other medical staff, visiting nurses work alone in many cases. Second, hospitalized patients are under the same conditions - sick rooms and equipment are almost identical. As for the patients at home, their circumstances vary. Visiting nurses have to work under different conditions every time. Under these differences, visiting nurses leader should lead his/her members of visiting nurse station. So, this study aims to make clear the characters of the visiting nursing station leader's leadership and how visiting nursing station leader leads the visiting nurses by theoretical study.

Methods: We read the literature on the leadership, organizational learning, and management, and we examined this subject theoretically.

Results: Many visiting nursing stations in Japan are very small (2 or 3 persons are member of the station), and it is difficult to make rigid order system. By this reason, the visiting nursing station leader's leadership is different and more important to manage the station than in the hospital. And in many cases, visiting nursing station leaders don't go the patient's home with visiting nurses. So, they don't order visiting nurses directly when they care at the patient's home. Under these conditions, we can point out a character of the visiting nursing station leader's leadership. As visiting nurses visit patient's home and care the patients all by themselves, and their leader can't order when visiting nurses care at the patient's home, so there is no way to check if they are doing their duty properly. So, visiting nursing station leader should emphasize the idea that visiting nurses mustn't cheat even if there is no one watch them. And visiting nursing station leader should share the organizational culture with the members of the visiting nurse station, which culture treats solo action more seriously than team action. This doesn't mean that visiting nurses need not to cooperate with other members, or not to share the information about patients, but means it is important for visiting nurses to solve the problems alone at the patient's home.

Implications for Practice: To build thus organizational culture at the visiting nursing stations, the learning organization should be introduced. An organization is not only the system of order or command, but also the field of sharing and learning the idea and the culture. The visiting nursing station leaders should exhibit their leadership transforming their organization to the learning organization.

Key Words: visiting nursing station, leadership, organizational culture, learning organization.
P1-024 The Relationships Among Job Fatigue, Job Involvement and Turnover Intention of Intensive Care Unit Nurses
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**Purpose:**
1. To examine the distribution of job fatigue, job involvement and turnover intention among ICU nurses.
2. To examine the correlation among job fatigue, job involvement and turnover intention among ICU nurses.

**Methods:**
This study used cross-sectional study design and convenience sampling in a teaching hospital. Total interviewed 144 female ICU nurses. Research instruments included basic demographic questionnaire, occupational burnout inventory (Cronbach’s alpha = .84), and turnover intention questionnaire (cronbach’s alpha = .93).

**Results:**
First, the mean age of subjects were 28.7 years old (SD = 5.1), seniority were 6.1 years (SD = 4.7). Second, the correlation of job fatigue and turnover intention were statistically significant (r = .409, p = .000). And, the correlation of job involvement and turnover intention were also statistically significant (r = -.535, p = .000). Third, with adjustment of age, marital status, education level, working years, job fatigue (β = 0.033, 95% CI [0.007, 0.058]) had strongest associations with turnover intention and job involvement also showed strongest associations with turnover intention (β = -1.023, 95% CI [-0.338, -0.658]).

**Implications for Practice:**
The results showed that job fatigue and job involvement were the best predictors of ICU nurses’ turnover intention. Clinical supervisor can provide a good working environment and enhance job involvement. It can effectively decrease ICU nurses' turnover intention and increase retention rates.

**Key Words:**
intensive care unit nurses, job fatigue, job involvement, turnover intention.
The Effectiveness of Mindfulness-Based Stress Reduction Program (MBSR) Reduces Nurses Psychological Distress and Burnout

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Purpose: The purpose of this study was to examine how mindfulness program facilitates a distress reduction in nurses.

Methods: The sample comprises 21 nursing staffs seeking stress reduction who undertook an 8 weeks intervention in northern medical center in Taiwan. This program involved 28 hours of training course, based on a program called mindfulness-based stress reduction (MBSR). The study used a pre and post intervention design. Twenty-one nurses participated in two and half hours at each week and one-day trip. Total were 8 weeks. The samples undertook to practice daily for 8 weeks and completed pre and post intervention measures: Maslach Burnout Inventory (MBI), State-Trait Anxiety Inventory (STAI) and Beck Depression Inventory (BDI).

Results: The mean of age was 39±8.9. The average of work experiences was 15.8±0.48 years. The results found significantly improvements on the MBI (t=15.32, p=.000), STAI (t=42.46, p=.000), BDI (t=9.42, p=.000) by paired t-test.

Implications for Practice: The study results showed the effectiveness of MBSR to decrease distress and its applicability in training programs for nursing staffs. However, this research evidence from regularly constructed programs will be required to engage and motivate participation and organizational support.

Key Words: mindfulness, burnout, depression, anxiety.
Is There Gender Difference in Maintenance of Peritoneal Dialysis: Results of a Tertiary Hospital in Northern Taiwan Using Competing Risk Model

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Purpose:
Peritoneal dialysis (PD) is one choice of renal replacement therapies in patients with end-stage renal disease (ESRD). Gender difference was known with involving long-term outcome of nursing care such as quality of life among ostomy patients. However, little is known about the gender difference of PD usage and maintenance. This retrospective study aimed to clarify the gender effect on withdrawing PD.

Methods:
ESRD patients, who had received PD catheter insertion, were enrolled in a tertiary hospital in northern Taiwan. The clinical data were reviewed and analyzed for the outcomes of PD-withdrawing time and events using competing risks regression model. Receiving renal transplantation or death was considered as a competing risk for the outcomes of withdrawing PD. Univariate and multivariate analysis model were used to investigate the relationship between each independent variable. subdistribution hazard ratios (SHR) of covariates of competing risks regression were calculated. Data were analyzed using the software Stata 12.0.

Results:
A total of 514 patients receiving PD were enrolled for analysis between 2001 and 2013. One hundred and four patients (26%) had events of PD infection or malfunction and received removal of the PD catheter. Forty patients had received renal transplantation and avoided PD thereafter. Eighty-three patients had mortality events and 79 of them died with functioning PD. In the competing risk regression model, female patients had fewer events to remove PD catheter than male (SHR .67, 95% confidence interval .48-.94, \( p = .019 \)).

Implications for Practice: Male is a risk factor to have episode for removal of their PD catheters. Women may keep longer duration of PD usage and gender difference affects maintenance of PD catheters. Caring PD catheter is essential for ESRD patients and requiring self-care education. Gender difference for the maintenance of PD should be considered for further patient education and individualized care.

Key Words: peritoneal dialysis, gender difference, female, end-stage renal disease.
P1-027 Exploring the Professional Quality of Life in Emergency Medical Professions

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Purpose:
Introduction: Emergency room is a high-pressure work environment. The charterer of emergency room includes urgency of patients’ problems, unpredictable number of patients, and lack of emergency medical professions. This high-level of pressure working environment not only affects the persons’ physical and mental health, but also might indirectly reduce the quality of care, even threaten the life of patients. Therefore, understanding the professional quality of life in emergency medical professions is needed.

Aim: The purpose of this study is to explore the professional quality of life in the emergency medical professions.

Methods:
The study design is a cross-sectional study. Purposive sampling will be conducted in the emergency room of medical centers and regional hospitals in the central of Taiwan. The participants will include physicians, nurse practitioners and nurses. The number of 120 participants who worked in the emergency room/department will be recruited. The measurements are questionnaires include demographic data and professional quality of life scale (proqol). Professional quality of life scale consists of compassion satisfaction, burnout, and compassion fatigue. The data will be analyzed by SPSS windows 22.0 chinese version of the computer software. The statistical methods will be the number distribution, percentage, mean and standard deviation to describe the demographic characteristics of the subjects and the scores of each subscale of Proqol. Independent sample T test, one-way anova, and pearson correlation will be used to analyze the difference and correlation.

Results:
The results will show the levels of professional quality of life in emergency medical professions. And possible related factors of proqol will be revealed.

Implications for Practice: The results will reveal the degree of compassion satisfaction, compassion fatigue and burn out. By understanding the related factor of professional quality of life, Potential strategies might be suggested. The results will serve as a reference for prompting professional quality of life.

Key Words: professional quality of life, professional quality of life scale, emergency physician, nurse practitioner, compassion fatigue.
Purpose: The aim of this study was to conduct a systematic review to understand the behavior and related factors of nurses’ adherence of anti-cancer hazardous drug handling precautions guideline.

Methods: The electronic databases of cinahl, embase, pubmed, scopus and web of science were searched for literature published between 1974 and 2016. Manual’s searching of reference lists with related content were also carried out. Data were collected using inclusion and exclusion criteria. A total of twenty-four papers that met the inclusion criteria were reviewed. A strengthening the reporting of observational studies in epidemiology (STROBE) was used to evaluate the quality of the identified articles.

Results: The most frequently implemented safety precautions for nurses include prepare anti-cancer hazardous drug in the biological safety cabinet (engineering controls), wash hands after removing gloves(work practice controls), and exposure to anti-cancer hazardous drugs wear gloves(personal protective equipment). Related factors include whether the organization has a complete policy and procedures for safety handling anti-cancer hazardous drug, workload and the degree of awareness of safety handling anti-cancer hazardous drug.

Implications for Practice: Overall, the nurses did not fully comply with the recommendations of anti-cancer hazardous drug handling precautions guideline. It is recommended that medical institutions can incorporate guidelines into workplace policy formulation and advocate guidelines when conducting educational and training courses. In addition, appropriate and adequate environmental engineering control equipment and personal protective equipment are provided in accordance with the guidelines to enhance availability. Future research suggests that research design should cover all guidelines practices, and focus on part of organizational factors to explore the impact of nursing staff compliance.

Key Words: nurses, safe handling hazardous drug, systematic review, adherence.
Purpose: The aim of this study was to describe the prevalence of sore throat and hoarse, and to determine the related factors.

Methods: A descriptive and correlational design was used. Data was collected at the admission (prior surgery), post-surgery day 1, day 2, and day 3 respectively, at a local hospital at northern Taiwan from November 2014 to January 2015. Main outcome/measure: Assessment scale and review medical record was used to collect the extent of sore throat and hoarse. One hundred and seventy patients included in this study.

Results: The prevalence of sore throat on post-surgery day 1 was highest (27.6%) as well as the prevalence of hoarse (18.2%). Both of symptom decrease along with post-surgery day increase. The result of gee method showed that the sore throat was significant higher in post-operation day 1 ($\beta = .30, p < .0001$) and day 2 ($\beta = .07, p = .001$). Patients with no smoking had higher severity of sore throat than patients with smoking ($\beta = .14, p = .007$). The higher the cuff pressure the higher severity of sore throat ($\beta = -.04, p = .004$). The result of gee method showed that the hoarseness was significant higher in post-operation day 1 ($\beta = .35, p < .0001$) and day 2 ($\beta = .17, p < .0001$). Patients without belet nut habit experienced higher severity than patients with belet nut habit ($\beta = .32, p = .03$). Patients with mallampati level 1 experienced higher hoarseness that level 4 ($\beta = .35, p = .02$), level 2 also higher than level 4 ($\beta = .36, p = .004$).

Implications for Practice: The prevalence of sore throat and hoarse was dominant on post-surgery day 1. This indicated the time was the critical time for nursing care to intervention, provide suitable oral care.

Key Words: surgical patients, sore throat, hoarse, oral care.
The Predictors of Self-Efficacy in Insulin Injection Among the Patients With Type 2 Diabetes Mellitus

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**Purpose:** There are several barriers to self-injection of insulin in most patients with type 2 diabetes. Self-efficacy is an individual’s confidence about his ability to successfully execute a task. Understanding the self-efficacy in insulin injection with patients with type 2 diabetes and associated factors is required to provide high quality healthcare to this population. The study was to explore the relationships between self-efficacy in insulin injection, and its predictors among patients with type 2 diabetes mellitus.

**Methods:** 72 participants who naive to lantus, levemir or novomix pen injector were recruited from a ward of endocrinology and Metabolism in one medical center in southern Taiwan. With a cross-sectional design, each participant was administered by structural questionnaires (self-efficacy in insulin injection Scale and the knowledge in diabetes) and technical photography (self-injection with an insulin injector).

**Results:** The results showed that (1) the total score of the self-efficacy in insulin injection was 36.26(SD=11.05); (2) the self-efficacy in insulin injection in patients with senior high school level or above were significantly higher than patients with junior high or below ($p = .002$); (3) correlations among age, knowledge in diabetes and insulin injection, skills in insulin injection and self-efficacy in insulin injection in participants exhibited a significant and positive correlation ($p = .005$, $p = .001$ & $p = .001$); (4) the predictors of patient’s self-efficacy in insulin injection are the knowledge in diabetes and insulin injection scale, insulin injection skills, senior high or above and the duration of diabetes, with a total variance of 41%.

**Implications for Practice:** These findings could provide health professionals to learn more about the predictors of self-efficacy in insulin injection among the patients with type 2 diabetes. These results may help them to design interventions to increase the level of self-efficacy in insulin injection in patients with type 2 diabetes, especially in elderly persons and low educational level, and further improve the patient self-injection with an insulin injector. The results of this study can serve as a reference for guidelines in educating patients with type 2 diabetes regarding the first self-injection with an insulin injector.

**Key Words:** type 2 diabetes mellitus, the knowledge in diabetes and insulin injection, self-efficacy in insulin injection, insulin injection skills.
The Prognosis and Related Factors in Patients After Primary Total Knee Replacement

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Purpose:
Degenerative knee arthritis is considered an inevitable disease with aging. Considering knee osteoarthritis, it has very close relationship with aging. The knee pain caused by degeneration and activity limitation were, decreasing lead to the implementation of the daily life. The treatment strategy is conservative and aggressive treatment. Conservative treatment can slow the disease-like, but can’t delay or improve joint cartilage wear. Eventually, The severity of OA still was progress and needed to have knee replacement surgery. However, the pain was demonstrated comes after surgery, and impacted the daily activities and functions after surgery. But also it becomes the largest clinical and patient caring problems. Therefore, the purpose of this study was to investigate the patients from eastern region, who implemented accept the total knee prognosis and related factors for first time.

Methods:
The location of collecting the cases is at Eastern 54 subjects was enrolled, purposive sampling was used, orthopedic ward of a medical center in eastern Taiwan. In the Ministry of purposive sampling, since February 20, 2013 to December 31, 2013. The inclusion criteria are; patients were diagnosed with degenerative knee arthritis by orthopedic physician specialist diagnosed, and had received total artificial knee replacement surgery for the first time. Patients with a questionnaires includes VAS, knee severity score, and daily functions towere collected data, to close case 54, to assess the time from the first day of the preoperative, intraoperative after 1, the 7 days, after the 4 weeks, and after 3 months after surgery. According to the severity of the patient, and the number of days. In order to assess the functional status of the correlation. Research and analysis is intended to 19.0 SPSS statistics was used to analysis.

Results:
The results showed that there was correlation significantly in age and preoperative pain severity before ($F$ = 41.47, $p < .05$), age and preoperative activities of daily living severity ($F$ = 12.44, $p < .05$), and surgery before the age of joint activities and stiffness severity ($F$ = 11.20, $p < .05$) before surgery. Preoperative pain disorders, level of joints and stiffness severity and prognosis of the efficacy of the different number of prognosis days were significantly different ($p < .05$). Different days efficacy of prognosis and prognosis of ADL daily living were significantly correlationed ($p < .000$).

Implications for Practice: Therefore, through this study suppose that age for preoperative disease severity was positively Related to the preoperative. Severity of the disease, activities of daily living and postoperative prognosis efficacy were significantly different in different postoperation days. Expecting the results of study will provide clinical nursing as a reference, especially the patients who has presented the pain, and joint activities of daily living and stiffness, etc., the number of days in different. To improve clinical nurses’ assessment and the sensitivity of care for patients who are in this class. Also provide appropriate care and disposal of health education to increase the care of quality.

Key Words: degenerative knee arthritis, primary total knee replacement, disease severity, prognosis and related factors, postoperative prognosis efficacy.
P1-032 To Investigate the Effectiveness of a Blood Drawing Team Intervention Model for Blood Sampling
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Purpose: Rejection of blood specimen not only affects the timing of patients’ treatment, but also requires the nursing personnel to spend extra time for repeated sampling. This study was to investigate the effectiveness of a blood drawing team intervention model for blood sampling.

Methods: The study was carried out in the internal medicine ward of a medical center in central Taiwan, and adopted a quasi-experimental design using two-group posttest method. In July 2014, the experimental group engaged in the blood drawing team intervention model for blood sampling. The model employed five full-time licensed medical technician to do the blood sampling according to the standard operation procedure (SOP) constructed by the nursing department. The time for blood specimen sampling is from 7 am to 5 pm, monday through friday, and 7 am to 11 am on saturday. The blood samples in the control group were acquired by regular nursing staffs in the ward. beginning from August, 2014, one month after the intervention measure was adopted, specimen rejection rate (the numerator is the number of blood specimens rejected, and the denominator is the total number of blood specimens sent) was calculated at the end of each month and continued for 24 months. SPSS 20.0 was used for chi-square test analysis.

Results: The specimen rejection rate obtained by implementing the blood drawing team intervention model was statistically different from that obtained by regular nursing staff (chi-square test, $p < .001$), indicating that lower rejection rate was achieved by the dedicated person.

Implications for Practice: Application of the blood drawing team intervention model can lower the specimen rejection rates, increase the quality of specimens, and indirectly save nursing staffs’ time for doing repeated blood sampling.

Key Words: blood drawing team, blood specimen, specimen rejection rate.
P1-033 Effectiveness of the Post-Acute Care for Clients With Spinal Cord Injury: A Systematic Review
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Purpose: This paper used a systematic review of the literature to evaluate SCI post-acute care interventions and explore their effectiveness.

Methods: Researchers searched the following five Chinese and English electronic databases for relevant literature articles: CEPS, CINAHL, Cochrane Library and PUBMED/MEDLINE. Keywords including “post-acute care”, “subacute care”, “intermediate care”, “transitional care” and “spinal cord injury” were keyed in and search was limited to articles published before June 2016. A total of 317 articles that matched search criteria were extracted. Article topics were screened and repeated topics removed. Ten articles met study inclusion criteria and were selected for further analysis. The quality of the 10 studies was assessed using Downs and Black (1998) developed checklists for randomized studies and non-randomized studies, with scores ranging from 10 to 25.

Results: Finding of this systematic review showed that interventions including Peer mentoring program, SCI system care, Social work and case management (SW/SM service), Daily documentation system, multidisciplinary rehabilitation program, Transcutaneous electrical nerve stimulation, community reintegration outpatient service, home-based transitional rehabilitation programs and conventional rehabilitation program. eight of them presented significant improve the patients’ outcomes. The total participants were 1709, however, the results showed individual differences. Seven articles participants from inpatients, another two from community, and the other one cannot be confirmed.

Implications for Practice: Empirical results demonstrated that, in order to yield the best outcome, care interventions for post-acute stage clients of SCI was necessary. However, a clear define the post-acute stage is necessary and the care interventions specific design for post-acute clients is important. Furthermore, the results will provide the evidence for the evidence-based nursing and drive the SCI post-acute care interventions to be formulated.

Key Words: spinal cord injury (SCI), post-acute care, systemic review.
**P1-034 Benefit of Standard Operating Procedures in Rehabilitation Service Satisfaction of Inpatients**

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Shun-Yi Cheng Far Eastern Memorial Hospital, Taiwan

**Purpose:** This study was designed to investigate the relevance of standardized procedures to the satisfaction of inpatient rehabilitation services.

**Methods:** This cross-sectional study used random sampling to enroll 100 inpatients of physical medicine and rehabilitation ward to receive rehabilitation services as participants (each of the 50 patients before and after intervention of applying standard operating procedure). A total of six options were used to explore the satisfaction of rehabilitation services, structured questionnaire, rehabilitation service for neurological impairment, investigation of rehabilitative content and process arrangement. The options were scored on a 5-point likert scale, 1 point was very dissatisfied and 5 point was very satisfied.

**Results:** The results showed that rehabilitation content and process improved from 3.39 point to 4.61 point (p<.05). The standard operating procedures could significantly improve inpatient hospitalized rehabilitation service satisfaction.

**Implications for Practice:** The conclusion showed that description of rehabilitation content and process arrangements were positively correlated with satisfaction. Standard operating procedures improved nursing work consistency and service satisfaction. The results of this study can provided a reference for hospital rehabilitation services and future care quality improvement.

**Key Words:** standard operating procedures, satisfaction, rehabilitation, quality.
Validity and Reliability of the Taiwanese Version of the General Fatigue Scale in Cancer Patients

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**Purpose:** Fatigue has been described as the most frequent and distressing problem of cancer patients undergoing chemotherapy. The aim of this study is to evaluate the validity and reliability of the Taiwanese version of the general fatigue scale (GFS-T) and to evaluate the severity of the fatigue among breast cancer patients in Taiwan.

**Methods:** A cross-sectional research design was used, recruiting breast cancer patients from 2 medical centers in Taiwan. Patients completed the scale exploring their GFS-T, the brief fatigue inventory- Taiwan form, and the eastern cooperative oncology group performance status. The data were collected between the day before the first chemotherapy (T1) and 1 week after the first chemotherapy (T2).

**Results:** A total of 171 patients participated in this study. Cronbach’s alpha for the GFS-T at both time points both were .94. Factor analysis generated 1 factor that accounted for 73.7% of variance in participants’ fatigue. The receiver operating characteristic curve analyses suggested that the GFS-T cut-point of 24 had an adequate combination of sensitivity and specificity to distinguish high and low performance status. The receiver operating characteristic curve is 0.67 (95% confidence interval, 0.59-0.75).

**Implications for Practice:** The GFS-T is a reliable and valid instrument for assessing fatigue among cancer patients. Further research is needed to better understand predictors of cancer-related fatigue. The GFS-T can provide clinical nurses with a useful measure to assess fatigue in cancer patients.

**Key Words:** cancer, fatigue, Taiwanese version of the general fatigue scale, scale development, validity, reliability.
The Effectiveness of Humanized Care Measure Conducted For Wards - An Empirical Study of A District Teaching Hospital

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Purpose: The purpose of this study was to investigate the effectiveness of “care and exhortation whiteboard” conducted for wards, including the satisfaction of medical service for those patients and their family in an district teaching hospital and the medical staffs’ satisfaction and the change of survey on patients’ security after conducting the care and exhortation whiteboard as well.

Methods: This study was designed via questionnaire of the satisfaction of medical service carried out by hospital, questionnaire of patients’ safety culture, and self-structured questionnaire collected by researchers. Also, the questionnaire named “medical staffs’ satisfaction of the intervention of care and exhortation whiteboard” was conducted by likert scale, and accomplished by interviews with patients.

Results: As far as patients’ satisfaction is concerned, 150 sets of questionnaires were sent out during the first part and 132 sets of feedback were received. Valid sample data was 98 sets, and the effective sample data return rate was 74.24%; 150 sets of questionnaires were sent out and 143 sets of feedback were received, and the valid sample data was 132 sets. These research results demonstrate the average scores in four dimensions were decreased, and the only statistically significant difference was found out in service attitude dimension. There was no significant difference in accommodation facilities dimension, waiting time dimension and medical procedure dimension. As for the score of satisfaction of care and exhortation whiteboard setting, it had highest dimension up to 4.19, and the satisfaction of medical and surgical patients was higher than of general department. As for the result of patients’ safety culture survey, 97 sets of questionnaires were sent out during the first part and 70 sets of feedback were received (72.16%); during the second part, 97 sets of questionnaires were sent out and 71 sets of feedback were received (73.2%). Among eight dimensions, there were an increase in team work dimension, operation status dimension and the perception for stress dimension, however, there were no significant difference in these eight dimensions. The score of care and exhortation whiteboard setting from satisfaction to full satisfaction is up to 96.38%. also, the results showed that medical staffs gave more assistance than doctors in three parts, including shift for care of patients, communication and cooperation among team members, patients’ safety and medical quality, and there was a significant difference.

Implications for Practice: The research teams firmly believe the value of care and exhortation whiteboard. In the future, this research will be carried out in a form of project improvement, and continually improve the application of care and exhortation whiteboard.

Key Words: whiteboard, patients’ safety culture, satisfaction of patients.
The Effectiveness of Hospital Care Among Patients Undergoing the Total Knee Replacement

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Purpose:
Total knee replacement (TKR) will be carried out to solve knee arthritis with progressive pain and impaired physical activity and function. This study aimed to explore the pain and knee motion among osteoarthritis patients pre- and postoperative total knee replacement surgery.

Methods:
The longitudinal pre and post measurement method with purposive sampling was used in this study in general orthopedic ward at a tertiary hospital of northern Taiwan. Research instruments included VAS pain assessment scales, continuous passive motion exerciser (CPM), and specific TKR nursing record sheet since January 2012 to December 2014. The inclusion criteria are, patients were diagnosed with osteoarthritis, and had received total knee replacement surgery. Statistical analyses were carried out using the SPSS version 18.0 with descriptive and inferential statistical data.

Results:
The results of 2 years, the sample size for this analysis were 287 patients (226 women, 78.7%; 61 men, 21.3%). The average age was 69.9 years; the average length of stay was 6.98 days; the average of first rehabilitation day was 2.66 days; the average of first out of bed was 2.15 day; and the average of drainage tube removal was 2.87 days.

There was a significant difference in the pain relief between before surgery and day of the discharge (t = 24.91, p < .05). Motion of knee by CPM was a significant difference between the before total knee replacement surgery and at discharge (t = -27.81, p < .05). The increase in the knee motion was been greatest on the third day after surgery. (mean = 18.36, SD = 16.38; p < .05). It is a significant increase from the third day to the sixth day after total knee replacement surgery.

Implications for Practice:
The results of this study provide a comprehensive understanding of hospital care for patients who are undergoing the total knee replacement during hospitalization. It’s also providing healthcare providers to understand those patient needs and situation of recovery process in hospital and to consider to simplify the process of care, to set new standards, and to reduce the length of days while reducing the cost of care to improve care quality. In the future, the randomized control trial to evaluate the efficacy of a nursing intervention for patients undergoing total knee replacement surgery should be hold next proposal.

Key Words:
total knee replacement, pain, continuous passive motion.
Purpose: Absconding, where patients under an involuntary mental health order leave hospital without permission that may result in patient harm and emotional and professional implications for nursing staff. The purpose of this study was to investigate absconding in six acute care wards from January 2012 to December 2016, in order to determine absconding times and related risk factors.

Methods: This study was conducted retrospective study. The data were from patients’ safe reports from January 2012 to December 2016. Data were analyses using SPSS statistics for windows version 17. Binary logistic regression was used to analysis predictors of absconding. Descriptive statistics were used to analysis characteristics of absconding patients and incidents and patient demographics.

Results: Over the 5 year period, 46 times were absconded a total of 6832 patients from the six wards. The absconding rate was 0.67 incidents per 100 voluntary admissions. Being male, middle-aged, diagnosed with schizophrenia having a longer hospital stay were predictive of absconding. Psychiatric patients absconded average 24.6±34.57 days after admission. Over 55% of absconding patients were multiple times admission. There were 28.9% of absconding patients in one week after admission.

Implications for Practice: The present study provides a comprehensive psychiatric center picture of absconding. The characteristics of patients and incidents provide useful risk assessment information for nurses. Nurses should pay attention to patients’ risk factors of admission patients. Nurse is a key role in prevention absconding that factors have led to absconding reductions in the wards. Such interventions provide a complex consideration to prevent in patient hospitalization to inform nursing management plans.

Key Words: absconding, psychiatric patient, patients’ safety.
P1-039 The Effect of Narrative Pedagogy on the Caring Attitude and Clinical Care Behavior of Psychiatric Nurse Students

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Purpose: This study was investigated to narrative pedagogy on the caring attitude and clinical care behavior of psychiatric nursing students.

Methods: The mixed mining quality research, in order to study the practice nursing students of a psychiatric specialist hospital from February to October 105, a total of 9 echelon, 63 people involved. The use of narrative pedagogy includes: a review of the life course of a case, a human figure, a film, and sharing and discussion of care experiences. The implementation of the caring behavior scale before and after the practice, and the internship week is recorded as content analysis.

Results: The score of caring behavior before and after the practice was: T= -9.037, p= .000 < .05, which indicated that the use of narrative pedagogy could be used in the caring attitude of psychiatric interns. Through the content analysis of the internship week, the experience and feeling in the practice process can be divided into four levels: understanding themselves and patients, establishing a satisfactory Nursing-patient relationship, respecting the case life value and meeting the individual needs.

Implications for Practice: Narrative pedagogy can help nursing students in psychiatric practice to understand the impact of disease on the life of cases and their families, to enhance the attitude of caring and clinical care behavior.

Key Words: narrative pedagogy, psychiatric nursing students, caring attitude, clinical care behavior.
Purpose: Cancer is the leading cause of death in Taiwan, and a multidisciplinary team has been an important component for cancer care in medical facilities. This study aimed to examine the satisfaction of cancer patients with the multidisciplinary care.

Methods: This cross-sectional study analyzed the data from cancer patients of one medical center selected by purposive sampling. Satisfaction was assessed by using the multidisciplinary team satisfaction scale developed by Hsieh which is composed of 18 items, and each item ranges from 1 to 4 with a higher score representing higher satisfaction. Pearson correlation analysis was applied to identify the relationships between patients’ basic and cancer-related characteristics and their satisfaction level. Data analysis was performed by using SAS 9.3.

Results: A total of 130 patients were included into this study with an average age of 58.39 years (standard deviation (SD): 10.31). Among them 68 persons (52.31%) were male, 38.16% had an educational level of a college degree or above, 66.12% had religious belief, 63.57% had no work, 71.54% was married, and 91.54% was not living alone. Patients with colorectal cancer accounted for the largest part (19.23%), and followed by breast cancer (18.46%). Nearly forty-percent (39.23%) was diagnosed as stage 4 cancer. The satisfaction scores of the 18 items ranged from 3.34 to 3.61, and the mean value and SD of the summation score was 63.18±7.79. Patients at different cancer stages reported significantly different satisfaction towards multidisciplinary care (p= .020). By conducting a post hoc test, we found patients at stage 2 had higher satisfaction than those at stage 3. No significant correlation was observed between patients’ basic characteristics and cancer sites and their satisfaction with care.

Implications for Practice: The findings of this study could be used to improve the care quality of multidisciplinary cancer care.

Key Words: multidisciplinary team, satisfaction, cancer.
Purpose: A prolonged stay in the intensive care unit (ICU) would correlate to a higher medical cost and more risk for nosocomial infection. According to the policy of integrated healthcare delivery system (IDS) of national health insurance in Taiwan, the reimbursement for ICU stay of patients with acute respiratory failure and ventilator usage should be less than 21 days. However, in 2012, 16.7% of patients in our respiratory critical care unit A (RCUA) overstayed.

Methods: Through analyzing medical records, observing and measuring questionnaire, the possible problems were identified as: 1) lack of consensus on transfers among health professionals, 2) lack of understanding and compliance with the transfer protocol, and 3) patients’ family and caregivers delaying decision-making on tracheostomy surgery. Therefore, the TRM program was initiated. First, a regular discussion meeting with the interdisciplinary professionals was established to discuss the transferring protocol and cases with potential prolonged stay in RCUA. Second, a clinical training was built to enhance the knowledge of the IDS to our team members. Third, the education program for patients’ family and caregivers was refined. Tracheotomy care demonstration video and web-base discussion platform were provided.

Results: The RCUA overstaying was reduced to 12.2% and the average length of stay in the RCUA was reduced from 12.3 to 10.7 days. Additionally, the decision-making period for tracheostomy was reduced from 6.5 to 2.15 days. As to the knowledge of the transferring.

Implications for Practice: Our approaches will provide useful information for other hospitals to reduce length of stay in respiratory critical care unit. Consequently, we can provide quality ICU care for patients in need, enhance treatment outcomes and reduce medical costs.

Key Words: prolonged stay, decision making on tracheostomy, integrated healthcare, delivery system, IDS.
**P1-042**  The Actual Conditions of Japanese Visiting Nurse's Cooperation Action -Involving Caring Home Dementia Patients  

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Ma-Saru Isoyama  
Teikyo University, Japan  

**Purpose:** This study aims to make clear how visiting nurses take care to the family of the home dementia patients under integrated community care system in Japan.  

**Methods:** We used inductive and qualitative analysis to analyze the data. 1) objective: 13 visiting nurses who worked 3 to 18 years and mainly worked at the dementia patient's home. They are 30 years old to 59 years old. They agreed the paper before interview. 2) data collection: We had the semi-constitutive interview with five visiting nurses for about an hour individually, using the interview guide. Especially, we focused on the question how the family cared to the patients. We recorded interview by their permission and memorized word for word. 3) how to analysis: We used inductive and qualitative analysis. We extracted the words from results of the interview, and their care action classified to categories and sub-categories. 4) ethical regard: We carried out our study with permission from the ethical committee of a university.  

**Results:** 44 phrases were extracted and classified into 4 categories: "nurses commit to the family patiently", "nurses adjust to the care capability of the family", "nurses care patient involving the family", and "nurses don't stick to the standard and start to instruct on the situation". From this result, we point out that visiting nurses' action aimed including the families daily care and visiting nurses support so that home dementia patient can live the daily life at the beloved home, by daily caring and promoting families' care ability.  

**Implications for Practice:** We suggest from this study that visiting nurses, who care at the dementia patients' home, take important role to promote building integrated community care system in Japan.  

**Key Words:** home dementia patients, visiting nurses, cooperation.
P1-043  An Exploration of The Psychological Problems and Issues of Follow-Up Care for the Breast Cancer Survivors
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Purpose: To explore the knowledge associated with disease treatment and follow-up care, cancer condition, fear of recurrence, and psychological distress for the breast cancer survivors.

Methods: This is a cross-sectional quantitative study. Selected questionnaires such as: basic information of subjects, self-designed questionnaire, assessment of survivor concern and brief symptom rating scale were distributed to the participants of an annual meeting for breast cancer patients who had completed the course of treatment. A total of 127 questionnaires were distributed, however, only 100 valid questionnaires were returned.

Results: The mean age of subjects was 53.53 (± 8.8) years, and 37% subjects’ survival time were more than 5 years. Results found that patients diagnosed at later stage of cancer and longer survival period were more worry about cancer recurrence. Nevertheless, those who diagnosed with earlier stage of cancer were more worried about a second cancer and felt that they were living under the shadow of cancer. Patients who changed their marital status reported more serious psychological distress than those who did not. After treatment completed, subjects experienced those persisting symptoms such as: pain, fatigue, insomnia, and numbness in the limbs. The most often changed lifestyle were taking vital diet or Chinese medicine. In regard to knowledge associated with disease treatment and follow-up care, 75% forgot their pathology report, 32% did not perform monthly breast self-examination, and 71-72% did not receive regular computed tomography and bone density examination. In addition, weight gain, stress, depression, eating habits and lack of sleep were regarded as risk factors of cancer.

Implications for Practice: This study identifies the knowledge associated with disease treatment and follow-up care, fear of recurrence, and psychological distress of the breast cancer survivors. This could be a significant reference for those who plan to design further plans for the breast cancer survivors.

Key Words: breast cancer, survivors, psychological problem.
A 13-Year Descriptive Study on the Use of BZD and Z-drugs in Taiwan

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Purpose: Sedative-hypnotic control drugs contain traditional sedative-hypnotic control drugs (Benzodiazipines, referred to as BZD), and newer non-BZD sedative-hypnotic (ex. Zolpidem and Zopiclone, referred to as Z-drugs). The investigation on the use of BZD and Z-drugs enhance the understanding and assist the prevention for hypnotic misuse and abuse of controlled drugs.

Methods: A retrospective, descriptive study design was applied to analyze the National Health Insurance Dataset in Taiwan. The total quantity of BZDs and Z-drugs were acquired for inpatient and outpatient services from year 2001 to 2013. The defined daily dose (DDD) was used to calculate the use of BZDs and Z-drugs.

Results: From year 2001 to 2013, the total amount of BZD and Z-drugs were increased at averaged 10.5% annually. In average, Z-drugs (17.3%) increased more than BZDs (8.9%). Among Z-drugs, the numbers of users were largest in Zolpidem followed by Zopiclone, the amounts of z-drugs have continued to increase for years after launched in Taiwan, zolpidem did not drop until 2013. In BZD users, ALPRAZOLAM and LORAZEPAM were the most popular BZD drugs which have largest numbers of users. After comprehensive investigation, zolpidem was observed to be the most potentially abusive hypnotic in Taiwan. The other 3 BZD drugs, ALPRAZOLAM, ESTAZOLAM and CLONAZEPAM, had also demonstrated some risk for unsafe use or misuse, such as increasing dosages, increasing prescription numbers and increasing users. In addition, MIDAZOLAM, OXAZEPAM and CLOBAZAM were also connected with potential unsafe use, such as increased total amount of national dosages, increased amounts of prescription, increased users, and increased the total amount of personal dosage.

Implications for Practice: Nurses often care for patients with sleep disturbance or ones on hypnotics. By increasing awareness about the safety of the hypnotics, nurses can provide proper medication education, sleep hygiene, adequately professional transfer, and close observation on therapeutic and adverse effects of BZDs and Z-drugs.

Key Words: hypnotics, drug abuse, BZD, Z-drugs, drug safety.
**P1-045 An Observational Study of a Hand Hygiene Initiative in a Neonatal Intensive Care Unit**

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**Purpose:** Health care–associated infections continue as a serious problem in all neonatal intensive care units (NICU). Such infections have negative effects on preterm infant’s survival, short-term morbidities, and long-term neurodevelopment. Central line–associated bloodstream infections (CLABSIs) are the most common type of hospital-acquired infection among infants in the NICU. Hand hygiene has been indicated as the most important measure in preventing hospital-acquired infection. The objective of this study was to evaluate the effect of a hand hygiene initiative on blood and CLABSIs rates in a neonatal intensive care unit.

**Methods:** This is a preintervention and postintervention observational study. All neonates admitted to the neonatal intensive care unit (NICU) over the study period were eligible for participation and were included in the analyses. The study intervention consisted of hand hygiene education including bloodstream infection and hand hygiene practices. The techniques of hand-washing were recorded using a checklist on the essential steps of hand-washing. Intervention also includes an implementation of nonsterile glove use after hand washing prior to all patient contact. A special designed stand by the incubators of all enrolled patients was placed with a box of gloves. Hand hygiene practice audit was delivered using checklist and performance feedbacks were given to all individuals. The primary outcome was healthcare-associated infection rates in the NICU. A comparison of preintervention and postintervention outcomes were performed.

**Results:** The study compared outcomes 6 months before introducing hand hygiene initiative and 12 months after. There were fewer bloodstream infections (4.31‰ vs 1.35‰) and fewer central line-associated bloodstream infections (17.9 vs 4.71 per 1000 central line days).

**Implications for Practice:** This hand hygiene initiative to specify glove use after hand hygiene prior to patient contact is associated with fewer bloodstream infections and CLABSIs in preterm infants. We conclude that effective hand hygiene practices can serve as an economical and effective nosocomial infection control approach for the infants at the NICU.

**Key Words:** hand hygiene, NICU, infection control.
P1-046 Understanding the Factors of Expectation and Feeling Experienced by Patients Undergoing Hemodialysis

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Purpose: Patients undergoing hemodialysis face many issues physically and psychologically. The aim of study is to analyze the factor of expectation experienced by patients before undergoing dialysis and the factor of feeling experienced after undergoing dialysis, in order to develop further care strategies and provide holistic care.

Methods: A study was conducted on 159 participants with end-stage renal disease (ESRD) from the dialysis unit in Taipei Veterans General Hospital where they completed a face-to-face interview using a questionnaire administered by a healthcare professional. The cross-sectional survey used the five-point Likert scale to measure the participant's expectations and feelings, where a score of 1 is equivalent to no improvement, while 5 is to excellent improvement. A comparative analysis was also conducted between these two factors.

Results: The results showed that the mean scores for the overall degree of expectation and feeling were 4.2 ± 0.6 and 3.2 ± 0.5. The items that scored the highest regarding the expectations of participants before undergoing dialysis were the removal of excess body fluid and toxins, safe treatment course without any serious complications, and the ability of successfully completing every dialysis treatment (4.5 ± 0.6). The feeling that scored the highest was the successful completion of every dialysis treatment (4.0 ± 0.7). Further analysis revealed that a higher degree of expectation before undergoing dialysis is correlated with those who are unmarried, divorced, and widowed, while a higher degree of feeling after undergoing dialysis is correlated with the male sex, those under 50 years of age at the start of the dialysis treatment, employed persons, those who have completed higher education, those who are in self-care and assisted by family, those who do not have children, and those who experienced only one symptom of discomfort during dialysis. The scores of all 15 items showed significant difference ($p < .001$) between the expectation before undergoing dialysis and the feeling after undergoing dialysis, where the first two ranked items are the hope that dialysis would only be temporary and there would be no need to receive life-long treatments and the decrease in the frequency of treatments, respectively.

Implications for Practice: There is the need to understand the factors of expectation and feeling experienced patients undergoing hemodialysis, in order to facilitate a good healthcare environment that patients would have a better quality of life.

Key Words: expectation, feeling experience, hemodialysis, likert scale, quality of life.
P1-047 Combined Use of Evidenced-Based Medical Ward Care Reduce Healthcare Associated Infection Rates

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Purpose: The empirical clinical care has clinical care guidelines as a basis, so how effective use of evidence-based medicine literature, combined in clinical care, the medical team has become an important clinical range of areas. Healthcare-associated infections as an important indicators of the medical ward, our ward has not follow relevant measures to regulate, resulting in complications derived from nosocomial infections, including aspiration pneumonia, urinary tract infections, and even interact multiple drug-resistant strains of infection, prolonged hospitalization days. In order to improve this problem, it is the establishment of a combined empirical literature search of care, in hopes of reducing medical ward healthcare associated infection rates.

Methods: Search by the empirical literature medical center, university of oxford (CEBM) level of evidence LEVEL3 above 7, reading the commentary build combined the empirical care, clinical care implement execution. October 2015 to december 2015, the implementation of measures (1) setting "reduce aspiration pneumonia bundle" measures: including the implementation of hand hygiene, maintain head elevation to maintain 30-45 degrees, correct nasogastric tube irrigation technology, respiratory spray revised standard processes and bundle intervention included three shifts of shift nurse content; (2) execution "urinary catheter Bundle" measures: includes daily monitoring of examining whether the catheter can be removed, catheter continue to maintain a closed system, daily cleaning urethra, urine output not exceeding 500cc was poured, and dedicated of urine collection urinals, wash their hands when executing medical technology, drainage bag below the bladder, but does not touch the ground; (3) the development of "multi-drug resistant strain infection" isolation specifications: five hand-washing propaganda opportunity, additional dry hand sanitizer, multiple drug-resistant patient isolation ward door to wash their hands hang tag implementation, bedside placed in contact isolation reminder alerts, and increased anti-multiple isolation of patients sphygmomanometer dedicated, single disposable gowns, independent infectious trash; (4) the implementation of the ward environment "terminal disinfection": Multi-drug-resistant patient isolation beds, discharge, transfer bed or death formulate final disinfection specification, such as different colors rag different regions ward, and the requirement to use the scope and wipe order, regularly audit staff washing and cleaning staff situation terminal implementation of the disinfection.

Results: After the implementation of the combined The empirical Care Measures (1) by a health care associated infection rates 0.23 ± 0.05 (mean ± SD)% decrease to 0.18 ± 0.05% (statistical period July 2013 to december 2015); (2) nurses handwashing compliance rate of 96.65%, higher than the average; (3) patients with multiple drug resistant isolate isolation device uses 100%, terminal disinfection units cleaning staff are all qualified audit performed in accordance with disinfection specification; (4)infection control office periodically audit the ward environment number of colonies, number of colonies ward environment before and after the final disinfection sampling comparison, december 11 colonies of the test environment is less than 100 in
the standard range.

Implications for Practice: Through professional and cross-team cooperation in the medical ward parallel take forward, not only to reduce healthcare associated infection rates, additional benefits to reduce patient hospitalization days, improve patient satisfaction in hospital.

Key Words: evidenced, patient safety, infection.
**P1-048 Abuse of Taiwanese Elderly: Use of the Hwalek-Sengstock/Elder Abuse Screening Test (H-S/EAST)**

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**Purpose:** We explored the risk of Taiwanese elderly abuse with use of the Hwalek-Sengstock/Elder Abuse Screening Test (H-S/EAST)

**Methods:** This was a prospective study. We used a structured questionnaire to collect data for analysis. Univariate and multivariate analyses were done

**Results:** A total of 299 elderly subjects participated in the study with written consent. We found that the physical and verbal violence rates were 6.69 and 40.13‰, respectively, and the ignorance rate was 36.79‰. The higher the proportion of elderly abuse detection score, the higher the risk for the elderly to suffer verbal abuse ($p < .0001$), and the higher the risk (higher proportion) for the elderly to feel neglected. A family interaction score of $>3$ points for the elderly implied that 30.4% of them felt neglected ($p < .0001$). In those with elderly abuse risk detection score of 3 points, mental health was mainly found in the higher rated groups (i.e. 9-12 points: 47.8%; $\geq$13 points: 26.1%), accompanied by more severe depressive symptoms ($p < .0001$).

**Implications for Practice:** The H-S/EAST can effectively detect the risk of Taiwanese elderly abuse.

**Key Words:** elder abuse, elderly abuse scale, Taiwanese elderly.
Purpose: Patient-controlled epidural analgesia (PCEA), an effective neuroaxial blockade with short to medium duration of action makes it suitable for patient-controlled analgesia to manage the postoperative pain. PCEA was less commonly to be applied after caesarean section due to technical difficulty introducing the catheter into epidural space for drug delivery. The aim of this study is to verify whether PCEA could provide better postoperative pain control and verify the incidence of side effect when comparing with PCIA in obstetric patients after receiving caesarean section.

Methods: This cross-sectional, retrospective study was based on data obtained from the medical records of postoperative visits from the pain survey team, department of anesthesiology, Taipei Medical University Hospital (TMUH), November 1st to 30th, 2012. Included in obstetric patients facing delivery with the surgical procedure of caesarean section and receiving postoperative patient-controlled analgesia, PCEA or PCIA. Finally, thirty-five participants were included in this study.

Results: The cumulative dose of analgesics was different between the types of patient-controlled analgesia. The cumulative dose of analgesics in PCEA was less than in PCIA for 2.49mg morphine (95% CI [-4.05, -0.94], p = .0017). When the cumulative dose being higher, the risk of occurrence probability of side effects showed no difference among two types of analgesia (-0.02, 95% CI [-0.05, -0.002], p = .07). Analyzing cumulative dose of each type of analgesics, PCEA showed less occurrence risk of side effect than PCIA with the odds ratio 0.86 (95% CI [0.80, 0.93], p < .0001).

Implications for Practice: Patient-controlled epidural analgesia could provide similar efficacy for postoperative pain control with less cumulative doses of opioids and less occurrence of risk of side effects for patients receiving Caesarean section. Patient-controlled epidural analgesia (PCEA) is a safer technique for postoperative pain relief for obstetric patients.

Key Words: patient-controlled epidural analgesia, postoperative pain, caesarean section.
Purpose: In Taiwan, the leading female cancers incidence includes cervical, uterine, and ovarian cancers. Of gynecologic cancer patients, 23-74% receive chemotherapy. Paclitaxel and platinum-based drugs are standard chemotherapy agents for treating gynecological malignancies. Chemotherapy-induced peripheral neuropathy (CIPN) affects the functional abilities and daily lives of patients. In Taiwan, a rare evidence-based recommendation on clinical care and management of CIPN has been performed in order to develop an evidence-based clinical care guideline for patients with CIPN during chemotherapy and through the cooperation of the multidisciplinary team to improve the management of CIPN.

Methods: The guidelines were developed through the following steps: forming clinical questions by using the Population, Intervention, Comparison, and Outcome format; conducting systematic literature reviews and evidence appraisal; drafting clinical care guidelines for CIPN; conducting the Delphi process for developing CIPN guidelines; evaluating the clinical care guidelines; externally evaluating clinical care guidelines for CIPN; and publicizing clinical guidelines into execution. The clinical care guidelines for CIPN recommend the items for symptom assessment, which include medical history, chemotherapy drugs, physical examination, activities of daily living, and medications used to treat CIPN. A therapeutic massage is known to effectively reduce the symptoms of CIPN. Treatment was administered as a combination of effleurage (stroking with a light and soothing touch) and petrissage (deep kneading and wringing in a downward and outward motion) on each extremity. Each extremity received 15 minutes of massage. The interventions consisted of 8 treatments of massage over a period of 2 weeks.

Results: A total of 15 studies met the inclusion criteria. Critical appraisal of studies and abstraction were conducted. Clinical care guidelines of CIPN were drafted. A two-step Delphi consensus process was conducted to review and provide feedback on draft guidance. Consequently, some guidelines were revised according to the results of the Delphi consensus process. A total of 60 gynecologic cancer patients who were administered paclitaxel and platinum-based chemotherapy with CIPN showed the skin temperature with therapeutic massage are increased, and their symptoms of tingling, numbness, and pain are improved significantly.

Implications for Practice: gynecologic cancer, chemotherapy-induced peripheral neuropathy, care, clinical guideline

Key Words: gynecologic cancer, chemotherapy-induced peripheral neuropathy, care, clinical guideline.
P1-051  Self-Care Knowledge and Behavior Indicators in Colorectal Cancer Patient With Colostomy: The Effectiveness of Preoperative Patient’s Education
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Purpose: According to statistical data in 2014 compiled by the Health Promotion Administration, the Ministry of Health and Welfare in Taiwan, the number of cancer patients per year has grown in recent years. Of all cancer types, colon and colorectal cancer featured the highest incidence and was ranked third in mortality rate among malignant tumors. The primary treatment method for colon and colorectal cancer is surgery. However, changes in medical operations have shortened the number of days patients are hospitalized post-surgery period, which has directly affected the time available for nurses to deliver health education to patients.

Methods: This study investigated the self-care knowledge and behavior indicators in colorectal cancer patient with colostomy: the effectiveness of preoperative patient’s education. Patients with colorectal cancer who had enterostomy post-surgery were selected as the study participants, and a one-group pretest-posttest design was adopted, in which a pretest and three posttests were conducted. Subsequently, statistical measures and methods, such as mean, standard deviation, percentage, independent sample t-test, and one-way ANOVA, were applied for data analysis.

Results: The study results showed homogeneity model of preoperative health education in the pretest for categories “demographic characteristics” and “self-care-related knowledge and behavior.” The independent t-test also displayed homogeneity model of preoperative health education in the pretest for the category “self-care-related knowledge and behavior.” The mean score of the model of preoperative health education for the category “self-care-related knowledge and behavior” was significantly during the second and third posttest. The ANOVA also showed that the use of model of preoperative health education outperformed health education. These results confirm that model of preoperative health education better improve the knowledge and behavior of patients with colorectal cancer in self-caring their colostomy. Therefore, this study proposed that model of preoperative health education should be provided to patients with colorectal cancer to teach them about self-caring their colostomy.

Implications for Practice: Regarding studies in the future, this study suggests that health care professionals can provide more diversified model of health education to improve patient self-care knowledge and behavior. It is expected to improve the uniqueness of the quality in patient’s care.

Key Words: preoperative education, colorectal cancer, colostomy, self-care knowledge and behavior.
Purpose: This study aimed to investigate the needs of nutrition education programs and, the effectiveness and satisfaction of nutrition education for patients with head and neck cancer and their families.

Methods: This quasi-experimental study is based on pretest-posttest control group design. Subjects were selected from an otolaryngology department in a medical center in terms of purposive sampling from 2014 to 2016. Totally 44 subjects were included (14 invalid questionnaires out of 58). Colored pictures were used and teaching techniques included lectures, Q&A, discussion etc. Data were collected by a structured questionnaire and analyzed based on SPSS/PC software.

Results: The subjects were patients and their families, mostly females, and the average age was 52. Most subjects had less than a high school diploma (88.64%). Group nutrition education score increased from 4.08 to 4.88, and the mean education satisfaction score was 4.53. There were 38.46% of them considered nutrition care “very important”, and 61.54% “important.” There were 69.23% of them unaware of how to detect nutritional deficiency, 61.54% unaware of how to select nutritional supplements, and 76.92% unaware of how to modify their diets. The majority of them needed individual counselling and written materials, and others were referred to nutritionists and education groups.

Implications for Practice: Through interactive teaching with vivid pictures, the instructors and learners obtained satisfactory communication and learning effects. Most patients and their families considered nutrition care important, yet they failed to know how to detect nutrition deficiency and select appropriate supplements. Real pictures and written materials were used in nutrition education. It is suggested that nutrition education programs are provided and nutrition referrals are made in a timely manner, so patients are able to receive nutrition care.

Key Words: head and neck cancer, group health education, patients and their families.
Sleep Problems and Its Related Factors in Elderly Hemodialysis Patients

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Purpose: The incidence and prevalence of end-stage renal disease in Taiwan keeps high. As hemodialysis is the most common renal replacement therapy and most of the patients needed hemodialysis are old persons, the average age of the patients on hemodialysis is increasing gradually. The study aimed to investigate the levels of depression, quality of sleep and insomnia, predictors of insomnia in the elderly patients on long-term hemodialysis.

Methods: This was a cross-sectional correlation study, Total of 120 aged 65 or above patients on hemodialysis were recruited. The questionaires included socio-demographics, the condition of the disease, Pittsburgh Sleep Quality Index (PSQI), Insomnia Severity Index (ISI), Geriatric Depression Scale-Short Form (GDS-SF) and the Sleep Diary.

Results: The results showed 49.2% had mild to severe depression, 84.2% had poor quality of sleep, and 55% had various severity of insomnia. Where the level of discomfort during dialysis was associated to the quality of sleep. In addition, the severity of depression and the quality of sleep were positively related to the level of insomnia, respectively. That is, the poorer quality of sleep, the worse the insomnia. In brief, significant predictors of insomnia such as the quality of sleep, the severity of depression, age, and the level of blood urea nitrogen explained 55.7% of total variances of insomnia.

Implications for Practice: The results of this study can be used by nephrology nurses to understand the status of depression, quality of sleep and the level of insomnia in the elderly patients on long-term hemodialysis, and subsequently to provide patients with good quality of care based on the findings.

Key Words: hemodialysis elderly, quality of sleep, insomnia, depression.
Tai Chi Training and Educational Intervention Improved Self-Care Behaviors and Lowered Blood Pressure in Hypertensive Outpatients

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**Purpose:** Self-care is important for numerous reasons. Self-care can reduce health costs, improve patient quality of life, and increase mental well-being. Self-care is also a mediating factor of chronic disease and increases patient confidence when facing challenges associated with the disease. However, how to improve blood pressure control and promote self-care behaviors in hypertensive cohorts is not as well understood. The purpose of this study was to assess the effectiveness of two interventions (tai chi training and educational program) in lowering blood pressure and improving self-care behaviors.

**Methods:** A quasi-experimental, two-group repeated-measures design was used. The control group (n=31) received standard medical treatment as prescribed by a supervising physician. The experimental group (n=27) received an eight-week Tai chi training and educational intervention. Self-care behavior was measured by the self-help questionnaire. Blood pressure was measured at three time-points: a baseline prior to study commencement, week four, and week eight of the study.

**Results:** The experimental group showed significant improvement in self-care behavior (F= 6.28, p= .000), self-efficacy (F=3.23, p= .001), and quality of life (F= 5.44, p= .002), as well as a significant reduction between in systolic blood pressure (t= 2.57, p< .001) and diastolic blood pressure (t= 2.86, p< .001) compared to the control group.

**Implications for Practice:** The results are encouraging and suggest that tai chi training and educational program may be effective in lowering blood pressure and increasing self-care behaviors in hypertensive outpatients.

**Key Words:** tai chi, self-care, behaviors, quality of life.
Purpose: Cardiovascular disease (CVD) has been correlated with peripheral artery disease (PAD) in the general population. This study aimed to assess the association between CVD and PAD and the cumulative risk of CVD on PAD in patients with type 2 diabetes.

Methods: For this retrospective cohort study, data were collected from medical records of 825 patients newly diagnosed with diabetes from January 2000 to December 2002 and followed for 10 years. Logistic regression models were used to assess odds ratios (OR) of CVD in participants with PAD. Kaplan-Meier survival curves were used to estimate incidence of CVD and PAD.

Results: PAD and CVD incidence was 13.8% and 14.9% in participants newly diagnosed with diabetes, respectively, during 10 years of follow-up. Time to PAD event differed significantly by age group \((p < .001)\). Modifiable predictors and ORs of PAD were total CVD \((1.83, p = .023)\), smoking \((2.33, p < .001)\) and hypertension \((2.46, p = .008)\) in model 1 and stroke \((2.56, p = .001)\) in model 2 after adjustment for age at diabetes diagnosis. In model 3, we assessed the additive effect of CVD, hypertension and smoking on PAD. Predictors and ORs for PAD were smoking or hypertension plus CVD \((3.39, p = .015)\), smoking plus hypertension \((4.85, p = .001)\) and smoking and hypertension plus CVD \((8.89, p < .001)\).

Implications for Practice: According to this study, regular screening of PAD in type 2 diabetes patients with CVD is suggested. In clinical practice, clinicians should inform diabetic patients about a 2-fold increase in PAD incidence after adding CVD to traditional risk factors. Encourage these patients to modify traditional risk factors strictly may prevent PAD, particular in those with CVD.

Key Words: cardiovascular disease, peripheral artery disease, type 2 diabetes.
The Effects of Discharge Planning on Stroke Patients’ Self-Efficacy

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Purpose: A stroke is associated with a physical and mental dysfunction, coupled with the threat of recurrent stroke, resulting in great pressure on patients and their families. The acquisition of continuous care after hospital discharge and the strengthening of health awareness to enhance self-efficacy have formed the motivations in this study. Objective is to explore the effectiveness of discharge planning on improving the self-efficacy of stroke patients.

Methods: The quasi-experimental research design was adopted. The research samples were obtained from two neurosurgery departments of an anonymous medical center branch in Southern Taiwan, 60 patients in total. The patients were categorized into the experimental group and the control group, with “stroke patient basic attributes survey table”, “risk factor related data”, and “general self-efficacy scale” adopted for data collection.

Results: (1) After the experimental group received discharge planning, the risk factor data showed remarkable improvement, while the self-efficacy score improved significantly; (2) the high-density cholesterol, glycated hemoglobin, Barthel’s score, self-efficacy scale score, self-monitored blood pressure and blood sugar behavior and record items were significantly better compared in the control group; (3) the experimental group’s rate of readmission within 14 days was significantly better compared to the control group; (4) although the two groups showed no significant differences in terms of the rate of emergency revisit within three days and the rate of a recurrent stroke within three months, the rate of recurrent stroke within three months for the experimental group was 3% (1/30), which was higher than the control group’s 17% (5/30).

Implications for Practice: The discharge planning intervention measure produced positive results on the improvement of stroke patients’ self-efficacy, which is worthy of promotion and application in neurology specialty wards. The discharge readiness service model in this study contains stroke care-related skills and health awareness needed to improve service quality.

Key Words: discharge planning, stroke, self-efficacy.
P1-057 Effects of Self-Management on Chronic Kidney Disease: A Meta-Analysis Study
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Purpose: This study was to evaluate the evidence relating to the effect of self-management programs on medical management, role management, and emotional management of chronic kidney disease.

Methods: The meta-analysis was conducted to evaluate the effects of self-management on CKD outcomes. Electronic databases were searched by using the following medical subject headings or keywords: chronic kidney disease, end-stage renal disease, renal failure, dialysis, self-care, self-efficacy, empowerment, cognitive behavioral, and educational. The methodological quality of randomized controlled trials was assessed using the Cochrane Handbook. Data were analyzed using Comprehensive Meta-Analysis software 2.0.

Results: Twenty-four RCTs met our inclusion criteria. The results revealed that the self-management program significantly enhanced the effects of self-management on outcomes of medical, role, and emotional management for CKD. The following Hedges’s g (effect size) values were obtained: (1) body weight gain, −.36 (95% CI [−0.60, −0.12], p = .003); (2) self-efficacy, .57 (95%CI [0.18, 0.96], p = .004); (3) health-related quality of life for the mental component of the SF-36, .71 (95%CI [0.45, 0.97], p < .001); (4) the physical component of the SF-36, .61 (95%CI [0.35, 0.86], p < .001); (5) anxiety, −.77 (95%CI [−1.52, −0.02], p = .04); and (6) depression, −.53 (95% CI [−0.81, −0.26], p = .001).

Implications for Practice: A self-management approach may be beneficial for patients to manage interdialytic weight gain. On the other hand, anxiety and depression are often negative emotions in patients with chronic diseases. The quality of life deteriorates with increasing chronic kidney disease severity. Health professionals can apply the concepts and techniques of self-management to the practical aspects of health care to improve the emotion and quality of life in patients with chronic kidney disease.

Key Words: chronic kidney disease, health-related quality of life, self-management.
A Study of Sexual Distress in Women After Gynecological Cancer Treatment

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Purpose:
Studies have shown that gynecological cancer diagnosis and treatment are usually associated with many physical and psychological changes (Cleary, & Hegarty, 2011; Stead, Fallowfield, Selby, & Brown, 2007). Sexuality is an important quality of life issue for gynecological cancer women (Cull, Cowie, Farquharson, Livingstone, Smart, & Elton, 1993; Reis, Beji, & Coskun, 2010). Research in gynecological cancer has increasingly examined changes to women's sexuality, with the focus on treatment impact on patient sexual well-being (Bruner, & Boyd, 1999; Gilbert, Ussher, & Perz, 2011; Katz, 2009; Krychman et al., 2006; Southard, & Keller, 2009). But most studies have focused on sexual function and psychological impact, little explore the sexual distress of gynecological cancer women. The objective of this study is to analyze the treatment impact on sexual distress in different gynecological cancer women filing sexual distress as the main complaint from the Case Management Database.

Methods:
A retrospective cohort study with descriptive correlational design was conducted from October 2007 to August 2013. Using a medical center in northern Taiwan as the case management database. Nine hundred and ninety-five gynecological cancer cases were analyzed, of which 49 cases were citing sexual desire complaints with 634 citing asexual distress. Data were analyzed using descriptive statistics, chi-square test and logistic regression.

Results:
Gynecological cancer types, treatment descriptions and patient characteristics are as shown in Table 1. Cervical cancer accounted for the most cases (43.34%), followed by endometrial cancer (31.19%), then ovarian cancer (25.48%). Surgical treatment is the primary treatment for both cervical cancer and endometrial cancer, accounting for 70.95% and 65.73%, respectively. Ovarian cancer patients are treated mostly with surgery and chemotherapy, accounting for 59.77% of the cases. Related factors associated with sexual distress in different gynecological cancer treatments are shown in Table 2. Gynecological cancers have a strong correlation to sexual distress ($p<.000$). Moreover, cervical patients experienced the most distress compared to endometrial and ovarian cancer. The sexual distress incidence for cervical cancer was 34.98 times that of ovarian cancer. The sexual distress incidence for endometrial cancer was 3.87 times higher than that of ovarian cancer. Analysis demonstrated that surgery ($p<.000$), radiotherapy combined with chemotherapy ($p<.000$), and surgery combined with radiotherapy and chemotherapy ($p<.000$) were associated with sexual distress as well.

Implications for Practice: The Results show that cervical patients experienced more sexual distress than endometrial cancer and ovarian cancer patients. In addition, gynecological cancer women with multiple treatments would also encounter more problems. Thus, a more thorough education and consultation may be needed in these gynecological cancer patient groups. New healthcare professional training should include sexual health education, case discussion and role play. The education and environmental comfort should be tailored to the patient, such as educational pamphlets, teaching models...
(dummy), and private rooms for consultation to assist gynecological patients to overcome any barriers in dealing with sexuality-related issues.

**Key Words:** gynecologic cancer, cancer treatment, sexual distress.
Systematic Review of Using Honey to Reduce Oral Mucositis in Head and Neck Cancer Patients

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Purpose:
80-90% of head and neck cancer patients suffer from symptoms such as oral mucositis regardless of receiving radiotherapy or chemotherapy. The severity of oral mucositis gradually increase with treatment, and further appear significant increasing incidence of mucositis, pain, malnutrition, local or systemic infection, medical cost, prolonged length of hospitalization, and loss of quality of life. We investigate the effect of honey for oral mucositis in patients with head and neck cancer, and provide the evidence for oncology nurses and head and neck cancer patients to improve their health and well-being.

Methods:
We searched MEDLINE, CINAHL, ProQuest and PubMed with keywords “honey”, “head and neck cancer” and “oral mucositis”. The search focused only on articles published between 2003-2016. Priority is given to experimental studies and systemic literature review of honey-related oral care program. At last, 11 full-text articles are appraised and integrated.

Results:
2 of 11 articles are literature review, other 9 experimental studies show significant difference in 6 articles. The results indicate the honey can inhibit bacterial activity and reduce oral mucositis, however, the sample size is small and the risk of bias is not well explained. Besides, these studies have no standardization of the honey types, brewing ratio and honey dose. The limitations of the articles limit the application in clinical use and offer less evidence to approve its effectiveness.

Implications for Practice: The nurses offer drug-based appropriate professional care, and honey can be regarded as nutritional supplement or alternative therapy. Collaboration with dietitians, dentists and radiologist is recommended for promote the motivation and compliance of patient oral care. Honey can be supplementary science to offer alternative treatment for patients, and meet the holistic, individualized and diversified care needs of the patients.

Key Words: honey, oral mucositis, head and neck cancer.
Purpose: According to the investigation of Taiwan Association of Obstetrics and Gynecology, more than 70% of adolescents in Taiwan experience menstrual problems but less than 20% of adolescents seek treatment. Most of them rely on patience and folk prescription. Menstruation is unique, personal, interpersonal, and cultural implications for adolescent girls (Su, Wu & Yang, 2007). French (2005) studied that dysmenorrhea is also associated with emotions such as depression and anxiety. For the current study of dysmenorrhea, it is often confined to the medical and physiological aspects of research, less study to explore their own emotional response and experience of feeling on dysmenorrhea in Taiwan. The purpose of study use phenomenology to explore the experience of adolescent girls in dysmenorrhea.

Methods: It is a purposive sampling and samples are from University of Science and Technology in the southern Taiwan. The total samples are seven adolescent girls who experience dysmenorrhea each month and average age is 18.5 years old. In the closed space conduct in-depth interviews one by one. The data of interviews using Colaizzi’s Analysis (1978) to analyze and generalize.

Results: From the cases’ experience context to summarize the four main concepts: “special significance dysmenorrhea” “dysmenorrhea derived subjective identity” “doubly care of family” “peer's mercy and love”. The results of this study confirm the adolescent girls’ dysmenorrhea will increase the body's self-identity; it will affect the interaction with others and enhance the relationship of family members.

Implications for Practice: The results of study will provide medical care personnel to realize adolescent girls who experience dysmenorrhea and to improve the quality of life in adolescent girls.

Key Words: adolescent girl, dysmenorrhea, experience, phenomenology, qualitative study.
Explore the Difference Between Subjective and Objective Stress in Patients With Psoriasis

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Purpose: Most of the literatures reported that the stress is an important trigger for psoriasis. Stress that from physical and psychological distress and this comforta ble, worsening symptoms of disease and poor response to treatment in psoriasis patients. It’s very important to know the stress before reducing the stress intervention in psoriasis care. The previous studies associated with a stress assessment are mainly assessed by the self-reporting scale, lack of objective indicators of chronic stress. Could the self-reporting stress level actually reflects the real stress in psoriasis patients? The study purpose is to explore the difference between the objective and subjective stress in patients with psoriasis.

Methods: The cross-sectional study was conducted to assess the stress in psoriasis patients. Including criteria are that diagnosed as psoriasis and at least 20 years of age, recruit from the dermatology out-patient department of a medical center in North of Taiwan. Assessment tools are including the demographic information; self-administered questionnaire was used to as the subjective stress and to take closer to the scalp of the hair 3 cm, measured free cortisol as an objective chronic stress index.

Results: Totally, ninety-eight participants are recruited. 72.4% of participants are male and 35.7% have the family history with psoriasis disease. Subjective stress measured by psoriasis life scale inventory (PLSI) mean score is 16.01 (SD 10.91), 68.4% of the participants are high stress group and hair cortisol level mean is 50.47pg/ml (SD 168.49), log cortisol mean is 2.82 (SD 1.25). Female participants, single participants have higher cortisol level than male and married group; the participants whom education level is university degree or above, have higher cortisol level than below the high school group. Cortisol level has a negative relationship with age; others demographic information aren’t significant differences. But, there are not significant difference in hair cortisol level between low stress and high stress group by PLSI and other independent variables.

Implications for Practice: Based on the results, we found there have inconsistent between the subjective and objective stress. Gender, marriage status, education level and age are affecting the physical manifestations of stress. There have the differences in self-report and objective indicators of stress, we need to take into consider whether it is a poor coping alert sign. Some demographic variables showed different physical stress response. We recommend that medical care providers need further assessment potential high stress patients with psoriasis, whether there have difficulties in coping and adjustment.

Key Words: psoriasis, stress, pasi, free cortisol.
P1-062 The Quality of Life in the Psoriasis Patients
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Purpose: Psoriasis is an autoimmune disease that causes multiple medical problems in the skin and the immune system. Disease recurring characteristics, resulting in many troubles in the patient's life, increase the patient's stress level, thereby affecting the patient's quality of life. Many studies have found that patients with psoriasis have poor quality of life, but the local data is insufficient. The study objective is to investigate the quality of life and influencing factors of patients with psoriasis and to help the patients during the treatment.

Methods: A cross-sectional study was conducted in this study. A questionnaire survey was conducted on the quality of life scale (SF12), the psoriasis life stress scale (PLSI) and demographic variables. Totally 60 patients with psoriasis are recruited in a dermatology out patients department in Northern Taiwan.

Results: The results showed a poor quality of life for patients with psoriasis (SF12), both physical and mental health-oriented. Patients suffer a higher pressure from daily life due to psoriasis; and the higher the degree of stress, the worse the quality of life. Stress can explain 19% of PCS changes in quality of life; stress and work state explain 14.7% of MCS changes.

Implications for Practice: The results show that patients with psoriasis have poor quality of life and higher life stress, and stress also affects the quality of life changes. The study recommended that the quality of life of patients with psoriasis and stress included in the routine assessment of treatment, for high-pressure, to provide stress management intervention measures such as focus groups to enhance the coping the stress of patients with psoriasis as necessary.

Key Words: psoriasis, quality of life, stress.
P1-063  **Overweight Infertility Women by the Exercise Improve: A Meta-Analysis.**

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**Purpose:** We summarize all available evidence to evaluate exercise should be considered for overweight infertility women.

**Methods:** The author’s literature searched of electronic databases including PubMed, Ovid, and Web of Science databases and Cochrane Library were published in the English language restriction from January 2008 to December 2, 2016. The Medical Subject Headings using the following search terms: “infertility”, “exercise” and “overweight”. The meta-analysis was performed with the use of the Review Manager Software 5.3 was used for statistical analysis.

**Results:** A total of 4 articles involving 2 retrospective cohort trials and 2 randomized controlled trials series were selected with 147 patients with exercise and 302 controls. The meta-analysis showed was significant difference of overweight woman increased exercise could improve to fertility (RR 0.49, 95%CI [0.43, 0.56], p= .001).

**Implications for Practice:** The present meta-analysis showed that exercise is efficacy and safety for the treatment of overweight infertility women.

**Key Words:** infertility, exercise, overweight.
P1-064 Relationships Among Ostomy Adjustment, Stoma Care Self-Efficacy, and Self-Care Behavior in Ostomy Patients
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Purpose: The purpose of this study was to explore the relationships among ostomy adjustment, stoma care self-efficacy, and self-care behavior.

Methods: This study adopted a correlational design. Convenience sampling was performed to enroll 100 patients with ostomy from a medical center in central Taiwan. Structured questionnaires were used to collect data, including a demographic data sheet, Ostomy Adjustment Scale, Stoma Care Self-Efficacy Scale, and Self-Care Behavior Scale. Data were analyzed using SPSS Windows 19.0 software.

Results: Participants were aged between 30 and 92, with a mean of 60.46 years (SD = 15.7). The majority of the participants were male (56%). Over half of participants (56%) had an ileostomy, while others had a colostomy. The study revealed the following results.
(1) Ostomy adjustment was positively associated with self-perceived health status ($r = .22, p < .05$). (2) Age and the number of chronic diseases were negative associated stoma care self-efficacy ($r = -.27, p < .01$; $r = -.23, p < .05$). In addition, the muscle power of both left and right arms were positively associated with stoma care self-efficacy ($r = .31, p < .01$; $r = .31, p < .01$). (3) There was gender difference in ostomy self-care. Female patients performed better ostomy self-care than male patients ($t = -2.25, p < .05$). (4) Ostomy adjustment was positively associated with stoma care self-efficacy ($r = .44, p < .001$).

Implications for Practice: The results of the present study can provide information for clinical nurses to improve the care quality for the ostomy patients. Enhancing patients’ confidence to take care of the ostomy and improving adjustment should be the focus of nursing care.

Key Words: ostomy, self-efficacy, self-care.
P1-065 Relationships of Post-Concussion Syndrome, Fatigue, Impact of Event, and the Quality of Life in Head Injury Patients
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Purpose: The purpose of this study is to investigate relationships between post-concussion syndrome, fatigue, impact of event and the quality of life in head trauma patients.

Methods: The study is descriptive and correlational design. The number of samples were estimated and 134 patients is appropriate by G Power software. Data will be collected in a medical center which is located in the middle part of Taiwan. The research instrument includes patient’s basic information, the Post-concussion Symptom Scale, Fatigue Inventory, Impact Event Scale and the Health-related Quality of Life Scale (SF-12). The SPSS 22.0 statistical software is used for data analysis. Statistical methods include descriptive statistics and inferential statistics that included percentage, number, mean, standard deviation, Pearson correlation, t test, ANOVA and multivariate regression analysis.

Results: Traumatic brain injury often is caused by an accident. Patients are frequently accompany with concussion syndrome, therefore effects individual’s cognitive, physiological and psychological function. Additionally, the incident of the traumatic brain injury occurs suddenly that often leads to post-traumatic stress symptoms, thus affecting health status and the quality of life.

Implications for Practice: The results of the study will provide a reference for nurses in caring patients with head injury.

Key Words: head injury, post-concussion syndrome, fatigue, impact of event, quality of life.
Purpose:
To determine the trajectory of functional recovery in hospitalized older adults after discharge from hospital. Meanwhile, to identify the determinants related to functional recovery.

Methods:
A longitudinal study was adapted of patients aged 65 years or more who suffered from functional decline during hospitalization and within 3 months after discharged. The following were studied as independent factors: socio-demographic data (age, sex, educational level, marriage status, living condition, financial status and religion) and health conditions (exercise habit, the number of previous hospitalizations during one year, physical function two weeks before admission and at discharge, comorbidities) at discharge. The experience of functional recovery (perception, copy and resource of functional recovery) as independent factors and functional status as main outcome was measured during following at outpatient department.

Results:
A total of 33 patients were observed. The mean age of patients was 78.8 (SD=8.8), and 54.5% (n=18) were female. The mean score of Modified Katz Index of Independence in Activities of Daily Living were 10.45±3.14 (two weeks before admission), 4.64 ±6.70 (at discharge) and 7.12 ±4.04 (during following at outpatient department). Moreover, 11 patients (33.3%) experienced functional recovery within 3 months after discharge from hospital. Compared to patients without functional recovery after discharge from hospital, patients with functional recovery had spouse, more living with family, better financial status, were religious and better experience of functional recovery. However, it did not show statistical significance.

Implications for Practice:
Functional decline has been identified as the leading complication of hospitalization for the elders. Only 33.3% elders can recover to original function within 3 months after discharged. Efforts to provide intervention to facilitate functional recovery during hospitalization and after discharged are crucial. Therefore, formulating hospital-level clinical policy in facilitating functional recovery is extremely important and should include concrete intervention and specific discharge plan for older patients.

Key Words:
older adults, physical function, recovery, questionnaire.
Effects of a Self-Monitoring of Blood Glucose Regarding Blood Sugar Level on Uncontrolled Patients of Type 2 Diabetes Mellitus in Trang Province, Thailand

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Purpose: This aim of this study was to assess self-monitoring blood glucose (SMBG) regarding blood sugar level on uncontrolled patients of Type 2 Diabetes Mellitus in Trang Province, Thailand.

Methods: This study used the quasi-experimental one group pretest-posttest design to measure the effects of the intervention using self-monitoring of blood glucose (SMBG) regarding blood sugar level on uncontrolled patients of Type 2 Diabetes Mellitus. The sample was followed-up the control of blood glucose level by nurse case manager and multidisciplinary team. Eighty community-dwelling uncontrolled patients of Type 2 Diabetes Mellitus in Trang Province, Thailand selected by means of purposive, qualification-based sampling were given a self-monitoring of blood glucose (SMBG) protocols based on International Diabetes Federation (2009) including individualized to address each individual’s specific educational, behavioural, clinical requirements (to identify, prevention, manage acute hyper- and hypoglycemia) modifying behavioural interventions as needed, in consultation with their healthcare provider. Blood sugar level in Fasting Plasma Glucose (FPG) was collected before and after the twenty-fourth weeks. Descriptive statistic and paired t-tests and were used to analyze data.

Results: After the twenty-fourth weeks, it was found the Fasting Plasma Glucose (FPG) levels significantly (p = .01). The study finding support the effects of a Self-Monitoring of blood glucose (SMBG).

Implications for Practice: could promote knowledge and awareness of self-management among the Type 2 Diabetes Mellitus patients. However, it is very important to promote behavior modification as well. The continuity and sustainability of the practices should be concerned.

Key Words: self-monitoring of blood glucose (SMBG), Type 2 Diabetes Mellitus.
**P1-068 Influencing Factors of Quality of Life in Hand Injury Patients- A Systemic Review Study**

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**Purpose:** To investigate the possible influencing factors of quality of life in patients with hand injuries in an effort to identify key components that can be targeted in the future for treating individuals with these injuries and improve their quality of life.

**Methods:** An English literature review are based on 5 databases, dating back to 2010. Keywords are hand injury and quality of life. Screening of inclusive criteria are: (1) hand injury underwent surgical treatment, (2) between the ages of 15-65, and (3) accidental injury; Exclusive criteria are: (1) hand injury who have not received operation, (2) self-inflicted or burns, (3) forearm or upper arm injury, and (4) mental illness. Classification of evidence adapted from Oxford Center for evidence-based medicine for empirical medicine.

**Results:** The majority of studies in hand injury were focused in the functional outcomes. QOL-associated nursing researches in hand injury were rarely performed. In this systemic review, 6 eligible studies were selected. Several influencing factors of QOL in hand injury patients were summarized as demographic, physical, social and psychology domain respectively. Severity of injury, pain, appearance change, disability, social function and negative mental status, etc. can influence the QOL of hand injury patients. Patients may require a 3-12 months’ rehabilitation program in order to obtain the better hand function and QOL gradually.

**Implications for Practice:** Early identification of all influencing factors of quality of life in hand injury patient and determination of the appropriate timing for nursing interventions may improve quality of life in hand injury patients. In the future research, addition exploration of illness representation that are reflecting oneself way of being and thinking, specific attitudes and healthy behaviors related to quality of life in hand injury patient, may be effective improve all component of quality of life in hand injury patients.

**Key Words:** hand injury, hand trauma, quality of life.
High-Sensitivity C-reactive Protein: Physical Inactivity and Dyslipidemia Are Correlated With Increased Serum Levels in Middle-Aged Women With Catheterization

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Purpose:
This study was to examine the factors that influence the serum level of hsCRP in middle-aged women with catheterization.

Methods:
A cross-sectional comparative design was adopted for the study. The cases were sourced from the department of cardiology at two medical centers in Taipei, Taiwan between February, 2010, and September, 2014. This study was approved by the institutional review boards of two research institutions, and informed consent was obtained from all participants. Middle-aged women between the age of 40 ~ 64 undergoing catheterizations for suspected CAD were chosen as the subjects. Fasting serum samples were taken in the catheterization room before the examination for analysis and divided into two groups based on the level of hsCRP (≤3 mg/L and >3mg/L). The basic profile of cases as well as disease-related information and CAD-related risk factors (including biomarker, metabolism and lifestyle) were collected through surveys, patient records, blood tests and measurements. A chi-squared test (Fisher’s exact test was performed if a predictive value was < 5) and logistic regression analysis were performed. A two-tailed test was used, and statistically significant level was \( p < .05 \).

Results:
The total number of cases was 228, the age was 56.7±5.8 years, and 50 (21.7%) exhibited an hsCRP level of > 3 mg/L. Univariate analysis found a significantly higher level of hsCRP \((p< .05)\) in those with no dietary supplementation, lower LVEF, physical inactivity and dyslipidemia. Stepwise multiple logistic regression analysis found that hsCRP > 3mg/L was 7.8 times\((OR = 7.8, 95\%CI [3.1, 19.4], p < .01)\) more likely to occur among middle-aged women with the physical inactivity characteristic than those with the active attribute; the probability of hsCRP among those with dyslipidemia was also 4.1 times higher than those without dyslipidemia \((OR=4.1, 95\%CI [1.2,13.6], p= .02)\).

Implications for Practice: The level of hsCRP was significantly among those with physical inactivity and dyslipidemia. We recommend middle-aged women, especially those in the high-risk group for CAD, should engage in physical activity as well as control the level of blood fats and cholesterol to reduce inflammation and ultimately prevent CAD and related diseases.

Key Words: high sensitivity c-reactive protein, middle aged women, physical activity, dyslipidemia.
The Relationships Between Mindfulness and Quality of Life in Lung Cancer Patients: The Direct Effect or Indirect Effect.

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Purpose: Since 2007, lung cancer is the disease of the highest mortality rate in Taiwan, and it’s also the worst quality of life among all cancers. Mindfulness, means putting your awareness and attention on the present moment in purpose usually can transform lung cancer patients’ suffering to improve their quality of life. However, current studies rarely discussed how mindfulness can improve quality of life. The purpose of this study was to explore the relationship between mindfulness and quality of life which the direct effect or the indirect effect.

Methods: This study was a cross-sectional research design. Ninety-three lung cancer outpatients were recruited from a medical center, Taipei area. The structured questionnaires including basic information, the Chinese version of Mindfulness Awareness Scale, the Chinese version of Resilience Scale, Chinese version of European Cancer Treatment and Research on Cancer Quality of Life Questionnaire Core-30 were used for data collection. Data were analyzed by SPSS 20.0 (Statistics Package for Social Science 20.0) for descriptive statistical and inferential analysis. We also used the SPSS macro developed by Preacher and Hayes (2004) which is based on the nonparametric bootstrapping procedure outlined by Preacher and Hayes (2004). Direct and indirect effect were considered significant at $p < .05$ when the 95% confidence interval (CI) for the direct and indirect effect do not include zero.

Results: The relationship between mindfulness and quality of life in lung cancer patients was the direct effect (direct effect =0.57; 95%CI [0.20,0.93]) but also could be the indirect effect through resilience (indirect effect =0.12; 95%CI [0.024, 0.30]) although the indirect effect was small.

Implications for Practice: The findings will be the reference for the clinical nurses to develop strategies to help lung cancer patients to construct mindfulness for improving quality of life.

Key Words: lung cancer patients, mindfulness, quality of life.
**P1-071 Discharge Support for End-of-life Cancer Patients and Their Families to Achieve a Smooth Transition to Home Palliative Care With Peace of Mind**

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**Purpose:** To clarify what type of discharge support is necessary for patients with terminal cancer and their family members to achieve a smooth transition to home palliative care with peace of mind.

**Methods:** Subjects: End-of-life cancer patients and their families who have shifted to home palliative care and are in a relatively stable condition. Research method: We conducted a semi-structured interview for terminal cancer patients and their families after being introduced by their home care doctor. Analysis: We carried out the content analysis of Krippendorff. In order to ensure the reliability of the analysis results, we repeatedly examined them until the coincidence rate of the category classification exceeded 70 percent. Ethical consideration: This study was carried out with the consent of the director of the research cooperation facility, after obtaining the consent of the Yokkaichi Nursing and Medical University Research Ethics Committee (No. 95).

**Results:** The subjects consisted of 8 participants comprising 4 patients and their families, and the average patient age was 66.8 years. Three of the patients had gastrointestinal cancer and one had breast cancer. All patients had a Performance Status of 2 to 3. The following five categories were formed as discharge support to help terminal cancer patients smoothly transition to home palliative care.

- **Attitudes of the medical staff members who do not what you to feel abandoned by the hospital**
- **Arrangements made by nurses based on the patient’s disease condition and their family situation**
- **Predicted changes in the disease condition and the type of support according to the patient's character and life background**
- **Explanation and guidance on anxiety during home care**
- **Promote patient participation in discharge adjustment**

The concordance rate among researchers was 88.9 percent, thus indicating a sufficient reliability.

**Implications for Practice:** As a result, **Attitudes of the medical staff members who do not what you to feel abandoned by the hospital** were thought to lead to peace of mind for both the patients and their families as they are being discharged from the hospital. Also, in addition to the aging of cancer patients and the diversification in the types of families, the support **Considering that the disease state may suddenly change and life backgrounds of the patients and their families** and **The nurse must make arrangements according to the disease condition and the family’s situation**. It is indispensable to consider **Providing sufficient explanations and guidance concerning anxiety during home care** while considering the fact that the disease state is likely to change during the terminal cancer stage. Furthermore, it was suggested that considering the physical condition of the patient **encouraging patients to participate in the discharging process during the transition to home care** not only reduces anxiety associated with hospital discharge, but also improves patient satisfaction. This study was undertaken with the support of a grant awarded to Ms. Tokuto Miyasaki in FY2016.

**Key Words:** end-of-life cancer patients, home palliative care, discharge support.
P1-072 The Effects of a Basic Exercises Program on Body Shape and Functional Fitness for Elderly Villagers in Taiwan

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Purpose: The elderly population in Taiwan has been rapidly increasing. As July 2016, people aged 65 or older account for approximately 13% of the Taiwanese population. This number indicates that Taiwan is rapidly becoming an “aged society.” Evidence reveals that aging decreases the functional fitness of the elderly. Thus, this study aimed to develop a friendly program which includes a variety of exercises to help the elderly maintain their body shape and improve their functional fitness. It is expected that the results of this study can be a reference for geriatric care nurses to develop an exercise program for the elderly.

Methods: A longitudinal and quasi-experimental design was used in this study. The researchers utilized convenience and snowball samplings to recruit 92 participants aged 65-85 from 6 village elderly centers in Changhua. The exercise program developed for this study was called Basic Exercises, which consisted of aerobic exercise, resistance exercise, stretching exercise, and balance training. The participants were asked to take part in the program 50 minutes per time, once a week, for 10 weeks. Functional fitness data were collected one week before and one week after the participation in the exercise program. Descriptive statistics and paired t-test were applied to analyze the data.

Results: Thirty of the participants were male and 62 were female in this study. Their mean age was 79 (SD =7.6); mean body weight was 58.7 kg, mean body mass index (BMI) was 23.9 kg/m2 (SD =2.3), mean waist-hip ratio was 81.3 (SD = 0.43). At the endpoint of the study, the participants’ overall functional fitness scores were significantly different from the data gathered at the beginning of the study (p< .05), especially the differences in their grip strength, the strength of their upper and lower extremities, dynamic agility, and cardiac-pulmonary fitness. However, the indicators of body shape, such as body weight, BMI, waist-hip ratio showed no significant differences before and after the program participation.

Implications for Practice: Overall, a Basic Exercises Program can benefit elderly functional fitness, particularly for their grip strength, the extremity strength, dynamic agility and cardiac-pulmonary fitness. Therefore, the program can be recommended as an intervention to promote elderly health. Nonetheless, the program cannot be expected to improve the body shape of the elderly. It’s possible that the intensity and duration of the exercises used in this program may not be sufficient for the elderly to improve their body shape. Consequently, future nursing research should focus on dealing with this issue and developing a more effective exercise program for the elderly population.

Key Words: elderly, exercise, functional fitness, body shape.
Purpose: Cancer is among the leading causes of health-related death worldwide. Cancer-related fatigue is one of the most distressing symptoms, which significantly disrupts normal functioning and quality of life of cancer survivors.

Methods: This cross-sectional descriptive study was performed from September to December 2016. The data were collected from cancer patients of a teaching hospital and one NPO (Non-Profit Organization) Foundation. The questionnaire was developed by reviewing the related literature, based on the cancer-related fatigue criteria of ICD-10. The questionnaire was designed as a 5-point Likert scale. The item analysis of the cancer-related fatigue scale was performed by a pilot survey of cancer survivors as well as consulting with a panel of cancer care experts. The cancer-related fatigue scale was administered to 99 respondents for psychometric evaluation.

Results: After the rigid statistical verification, a 10-item; 3-dimension questionnaire was developed accounting 74.99% of the total variance in cancer-related fatigue perceived by the respondents. Factor I, social life, included four items. Factor II, psycho-physiological function, consisted of four items. Factor III, sleep quality, added two items. Internal consistency and stability were supported by Cronbach’s α 0.87. Construct validity was made by an exploratory factor analysis (EFA). Thus, the psychometric qualities of the scale were good and acceptable. After the questionnaire had been administered, surveys of the respondents showed that all scale items were easily comprehended. Therefore, the proposed instrument can provide a useful reference for evaluating the level of cancer-related fatigue for cancer survivors. Results showed that 2/3 (64%) cancer survivors’ responded they had above average level of cancer-related fatigue. Among them, psycho-physiological function fatigue was the worst ($M=3.26$, $SD=0.545$) follow by the sleep quality ($M=2.91$, $SD=0.857$), then the social life ($M=2.87$, $SD=0.601$).

Implications for Practice: The results of this study should shed light on the valid questionnaire for evaluating cancer-related fatigue of cancer survivors to improve their quality of life.

Key Words: cancer-related fatigue, cancer survivor, exploratory factor analysis (EFA).
P1-074 The Relationships Between Fatigue and Uncertainty of Patients With Liver Cirrhosis

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Purpose: Cirrhosis is a chronic, progressive disease without known treatment. Patients are often symptomatic and recurrent due to poor control leading to uncertain sensation. Fatigability is a psychological condition and is common in cirrhotic patients. Fatigability affects productivity, daily activity and social interaction. Since there is no easy way of improving fatigability in cirrhotic patients, it is often ignored by medical personels. Investigate the relationship between fatigue and uncertain feelings in patients with liver cirrhosis.

Methods: A cross-sectional, correlational research design was used with convenience sampling being performed to select 76 liver cirrhotic inpatients in the division of gastroenterology at a hospital in Southern Taiwan. Three structured questionnaires were used for data collection.

Results: (1) Patients with liver cirrhosis suffer from fatigue at a level (MD=5.39±2.34), which affects their daily activities at a moderate level (MD=5.05±2.59), and greatly impact their (Recreational activities) (MD=6.03±2.94); Uncertain sensation is above the moderate level (MD=71.81±10.67); (2) There is a direct correlation between high fatigability and daily activity (r= .356, p< .01); The degree of severity may influence the data fatigability level (F= 12.16, p< .001), uncertain feeling (F= 13.8, p< .001), above data may have variations; (3) Severity of disease conditions is directly related to fatigability level (r= .580, p< .01), and daily activity level (r= .653, p< .01). (4) Patients level of fatigability is directly related to their level of uncertain sensation. (r=.356, p< .01).

Implications for Practice: Nurses must be proactive in diagnosing the degree of severity, level of fatigue and uncertainty cause in the patients. By making psychological adjustment, we can reduce uncertainty cause, help to control and reduce adverse effects of this disease can bring to the patients.

Key Words: liver cirrhotic patients, fatigue, uncertainty.
Purpose:
The Blood Center is responsible for securing the blood safety for all citizens in Taiwan. Pre-donation interview and health education play a significant role in preventing HIV infected persons from donating blood. For privacy reason, we established private space for professional medical nurses conducting interviews with blood donors. The content of interview is based on specific standard, including hazardous behaviors such as drug abuse history, one-night stand, multiple sex partners, and male-male sexual behaviors. The potential donors are also informed with the civil and criminal obligation of intentional donating infected blood. Even so, HIV(+) blood donation can still be detected every year. It’s of great significance to improve the procedures of pre-donation interview and health education. With the aid of “Standardized Pre-donation Interview/Health Education Card”, we aim to evaluate its effectiveness regarding high-hazardous group screening, as well as analyzing the difference of human demography.

Methods:
Standardized Interview/Health Education Card We conduct the before-after test and divide our samples into 2 groups—treatment group and control group. Objects adopted in this test are donors from Kaohsiung, Pingtung, Penghu and Taitung areas. With the aid of “Standardized Pre-donation Interview/Health Education Card “, donations took place from 2015/11 to 2016/11 are named as treatment group. While the control group, samples are donations between 2014/11 and 2015/11, with no “Standardized Interview/Health Education/Screening Card”. Numbers of suspended donors and demographical differences will be compared post interview.

Results:
Among treatment group, 765 permanently prohibited drug-abused donors accounted for 2.99% of the total 25,561 donors who failed the interview. While among control group, 245 permanently prohibited drug-abused donors accounted for 0.97% of the total 25,323 donors who failed the interview. Considering the single factor of “drug abuse”, the number of permanently prohibited donors in treatment group is 3.12 times more than that in control group($p<.05$). The effectiveness is far more apparently higher for those first-time donors and absent-for-longer-than-1-year donors.

Implications for Practice: The Blood Center focuses a great deal on the continuous improvement of pre-donation interview to screen high-hazardous group. However, its effectiveness is rarely discussed in documents. With the assistance of “Standardized Pre-donation Interview/Health Education Card “, this research presents us the increased ratios of drug-abusers among permanently/temporarily prohibited blood donors. With the discovery of demographical variation, we hope to provide useful references for interviewers during their pre-donation interview and health education to screen the blood donors.

Key Words: blood donor, drug abuse, pre-donation health education, high-hazardous.
**P1-076 Factors Related to Change of Heart Rate Variability In Heart Failure Inpatients**

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**Purpose:** Heart failure due to myocardial muscle damage decreases parasympathetic nerve function, resulting in decreased heart rate variability. Alteration of heart rate variability in heart failure patients is related to a high mortality and re-hospitalization rate. Therefore, the purpose of this study is to explore factors affecting changes of heart rate variability in heart failure in patients.

**Methods:** The study was conducted in a medical center in northern Taiwan. The purposive sampling was used. A total of 150 subjects was recruited. The study data were collected with review of medical records and measurement of heart rate variability. Statistical analyses of changes in heart rate variability and related factors were assessed with paired-t test and logistic regression using SPSS 20.0

**Results:** This study found that changes of heart rate variability during hospitalization were influenced by employment status (OR = 0.05, 95%CI [0.00, 0.71], p = .03), a history of myocardial infarction (OR = 0.09, 95%CI [0.01, 0.60], p = .01), use of β-blockers within 24 hours of admission (OR = 3.86, 95% CI [1.18, 12.67], p = .03), use of Hypnotics (OR = 0.27, 95%CI [0.09, 0.85], p = .03), hemoglobin level (OR = 1.46, 95%CI [1.10, 1.93], p = .01), sodium level in blood (OR = 0.89, 95%CI [0.79, 0.99], p = .03), SDNN in admission (OR = 0.98, 95%CI [0.97, 0.99], p = .01), heart rate in admission, ADL function (OR = 8.2, 95%CI [1.97, 34.10], p = .004), and Immobility (OR = 1.00, 95%CI [0.05, 18.43], p = .999)

**Implications for Practice:** Decreased heart rate variability is interrelated to a history of cardiovascular disease and the level of mobility. Based on the findings of this study, healthcare providers need to provide people interventions preventing from metabolic syndrome which may result in cardiovascular disease and eventually heart failure. To patients diagnosed with heart failure, the importance of involving in a cardiac rehabilitation program should be encouraged to slow down physical function degradation, reduce complications, and improve heart rate variability.

**Key Words:** heart failure, heart rate variability, change of heart rate variability.
P1-077 Assessing the Feasibility of Implementing Advance Care Planning in Dialysis Patients
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**Purpose:**
This study assesses the perceptions and needs of ACP for nephrology nurses and to assess the feasibility of implementing ACP in dialysis patients.

**Methods:**
This study used focus group interviews to collect qualitative data. Using the content analysis method to analyze and summarize the integrated opinions, and then evaluate the feasibility of implementing ACP in dialysis patients.

**Results:**
We collected data from the focus groups in dialysis and nephrology units of two hospitals in Taipei from July 15 to September 28, 2016. A total of 27 subjects were recruited. Having four focus groups, each group composed of 5 to 9 members and conducted two group sessions. The average age of subjects was 38.8 years old. Total length of nursing practice more than 20 years accounted for 41%, and the average year of experience in nephrology nursing was about 10 years. Eleven percent of subjects had advanced directives (ADs) signature experience for self/family, and 63% of the subjects discussed the ADs with the patient/patient's family. The subject's view of ACP/advanced directives (ADs) presents two aspects: 1. Reflect on their attitude to ACP/Ads; 2. Inspired by the involvement in the dying process of their loved ones. The experience of implementing the ACP concept in the workplace presents two aspects: 1. Current situation and predicament of clinical practice; 2. Inspired by accompanying patients through the disease process. For the ACP implementation of dialysis patients in the workplace, there are 15 strategies formed, the experts selected 10 feasible strategies.

**Implications for Practice:** The findings could improve the understanding of health care workers about the end-of-life medical needs of ESRD patients, and as a good reference for the development of ACP guidelines for ESRD patients. These could be the cornerstone of ACP implementation in order to establish the ACP of ESRD clinical practice model in the future.

**Key Words:** advance care planning (ACP), end-stage renal disease (ESRD), dialysis patient, nursing.
P1-078 An Application of Flip Teaching into Health Education and Observations of Nursing Group on Diabetes Cases

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Purpose:
Flip teaching inspires self-learning and collaboration, establishing learners interactive communications approach. Enhanced diabetes themselves life style management. But its not easy to carry out daily life style changes, thus, the carers use flip teaching to strengthen self-care behavior is important. This study tries to analyze the differences of blood sugar within diabetes patients via health education involved.

Methods:
There were 102 subjects joined this health education. The party followed in each month. The party adapted 8 to 10 subjects forming a team. The team member should take care for each other through diabetes conversation map, self expression, problem clarification. After health educators phone call per week, 3- months tracking glycosylated hemoglobin and self-care at home.

Results:
By conducting the project, HbA1C dropped from 10.7% to 8.8% (p< .05). The average glycosylated hemoglobin dropped from 223.8mg/dl to 150.4mg/dl(p< .05.) Patients' self-mentoring blood sugar test were conducted 1-3 times per week. Besides, before heath education intervention, there were 29 subjects (28.4%) and then increasing to 39 subjects (38.2%). The average of self-monitoring blood sugar frequency increases from 2.26 to 3.11, which showed a significant difference (p< .05).

Implications for Practice: It is difficult to implement self-care for patients with diabetes continuously in daily life. However, using flip teaching can effectively improve patients' self-management due to patients wanted achieving the pre setting goal. It always motivated them. If the approach could be promoted, it would benefit patients gaining more health life style.

Key Words: flip learning, diabetes conversation map, glycosylated hemoglobin, HbA1C.
P1-079 Relationships of Perceived Stress, Coping Behaviors and Life Satisfaction Among Patients With Kidney Transplantation in Taiwan
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Purpose: Taiwan has the highest prevalence of chronic renal failure in the world and more than thousand cases who have a kidney transplant may live under pressures from uncertainties of prognosis and complications of treatments, which affect their life satisfaction. To understand their life satisfaction, we conducted a study to investigate their perceived pressure and coping behaviors in relation to their life satisfaction.

Methods: The cross-sectional study design with convenience sampling was undertaken. A total of 52 patients with kidney transplantation were recruited from outpatient services in Kaohsiung Medical University Hospital. The research tools included kidney transplants’ perceived pressure scale, Chinese version of Jalowiec Coping Scale (JCS-40) and kidney transplant patients’ life satisfaction index scale. The statistics was analyzed using SPSS version 18.0.

Results: Most patients had low level of perceived stress and the main stressors were from “uncertainty of transplant kidney survival”, “future health status” and “creatinine level”. They mainly used “problem-solving method” of coping behavior and have a good life satisfaction. Two factors of perceived pressure and family total income were accounted for 21% of variance for life satisfaction.

Implications for Practice: This study could provide health professionals to understand patients after kidney transplantation how their stressors, coping behaviors and life satisfaction are. It could help them find patients with highly stress early and provide proper health education and supportive intervention to lead high-quality medical care.

Key Words: coping behaviors, kidney transplantation, life satisfaction, perceived stress.
A Prospective Cohort Study on Side Effects of Chemotherapy for Ovarian Cancer Patients

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Purpose:
The purpose of this study is to understand the situation of incidences of side effects experienced by ovarian patients during chemotherapy.

Methods:
Prospective longitudinal research design was adopted. Through purposive sampling, ovarian cancer patients from an anonymous medical center in Central Taiwan were selected, with 129 cases accepted. Six chemotherapy courses were collected. From Day 1 to Day 10 of each chemotherapy, the situations of side effects occurring were checked daily.

Results:
Results show that among the 19 side effects, extremity pain (65.3%), fatigue (57.3%), loss of appetite (50.4%), and taste change (48.4%) had the highest incidences. A comparison of the results of incidences in terms of chemotherapy courses, number of observation days, chemotherapy drugs shows that: 1. The incidence of extremity pain significantly increased with increases in number of observation chemotherapy courses and days; the third chemotherapy courses reached the peak and continued until the sixth chemotherapy courses; reaching the peak by Day 3 and continued until Day 10; the Carboplatin + Paclitaxel chemotherapy formula had the highest incidence among all drugs; 2. The incidence of fatigue slightly increased from the second through the fourth chemotherapy courses, reached the peak by the fifth chemotherapy courses and continued until the sixth chemotherapy courses; significantly increased starting Day 2, reached the peak by Day 3, and continued until Day 6, and started to decline from Day 8 to Day 10; “another chemotherapy drug formula” had the highest incidence among all the drugs; 3. The incidence of loss of appetite with increases in the number of chemotherapy courses, the incidence decreased and significantly decreased in the sixth chemotherapy courses; significantly increased starting Day 2, reached the peak by Day 3, and continued until Day 7; it significantly decreased by Day 8 until Day 10; the Carboplatin + Liposomal Doxorubicin chemotherapy drug formula had the highest incidence among all drugs; 4. The incidence of taste change the incidence significantly increased in the third and fourth chemotherapy courses and continued until the sixth courses; significantly increased from Day 3 to Day 6 of observation and significantly decreased from Day 8 to Day 10; “another chemotherapy drug formula” had the highest incidence compared to other drugs.

Implications for Practice: The research results shall serve as a reference for education training contents intended for incoming nursing personnel in gynecological wards, clinical nurses offering care to ovarian cancer patients, guidance for nursing guidance contents for ovarian cancer patients, cancer prevention related in-service educational contents, and providing suggestions on side effects with high incidences. Intervention research should continue to be carried out to resolve issues and enhance the quality of care for ovarian cancer patients.
Key Words: ovarian cancer, chemotherapy, side effects.
P1-081  Exploring the Effectiveness of Self-Management of Diabetes Mellitus Patients by Using Dialogue Tools Group Education
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Purpose: In recent years, the number of diabetes mellitus has increased year by year. Diabetes care in addition to treatment, how to make self-management of diabetic patients is very important. Therefore, The aim of this study was to explore the use of Steno diabetes dialogue tools small group of health education, we investigated the effectiveness of a group education to improve patient self-management and improvement of glycosylated hemoglobin (HbA1C) in patients with diabetes.

Methods: This was a 2-group, using a quasi-experimental study design, who are qualified in selective criteria, from an endocrine metabolic ward of a medical center. Adults diagnosed with diabetes, participants in the experimental group accepted "dialogue tools group education", each time about 60 to 90 minutes for once a week, the control group received "routine education". Participants recorded the perceived diabetes self-management scale (PDSMS) and 10-point confidence index, participants were examined HbA1C after three months.

Results: There were 70 and 70 participants in the comparison and experimental groups, mean age 61.1 years, patients were female (52.9%). Sixty-six patients (47.1%) were had family history of diabetes, eighty-one patients (57.9%) were the first diagnosis. The HbA1C had also decreased significantly more in the experimental group than in the control group. Participants in the experimental group reported a significant in PDSMS questionnaire (p < .005), there was also a significant difference in the 10-point confidence scale (p < .05).

Implications for Practice: This dialogue tools of education are provided empowerment to diabetes patients. The goal of self-management is to assist patients with diabetes to have better glycemic control, prevention of complications and enhancing their quality of life. The results of this study could be used as a reference for diabetes educators.

Key Words: diabetes mellitus, dialogue tools group education, self-management.
Effects of Patient Education Program on Promoting Disease Knowledge and Regular Follow-Up Behavior Intensions for Hepatitis C Virus Infection Patients

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Purpose: Taiwan is a hepatitis C virus (HCV) infected high prevalence area. The prevalence is about 4.4%. People with HCV infected usually do not have symptoms. Therefore, most patients do not actively seek to track and treatment, although the recommendations infected persons should be at least every six months to regular follow-up liver function and liver ultrasound, and early detection to reduce the problems related complications occur. But only have 28.2-59.2% had regular follow-up. This study was designed to compare the effect of patient education program on promoting disease knowledge and regular follow-up behavior intention in hepatitis C virus infected patients.

Methods: A convenient sampling was performed in this study. Total 102 hepatitis C virus infected patients were included in a regional hospital in the central of Taiwan. Participants were randomized to receive either an experimental intervention or a control group, the experimental group provided individual health education which included disease and motivation enhancement, while the control group provided disease-related health education leaflets, and completed pre- and post-education questionnaires.

Results: The present finding the education program showed improvements in knowledge of hepatitis C and regular follow-up behavior intentions ($p<.001$).

Implications for Practice: The results indicate that individual education program can improve the knowledge of hepatitis C and regular follow-up intentions. Therefore, it is recommended to improve the knowledge of disease and motivation by case management strategies in order to increase patient to regular follow-up disease and to reducing the threat of hepatitis C related complications.

Key Words: hepatitis c, regular follow-up, patient education program.
Purpose: To explore the health burden on caregivers who take care of patient with ostomy.

Methods: A correlation design was adopted, performing convenience sampling to enroll 96 caregivers with ostomy from a medical center in central Taiwan. The data was collected during 2015. The Structured Questionnaires were helped to collect data including demographic characteristics, Caregiver Reaction Assessment. Data were analyzed using SPSS Windows 20.0 software.

Results: Participants were aged between 20 and 77, with a mean of 50.36 years ($SD = 13.3$). The majority of the participants were female (58.3%). The caregiver’s education mainly above high school (70.9%). The study revealed the following results. (1) Age was positive associated health burden ($p = .026$). (2) The caregiver’s education was related with health burden ($p = .018$).

Implications for Practice: The results of the present study can provide clinical nurse with care information not only for ostomy patients but also their caregivers. Nursing programs should provide the caregivers with individual care guidance and the essential care information such as stoma care, patient group and other social support. Therefore the caregivers can learn and practice the care skills to ease their burden, and improve the quality of care.

Key Words: caregiver’s health burden, ostomy.
**Purpose:**
People's lifestyle and eating patterns with the progress of life, making the incidence of cardiovascular disease increased year by year, and catheter examination is a common method of diagnosis of cardiovascular disease. The purpose of this study is to compare the different preparation methods of shaving skin preparation and receiving 2% chlorhexidine disinfectant for the diagnosis and treatment of femoral artery catheterization patients.

**Methods:**
The difference of comfortableness of the puncture site is studied. mining RCT study design. The study wereperformed at the medicine ward of a medical center in Taichung, selected from the femoral artery catheterization, adults over the age of 20, literacy, can fill out the questionnaire of patients. The number of samples of each 39, intervention measures to 2% chlorhexidine disinfectant liquid instead of traditional shaving method of skin preparation, on the day after surgery, the first day after surgery, the first visit 30 days after surgery to observe perineal comfort degree. SPSS statistical software was used for chi-square and t-test analysis to understand the different skin preparation methods and the difference of the puncture site comfort.

**Results:**
The results showed that the experimental group at four time points no hair growth stinging situation, so no discomfort occurred; but the control group in the hair growth process, the day after the 22 people felt hair growth tingling, pain 0-4 points, the two groups in the postoperative day puncture site comfort $p= .041$, significant difference; the control group in the next day after 37 people were hair growth tingling, pain degree of 0-6 points, The two groups in the postoperative day after puncture site comfort $p= .000$, significant difference; 7-10 days after the 39 patients due to shaving skin preparation and discomfort, pain degree of 1-10 points, The two groups in the 7-10 days after puncture site comfort $p= .000$, significant difference; 30 days after the skin of 4 people have discomfort, pain degree of 0-1 points, the two groups in the postoperative 30 days puncture site comfort $p = .000$, significant difference.

**Implications for Practice:**
The results showed statistically significant differences between the two groups in postoperative wound hair discomfort, indicating a significant difference in shaving skin preparation to the patient's postoperative discomfort compared with the experimental group. The control group of shaving skin preparation for postoperative discomfort to patients with ductus arteriosus 7-10 days after the most uncomfortable situation, followed by shaving after the next day. It is hoped that the results of this study can replace 2% chlorhexidine disinfectant traditional shaving method of skin preparation, reduce patient discomfort, and hence to enhance the quality of care in patients.

**Key Words:** catheter examination, skin preparation, comfort.
Investigate the Labor Experience of Postpartum Women Cared by Midwife

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**Purpose:**
In October 2014, the Department of Health and Welfare promote gentle birth project in six hospitals. The purpose of this program is to provide midwifery to the laboring women increasing positive satisfaction experience. This research is to investigate the women’s birth experience who was cared by midwife during labor period.

**Methods:**
This quantitative study was reviewed by the hospital IRB. At postpartum 24 hours, the researcher explained the purpose of this study to the woman and began to gather data after obtaining consent. Demographic Questionnaire, Visual Analogue Scale for Pain (VASP) and Questionnaire Measuring Attitude about Labor and Delivery Experience were used. 104 cases were received.

**Results:**
1. Visual Analogue Scale for Pain mean score is 9.33 (A scale of 10 points), 67.33% of cases is 10. Degree of pain is not related to parity. Multipara suffered extreme pain which is the same as primipara during labor period. 2. The mean time of the first stage of labor is 409.7 minutes. The mean time of the second stage of labor is 63.7 minutes. 3. The mean time of the first stage of labor is correlation to self-perceived pain level and with or without occupation. The mean time of the first stage of labor is no relation to age. 4. The mean of birth satisfaction of all cases is 4.39 ± 0.781 (Likert Scale 5 points).

**Implications for Practice:**
1. The mean time of the first stage of labor in working women is shorter than that of housewives. May be it is related to the amount of daily activity. 2. Multipara suffered extreme pain which is the same as primipara during labor period. Multipara should be caring and cared the same as primipara in the labor period. 3. Although both the primipara and multipara who cared by midwife suffered extreme pain during labor period, but almost all the cases were highly satisfied with birth experience. Midwifery care is meaningful to laboring women, this policy should continue to promote to benefit all the woman in labor.

**Key Words:** labor experience, postpartum, midwife.
Purpose: Dementia care is an overwhelming and a heavy load on primary family caregivers (PFCs). However, limited research has been published on the day-to-day caregiving processes. The aim of this research is to investigate the daily stressors and overall impact among PFCs of elders with Dementia.

Methods: Data was collected using a semi-structured questionnaire in accordance with in-depth life history interviews.

Results: Twenty-seven PFCs, 12 males and 15 females, were recruited from neurological clinics of a medical center in Southern Taiwan. The age of the PFCs ranged from 28 to 82, with a mean of 53.2 years. Themes of stressors and impacts were organized using a content analysis approach: (1) The four major themes for stress included the growth of behavioral and psychological symptoms of dementia (BPSD), daily care dilemma, symptom changing chaos, and family dynamic depletion; (2) The four major themes for impact included tormented figure, endless suffering, chaotic life, and decayed interaction.

Implications for Practice: The findings aim to provoke the awareness on Dementia and care related issues, in hopes of establishing multidisciplinary management protocol and advanced social welfare. Methodological limitations of the study are also discussed.

Key Words: family caregiver, caregiving process- stress and impact, behavioral and psychological symptoms of dementia (BPSD).
Activity Interventions for Elders With Dementia at Hospital Ward in Southern Taiwan

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Purpose: Activity is a basic human need. However, no empirically based programs for prescribing hospital activity interventions have been developed for elders suffering from dementia in Taiwan. The aim of this single group, pre- and post- intervention study was to evaluate the impact of a pilot Activity Interventions on physical, psychological, and cognitive function of elders with dementia.

Methods: A purposive sample of 8 elders, ranging from 60-89 with a mean age of 68.4 years, was recruited from a rehabilitation ward of a medical center in Southern Taiwan. Based on Need-driven Dementia-compromised Behavior Model (NDB; Algase et al., 1996), the interventions ran for five weeks, three times a week in 30 minutes time periods.

Results: The mean participation time for each elder was 4.88. Pre- and post-interventions data were obtained: The Barthel Index score indicated improved ability in ADL, which increased from 46.9 to 58.8 ($p = .03$); the Geriatric Depression Scale score decreased from 5.4 to 3.4 ($p = .04$); and the Mini-Mental Status Examination score increased from 18.1 to 20.4($p = .03$). All changes were significantly positive.

Implications for Practice: The data support the view that the pilot interventions had positive effects. Increased sample size and individually tailored interventions require additional research.

Key Words: activity interventions, elders with dementia, physical-psychological-and cognitive function.
Purpose:
The prevalence of dementia is increasing. However, little research has been published into how caregivers undertake such explorations in their day-to-day caregiving task. The aim of this research is to investigate the daily caregiving management among family caregivers of elders with Dementia.

Methods:
Twenty-seven caregivers, ranging in age from 28 to 82, with a mean of 53.2 years, and predominantly female, were interviewed with grounded theory method used to develop categorical themes that reflected the oriental perception and daily managements among family caregivers toward Behavioral and Psychological Symptoms of Dementia (BPSD) in Taiwan. An in-depth literature search was also undertaken.

Results:
Memory loss was the very first warning sign to awaken the notification of caregivers. Most caregivers realized the diagnosis but did not comprehend the irreversibility of illness, which made them embrace improper hope for any recovering. Besides, caregivers’ daily managements were analyzed further: yielding for normality, operating brand new trajectory, and struggling for resources.

Implications for Practice:
Alongside, the image of person-centered philosophy from caregiving processes individualized, humanized and creative format were found which deserved more studies in depth. Chinese caregivers’ person-centered philosophy was perceived as a protective factor against risks and positive indicator for quality care.

Key Words:
family caregiver, caregiving management, behavioral and psychological Symptoms of dementia (BPSD).
P1-089  An Investigate Study of the Behavioral Response and Caregiver Burden in Children Hospitalized With Bronchial Pneumonia

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Purpose: The purpose for this study is to explore the correlation between the behavioral response of children receiving spray therapy and the burden of primary caregivers, to provide reference for future clinical practice and individualized care needs, so as to restore the health of the child and reduce the caregiver burden.

Methods: This study designs to explore correlation between the behavioral response of children receiving spray therapy and the burden of primary caregivers in a pediatric hospital in Changhua, Taiwan. A structured questionnaire is used for collecting the data and 100 samples to be recruited this study. A structured questionnaire included 「Child Behavioral Response Scale」and 「Primary Caregivers' Burden Scale」and using SPSS 22.0 for data analysis.

Results: The study assumed that there are a correlation between the behavioral response of children receiving spray therapy and the burden of primary caregivers. Therefore, to knowing how to reduce the burden of primary caregivers may help the children receiving spray therapy with well behavioral response. This research is still processing as well.

Implications for Practice: This study is hoping to come up with specific data and recommendations through the research outcome, providing clinical practice of health education reference and nursing care related information.

Key Words: behavioral response, caregiver burden, children, bronchial pneumonia.
P1-090 The Instantaneous Effects of High-frequency Chest Wall Oscillation on Patients With Acute Pneumonic Respiratory Failure Receiving Mechanical Ventilation - A Randomized Controlled Study

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Purpose: Endotracheal intubation and prolonged immobilization of patients receiving mechanical ventilation may reduce expectoration function. High frequency chest wall oscillation (HFCWO) may ameliorate airway secretion movement; however, the instantaneous changes in patients’ cardiopulmonary responses are unknown. Moreover, HFCWO may influence ventilator settings by the vigorous oscillation. The aim of this study was to investigate these issues.

Methods: Seventy-three patients (52 men) aged 71.5±13.4 years who were intubated with mechanical ventilation for pneumonic respiratory failure were recruited and randomly classified into two groups (HFCWO group, n=36; and control group who received conventional chest physical therapy (CCPT, n=37). HFCWO was applied with a fixed protocol, while CCPT was conducted using standard protocols. Both groups received sputum suction after the procedure. Changes in ventilator settings and the subjects’ responses were measured at pre-set intervals and compared within groups and between groups.

Results: Oscillation did not affect the ventilator settings (all \( p > .05 \)). The mean airway pressure, breathing frequency, and rapid shallow breathing index increased, and the tidal volume and SPO\(_2\) decreased (all \( p < .05 \)). After sputum suction, the peak airway pressure (Ppeak) and minute ventilation decreased (all \( p < .05 \)). The HFCWO group had a lower tidal volume and SPO\(_2\) at the end of oscillation, and lower Ppeak and tidal volume after sputum suction than the CCPT group.

Implications for Practice: HFCWO affects breathing pattern and SPO\(_2\) but not ventilator settings, whereas CCPT maintains a steadier condition. After sputum suction, HFCWO slightly improved P peak compared to CCPT, suggesting that the study extend the indications of HFCWO for these patients in intensive care unit.

Key Words: high frequency chest wall oscillation, acute respiratory failure, mechanical ventilatory support, chest physiotherapy.
P1-091 A Study on the Related Factors Among Betel Nut Cognition, Confidence in Quitting Betel Nut Chewing and Betel Nut Dependency
Pei-Chi Chang Ditmanson Medical Foundation Chia-Yi Christian Hospital, Taiwan
Chen-Yuan Hsu Dayeh University, Taiwan

**Purpose:** Statistics from the Department of Health 2014 show that oral cancer is the fifth leading cause of cancer mortality in Taiwan and the number of chewing betel nuts in Taiwan will increase from 1.4 million in 2001 to 2 million in 2016, and there is a great impact to young and middle-aged population to cause an increase of oral cancer. The aim of this study is to find out whether there is correlation between betel nut cognition, confidence in quitting betel nut chewing and betel nut dependence, and expect to develop relevant health promotion programs.

**Methods:** This study surveys to 100 people in the community with chewing betel nuts by a regional hospital visiting, using structured questionnaire for data collection as demographic information and health behavior. All data analyze by SPSS 22.0 for Window 2000, to show the table of allocation, percentage, chi-square test, t-test and correlation analysis.

**Results:** The study assumed that there are a correlation between the betel nut cognition, confidence in quitting betel nut chewing and betel nut dependence. Therefore, knowing the correlation of people betel nut chewing may help those people to have well health behavior. This research is still processing as well.

**Implications for Practice:** The results of the study would as a reference for the workers and government agencies concerned with health promotion program for people to quit betel nut chewing in the future.

**Key Words:** betel nut, confidence, dependency.
**P1-092 Effectiveness of Intervention of Health Education on Metabolic Syndrome in Community Residents: A Study of Four Towns in Northern Taiwan**  
Ching-Ching Lin  
Community Medicine Research Center, Chang Gung Memorial Hospital, Keelung, Taiwan  
Sue-Hsien Chen  
Community Medicine Research Center, Chang Gung Memorial Hospital, Keelung, Taiwan  
Yuan-Huang Li  
Community Medicine Research Center, Chang Gung Memorial Hospital, Keelung, Taiwan

**Purpose:** The effects of active intervention of health education on the prevalence of metabolic syndrome in community residents.

**Methods:** This study was conducted from 2014 to 2015 with subjects above 30 years old in four towns in northern Taiwan using the method of stratified random sampling. There were 663 people enrolled. The collected data was separated in two steps. The first step: The subjects should have completed the process of blood study, body measurement, pretest questionnaires and participating in the entire course of metabolic syndrome health education. The results of blood test and body measurement were blind to the experienced metabolic physicians before and after the education courses. The second step: After the intervention of health education course, the enrolled subjects should repeat the blood study, body measurement and posttest questionnaires. We compared the subjects’ weight, waist, blood sugar before meals, blood pressure, triglycerides, high-density lipoprotein and the health literacy of metabolic syndrome before and after the intervention of health education.

**Results:** The average scores of “literacy pretest” and “literacy posttest” changed from 2.3 to 5.65, respectively. There are significant correlations ($p < .05$) between before and after health education. After the intervention of active health education, the index of waist circumference of 305 subjects (46.0%) decreased to 253 people (38.2%). The index of high blood pressure changed from 380 subjects (57.3%) decreasing to 356 people (53.7%). The index of blood sugar before meals changed from 305 subjects (46.0%) decreasing to 264 subjects (39.8%). Triglycerides went from 145 people (21.9%) to 132 people (19.9%). High-density lipoprotein went from 144 people (21.7%) to 110 people (16.6%). The data of waist, blood pressure and high-density lipoprotein improved significantly ($p < .05$). The diagnosis of metabolic syndrome in this study changed from 215 subjects (32.5%) to 170 subjects (25.7%) before and after the active health education program ($p < .05$). The intervention of active health education toward the cessation of smoking and chewing betel nut, in addition to more actively swimming, jogging, cycling, and routinely consuming high fiber food and regularly checking blood pressure have significant positive effects ($p < .05$).

**Implications for Practice:** The intervention of active health education on metabolic syndrome can decrease the subjects’ habits of smoking and chewing betel nut and can even decrease the risk of metabolic syndrome. The health education can significantly improve the waist circumference, high blood pressure, high-density lipoprotein, triglycerides, subject’s weight and blood sugar before meals. Therefore, if active health education on metabolic syndrome can be promoted and carried out, the prevalence of metabolic syndrome could decrease. The study found subjects who chew betel nut had higher incidence of metabolic syndrome compared with subjects who don’t chew betel nut. Thus, the cessation of chewing betel nut should be seen as a major factor in the
prevention and the alleviation of metabolic syndrome.

**Key Words:** metabolic syndrome, health education, health literacy, index of metabolic syndrome.
The Adjustment Process of New College Nursing Lectures

Hui-Wen Wu, Shu Zen College of Medicine and Management, Taiwan
Yu-Ru Liu, Shu Zen College of Medicine and Management, Taiwan
Yueh-Hsiu Lin, Shu Zen College of Medicine and Management, Taiwan

Purpose: This study was focused on the teaching challenges and competency, professional socialization and job satisfaction among the new lecturer without teacher education program before whom teaching in college of medicine.

Methods: New College nursing lectures was recruited in college of medicine. Each novice teachers had a tutor to guide the tutoring program and Teacher-Student interaction before qualitative interviews with study data collected. A cross-sectional survey of new College Nursing Lectures after tutoring intervention. Data collected from August to December of 2016. A semi-structured interviewed of the adjustment process and also collected through classroom observations, students interviewed, and documents. Qualitative interviews used content analysis to categorize results.

Results: Five of new entrant lectures were recruited in this study. The average lecture age was 36 years old. The majority of lectures were not married; female who got master degree without teacher education program. And preferred mentor lecture programs of nursing in college should be more perfectly and fixable for each one. Due to no teaching experience and teacher education program before, the subjects of mentor lecture programs started before the new semester will be reduce teaching predicament. Furthermore the college should give mentor lecture and new entrant lecture learning space and time to help their judgement. Personal characteristics and earlier experiences were associated with the interaction of students that was a big challenge and stress.

Implications for Practice: The findings demonstrated that the new college nursing lectures without any teaching education program to learning how to teaching and Teacher-Student interaction is a higher stress of adjustment process. Using mentor lecture programs may help but more fixable and time is the college of policy makers can strengthen changing, in order to increase the acceptance of teaching job.

Key Words: new college nursing lectures, nursing, mentor lecture program.
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P2-094 C08-320 Using Life Review to Improve Self-Esteem and Self-Integration of the Elderly in Community
Wei-Chun Liao, National Taipei University of Nursing and Health Sciences, Taiwan

P2-095 C01-464 Changes in Novice Nurse Professional Values During the First Year Experience
Yu-Hua Lin, I-Shou University, Taiwan
Purpose: The study explores the relationships among the patients with end stage renal disease facing dialysis treatment of decision-making process and the variables of decision conflict and social support.

Methods: A cross-sectional descriptive correlational study design. The study using a purposive sampling enrolled 84 patients with end stage renal disease who were recruited from a Nephrology outpatient in Taichung, Taiwan. Decision conflict and social support were evaluated using structured questionnaires included the Chinese version Decision Conflict Scale, and the Chinese version International Support Evaluation Scale. The collected data were analyzed using the SPSS version 18.0 statistical software. Data were analyzed using descriptive statistics, t-test, pearson correlations, and simple regression.

Results: This study approximately 85.7% of the patients had joined the Pre-ESRD educational program but 54% patients not yet make decision for dialysis. The Decision Conflict Scale average score 2.52. International Support Evaluation Scale average score 2.57. The patients experienced decisional conflict and social support form professional care provider were median value. Negative correlations were identified among decision conflict and social support. However, the patients have not joined the Pre-ESRD educational program that decision conflict, and social support average scored were worse significantly than joined the Pre-ESRD educational program patients.

Implications for Practice: The study supported the presence of significant correlations among decision conflict and social support. Most of the patients experienced decisional conflict facing dialysis treatment of decision-making process, whether they participated in the Pre-ESRD educational program or not. Social support predicted decisional conflict in these patients. Health care professionals may need to offer appropriate nursing interventions in Pre-ESRD educational program in order to enhance patients’ levels of social support.

Key Words: decision conflict, social support, end stage renal disease, decision-making process.
P2-002  The Willingness of Patients With Chronic Obstructive Pulmonary Disease to Receive and Their Families to Consent to Life-Sustaining Treatments at the End of Life

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Wen-Yu Hu  National Taiwan University, Taiwan

Purpose: To explore the willingness of COPD patients and their families for patients to receive LSTs at the end of life, and to compare the differences in the willingness of LSTs between patients and their families.

Methods: A cross-sectional survey was conducted, and structured questionnaires were used for data collection.

Results: A total of 219 valid samples were collected, including 109 patients and 110 families. Sixty percent of family members indicated that they did not know the intentions of the patient. The willingness of families for patients to receive LSTs was significantly higher than that of the patients. The level of willingness of patients and families varied according to the situations and LST interventions. When the patients were in a vegetative state or the medical treatments were futile, the willingness of COPD patients and their families to receive cardiopulmonary resuscitation and LSTs significantly decreased. Endotracheal intubation and external defibrillation were the least likely to be requested, whereas the willingness to receive medication injections and non-invasive ventilation was greatest.

Implications for Practice: The communication on the issues of LSTs between families and patients should be facilitated in the future. Adequate information on the condition of the patient and LST should be provided to avoid COPD patients receiving inappropriate LST at the end of life.

Key Words: chronic obstructive pulmonary disease, life-sustaining treatment, end-of-life, willingness.
P2-003 The Prevalence of Metabolic Syndrome and Its Related Factors for Taiwanese Employees- A Analysis of Physical Examination Data
Pao-Long Tsai Px Mart Co., Ltd., Taiwan

Purpose: Metabolic syndrome is a chronic illness resulting from unhealthy lifestyle factors such as the lack of physical activities, excessive uptakes of fatty foods, and obesity. Progressively, cardiovascular diseases caused by metabolic syndrome can lead to patients suffering death as same as cancer. Similarly, stress problems of metabolic syndrome will be occurred for those who have heavy workload and night shift. In addition to the detection of working place environment, a number of employers provide periodical physical examination to ensure their employee’s health in Taiwan. There are few studies of analyzed data of physical examination in this area in Taiwan. Therefore, the aims of this study were to explore the prevalence of metabolic syndrome and its related factors in Taiwanese employees.

Methods: A retrospective investigation study was conducted. Data were retrieved from an annual physical examination database of a large Taiwanese retailing company from July 2015 and June 2016, including demographic and personal lifestyle information, and physical examination data. Data were encoded, entered onto computer and analyzed with descriptive and inferential statistics, using IBM SPSS Statistics 20.0 software.

Results: For all 1,586 cases in the database, the prevalence of metabolic syndrome was 7.1% (n=113). The mean age of the cases was 32.9 years (range 18 – 63; SD 9.7), with most participants were female (n=1,268, 79.9%). There was a dissimilar age for males and females (28.3 years versus 34.0 years). Despite the fact that most participants did not present problems with co-existing chronic illnesses, i.e. hypertension, diabetes, and cardiovascular diseases, a quarter of participants suffered from scoliosis symptoms (n = 391, 25.0%). In addition, Spearman’s rank correlation coefficient demonstrated that high-density cholesterol and smoking was statistically significant (ρ= -.16, p < .001), while high-density cholesterol and drinking was small negative sign (ρ= -.09, p< .03).

Implications for Practice: The results of this study recommend providing a physical examination periodically is crucial for finding employees’ health-related problems earlier. We also suggest that better support management is required to allow employees more control over their working life.

Key Words: metabolic syndrome, physical examination, prevalence.
Intertwining of Birth and Death: The Experience and Embodied of End of Life of NICU

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Hsien-Feng Lin  Department of Family Medicine, China Medical University Hospital., Taiwan
Hsien-Hsien Chiang  National Yang-Ming University., Taiwan

**Purpose:** The newborn is the birth of the individual, haven't Autonomy rights. The right to live is often dependent on parents to make decisions, in the face of whether the implementation of cardiopulmonary resuscitation, life sustaining treatment and other end-of-life decision-making, fall into the conflict between the quality of life and the sacred of life. The purpose of this study is to investigate the experiences and embodied Of nurses at NICU when facing do not resuscitate or life sustaining treatment decision making during the process of life and death.

**Methods:** The Phenomenological methods were used to study the behavioral responses of the nurses in the neonatal intensive care unit (ICU) of a teaching hospital in the central region of Taiwan. Adopt reflective groups, the group of reflection interviews were conducted for at least 90 minutes. The study sample size is based on the saturation of the study data, the data rigor using Lincoln and Guba four-oriented view.

**Results:** Neonatal nurses at the end of life of the newborn experience and embodied can be attributed three themes: First, the face death come into view, including resuscitate of the body appearance, suffering of life sustaining treatment; Second, the coexistence for life reviews, including silent companionship, lead the farewell; Third, to help others and into their own, including hospice practice, embodiment for self.

**Implications for Practice:** The results of the study suggest that the essence of end-of-life care is to understand life's disintegration and meaning through interaction between nurse and patient. So should pay more attention to

**Key Words:** neonatal, end of life, reflective group, embodiment.
**Purpose:**
This study was to assess postpartum fatigue within 24 hours of vaginal birth and to investigate the relationships among factors influencing postpartum fatigue.

**Methods:**
This was a cross-sectional correlational design and a convenience sampling was used in this study. The vaginal birth postpartum women were asked to assess pain of perineal wound (Visual Analogue Scales, VAS) and to write a 10-item postpartum fatigue scale (PFS) (Milligan et al., 1997). This scale was a four point Likert scale, and total scores were 10 to 40. Higher scores of PFS meant more postpartum fatigue. Cronbach’s α of PFS in this study was .84. Data were analyzed using SPSS 18.0. Pearson’s correlation coefficients and logistic multiple regression analysis were used to examine the relationships among study variables. The Kolmogorov-Smirnov test was used to investigate the distribution of dependent variables. The results indicated that outcome variables were normal distribution in this study.

**Results:**
Participants were aged from 20 to 43 (mean = 32.13). 49.9% participants were multiparas and 60.8% women used Oxytocin to kick-start or speed up labor. 59.7% participants used epidural anesthesia to lessen pain of labor and 96.7% participants considered that the baby’s father was the primary caregiver during the early postpartum period. The mean of postpartum fatigue was 14.15 (SD = 3.87). The statistic results showed that the duration of the second labor stage and perineal pain were correlated with postpartum fatigue ($r = .13, p < .05; r = .19, p < .01$). The factors influencing the duration of the second labor stage included age, para, epidural anesthesia, and weight gain in pregnancy ($r = .40, p < .00$). The degree of perineal trauma was correlated with perineal pain ($r = .14, p < .01$).

**Implications for Practice:**
The findings showed that the duration of the second labor stage and perineal pain were important factors related to early postpartum fatigue. If midwives and maternal nurses can understand the second labor stage and perineal pain more, that can help them to assess and prevent postpartum women’s fatigue, and to increase these women’s postpartum comforts and nursing quality. The limitations of this study are that the results cannot apply to all other samples due to a convenience sampling. In addition, the participants came from northern part of Taiwan, so they cannot representative in terms of racial and ethnic diversity.

**Key Words:**
postpartum fatigue, perineal pain, perineal trauma.
Purpose:
Venipuncture is very painful and stressful for pre-school aged children. Sick pre-school aged children experience high level distress because of venipuncture. The aims of this study are preparation of a picture book to support pre-school aged children facing venipuncture and determining the effectiveness of a venipuncture picture book intervention in decreasing behavioral distress.

Methods:
This study was making a medical picture book of venipuncture for decreased distress of pre-school aged children during intravenous. We observed a venipuncture administration on a preschool-aged child, who was diagnosed with high fever, and his mother in a hospital emergency room (ER) and documented their process experience. Using the obtained information, we created a picture book that reproduced the medical experience of the preschool-aged child and her parent. The wording of the text facilitated communication among the child, parent, and nurses about the venipuncture experience. The picture book is designed according to the three steps: Developing Stories from medical situation, text of venipuncture picture book and draft of venipuncture picture book.

Results:
We developed the venipuncture picture book over a 6-month period and the content of each page was scrutinized and restructured in detail, then we created a picture book titled Sick Rui-Rui Bear, in which cartoon characters were depicted as receiving venipunctures. This 12-page book is a guide to vein injection and is aimed at facilitating excellent venipuncture outcomes for preschool-aged children. The developed story has a happy ending: Rei-rei bear is cured and happily returns home from the hospital to play with his elder brother in the park. This intervention provided an opportunity to the nurses, physicians, and parents to support the preschool-aged children in facing vein injection, improved the children’s psychological preparation, and improved their confidence and cooperation.

Implications for Practice:
When administering a venipuncture, nurses should be concerned about the distress in preschool-aged children. Interaction among nurses, parents, and preschool-aged children can be stimulated by providing them with a venipuncture picture book, thereby enabling preschool-aged children to face such a medical treatment experience. In addition, nurses can use a venipuncture picture book to reduce distress in preschool-aged children during vein injection. We recommend that reading the picture book may be routine used during venipuncture to decrease procedural distress for pre-school aged children.

Key Words:
distress of preschool-aged children, picture book, venipuncture.
Relationships Between Knowledge, Attitudes, and Behavior of Using Sheng-Hua-Tang With Self-Reported Therapeutic Effects as Well as Physical Symptoms in Postpartum Women

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Purpose:
(1) To study the knowledge, attitudes, and correct behavior of using Sheng-Hua-Tang in postpartum women. (2) To study the self-reported therapeutic effects and physical symptoms of postpartum women after taking Sheng-Hua-Tang. (3) To explore the interrelationship between knowledge, attitudes, and behavior of using Sheng-Hua-Tang with self-reported therapeutic effects as well as physical symptoms in postpartum women.

Methods:
Using a cross-sectional correlational design, a convenient sample of 240 postpartum women who give births within six weeks was recruited from a medical hospital. The analyzed data collected from three structured questionnaires. Data was used the method of descriptive statistics, Pearson correlation, and the analysis of hierarchical multiple regression, in order to understand how much postpartum women know about Sheng-Hua-Tang, their behavior of taking Sheng-Hua-Tang, and the relationship between the behavior of taking Sheng-Hua-Tang and the self-reported therapeutic effects and the relevant physical symptoms.

Results:
(1) The scale showed the rate of having correct knowledge to take Sheng-Hua-Tang was 43.1%, below the middle level. Postpartum women’s knowledge about Sheng-Hua-Tang mainly came from their relatives, friends, mothers or mothers-in-law; some of the knowledge about the Sheng-Hua-Tang came from medical staff, nurses and practitioners of Chinese medicine. For the part of mass media, TV programs and ads provided the knowledge of using Sheng-Hua-Tang. The attitude scale coming from the group of taking Sheng-Hua-Tang was higher than the group of never taking Sheng-Hua-Tang. The rate of the correct usage of Sheng-Hua-Tang was 57.9%, belonged to the middle level. Sheng-Hua-Tang was mainly bought by lying-in women’s relatives, and it is used in the confinement meals. (2) In addition to education levels, this study showed no difference in demographic characteristics. The women of university graduated own much more knowledge about Sheng-Hua-Tang than the ones from high school (vocational) graduated. (3) Except for education levels, the study about the knowledge of using Sheng-Hua-Tang showed no significant difference among the various demographic characteristics, and the women from high school (vocational school) graduated got a higher score than the ones graduated from colleges. (4) There was no predictive effect about “knowledge of Sheng-Hua-Tang,” “attitude of Sheng-Hua-Tang,” and “physical symptoms.” However, the predictive effects from “attitude of Sheng-Hua-Tang” and “physical symptoms” were up to a significant level. Therefore, the postpartum women who owned the better attitudes about Sheng-Hua-Tang got fewer physical symptoms than the ones who did not have enough knowledge about Sheng-Hua-Tang.

Implications for Practice: To provide correct and related nursing instructions before and after birth giving. Postpartum women will own correct knowledge about Sheng-Hua-Tang, and thus those correct instructions will influence their behavior and attitudes of using Sheng-Hua-Tang; and then it will effectively improve the knowledge of Sheng-Hua-Tang, postpartum women’s attitudes and the behavior of using...
Sheng-Hua-Tang.

**Key Words:** knowledge of Sheng-Hua-Tang, attitudes of Sheng-Hua-Tang, behavior of Sheng-Hua-Tang, self-reported therapeutic effects of Sheng-Hua-Tang, physical symptoms.
What to Do Until the Ambulance Arrives: Nursing Practices at Pediatric Outpatient Departments in Japan

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Purpose:
Nurses should respond quickly when informed that patients are coming via ambulance. In particular, certain preparations must be made in the period before the ambulance arrives. The purpose of this study was to clarify the nursing practices during this period for pediatric patients coming by ambulance in Japan.

Methods:
Participants were nurses who worked at pediatric outpatient departments in 300 general hospitals across Japan. We conducted a cross-sectional survey using a self-administered anonymous questionnaire between March and April 2016. The questionnaires and documents explaining the study purpose, method, and ethical considerations were sent by mail to potential participants. If these individuals agreed to participate, they completed the questionnaire and mailed it directly to the researchers. Returning the questionnaire implied giving consent. Ethical approval for this study was obtained from the institutional ethics committee of our affiliated university. The questionnaire contained the open-ended question, “What do nurses do in order to ease and facilitate medical treatment in the period before the ambulance arrives.” The qualitative data yielded from the questionnaires were then analyzed using content analysis.

Results:
Of the 300 facilities contacted, 62 (20.6%) returned questionnaires. All participants were women. Participants had means of 20.5 and 4.5 years of experience in nursing and outpatient pediatrics, respectively. In total, there were 53 analysis units (nurse responses). The content analysis yielded 14 codes, as follows: prepare blood tests corresponding to symptoms, prepare drugs and drip infusions corresponding to symptoms, prepare medical procedures corresponding to symptoms, prepare thermometers and sphygmomanometers corresponding to age, prepare oxygen inhalations corresponding to age, prepare medical records, obtain patient’s information from electronic medical records, perform reception procedures partially in advance, call doctors, call radiology technologists and clinical laboratory technologists, decide on nurse’s role (treatment or record) in advance, decide on attending doctors, display medical procedure manuals for healthcare professionals in the treatment room, and tell patients who are waiting that there will be a delay. From these codes, 7 categories were derived: prepare medical supplies, gather patient’s information, perform reception procedures, call healthcare professionals, decide on healthcare professionals’ roles, display manuals, and tell other patients.

Implications for Practice: It is necessary to prepare supplies in order to quickly respond to patients coming by ambulance. Importantly, nurses did not prepare supplies in a rote manner, but instead tailored their preparations to information obtained about the patient. Gathering patients’ information from electronic records is also effective, and nurses should both call healthcare professionals and decide on their nursing roles in order to ensure quick responses. Finally, in addition to preparing supplies, nurses should inform waiting patients to prevent trouble.

Key Words: pediatric nursing, emergency patient, nurse’s response.
P2-009 Sleep Status of Parents of Premature Infants over the First Month After Discharge

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Ai Ito  Kinjo University, Japan
Hisako Ishida  Himeji Dokkyo University, Japan
Misaki Sato  Sowa University Hospital, Japan
Miyako Hara  Chiba Institute of Science, Japan
Tomoko Manabe  Ryotokuji University, Japan

Purpose: Cranial nerve development in premature infants is highly important, and sleep is an essential element in the promotion of such development. Adjusting the sleep environment within the home is vital for synchronizing sleep rhythms of children and their parents. Therefore, the aim of this study was to confirm the sleep status of the parents of premature infants using a sleep chart to aid adjustment of the sleep environment.

Methods: Subjects included three parents of premature infants hospitalized in the Growing Care Unit. Research was conducted by (1) parents recording data in a sleep chart for 2 weeks and (2) parents self-evaluating their quality of sleep. The parents were given explanations regarding the research outline when their infants were discharged from the hospital, and after ensuring protection of the personal information, written consent was obtained.

Results: Daily sleep time for mothers immediately following discharge was 2–10 h. Multiparous women were found to sleep longer than primiparous women. Daily sleep time for mothers in the first month following discharge was 5–10 h. Two mothers who were synchronizing their sleep with the father’s sleep time had shorter sleep time than the mothers who did not synchronize their sleep time. Mothers with long total sleep time were taking naps. Fathers also rated their sleep quality as low.

Implications for Practice: The results indicated that because sleep charts can be used by parents to review their own sleep rhythms, they could be used to visualize sleep and encourage lifestyle improvement efforts.

Key Words: sleep, parents, premature infants.
Purpose: Sleep plays a very important role in preterm infants’ brain development and illness recovery. However, these fragile preterm infants are exposed to painful procedures and a chaotic environment during the NICU stay that may influence their sleep patterns. Repeated exposure to painful stimuli may disturb preterm infants’ sleep cycle and affect their developing brain. Therefore, one of the important goals for nurses in caring for these vulnerable infants is to provide the bundle of supportive interventions to minimize preterm infants’ pain and protect their sleep integrity. Based on literature reviews, the study purpose was to examine the effects of the bundle of supportive interventions on preterm infants’ sleep patterns (sleep latency, sleep efficiency, total sleep time, wake after sleep onset, number of awakening, and average awaken time) during hospitalization.

Methods: This randomized controlled trial adopted a longitudinal repeated-measures design. Infants with gestational age between 28 and 36 weeks were recruited through convenience sampling from a level III NICU at a medical center in Taipei. Preterm infants who meet the study criteria were randomly assigned into one of two treatment conditions while receiving intrusive procedures: (1) control condition: usual care (routine procedures + positioning + gentle touch); (2) intervention condition: usual care and the bundle of supportive interventions (modulation of infant states + facilitated tucking + non-nutritive sucking + oral sucrose feeding). Preterm infants’ sleep patterns (sleep latency, sleep efficiency, total sleep time, wake after sleep onset, number of awakening, and average awaken time) were measured by using acigraphy (wGT3X-BT). Sleep patterns were collected for three consecutive days between the 4th day and the 10th day after birth, and be collected for another three consecutive days when infant’s body weight was ≥2000 grams. The differences in preterm infants’ sleep patterns between the intervention and control conditions were analyzed using the generalized estimating equation.

Results: For the study sample of 30 preterm infants, they did not differ significantly in infants’ characteristics between the intervention and control conditions. Preterm infants in the intervention condition had shorter sleep onset latency ($\beta= -4.423, p= .08$) and less number of awakening bouts ($\beta= -0.124, p= .08$) than those in the control condition. In addition, the sleep efficiency of infants in the intervention condition was 8.96 % more than those in the control condition ($p= .01$).

Implications for Practice: Nurses spend a remarkable portion of their time for caring preterm infants in the NICU and play a significant role in supporting the preterm infants’ sleep development. These study findings suggested that the provision of the bundle of supportive interventions could have beneficial effects on preterm infants’ sleep during hospitalization. The study findings may build evidence to guide nurses to provide supportive interventions to protect preterm infants’ sleep integrity during hospitalization and promote these infants’ health and future neurobehavioral development in the long term.
**Key Words:** preterm infant, sleep, bundle of supportive interventions, actigraphy.
Exploration of Night Pain and Its Related Factors in Individuals With Osteoarthritis in Taiwan
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**Purpose:**
Osteoarthritis (OA) is a prevalent condition and will become more so as people live longer. OA pain is the commonest symptom in patients with OA. The pain can cause long-term effects, such as quality of life. Particularly, pain can disturb sleep, with poor quality of sleep associated with the frequency and duration of pain. Although there were several studies provided little information on nocturnal pain and sleep, it is worth noting that there has been little study to date which has explored severity of night pain individuals with OA in Taiwan. Therefore, the purpose of this study is to explore osteoarthritis pain and its related factors in individuals with OA.

**Methods:**
A retrospective survey study was conducted. Participants were recruited consecutively from outpatients departments at a medical center. Three validated questionnaires will be used for pain and physical functioning (the Western Ontario and McMaster Universities Osteoarthritis Index), quality of sleep (the Pittsburgh Sleep Quality Index), and Health-related quality of life (Short Form-36 Health Survey; SF-36). Data were encoded, entered onto computer and analyzed with descriptive and inferential statistics, using IBM SPSS Statistics 20.0 software.

**Results:**
One hundred and ninety-two Taiwanese individuals participated in the study. Two thirds of the participants were aged 64 or over and there were more females (72.9%) than males in the study. High proportions of participants suffered from OA pain and stiffness due to their OA (95.3%), as the pain was significantly lower in male participants than in the females ($Z = -3.06$, $p = .002$). While 68 participants did not taking analgesics, over three-quarters were not managing their OA well. In addition, the level of pain in participants with a poor night sleep was significantly worse than those who reported a good night sleep (mean: 17.6 versus 29.3; $Z = -4.56$, $p < .001$). There were significant differences between the level of pain (Kruskal-Wallis $\chi^2$ from 98.4 to 21.14; $p < .05$) on most SF-36 scale scores, but not on the SF-36 mental health scale (Kruskal-Wallis $\chi^2 = 5.62$; $p = .060$).

**Implications for Practice:**
The findings of this study recommend that health provider can understand important concepts between pain and nocturnal sleep. We also suggest that clinical managers can design OA-related education courses for nurses to assist patients managing their osteoarthritis.

**Key Words:** osteoarthritis, night pain, quality of sleep.
A Literature Review of Child Rearing Anxiety in the Early Puerperal Period in Japan

Yukiko Hyakuta  Japan
Naomi Matsumori  Japan

**Purpose:** The decline of Japan’s nuclear family and sense of community has inevitably given rise to a situation where society as a whole must now assume a supporting role in raising children. In particular, the early puerperal period is a crucial time in the formation of basic human relationships, and is believed to have a major impact on subsequent child rearing. We reviewed the existing literature on “child rearing anxiety” among early postpartum mothers to identify the issues associated with this period in an attempt to provide support for child rearing.

**Methods:** Using the keyword “child rearing anxiety,” we identified 611 relevant articles published between 2010 to 2014 in a search of the Japan Medical Abstracts Society’s medical literature database “ICHUSHI”. We then refined our search results to the 336 articles containing the term “nursing,” and selected the 32 articles that focused on the early puerperal period for our analysis. We extracted the findings of each study relating to child rearing anxiety and faithfully cited the source text while respecting the copyright of the respective authors. The studies employed various data collection methods and terminology, which prevented us from meta-analyzing similarities in the data. We therefore identified the findings on child-rearing anxiety from the content of each article, and qualitatively classified and narrated each item based on the guidance on narrative synthesis published by The Centre for Reviews and Dissemination.

**Results:** Studies on the nature of child rearing anxiety were based on telephone counseling, and maternal questionnaire responses. The concepts identified in these studies included “issues related to breastfeeding and bottle feeding”, “issues related to the child’s physical symptoms”, and “issues related to the child’s behavior.” Meanwhile, some studies investigated the association between child rearing anxiety and self-efficacy or coping behavior, while others looked at the factors involved in maternal anxiety itself. In the studies on ideal health guidance and telephone counseling aimed at relieving the anxiety of child-rearing mothers, the authors concluded that, given the increase in mothers’ anxieties following their discharge from hospital, “only basic guidance is possible during a short hospital stay” and that “guidance on how to cope with potential anxieties at home is inadequate.”

**Implications for Practice:** Our review of the literature showed that, due to the diverse nature of anxieties that mothers experience in the early puerperal period, it is impossible to properly address these anxieties during the typically short hospital stay for childbirth. Rather, there needs to be a seamless transition to post-discharge support that reflects the conditions that mothers experience during their hospital stay. Moreover, none of the studies in our review of the literature investigated the actual perspectives of nurses in assessing how to intervene and support mothers in the early puerperal period. More research is needed in the future to determine the role of early specialist interventions in the formative process of child rearing anxiety.

**Key Words:** child-rearing, anxiety.
P2-013 Social Support, Quality of Life and Postpartum Depression in Taiwanese Women
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Purpose: This study aimed to examine the trend and relationship among maternal social support, quality of life and depression during postpartum period.

Methods: A prospective longitudinal survey was undertaken to explore women depression variations in the first, third, and sixth month postpartum. This study utilized the Social Support Scale, the quality of life and the Edinburgh Postnatal Depression Scale (EPDS) to measure respectively the level of social support, quality of life and maternal depression after the postpartum period in 282 postpartum women in Kaohsiung, Taiwan, from May, 2011 to December 2012.

Results: When the EPDS cut-off was set at 9-10, there are 39 (13.8%), 60 (22.1%), and 50 (18.1%) postpartum women whose scores were larger than 10 in the first, third, and sixth month postpartum, respectively. Low social support and poor quality of life are two significant predictive factors of the PPD in the first, third, and sixth month postpartum. In addition, the preferred sex of the baby is another important predictive factor in the first and third month postpartum. Eventually, the age and multipara are two important predictive factors in the third month postpartum.

Implications for Practice: According to our findings, we believe the mental health of postpartum women should be taken more care of, especially those postpartum women in the third month or who are lack of sufficient social support. Practical nurses have to assess whether the postpartum women obtain sufficient social support. Furthermore, EPDS is a reliable and valid scale which can simply and quickly screen PPD. We suggest a health management policy to assess PPD for maternal postpartum women in the third month using the EPDS.

Key Words: postpartum depression (PPD), social support, quality of life, longitudinal study.
A Concept Analysis of Children at the End-of-Life
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Purpose: Human life is supposed to naturally follow the development of infancy, toddler, teen, adult, elder, and death. However, children facing end-of-life are totally in the opposite logic, which in contrast with all the family members, health care givers, and the society's expectations. The end-of-life is a very important period (Feudtner, Zhong, Faerber, Dai, & Feinstein, 2015; Higginson, 2012). Different diagnosis, illness trajectories, and dying processes of the child, have different types of end-of-life transitions (Hynson, 2012). In the research literature, the concept of end-of-life has been presented widely. While in the children population, this concept hasn't been explored. Children under 20 years of age, still depend on other family members' care, who might be a leading role in the care team.

Methods: Systematic literatures review and Walker and Avant's (2005) concept analysis method are used in this study to define and clarify the concept of children at the end-of-life. In order to differentiate the concept with other similar concepts, including terminal phase, dying, and death; to confirm and defining attributes; to provide the constructing sample cases for the concept.

Results: Four attributes of children at the end-of-life: (1) children in a situation that death being considered inevitable; (2) children and family observed that the children being life-threatened; (3) a sense of loss to children and surrounding people, are described. A defining attributes and constructing cases are mentioned in details to illustrate the concept of children during end-of-life. Antecedents, consequences, and empirical referents are discussed to fully articulate the concept.

Implications for Practice: Nurses may find the concept and its attributes integral to the core concepts of nursing that emphasis on caring and respecting lives. This concept analysis helps to articulate the concept's meaning, and can extend to nursing research, practice, and education.

Key Words: children, end-of-life, concept analysis.
A Study on Enterovirus Care Knowledge Among Preschool Parents

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Purpose: This study assessed the effect on enterovirus care knowledge of game-therapy instruction by comparing the enterovirus care knowledge of preschool parents who received such instruction and those who did not.

Methods: Researchers used a quasi-experimental pretest - posttest control group design. Data were collected from 72 preschool parents at a southern regional hospital. Group assignment was based on preschool parents' choice. The experimental group received 3 cycles of game-therapy instruction, and the control group received no game-therapy instruction. Both groups completed a enterovirus care knowledge questionnaire prior to and after the intervention.

Results: There was no significant pre-test difference in game-therapy between the two groups \( (p = .18) \). Post-test improvement in game-therapy in the experimental group preschool parents was significantly larger than in the control group \( (p < .01) \). Using pre-test game-therapy, marriage, age, and education as covariates, experimental group preschool parents had significantly better game-therapy compared to control group preschool parents at post-test \( (p < .01) \).

Implications for Practice: Game-therapy instruction can increase enterovirus care knowledge in preschool parents.

Key Words: enterovirus, care knowledge, preschool.
P2-016  Compare the Quality of Life and its Predictors for Pregnant Women During Different Trimesters in Southern Taiwan

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Purpose: The purpose of this study was to compare the quality of life and its predictors for pregnant women during different trimesters in southern Taiwan.

Methods: A cross-sectional and comparative study design was conducted. The instruments included demographic survey form, pregnancy symptoms evaluation form, visual analogue scale-prenatal stress, and the World Health Organization Quality of Life Assessment (WHOQOL-BREF). A convenience sampling was conducted, recruiting 541 pregnant women during the first (weeks 6-13, n=181), second (weeks 14-27, n=176), and third (weeks 28-40, n=184) trimesters at two teaching hospitals in southern Taiwan. The data obtained were analyzed using SPSS Version 19.0 software, including independent samples t-test, analysis of variance, Pearson product–moment correlation analysis, and multiple regression analysis.

Results: The study showed: (a) Pregnant women in the third trimester had better quality of life than those in the first (p< .021). (b) Prenatal stress of the women in the first trimester was significantly higher than the second and third trimester, prenatal stress of the women in the second trimester was significantly higher than the third trimester (F=62.72 ; p< .001). (c) Uncomfortable symptoms in the third trimester were significantly higher than the first and second trimester, uncomfortable symptoms in the first trimester were significantly higher than the second trimester(F=167.10 ; p<.001). (d) Prenatal stress, uncomfortable symptoms, the monthly family income, and level of education were the important predictors of QOL among pregnant women in first trimester. (e) For pregnant women in the second and third trimester, the monthly family income, uncomfortable symptoms, prenatal stress, were the important predictors of QOL.

Implications for Practice: This study obtained empirical results regarding the quality of life and its correlates of pregnant women in different trimesters. The results can be a reference for nursing and midwifery education, as well as clinical care in improving the quality of life of pregnant women in all trimesters.

Key Words: quality of life, pregnant women, prenatal stress, uncomfortable symptoms.
The Impact of Perinatal Loss Care on Obstetrics Nurses from Qualitative Perspective

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Purpose: The way that parents are dealt with by obstetric nursing staff, following the perinatal loss, will very much influence their grieving process. However, there is substantial evidence that parents experience such loss as intense pain, yet it appears little recognition of the potential impact on those nurse staff providing care. We explore the impact of obstetric nurses who care families encountered perinatal loss.

Methods: This study conducts a descriptive qualitative study with a purposive sample of 12 obstetric nurses from hospital in southern Taiwan who experienced caring families with perinatal loss. Data were collected through personal in-depth interviews, one to two in-depth interviews per participant were conducted to ensure data saturation. Each interview was tape recorded and transcribed verbatim. Data were then analyzed using inductive analytic approaches to capture patterns in nurses’ impact and generate interpretive descriptions of the phenomena of interest. The institutional review board of the hospital approved this study.

Results: Three themes central to participants impact included: (1) Heavy emotions with perinatal loss, (2) Powerlessness to provide support, and (3) Dilemma between professional and personal roles. The nurses expressed emotional impact from being afraid of the dead baby, worries about harming the baby, sadness and grief for the baby dead, and anger with guilt for assist the selective termination. They felt communicative interaction filled with difficulty when caring for grieving families. They worried most about maternal cries, and their wrong talks. Some of the nurses were keep silent and escape from perinatal loss, because of lack of abilities and resources to cope with these kinds of situations. Most nurses faced a great ethical dilemma and involved some considerations such as respect for life or respect for deciding to termination for grieving families. They also expressed repression on personal emotions and tears in order to carry on nurse’s professional roles and responsibilities.

Implications for Practice: Most nurses felt that they lack of ability to help grieving parents and expressed a desire for ongoing education regarding perinatal bereavement care. The obstetric nurses not only assist the childbirth, but also face the fetal death. They tend to be in the of joy and then rapidly convert to the sadness of death. This study indicates that perinatal loss can have a long-term effect on nurses, and the nurses’ emotions and dilemma should be taken seriously and considered. The empirical data help us to understand the complete picture of the phenomenon of nurses caring for families with perinatal loss. In addition, the results contribute to systematic establishment of data base about this field in Taiwan.

Key Words: perinatal loss, nurses, impact, qualitative research.
P2-018 Applying Unified Theory of Acceptance and Use of Technology to Explore the Factors of Postpartum Breastfeeding Intention of Employed Women

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Purpose: As reported by National Survey six months postpartum exclusive breastfeeding rate of 45.4%, Women in the face of return to work after feeding rate showing a downward trend, determine affect the intention of continuing breastfeeding of postpartum women, increased longer duration. Finally, based on the results of research to develop relevant measures. The aim of this study was to understand the demographics, workplace situation and explore the differences in integrated technology-related factors, predicting breastfeeding willingness, and continuing behavioral intention.

Methods: We used a cross-sectional, correlational study design, A purposive sampling of 201 employed women in their located before discharge postpartum one day was recruited from one hospitals in Southern Taiwan. A demographic data form and the integrated science and technology Scale were used to collect data. Data are from Listening to breastfeeding willingness, logistic regression, and survival analysis.

Results: There are 40.8% employed women intend to breastfeed for 6 months, 24.9% for 12 months. The result indicated the intention is low. In the model Scale score of perceived usefulness was 16.5($SD =2.4$), effort expectancy 43.6($SD =7.9$), social Influence136.1 ($SD=26.8$), and facilitating Conditions41.6($SD=8.2$).Age was associated with significantly effort expectancy; age, breastfeeding expectant, education was associated with significantly social Influence; age, education, economic status and nature of work was associated with significantly. Four independent variables have predictive power for breastfeeding willingness, the regression analysis revealed variables that explained 37.5 % of the Variance in perceived usefulness in the feeding willingness, perceived usefulness means breastfeeding behavior will enhance the degree of recognition of the role of maternal attainment, this is an important factor affect the willingness of feeding. Breastfeeding willingness, facilitating Conditions to breastfeeding continued intention, Women with breastfeeding willingness were 1.23 times 95%CI [1.045, 1.459] as likely to be continuing behavioral intention.

Implications for Practice: This study highlighted the importance of improving the breastfeeding willing will increase role of maternal attainment by considering the main predictors found in this study. Recommended tools stage role expectation, increase community health education activities in the second trimester, used consistent with the principles of adult learning, multiple methods such as individual consultations, learning resources including breastfeeding booklets and DVDs. The knowledge of breastfeeding, opportunities for expectant mothers to learn from others' experience could develop strategies to promote role of maternal attainment and increase continuing behavioral intention.

Key Words: breastfeeding, employed women, unified theory of acceptance and use of technology.
**P2-019 Explore the "Flipped Classroom" Model for the Effectiveness of Postpartum Breastfeeding-A Pilot Study**

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**Purpose:** Breast milk is the best source of nutrition for infants, according to the World Health Organization recommends breastfeeding should be pure to six months, after longer provide groceries and breastfeeding to 2 years old. The study purpose was to explore the differences between "flipped classroom" model and traditional model of maternal health education in breastfeeding self-efficacy, satisfaction, knowledge, skills and attitudes.

**Methods:** Mining randomized controlled experimental study design, participants were randomly assigned to by the experimental and control groups. The experimental group used the flipped classroom health education model; control group received traditional health education. Postpartum hospitalization and postpartum one month to give questionnaires survey during September 1 to November 30 in 2015. Total 48 primiparaes included the study.

**Results:** There were not significant difference from the "flipped classroom" model and traditional health education in breastfeeding self-efficacy, skills and attitudes; there were significant differences in lifestyle/ body image of breastfeeding satisfaction and breastfeeding knowledge. Compared with hospitalization and one month of postpartum, there was a significant difference in the lifestyle/ body image of breastfeeding satisfaction.

**Implications for Practice:** The flipped classroom education model was benefit to maternal lifestyle/ body image of breastfeeding satisfaction and breastfeeding knowledge. But the breastfeeding self-efficacy, skills and attitudes were not significant difference. We should continue to be concerned about breastfeeding of postpartum women.

**Key Words:** breastfeeding, flipped classroom, breastfeeding self-efficacy, breastfeeding satisfaction.
Explore the Effectiveness of Prerequisite Course for Primiparas’ Self-efficacy of Breastfeeding During Postpartum One Month

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Purpose:
There are two purposes of the study. First, is to explore the effect of health education on primiparas’ cognition and skills of breastfeeding and the rate of exclusive breastfeeding. Second purpose is to examine the effect of education program on self-efficacy of breastfeeding.

Methods:
This study is an experimental research design. Primiparas of pregnancy over 32 weeks were recruited from a local community teaching hospital in Tainan, Taiwan. Subjects were randomly assigned to experimental and control groups. Thirty eight primiparas were in the experimental group, and 19 primiparas were in the control group. Subjects in the experimental group received a breastfeeding placement class to teach cognition and skills of breastfeeding. Subjects in the control group received ordinary routine health education. The placement class started from subjects between 32-36 weeks of gestation. Subjects of two groups received the pretest of cognition and self-efficacy of breastfeeding questionnaire on the day of recruitment and the second day after delivering babies as the posttest. Subjects received the third time of self-efficacy assessment one month postpartum. In this study, we used descriptive statistics, independent samples t-test, paired samples t-test, two-factor mixed design ANOVA to analyze data.

Results:
(1) The knowledge and skill on breastfeeding of women received placement breastfeeding education were higher than those received ordinary health education. (2) The breastfeeding self-efficacy scores of women in the experiment group on the second day and month postpartum were significantly higher than those in the control group. (3) Pure breastfeeding rate during postnatal one month of experiment group was significantly higher that of the control group.

Implications for Practice: The results of the study will help to establish local data, as the reference to amend perinatal education content, and provide a guide to develop in-service education for maternal and child care team.

Key Words: primiparas, breastfeeding, health education guide of perinatal period.
The Effectiveness of E-Health Education on Fall Prevention in Hospitalized Children
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Purpose:
The prevention of fall has been discussed for maintenance the main goal of patient safety and quality of care. However, the effect of using e-health education for fall prevention in hospitalized children is still lacking. To explore the effectiveness of e-health education on falls prevention of knowledge in primary caregiver of hospitalized children, and incidence of fall.

Methods:
This study is a quasi-experimental study, the experimental group and the control group were taken asynchronously. The convenient sampling will be used in a pediatric ward in a teaching hospital in the south Taiwan. A total of 76 participants with fall high risk children will be recruited (control group 38, experimental group). The experimental group will provide e-health education intervention while control group receive routine health education. The effectiveness of intervention will be examined on the change of self-administered questionnaire's the "Knowledge of Fall Prevention in Hospitalized Children", "Nursing Health Education Satisfaction Survey", and incidence of falls.

Results:
The result will develop a e-health education program for falls prevention.

Implications for Practice:
The expected result can be an evidence that e-health education is more effective than routine Health Education for Prevention of falls in hospitalized children, reduce the incidence of falls in hospitalized children. The study furthermore provide a reference for promotion health care.

Key Words:
e-health, falls prevention, hospitalized children.
Subjective Experience of the Primipara Mothers During the Period of Labor on Per-Vaginal Examination: A Qualitative Research

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Purpose: The purpose of this study is to explore in-depth study of the normal delivery of primipara mothers during the period of labor on per-vaginal examination.

Methods: The method of data collection was conducted by an interview with an interviewer of 9 primiparous women by means of participation, observation and in-depth interviews with low-structured interviews, and then the language and nonverbal language expressed by the primipara during the interview behavior, written narrative behavior process records, and then content analysis of maternal language expression content, with expressions, actions, meaning to be a systematic analysis, classification.

Results: The results of the study found that the subjective experience of primipara mothers during the period of labor on per-vaginal examination of the subjective include five themes covering 11 categories. These themes and categories and categories include fear and compromise (fear of per-vaginal examination, expect to the progress of labor information), fantasy of pain and changes (chang of reality and fantasy, effect of labor stage, effect of painless ), self-prepared (family and friends to provide information, network data), application-friendly environmental resources(guide of healthcare professionals, maintain privacy), and Empowerment(choice of partner, decided to the situation).

Implications for Practice: This paragravid moman-centered view of the life experience of pre-vaginal examination may assist healthcare professionals to better understand the care needs of this of this population. Policymakers may reference these results to develop an appropriate clinical care content.

Key Words: primipara, per-vaginal examination, qualitative research.
P2-023 Stress Urinary Incontinence in Primigravida Women During Pregnancy: A Pilot Study
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Ya-Ju Cheng Taipei Veterans General Hospital Department of Nursing, Taiwan

Purpose: The purpose of study is to explore the prevalence of stress urinary incontinence, urogenital symptom distress, an incontinence impact in primigravida women, and the effects of Kegel's exercise on stress urinary incontinence in primigravida women.

Methods: This is a pilot study with purposive sampling at the obstetrics and gynecology outpatient service in a northern Taiwan medical center. This study has been adopted the IRB. The subjects were primiparas, singleton, non-obstetric complications, stress urinary incontinence symptoms and those who fit the inclusion and exclusion conditions were received. A total of 88 primigravida women were selected between November 2016 and January 2017 with 29 participants suffering from stress urinary incontinence. The participants were separated into two groups pregnancies at 20-24 weeks with 7 participants and pregnancies at 32-36 weeks with 22 participants. Participants filled out basic questionnaires when sampled at Obstetrics and Gynecology outpatient service, and questions regarding urogenital distress inventory-6 (UDI-6) and the incontinence impact questionnaire-7 (IIQ-7); after filling out the questionnaires, participants were given guidance to conduct Kegel's exercises for 12 weeks. The data collected was analyzed through the SPSS 23.0 software suite using statistical methods such as descriptive analysis and t-test. The results were used to analyze the prevalence of stress urinary incontinence, the degree of urogenital symptom distress and an incontinence impact in primigravida women.

Results: The results showed that the incidence of stress urinary incontinence was 32.95% (21.8-39.3%), 20-24 weeks group was 21.8%; 32-36 weeks group was 39.3%; urogenital distress inventory-6 (UDI-6) the mean score: 20-24 weeks group was 3.43 ± 2.7, 32-36 weeks group was 5.09 ± 2.91; incontinence impact questionnaire-7 (IIQ-7) that mean score: 20-24 weeks group was 1.0 ± 1.83, 32-36 weeks group was 4.14 ± 4.07. Although there were no statistically significant differences, but the prevalence rate, symptoms of distress and the impact of life are presented with the increase in the number of weeks of pregnancy and the growing driving force potential.

Implications for Practice: Empirical studies indicate that Kegel's exercise can prevent and improve stress urinary incontinence, it is proposed to increase the number of cases and line longitudinal study, the implementation of Kegel exercise intervention in the early stages of pregnancy to prevent and improve stress urinary incontinence, to enhance pregnancy of women's life quality.

Key Words: pregnancy, primipara, stress urinary incontinence, urogenital distress inventory-6, incontinence impact questionnaire-7.
P2-024 Effects of Taiji Qigong on Anxiety and Depression of Psychiatric Inpatients

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Purpose: The purpose of this study was to investigate the effects of Taiji Qigong has on the anxiety and depression of psychiatric inpatients.

Methods: This study adopted a pre-post test quasi-experimental design from two acute psychiatric units. The measurements were Hospital Anxiety and Depression Scale. The control group received the standard routine care, whereas participants in the experimental group received daily 30-minute Taiji Qigong exercise.

Results: A total of 108 patients were randomly assigned to either control group (n=54), experimental group (n=54). The pre-test were no group differences in anxiety and depression scores. The post-test results reveal significant differences in the anxiety and depression scores between the experimental group and the control group.

Implications for Practice: The results in this study found Taiji Qigong exercise may effectively ease the anxious and depressed moods of psychiatric inpatients. Our research findings could provide a useful reference to nurses caring for psychiatric inpatients.

Key Words: Taiji Qigong, psychiatric inpatients, anxiety and depression.
**Association of Perceived Stress and Cortisol Activity for Major Depressive Disorder Patients in Taiwan**

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**Purpose:**  
The specific aim of the study is to investigate the association between the perceived stress and the cortisol activity in major depressive disorder patients. Stressors of life events are important domains for mental illness and major depressive disorder (MDD) patients are vulnerable to stressors. It's important to investigate the effect of perceived stress on the salivary cortisol activity of major depressive disorder patients to facilitate a better biomarker for evaluating nursing intervention outcome.

**Methods:**  
80 MDD inpatients were included from three psychiatry wards in a medical center in the Northern part of Taiwan from January to September, 2015. Patients who had difficulty to read or understand the questionnaire and comorbid with other psychiatric disorders were excluded from the study. 68 patients completed the consent forms and the Perceived stress questionnaire as well as the salivary collection on the day of admission, and were randomly assigned to intervention versus control groups. Patients in intervention group accepted social support program \((n=34)\) and patients in control group \((n=34)\) received health education once a week. SPSS statistic software was used for analysis. In multiple regression analysis, salivary cortisol activity was treated as dependent variable, and the perceived stress scores, gender, age, education level and intervention group were treated as independent variables.

**Results:**  
Results: The association between the perceived stress level and salivary cortisol activity was found at a borderline significant level \((p=.055)\) after adjusting for gender, age and education variables.

**Implications for Practice:**  
Salivary cortisol activity level represents the hypothalamus-pituitary-adrenocortical system activity. Though the association between the perceived stress and the salivary cortisol showed a borderline significant level, it may be affected by small sample sizes, more samples are needed to investigation a better evaluation method of our intervention outcome.

**Key Words:**  
major depressive disorder, salivary, cortisol activity, perceived stress.
An Exploration of the Discharge Planning of Psychiatric clients at 7 days and 30 days Post-Discharge

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**Purpose:** Discharge planning is a service that provides the needs-oriented care necessary to link the hospital and community. The purpose of this study was to explore the Discharge Planning among psychiatric clients.

**Methods:** In this retrospective study, data were collected by reviewing Discharge Planning records in the Discharge Planning reporting system. In total, Data were collected from January 1, 2015 to December 31, 2015. 2027 clients accepted discharge planning services. A Telephone Follow-ups the state of discharge survey was administrated by phone from 7 days and 30 days after discharge.

**Results:** As follow-up after discharge, the analysis showed a total of 63.79% participants reported at 30 days post-discharge that they perceived at least have regular medical treatment; Irregular medical treatment (22.15%); Not contacted (14.06%). Main Irregular medical treatment these clients were Unplanned Readmission at 34.8%; No insight at 20.4%; To other hospital-based outpatient department at 15.2%; To other hospitals at 14.7%; Irregular medication at 6.7%; Go abroad or go to jail at 4.7%; Death at 1.5%; Treatment ineffective at 1%; Families that do not need treatment at 0.5%; Traffic problems at 0.5%.

**Implications for Practice:** According to the findings, despite that some cases were inevitable, proper measures could be taken to avoid or prevent the occurrence of readmission (34.8%), improve health care quality and reduce resource utilization, such as the inter-departmental cooperation consultation or discharge preparation, a comprehensive healthcare education on discharge, the problem of readmission early could be effectively improved by strengthen the Psychiatric patient insight and medication compliance.

**Key Words:** discharge planning, psychiatric clients.
P2-027 Systematic Literature Review and Meta-Analysis of Filial Piety and Geriatric Depression.
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Purpose: Studies have indicated that one of the key factors in relieving geriatric depression is social network support, especially from the family. In Chinese society, the traditional value of filial piety strongly influences daily interactions and behavior. The purpose of this study was to examine elderly people’s perception of filial piety and to explore the correlation between filial piety and geriatric depression.

Methods: In this systematic literature review of seven databases (CEPS, Cochrane, PubMed/Medicine, OVID, CINHAL, ProQuest, and PsycINFO), eight studies on the correlation between filial piety and geriatric depression were selected, six of which were included in the present meta-analysis.

Results: The studies included in this review lacked consistency regarding the screening and measurement instruments used. Two groups of meta-analyses (four studies) illustrated that filial piety was negatively related to geriatric depression ($r = −.196$, $p < .001$, 95% CI $[−0.283, −0.106]$ and $r = −.139$, $p = .006$, 95% CI $[−0.235, −0.041]$), suggesting that an increase in elderly people’s perception of their children’s filial piety was correlated with a reduction in their geriatric depression.

Implications for Practice: Filial piety was correlated with geriatric depression. Future studies should focus on clarifying the concept of filial piety to aid in the application of appropriate measurement tools and development of intervention measures that would help enhance the care provided to geriatric depression patients.

Key Words: filial piety, geriatric depression, literature review, meta-analysis.
P2-028 Issues in Terminal Care for Patients With Mental Disorders

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Purpose: As patients hospitalized in psychiatric hospitals for long periods of time age, the number of patients contracting serious illnesses such as malignant tumors is increasing. This would appear to result in an increasing number of cases where terminal care in psychiatric hospitals is necessary as well. And so in this research we conducted an interview survey of registered nurses, for the purpose of clarifying the issues faced by registered nurses in the provision of terminal care for patients with mental disorders in psychiatric hospitals.

Methods: Subjects: 5 registered nurses working in psychiatric hospitals and involved in terminal care for patients with mental disorders and malignant tumors. Research Method: A 40-minute, semi-structured interview was conducted. Survey Contents: Process of nursing and care in the terminal period, human relationships involving patients, and things noticed and feel while nursing. Analysis: A word-for-word transcription was drafted from the interviews. We constructed an abstraction of the common parts and distinctive parts and extracted categories. Ethical Considerations: The subjects were given a written and oral explanation of the purpose and methods of the research, the fact that participation in the interview is voluntary with no disadvantage by refusing, safeguarding of personal information, audio recording of the interviews, etc., and their consent was obtained. This research was implemented with the approval of the ethics committee of the affiliated facility (ethical approval number: 250001).

Results: The interview contents were generally classified into 3 categories: <terminal care provided>, <care of families>, and <issues in terminal care in psychiatry>. 6 sub-categories were extracted from the contents talked about regarding <terminal care provided>. 3 sub-categories were extracted from the contents talked about regarding <care of families>. 5 sub-categories were extracted from the contents talked about regarding <issues in terminal care in psychiatry> through experiences in terminal care.

Implications for Practice: There are the following 5 issues in terminal care in psychiatric hospitals.

1. Registered nurses having a clear awareness of providing care even in psychiatric hospitals
2. Clarification of matters which should be considered such as confirmation of notices and DNARs(Do Not Attempt Resuscitation)
3. Sufficient and appropriate support provided to registered nurses to enable them to recognize the positive aspects of terminal care
4. Examination of the criterion for how terminal care is conducted in the hospital overall
5. Strengthening cooperation with regional affiliated hospitals regardless of whether terminal period care is provided psychiatically or through transfer to a general hospital

By solving the above 5 issues, we believe we can mitigate anxiety in terminal period patients and registered nurses caring for them, leading to assistance for peaceful deaths.

Key Words: psychiatric hospital, mental disorders, terminal care.
The Discussion of Telephone Care Service for Patients Discharged from Acute Ward of Department of Psychiatry in a General Hospital

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Purpose: This study investigated whether telephone follow-up service for discharged patients improves medical compliance of patients from Department of Psychiatry as well as reduces readmission rates due to short-term relapse, and related causes of follow-up rates.

Methods: Nursing staffs were mainly responsible for investigations on patients being discharged while social workers worked on pre-follow up telephone care service and documentation of service results. This was a retrospective study based on follow-up database of discharged patients. Total of 203 patients were interviewed through telephone between September 1st, 2015 and September 30th, 2016. The results were analyzed using statistical software SPSS OLAP.

Results: The follow-up rate of patients receiving once telephone service was 84.2%, and those receiving twice or three times were 85.3% and 84.5%, respectively. Consequently, one-month regular follow-up rate was 57.6% while no differences were noted between genders. In addition, patients with the highest follow-up rates were those with stabilized schizophrenia (up to 71.4%), followed by those with bipolar disorder. Although regular follow-up was closely related to discharge, the correlation did not reach significant differences.

Implications for Practice: The readmission rate within 30 days before telephone follow-up was 7.9%, and that was significantly decreased to 4.8% after intervention (P<.05). Moreover, in view of the impacts of diagnoses on discharge and the impacts of discharge on follow-up rate, it is recommended to discharge patients admitted to the hospital due to acute onset after they have achieved stable status. The causes that patients with drug addiction failed to return for follow-up visits require further analysis. In addition, both follow up monitoring conducted by registered nurses and the improvement interventions jointly created by anti-drug center are beneficial to elevate follow-up rates of patients with drug addiction in order to extend treatment effects and reduce readmission rate.

Key Words: acute ward of department of psychiatry, care service through telephone interview for discharged patients.
P2-030 Recovery Prediction Factors in Attempted Suicide Patients

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**Purpose:** The aim of this study was to identify the factors that predict suicidal recovery and hopes to ultimately help suicidal individuals recover from suicide attempts.

**Methods:** A cross-sectional design was adopted. A correlational study with a purposive sample of 160 individuals from a suicide prevention center in southern Taiwan was conducted. The target population was people who had attempted suicide but had not made an attempt in 6 months, were in a clear conscious state, were able to complete the questionnaire, and agreed to participate in this study. The data were collected from May to October in 2015. The questionnaires included the Brief Symptom Rating Scale (BSRS-5), Suicidal Recovery Assessment Scale (SRAS), and Beck Hopelessness Scale (BHS). Descriptive statistics and linear regressions were used for the analysis.

**Results:** The mean age of the participants was 40.2 years. The average duration since the date they had attempted suicide was 19.3 months ($SD = 8.3$). The majority of participants were female (74.4%), had a high school level of education and above (65.0%), were religious (72.5%). Over half of the participants had only attempted suicide once ($n=88$, 55.0%). Many participants were striving to make changes to create a more stable and fulfilling life, had an improved recovery from suicide, and had a good ability to adapt or solve problems. The linear regression showed that the BHS scores ($\beta = -.551$, $p < .001$) and BSRS-5($\beta = -.218$, $p = .003$) and past suicidal behaviour ($\beta = .145$, $p = .008$) were significant predictors of individuals’ recovery from suicide. They accounted for 57.1% of the variance. That is, suicidal individuals who have a lower level of hopelessness, a better ability to cope with their mental condition, and fewer past suicidal behaviours may better recover from suicide attempts.

**Implications for Practice:** The healthcare professionals in suicide prevention centres and nurses who care for suicidal patients should spend time communicating with suicidal patients, instilling their hopes and helping them to regain their desire to live. In addition, clinical nursing healthcare professionals could use the BSRS-5 (5 items) to assess suicidal individuals’ emotional state and to determine whether they are still experiencing suicidal ideation. Clinical nursing healthcare professionals could also teach suicidal patients coping strategies to address their stress and problems, which may help reduce the occurrence of suicidal ideation and improve patient recovery from suicide attempts.

**Key Words:** recover, suicide, predictor.
P2-031 Impacts of Psychological Distress on Disease Recurrence in Head and Neck Cancer Patients
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Purpose: Head and neck cancer (HNC) is one of the top ten most common cancers in Taiwan. The diagnosis of cancer can generate great stress and impact on physical and psychological. HNC patients’ psychological distress was reported higher than other cancer patients. Although some studies have explored psychological distress, limited is known about psychological distress affects the disease recurrence and longitudinal follow-up this issue. The purposes of the study were to explore: (1) the characteristics of psychological distress, symptom severity, recurrence; (2) the univariate effect of demographic and disease characteristic, symptom severity, and psychological distress on recurrence; (3) the predictors of recurrence after controlling the cancer stage and symptom.

Methods: This prospective cohort study was conducted from July 2010 to December 2015. A set of questionnaires, including Hospital Anxiety and Depression Scale (HADS), Symptom Severity Scale (SSS), and background information were assessed at 6 months after completing treatment. Recurrence data was recruited from the Cancer Registry Database a medical center in northern Taiwan. Survival analysis was used to reveal the factors related to recurrence.

Results: A total of 199 HNC patients were included in this study. The results found that (1) of these patients, around half of patients were identified recurrence or death; (2) of these patients, around 30% were identified as anxiety cases or depression cases; (3) patients with lymph invasion (HR=1.67, \( p = .035 \)), higher symptom severity (HR=1.12, \( p = .015 \)), continued alcohol, tobacco, and betel nut used post-treatment (HR=1.84, \( p = .043 \)), and depression (HR=2.82, \( p = .031 \)) were more likely to recurrence.

Implications for Practice: HNC survivors still suffered from psychological distress after treatment, after controlling cancer stage and symptom. This study suggested that health care providers should routinely assess psychological distress and provide mental support or referral service to improve prognosis and survival.

Key Words: head and neck cancer, psychological distress, recurrence.
P2-032 Effects of Motivational Interviewing on Psychiatric Symptoms and Medication Adherence in Schizophrenic Patients: A Systematic Review and Meta-Analysis

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Purpose: Medication non-adherence in schizophrenic patients leads to relapse and rehospitalization. Motivational interviewing (MI) is widely used to change patient behaviors. This study aimed to systematically review whether MI improves psychiatric symptoms and medication adherence in these patients.

Methods: The study methods included systematic review and meta-analysis of published randomized controlled trials. An electronic search of the Cochrane Library, PubMed, and CINAHL was conducted using the keywords “schizophrenia or schizophrenic disorder,” “motivational interviewing or adherence therapy or compliance therapy,” “psychiatric symptoms”, and “drug compliance or medication adherence.” All RCTs on the effectiveness of MI as an intervention with treatment-as-usual that were written in English and published from 2006 to 2016 were included. A software for comprehensive meta-analysis was used to calculate the overall effect size.

Results: Initially, 5850 records were identified. After eliminating duplicates, 865 potential papers remained, of which some papers were excluded because they were published before the cut-off date (2006) and were not based on RCTs. The screening of the abstracts and titles of the remaining papers further reduced the number of potential papers to 12. After evaluating these papers using a Joanna Briggs Institute appraisal tool, two were excluded because of methodological limitations. Ten studies fulfilled the inclusion criteria for symptom review, and six studies were included in medication adherence analysis. Forest plots exhibited significant effects of MI on patient symptoms and medication adherence. Six months after MI intervention, psychiatric symptoms were significantly improved, with an effect size of 0.414 (95%CI [0.7, 0.13], p = .005). Medication adherence also significantly improved, with an effect size of 0.405 (95%CI [0.055, 0.755], p = .023). The heterogeneity of the included studies was low, with no publication bias.

Implications for Practice: MI can be regarded as an evidence-based practice to improve psychiatric symptoms and medication adherence in schizophrenic patients. Mental health nurses should be trained to be competent in the implementation of evidence-based practice to promote health care outcomes.

Key Words: schizophrenia, motivational interviewing, psychiatric symptoms, medication adherence, systematic review, metaanalysis.
The Correlation among Nurse Practitioner’s Job Stress, Job Fatigue, and Job Satisfaction-Based on Veteran Hospitals in Southern Taiwan

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Purpose: Taiwan's first specialist nursing division for the Mackay Hospital, in 1986,

Methods: The purpose of this study from the perspective of care to explore the work of professional nurse stress, fatigue, job satisfaction, job satisfaction as a hospital administrator in the formulation of relevant policy reference. A descriptive correlation study was designed and the subjects were selected by a purposive sampling method. The structured questionnaire was used to collect data. To the hospital to hire a licensed specialist nurse more than one year (including one year) for research, the case was 72

Results: The average age of the patients was 39.28 ± 6.2 years; the marriage was married (77.8%); the total years of nursing care were more than 10 years (91.7%); the average age of the specialist nursing staff was 8.1 years, and the surgical department was 41.7%. (p < .01). There was a significant negative correlation between total length of service and service fatigue (p < .01). The total age of specialist caregivers was significantly higher than that of nurses (p < .01) (p < .05). There was a significant positive correlation between job satisfaction and job satisfaction (p < .01, p < .05). The work stress was significantly different (p < .05). (p < .05). The work stress of the object of work fatigue prediction, the total variance explained was 46.8%.

Implications for Practice: This study is the most dissatisfied with the workload, the proposed allocation of human resources and job responsibilities standards, the average allocation of work, should be suitable for specialist nurses appropriate to play to their strengths, so that self-growth, thereby enhancing self-efficacy.

Key Words: nurse practitioner’s, job stress, job fatigue, job satisfaction-based.
P2-034 Primary Exploration on the Effects of the Nursing Technical Audit of Emotional Distress Assessment of Nurses

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Purpose: Nursing technology is of great importance to the quality of care and has an important influence on the implementation of nursing practice. This study was designated to explore the changes in skills of nurses after accepting emotional distress assessment nursing technical audit.

Methods: It was prospective experimental design. The subjects were the nurses of a medical center in southern Taiwan. They were randomly grouped into Experimental Group and Control Group, each with 41 nurses. The research tool was self-designed "Emotional Distress Assessment Nursing Technology Checklist". Experimental Group was intervened with emotional distress assessment nursing technical audit, while Control Group was not.

Results: The research results showed that, after the intervention of technical audit, the scores of both groups increased. But the scores of Experimental Group were better than Control Group and reached the significance variation of statistics ($p = .005$).

Implications for Practice: It is suggested that the checklist can be simplified and emotional distress assessment be included in the central technology assessment of the Nursing Department and implement emotional distress assessment ability in clinical use. It is expected that the results can serve as reference for management to promote practical nursing experience.

Key Words: education training, emotional distress assessment, nursing technical audit, skill, effectiveness.
P2-035 Healthcare Utilization and Characteristics in Patients With Sexual Abuse in Taiwan: A Nationwide Cohort Study

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Purpose: Sexual abuse (SA) is a public health problem affecting individuals, families and communities in the globe. This study aimed to explore injury types, healthcare utilization and medical expenditures of patients admitted due to SA in Taiwan from 1996 to 2013.

Methods: We identified patients with SA by ICD-9-CM V71.5, N Code 995.5x, 995.8 and E960.1.x from National Health Insurance Research Database from 1996 to 2013. Descriptive statistics was used to examine the characteristics of SA and healthcare utilization. Mann-Whitney U and Kruskal-Wallis tests were used to estimate the difference of medical expenditures in emergency room, ambulatory care clinics or hospitalization.

Results: Among 712 patients with SA, females were 26 times higher than males. The highest range was women aged of 14-17 years with mean of 19.65 years. Most patients were hospitalized in surgical wards and they received healthcare services at department of gynecology & obstetrics in ambulatory care clinics and emergency rooms. One third of patients had comorbid diseases and most of them had never received any operation ($p = .001$). The majority of patients were hospitalized in regional hospitals ($p = .001$). For financial analysis, the emergency medical expenditures were lower in males than in females (NTD$1534 vs NTD$2313, $p = .001$). In addition, the average medical expenditures in emergency room increased with age except in the elderly ($p = .001$).

Implications for Practice: The study indicated that patients with SA exhibited female predominance, hospitalization in regional hospitals, and no operation. Females with SA aged 14-17 years were more likely to utilize emergency medical care. The healthcare team should provide integrated services for females with SA, cooperate with other professionals, and refer patients to relevant authorities for a help. In addition, the government should establish an effective strategy to prevent SA occurrence and provide a safe environment for women.

Key Words: sexual abuse (SA), national health insurance research database (NHIRD), healthcare utilization, cohort study.
The Relationship Between Whether Middle School Students had Eaten Breakfast or Not and Stress

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Purpose: Having an empty stomach as a result of skipping breakfast can encourage negative emotions such as tension, anxiety, and fatigue and lead to dulled, slowed thinking. Energy intake at breakfast is essential to living a healthy lifestyle. Thus, the current study used the Public Health Research Foundation Stress Inventory (PSI) for Middle School Students to identify differences in the stress response, stressors, and social support of middle school students who ate breakfast and middle school students who did not.

Methods: From July-September 2016, a questionnaire on breakfast and the PSI were distributed to 442 middle school students in the 6th-8th grades at 4 middle schools. The PSI consists of 3 scales: stress response, stressors, and social support. Responses were analyzed by calculating score for those scales based on formulae in the PSI Manual. Mean scores for students who ate breakfast and students who did not were compared. This study was conducted in accordance with guidelines on ethical consideration.

Results: Responses from 372 students were analyzed. Of those, 358 either “ate breakfast every day” or “almost every day.” 14 students either “seldom [ate] breakfast” or “never [ate] breakfast.” Students who did not eat breakfast had higher mean scores on all 4 subscales of the stress response (physical response, depression & anxiety, moodiness & irritability, a feeling of helplessness) than did students who ate breakfast. An examination of the 3 subscales of stressors (those related to relationships with teachers, those related to friendships, and those related to academic performance) indicated that students who did not eat breakfast had higher mean scores on all of the subscales than did students who ate breakfast. Students who did not eat breakfast had lower mean scores on the 4 subscales of support from others (support from one’s father, from one’s mother, from one’s homeroom teacher, and from friends) than did students who ate breakfast. An examination of differences in social support depending on “with whom [one ate] breakfast” indicated that students who “ate [breakfast] alone” had significantly lower scores for all 4 subscales of support from others (father, mother, homeroom teacher, or friends) than did students who “ate [breakfast] as a family” or students who “ate [breakfast] with other family members.”

Implications for Practice: Results revealed that students who did not eat breakfast had higher stress response and stressor scores. Breakfast affects an individual’s physical state, his or her lifestyle, and his or her interpersonal relationships. Accordingly, eating breakfast is the first step in living a healthy lifestyle, and it leads to both physical as well as mental health. In addition, students who ate breakfast alone lacked support from sources such as their father, mother, homeroom teacher, or friends. Those students were unable to talk with others during a meal, so their stress was not adequately alleviated or dealt with. Factors such as lifestyle and family relationships greatly affect the tendency to skip breakfast.

Key Words: breakfast, stress, PSI.
P2-037 The Experience of Nurse Providing End of Life Care Patients in Non-Hospice Wards
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Purpose: The elderly population in Taiwan is estimated to exceed 20% in 2025, making Taiwan a super-aged society. How to improve the quality of end-of-life (EOL) care has become a critical issue. However, the one-to-many clinical care model and variations in recognized procedures for hospice care bewilder nurses and cause conflicts during taking care of patients. Therefore, this study will explore the experiences of nurses of caring for EOL patients in non-hospice wards.

Methods: This study will adopt purposive sampling to recruit non-hospice ward nurses who have had at least 6 months of work experience and cared for EOL patients within the past year to involve in one-on-one in-depth interviews. Through the whole-part-whole principle of heuristic phenomenology and reflective journal analysis, we will explore the nurses’ experience in caring for EOL patients in non-hospice wards.

Results: Preliminary findings indicate that the nurses’ experience in caring for the EOL patients can be classified into 6 subthemes: respect for humanity, team assistance and resistance, complex caring concepts, psychological adjustment, fatigue of main caregivers, and spiritual needs. The heuristic results indicate that in the nurses’ experience, the participation of medical teams is necessary to enable patients to depart with comfort and dignity. Nurses confronted with complex situations in caring for EOL patients require self-adjustment. Psychological support is crucial for these nurses. By exploring their perceptions and opinions, as well as the nurses’ predicament and psychological adjustments in caregiving situations, the results of this study are able to help nurses improve their caring services for EOL patients and their families.

Implications for Practice: Through this study, it is expected that nurses’ experience in caring for EOL patients in non-hospice wards is able to enhance the knowledge in this area. Furthermore, we hope utilized the results of this study in sharing experiences and educating clinical health care professionals in the future and to improve the quality of care provided to end of life patients.

Key Words: non-hospice ward, nurse, end of life, care.
P2-038 The Development and Psychometric Testing of an Instrument to Measure the Perceived Care Quality in Hospital-Based Psychiatric Rehabilitation Institution

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Purpose: The primary objective of this study was to develop the content and an assessment tool of perceived care quality for hospitalized psychiatric patients undergoing rehabilitation, as well as for clinical practitioners to conduct psychometric testing.

Methods: The study was to develop a perceived care quality psychometric testing for hospitalized psychiatric patients undergoing rehabilitation and was conducted between March 2014 and December 2015. The items in the psychometric testing were developed based on the results of qualitative content analysis. A group of five clinical psychiatric professionals (one physician, one nurse, one social worker, one psychologist, and one occupational therapist) was recruited to conduct specialist validity analysis and then item analysis to develop a self-report care quality psychometric testing for psychiatric patients. Three hundred and twenty one subjects from a psychiatric teaching hospital in northern Taiwan were enrolled in the study. Statistical analyses were performed using SPSS 20 and Amos 20 software.

Results: The results of the study are listed as follows: 1. The perceived care quality psychometric testing for hospitalized psychiatric patients undergoing rehabilitation includes seventeen questions and can be divided into four subscales: patient dignity, humanistic care, meaningful rehabilitation, patient engagement. 2. Reliability testing: The Cronbach's α internal consistency coefficients of individual subscales were ranged between .850 and .936 and the overall internal consistency coefficient was .964. The coefficients indicated a good internal consistency of the care quality psychometric testing. In addition, the split-half reliability rates of the four subscales were ranged between .831 and .932, which indicated a good split-half reliability of the psychometric testing. 3. Validity testing: The validity was constructed using confirmatory factor analysis. The results showed a good basic goodness of fit of the model and a good overall goodness of fit of the model, supporting the research constructs. In addition, the scale had good discriminant validity. 4. Population difference testing: There was no significant effect of demographic characteristics on perceived care quality of hospitalized psychiatric patients from hospital-based psychiatric rehabilitation institutions.

Implications for Practice: Based on the findings of this study, suggestions on the application of the psychometric testing and future research include: (1) The psychometric testing will allow a fast and comprehensive care assessment in clinical settings and can extend the communication content with patients. (2) The content of care quality can be included in teaching materials and can be used as a reference for teaching evaluation of care quality in patients. (3) Future studies can include care quality of patients in acute phase, in community care or long-term care as well as efficiency evaluation after model intervention. (4) The content of care quality and psychometric testing can serve as a guide for government to develop, execute and regulate policies for care of hospitalized psychiatric patients.

Key Words: psychiatric rehabilitation, psychometric testing, perceived care quality.
Effect of a Cognitive Training Program for Institutionalized Older Adults With Mild Cognitive Impairment: A Pilot Study

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**Purpose:**
Mild cognitive impairment (MCI) is defined as an intermediate cognitive state between normal aging and dementia. Older adults with MCI have an increased risk of developing dementia. This pilot study aimed to evaluate the effects of a cognitive training program in improving cognitive function and depression for institutionalized older adults with mild cognitive impairment.

**Methods:**
A one-group pre and post-test design was used. A total of 11 older adults (mean age = 80.45, SD = 7.62) were recruited. The training program was one hour per session, twice a week for four weeks. The cognitive training program consists of four activity themes, including patient education on dementia, and different sessions of bingo game of numbers, sounds, colors and shapes. Mini-Mental State Examination (MMSE), Geriatric Depression Scale(GDS-15), Chinese Happiness Inventory(CHI) were used to assess participants’ cognitive function, depression, and mood.

**Results:**
After receiving the cognitive training program, participants’ MMSE score had a significant increase from 23.18(SD=3.63) at pre-test to 24.91(SD=3.48) at posttest \( (p<.05) \); the average of Chinese Happiness Inventory score had increased significantly from 4.82 (SD=2.6) to 6.73 (SD=3.66) \( (p<.05) \). The average of GDS score had decreased from 4.82 (SD=4.12) to 4.09 (SD=3.05) \( (p=.056) \), but it was not significant.

**Implications for Practice:** This study results shown that the cognitive training program can increase cognitive functions and mood for institutionalized older adults with mild cognitive impairment. By participating in the cognitive training activities, the older adults not only improved their mood but also their cognitive function. The cognitive training program can be incorporated into routine activity program in senior retirement homes to improve mood and cognitive function, and delay cognitive decline for older adults. Future research can use a more rigorous study design with a control group with longer follow-up to provide evidence of the effects of this cognitive training program.

**Key Words:**
cognitive training, older adult, mild cognitive impairment, mood.

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Suicidality of the Outpatients With Common Mental Disorders in Northern Taiwan

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**Purpose:** Under economic pressure and chronic physical constrains in modern societies, more people have suffered from depressive mood, anxiety, or insomnia. These mood symptoms may comorbid with each other and are collectively called common mental disorders (CMDs). Research indicated that there are strong association between CMDs and suicidality. Thus, identifying suicide risk among people with CMDs at an early stage is crucial for suicide prevention. Current suicide assessment tools mostly evaluate either the levels of depression, anxiety, or suicide ideation, which lacks the aspect of multiple time-dimensional risk of suicidality. We aim to investigate the prevalence of suicidality among patients with CMDs, with secondary purpose to validate the CMHC.

**Methods:** The cross-sectional study was conducted in an outpatient department of a general hospital in northern Taiwan. We recruited consecutive outpatients referred by a psychiatrist. The definition of CMD in this study refers to patients with either or both (i.e. comorbidity) of the diagnoses of depressive and anxiety disorders. All the patients received a self-report questionnaire consisted of demographic and the nine-item scale of CMHC (total score 0-9, higher point indicates severer risk of suicidality), and additional questions to assess suicidality, i.e., recent and lifetime ideation. Psychiatric diagnoses were categorized into four main groups, i.e., depression, anxiety, comorbidity of depression and anxiety, and serious mental illness (reference group). Data analyses included descriptive statistics of the demographics, diagnostic information, and suicide risks; in addition, we performed correlational statistics between suicidality and diagnostic categories.

**Results:** We collected 700 psychiatric outpatients with the majority females (66.9%) and the average age was 52.0 ± 14.7. The average score of CMHC-9 was 4.00± 2.33. Most of the participants have anxiety disorders (45.4%) or depressive disorders (40.1%), and 9.4% were comorbid with both diagnoses. Symptoms of sleep, feeling anxious, irritated, and depressed were prevalent in nearly two-thirds of the participants. About 30% were found to be lacking of support from close others; while 22% and 17.9% had previous suicide attempt and future intention to suicide, respectively. In correlational analysis comparing higher (CMHC≥4) or lower suicidality of four diagnostic categories and the other four risk status (i.e., recent/lifetime/future suicide ideation and previous attempt), we found that higher CMHC level was significantly correlated with most of the risk status. Nearly four-fifth of the patients with higher CMHC level were found to have recent/future suicide ideation or previous attempt, indicating a high prevalence of suicidality among patients with CMDs.

**Implications for Practice:** The high risk level of suicidality among patients with CMDs cannot be neglected. Clinicians should screen for suicide risk via short assessment scale for these people. The CMHC was validated to identify suicidality among psychiatric outpatients, and can be considered to check suicidality across the past, current and
future time aspects.

**Key Words:** concise mental health checklist, suicidality, suicide ideation, suicide risk assessment, common mental disorders, psychiatric outpatients.
P2-041 Stress, Needs, and Quality of Life of People Living With Human Immunodeficiency Virus/AIDS in Shenyang, China

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Purpose: This study aims to explore the stress, needs, QOL, and the associated factors of QOL of PLWHA in China.

Methods: This cross-sectional, descriptive study was conducted by accessing 100 Chinese PLWHA's stress, needs, and QOL with structural questionnaires.

Results: The most stressful that PLWHA felt was making their HIV/AIDS status public and how to tell people about their illness. Their needs are mainly to have information about HIV-related medical service, examination and treatment and how to prevent disease progression. Among the four domains of QOL, the score in physical domain was the lowest. Stress, needs and QOL of PLWHA were significantly correlated to each other, however, only stress could predict QoL ($\beta = -.25$ to -.60, $p< .05$ to .001) in multivariate analysis.

Implications for Practice: To reduce stress, to meet needs, and to improve QoL of PLWHA, health care providers should lower the risk of divulgence, provide adequate health care information, and put efforts on reducing the stigma and discrimination for HIV/AIDS.

Key Words: stress, needs, quality of life, PLWHA.
P2-042 Protective Factors Of Suicidal Ideation Among Older Adults
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Purpose: Suicide is a global issue but few studies have explored the triggers and psychological feelings of suicidal ideation in older adults.

Methods: A qualitative design with face-to-face semi-structured interviews examined the experience of suicidal ideation in adults aged 65 years and older. A purposive sampling of 32 outpatients with suicidal ideation from a medical centre in northern Taiwan participated. Interview data identified three themes: triggers for suicidal ideation, contributing psychological changes and factors of adaptive response.

Results: The triggers for suicidal ideation included physical discomfort, loss of respect and or support from family, impulsive emotions due to conflicts with others and painful memories. Psychological changes contributed to suicidal ideation: feelings of loneliness, a sense of helplessness, or lack of self-worth. Participants described adaptive responses that acted as protective factors of suicidal ideation: support from family and friends, control of emotions, establishing a support network, comfort from religion, medication, and focusing on the family.

Implications for Practice: Mental health nurses and clinicians should incorporate evaluation of stressful life events and psychological changes into a screening scale for older adults to improve detection of those at risk for suicide. Teaching coping strategies could provide timely interventions to secure the safety of this older population of adults.

Key Words: influencing factor, older adults, protective factor, suicidal ideation.
P2-043 The Result of Using the Patient Appointment Warning Card New Version Give to Patient Who Miss an Appointment to Getting Drug Chronic Diseases Clinic Patient Response Area

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Purpose:  Objective The aim is to provide patient had lower rate of miss an appointment and comparative between the formal an appointment patient card with the innovation of the patient appointment warning card new version and assessment satisfaction effect after patient got the innovation of the patient appointment warning card new version

Methods:  Methods The data was collected and analyzed from sampling patient missed an appointment to getting drugs for 64 case has to testing period happened once a month for 3 months October 2016 - December 2016. We select to collect data by Questionnaires 3 part general data, sigh behavior and satisfaction with the patient appointment warning card new version then we assess comparison using 2 kind of patient an appointment card, the comparison rate to miss patient appointments card increases with point medium of 5 months and finding their satisfaction, The data were analyzed using number, SD and analyze processing with statistical by SPSS.

Results:  Result performance innovation psychiatric patients forget was be middle-aged, almost are 76.7 percent of women representing of the working age 40-60 years, mean duration of disease their illness was 8.91 years. the rates of missing date increase 12.8% were satisfied overall average of 4.43, interpretations was good level

Implications for Practice:  This innovation has done been a card based on patient characteristics that different nonverbal manner form be friendly and easy to read with the addition incentive return into service by appointment comes one day after taking up an appointment with us. The comparison between of innovation with formal patients appointment card that can help patients don’t forget to take drugs following the appointment of follow up to one day

Key Words:  warning card, appointment, drug, chronic diseases.
P2-044 Effectiveness of a Walking Program Intervention for Persons With Chronic Schizophrenia

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Purpose: Background: Patients with schizophrenia are at higher risk of physical disease and higher mortality rate than the general population. The major reason of higher risk of physical disease is overweight. Being overweight or obese may also adversely affect a patient's physical health, self-esteem, and it is an important factor in medication discontinuation. At this point, there is virtually nothing that can be done to promote exercise and weight control in order to decrease the risk of physical disease. Purpose: To assess the effects of the walking program on controlling body weight in person with chronic schizophrenia.

Methods: This study used a cluster randomized experimental design. Two chronic wards were randomly assigned to either the experimental or control group using a black box drawing method, and 44 participants were randomly assigned to the two groups based on the ward where they were hospitalized. Walking exercise was implemented for 30 minutes, five times/week, and totally ten weeks for the experimental group participants. The participants' body weights (while wearing light clothing and no shoes) were measured in the morning immediately after the patients woke up and emptied their bladders.

Results: A total of 44 participations completed the study, including 25 in control groups and 19 in experimental group. The two groups were similar in age, mean values of body weight, body mass index, fasting glucose, triglycerides and cholesterol. A general estimating equation (GEE) was used to analyze the diverse-change of the body weight between experimental and control groups over the period of ten consecutive weeks. The results indicated a significant effect of the group × time interaction in body weight change (Z = 6.38, p < .001)

Implications for Practice: The findings suggest that walking program contributed to body weight control in person with chronic schizophrenia. The results of this study provide implications for health providers to assist person with schizophrenia in weight control, and health promotion.

Key Words: walking, weight control, schizophrenia.
Purpose:
Constipation is a common but often unrecognized and undertreated problem for patients with mental illness in the hospital. The onset of constipation is usually linked to treatment. To promote nursing practice that is based on evidence, the study was started with reviewing literature to determine what treatments and interventions are proven to effectively mitigate constipation-related problems that are sensitive to nursing interventions. The evidence-based practice for nonpharmacological interventions for constipation are discussed as well as applied.

Methods:
We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, PsycINFO and CINAHL, Up To Date, National Guideline Clearinghouse, PubMed up to 3 May 2016. We applied language restrictions in Chinese and English. Literature review determined sufficient evidence towards the implementation of abdominal massage for the management of constipation. A cluster sampling method and a test–retest experimental design were adopted. 30 psychiatric inpatients were randomly assigned to either the experimental group or the comparison group. The 15 patients of the experimental group were each administered 15 minutes abdominal massages, 5 times per week for 8 weeks. The 15 patients from the comparison group received standard care services. Data for frequency of bowel movements, frequency of PRN laxatives use, and demography were collected.

Results:
No significant difference was observed between the experimental and comparison groups in terms of gender, age, disease duration, disability level, education level, marital status, and employment, indicating that the characteristics of the research participants were homogenous. The experimental group’s number of bowel movements ($p < .001$) was significantly higher than those of the comparison group following the intervention. The experimental group’s number of PRN laxatives use ($p < .001$) was significantly less than those of the comparison group.

Implications for Practice: It had a substantial effect for the management of constipation in psychiatric inpatients with abdominal massage. Abdominal massage was easy to operating and was recommended parallel with the current treatment.

Key Words: evidence-based approach, constipation, psychiatric inpatients.
Purpose: While the incidence of suicide in nurses has been increasing worldwide, Taiwan is no exception. The first suicide case being labeled as an occupational injury was judged in 2012, after which only single event was reported in the social media every year in Taiwan. Although rarely happened, this issue should be properly handled. However, current evidence in preventive strategies is sparse and unintegrated. Thus, the aim of the study was to conduct a systematic review of studies about suicide in nurses.

Methods: We searched seven electronic databases including PubMed, Medline, Embase, Scopus, Cochrane, PsycInfo, and CINHAL. Using “nurs*” and “suicid*” restricted in title and “nurse” restricted in abstract as keywords, we identified 642 results in the electronic records. After removing 334 duplicates and 284 articles with irrelevant titles and abstracts, we deleted the following articles that were not research papers (n=10), not written in English (n=1) and out of date (n=1). Finally, eleven articles were found with nine additional manual searching references, resulting in a total of 21 articles spanning from 1993 to 2016.

Results: Three main categories were identified regarding the current issue, i.e., comparison of suicide rates across occupations, investigation of the suicide risk factors, and prevention strategies for the nurses. The nurses were found to have a higher suicide rate than the general population and several other professions in certain countries such as in Denmark and New Zealand, yet the results varied in different areas where nurse suicide may not be a prominent issue compared to other occupations. Only limited evidence indicated that self-poisoning was the most prevalent method for nurse suicide. In terms of suicide risk factors in nurses, substance abuse, psychiatric disorders, and stress were highlighted in the literature. The other factors worth notion included access to medication, burnout, hopelessness, exhaustion, experience of deliberate self-harm, and personality disorders. The debate against occupational stress for nurses emphasized that work-related factors such as inflexible work schedules and interpersonal conflicts should be paid more attention.

Implications for Practice: According to the above, we concluded that the nurses are the high-risk group of suicide with identifiable and preventable causes. Because suicide is the result of multi-factorial accumulation, we recommend not only to restrict access to lethal means, but to combine various strategies concurrently in education and policies for effective suicide prevention. On the one hand, suicide risks can be identified through new-staff and on-job training/assessment in the hospitals to promote self-awareness and peer support for high-risk nurses, through which elimination of stigma and enhancing adequate help-seeking behavior are necessary in facilitating protective environment. Let the nurses increase the sensitivity to suicide risk factors and personal mental health status so the barriers of professional help can be eliminated. On the other hand, hospitals should create a positive and caring surroundings with accessible help-seeking pathway such as counseling services or mentor/supervisor engagement, allowing the nurses to reach out for help when they are in need.
Key Words: nurse, suicide, suicide prevention, systematic review.
**Body Constitution in TCM of Patient With Schizophrenia and Treated With Clozapine**

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**Purpose:** To explore the body constitution in Traditional Chinese medicine of person with schizophrenia and treated with Clozapine.

**Methods:** A cross-sectional study design was used. A total of 98 participants were recruited, who treated with Clozapine for at least 6 months at the Area Psychiatry Hospital in central Taiwan. Constitutions of Yin-Xu, Yang-Xu, and phlegm stasis were assessed using the body constitution questionnaire (BCQ). The BCQ used in this study was developed by Su and consists of 44 items on a 5-point Likert-type response scale.

**Results:** Of the 98 participants, the average age and duration of schizophrenia was 49.5 years (SD = 8.8 years) and 22.3 years (SD = 7.4 years), respectively. The number of patients included 43 (44%) classified as gentleness, 37 (38%) as Yin-Xu, 43 (44%) as Yang-Xu, and 32 (33%) as phlegm stasis. A majority of the patients (n = 36, 36.7%) exhibited two to three unbalanced body constitution types simultaneously. The participants who were treated with clozapine and had a phlegm-stasis constitution had significantly less physical exercise and higher perception of stress level than those without a phlegm-stasis constitution. Of the total participants, 18 also had metabolic syndrome (matching three or more conditions). Among these participants, 3 (8.1%) were classified as having Yin-Xu constitution, 5 (11.6%) as Yang-Xu, and 5 (15.6%) as phlegm stasis. There were no significant differences in metabolic syndrome (high blood pressure, high fasting blood sugar, abdominal obesity, high triglyceride level, high triglyceride level) between the Yin-Xu and without Yin-Xu groups, Yang-Xu and without Yang-Xu groups, phlegm stasis and without phlegm stasis groups.

**Implications for Practice:** BCQ is easy and accessible for self-evaluated. Patients treated with clozapine and particular with phlegm-stasis constitution, should be advised to increase physical activity. In addition, health interventions should be provided for patients with imbalanced body constitution.

**Key Words:** schizophrenia, clozapine, body constitution, traditional chinese medicine.
The Subjective Experience of Self-Stigma Among Patients With Mental Illness in Taiwan

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Purpose:
Social stigma toward mentally ill patients have been studied profoundly but few studies explore patients’ self-stigma. Self-stigma is a subjective experience which is internalized from social stigma. Self-stigma deeply affect mentally ill patients’s social readjustment which cannot been overlooked. The purpose of the study was to investigate the subjective experience of self-stigma among patients with mental illness.

Methods:
Data were collected in a psychiatric center in central Taiwan. Semi-structure interview guide was prepared and every participant was interviewed 1-2 hours. Content analysis was used. Peer debriefing was utilized to secure the rigor of the study.

Results:
Twelve participants were recruited from chronic psychiatric wards, OPD, community rehabilitation center and day care. Their age range was from 34-65 year, and ill history was from 2-38 years. Qualitative data was classified into 6 themes including (1) self-sense (2) attitude (3) reaction, (4) coping, (5) resilience and (6) future plan. Self-sense was their self-concept when they were initially diagnosed as mental illness. Attitude from outside was regarding the publics and family’s attitude toward participants. Reaction was focus on participants’ psychological feeling toward the attitude from outside. Coping was participants’ strategies to deal with the publics’ stigma. Resilience indicated that their efforts to overcome the publics’ stigma. Future plan indicated that their plan after they leave rehabilitation center. 3-7 subthemes were also classified.

Implications for Practice: This study provides a whole picture regarding patients’ mental journey facing mental illness. These information can help the mental health professionals to design rehabilitation program which is more fit patients’ needs.

Key Words: self-stigma, mental illness, qualitative study.
Strategy for Increasing Resilience in Adolescents With T1DM: A Pilot Study
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Purpose: Based on recent literature, this study developed an intervention for increasing resilience in adolescents with type 1 diabetes. The effectiveness of the intervention was evaluated in terms of improvements in resilience and glycemic control.

Methods: A quasi-experimental methodology was used to collect and analyze data for 50 adolescents with type 1 diabetes treated in the endocrinology clinic of a medical center. The participants were randomly divided into an experimental group (n= 25) that received the resilience strategy and a control group (n= 25) that received standard care. The resilience strategy (SPADM strategies) was designed to improve self-awareness (S), problem-solving (P), acceptance (A), shifting attention (distraction, D) and mental support (M). The resilience strategy was implemented in the experimental group in two face-to-face interviews and three telephone interviews performed during a 12-week period. The main outcome measures were HbA1c level and resilience measured at baseline and at 12 weeks. The data were analyzed by factor analysis, chi-square test, and t-test.

Results: The resilience strategy significantly decreased HbA1c (t= - 3.11, p= .005) and significantly increased hope and optimism (t= 6.89, p= .000), empathy and interpersonal interaction (t= 2.91, p= .008), problem solving (t= 5.64, p= .000), and emotional regulation (t= 5.24, p= .000).

Implications for Practice: The experimental results demonstrated the effectiveness of the proposed resilience strategy and its potential applications in nursing education, practice and research.

Key Words: resilience intervention, type 1 diabetes, adolescent.
Purpose: The aims of this study were (1) to describe the participants’ personal characteristics, daily habits, pre-sleep arousal status and sleep quality and (2) to investigate the predictive factors of sleep quality and their impacts on the seven components of sleep quality.

Methods: A purposive sampling with cross-sectional design was conducted in this study. A survey with structured questionnaires on total of 50 RN-BSN nursing students, aged 20 years or older was completed to determine participants’ pre-sleep arousal status, sleep quality and personal characteristics. Questionnaires including personal characteristics, Pre-sleep Arousal Scale, and Pittsburgh Sleep Quality Index were used for data collection.

Results: The average age of the female RN-BSN nursing students was 32.0(±5.1), and the average BMI was 23.8(±6.6) kg/m². A total of 47(94.0%) students had sleep disturbance. The average sleep onset latency, total sleep time, time in bed, and sleep efficiency were 31.2(±20.4) minutes, 5.5(±1.6) hours, 7.1(±1.8) hours and 81.2(±21.1) %, respectively. Pre-sleep “Being distracted by sounds, noise in the environment” and “Dry feeling in mouth or throat” were the main predictive factors of the sleep quality among RN-BSN nursing students. These two factors mainly affected the three components of the sleep quality including “subjective sleep quality”, “sleep latency” and “sleep disturbances”.

Implications for Practice: This study results provide schools or health practitioners with a reference to design sleep health interventions to reduce the pre-sleep “Being distracted by sounds, noise in the environment” and “Dry feeling in your mouth or throat” to improve “subjective sleep quality”, “Sleep latency” and “sleep disturbances” of students.

Key Words: sleep quality, RN-BSN nursing students, pre-sleep arousal status.
The Relationships Among the Recovery Factors on Inpatients With Schizophrenia

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**Purpose:** The purpose of this study was to understand the relationships among recovery factors for inpatients with schizophrenia in different recovery stage.

**Methods:** The cross-sectional survey design to know the relationships among recovery factors was for this study. Fifty patients with chronic schizophrenia in acute ward were recruited in this study. Five scales were used to measure personal data, hope, social function, recovery related responsibility, and recovery overall in this study. The data was analyzed in exploration of the relationships among variable and differences in personal data.

**Results:** The results showed 30 men and 20 women participated in this study. A total of average age was 42.7 year old with SD of 10.923. Their mean of recovery level was 94.82 with SD of 19.948. Among recovery factors, hope was significant correlated to symptoms awareness ($r = .640$, $p < .000$), recovery responsibility ($r = .364$, $p < .01$), the willing to help others ($r = .364$, $p < .01$), significant others in life ($r = .788$, $p < .000$), goal and succeed achievement ($r = .655$, $p < .000$) and help seeking actively ($r = .756$, $p < .000$).

**Implications for Practice:** In this study, evidence support the patients with higher hope would have more positive thinking. They reported higher responsibility, willing to help others and help seeking actively would have better in recovery status. Therefore, clinical mental health professionals may help patients with chronic schizophrenia in more discussions and encourages in stronger the hope toward the future and their own responsibility to current illness status. Those strategies may help patients to get more capacity in recovery energy.

**Key Words:** schizophrenia, recovery, recovery factor.
Perspectives on Menopause From the Middle-Aged Women and Male

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Purpose: People would experience the upcoming physically aging after their middle age. The attitude toward aging is the key to successful aging. Research purpose: To study the middle-aged women and male’s perspective on menopause and its related factors.

Methods: A cross-sectional design used the self-administered questionnaires and convenient sampling. The participants were with the middle-aged aged between 45 and 55 years old in Tainan city, Taiwan. The 4 instruments were given to eligible participants: (1) Eysenck Personality Questionnaire; (2) The Greene Climacteric Scale (GCS); (3) Partial Androgen Deficiency of the Aging Male questionnaire (PADAM questionnaire); (4) Self-perception menopause of perspective and personal basic information. After approving IRB, the eligible participants were given inform consent. In final, the data were collected out of 248 women and 128 male.

Results: (1) a). There were 95.6% women that had menopause symptoms. b). 57.66% women acknowledged that they were in menopause. c). The chronic disease, the personality, and the climacteric symptoms were significant related to self-perception of menopause ($p<.05$). (2) a). There were 61.29% male with perceiving the decline in body function, the decline in exercise capacity, and the decline in sexual desire subsequently. b). Only 16.3% male acknowledged that they were in menopause. c). The BMI control and the climacteric symptoms were significant related to self-perception of menopause ($p<.05$).

Implications for Practice: It provides the information of the perspective on menopause from the middle-aged women and male so as to help the middle-aged understand themselves and go step further to self-perception for future life in old age.

Key Words: middle-aged, menopause perspective, climacteric symptoms.
Factors Associated With the Persistency Treatment of Methylphenidate (MPH) on Children and Adolescents

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Purpose: According to Taiwan Food and Drug Administration (TFDA), Methylphenidate (MPH) has been the major drug to treat attention deficit/hyperactivity disorder (ADHD). The low persistence on MPH for ADHD has raised some concerns for long term poor prognosis of the patients with ADHD. Even MPH was regarded as the most effective pharmaceutical way to manage ADHD, some patients may still have concerns about side effects of MPH and thus easily stop taking MPH. The current study would describe the associated factors for persistence MPH treatment for children and adolescents with ADHD under 18 years old in Taiwan.

Methods: This study analyzed the million sample national health insurance research database issued by the national institutes of Health. All medical records from 2005 to 2013 was included to understand the use of MPH, including dosage and timing etc. ATC classification system (the Anatomical Therapeutic Chemical Classification System) is used to retrieve drugs in the health insurance database and calculates the defined daily dosage (DDD). During the study period, MPH used in Taiwan included immediate-release methylphenidate, IR-MPH, and osmoic controlled-release formulation of methylphenidate, OROS-MPH. Other associated factors included first MPH date, onset age of ADHD, sex, dose, frequency, whether switching to another MPH, area of hospital, and major comorbidity, such as oppositional defiant disorder, autism spectrum disorders, tic disorders, intellectual disability, anxiety disorders etc.

Results: There were 5266 children and adolescents treated by MPH in our dataset, with more male (n=4218, 80.1%), first MPH prescription age at 9.6±3.0 years old. The averaged dose of MPH was 0.63±0.36 DDD. The averaged numbers of visits were 5.98±5.37 times and half of the subjects treated only IR-MPH (48.42%). The most prevent comorbidity was anxiety disorders (22.43%), followed by intellectual disability (9.38%) and autism spectrum disorder (7.67%). After adjusting other factors, patients used both IR-MPH and OROS-MPH were more likely to maintain MPH treatment for more than one year compared to ones used only IR-MPH (adjusted odd ratio=5.19, 95%CI [4.43, 6.08]). Factors associated with persistence on MPH were male (OR=1.23), higher DDD (OR=3.61), frequent clinic visits (OR=1.11), with conduct disorder (OR=1.57), autism spectrum disorder (OR=2.20), intellectual disability (OR=2.69), anxiety disorders (OR=1.52), depressive disorder (OR=4.42), bipolar disorder (OR=3.76), treated by both psychiatric and non-psychiatric clinics (OR=6.36), residency not at eastern part of Taiwan.

Implications for Practice: The persistent treatment on MPH for ADHD was low and close observation for adverse effects from MPH is important for nurses to educate patients on MPH and their parents. It was also suggested that clinicians can enhance the persistence on treatment by switching from IR-MPH to OROS-MPH. One major reasons was the once daily dose of OROS-MPH which reduce the burden of medication-taking on youths at school time.
**Key Words:** children and adolescents, methylphenidate (MPH), treatment adherence, premature discontinue.
P2-054  Family Counseling Session Related Factors in Nurses Involved Care and of Influence
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Purpose: The purpose of this study was to understand the thoughts and the psychological impact to the family members. Firstly, the study intentions of primary caregivers of ventilation–dependent patients the study analyzed the counseling session related factors in Nurses involved care and of influence the Respiratory care ward, from the points of the view of patients’ families.

Methods: The methods used to conduct the study included, Family counseling session related factors in Nurses involved care in depth interviews grounded theory, and the semi-constructed interviews as instructions for data collection. Methods of description statistics, Linear Regression, analyses were conducted to identify:

Results: Data analysis interviewing presents three themes:

Implications for Practice: The study limited the entire respirator-dependent patients, beginning guide the subjects and Increase the number of cases, the expand and family life quality for more in-depth discussion, as the future care planning of the reference.

Key Words: family counseling, related factors, involved care.
The Advanced Processes and Experiences of Psychiatric Nurse Practitioners

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Purpose: The present research aims to explore the advanced processes and experiences from psychiatric nurse practitioners.

Methods: The research method adopts the snowball sampling with semi-structured interviews as the instrument to collect data from 9 psychiatric nurse practitioners. The advanced processes and experiences from these practitioners are classified based on the grounded theory and constant comparative method.

Results: The results show that there are five categories of the advanced processes and experiences from psychiatric nurse practitioners: the motivation of transfer, the process of training, the adaptive process of changing roles, the reality of practices, and the future expectations. The core idea of the whole process is that nursing is a life-long learning profession. It should be elevated through continuous learning process to find the best position for oneself.

Implications for Practice: The present research not only obtains supports from the practitioners but also gives those who are thinking about being one a picture of their future career. They can think furtherly about what they are going to choose and how they are going to prepare for their future.

Key Words: psychiatric nurse practitioners, advanced processes and experiences.
**P2-056**  
A Primary Discussion of the Impact Factor for Terminal Disease of Family to Make Decision Withdrawal of Life Sustaining Treatment.  
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**Purpose:** A primary discussion of the impact factors for terminal disease of family to make decision withdrawal of life sustaining treatment. 

**Methods:** The objects conclude the doctor, registered nurse and the hospice of registered nurse that discuss a case management and clinical teams communicate with family about the medical futility and withdrawal of life sustaining treatment of opinion. These data is generalize to the same character factor and to compare quantization.

**Results:** The viewpoints of medical futility and the impact factor of withdrawal of life sustaining treatment for doctor, family and registered nurse, all people consider the terminal disease patient's care should be give an excellent quality care. An aspect of impact withdrawal of life sustaining treatment, the factor is family and patient avoid death issue; family's opinion is discordant; the attitude of family effect the doctors and nurses, all of these factors are in majority.

**Implications for Practice:** In the medical is agree withdrawal of life sustaining treatment, the patient and family have their consider position. Thus this paper make primary discussion of the impact factors by literature research, and quantization. The data be analyzed that in order to compare the same factors of withdrawal of life sustaining treatment when meet the same condition.

**Key Words:** terminal disease, life sustaining treatment, make decision.
A Study of Do-Not-Resuscitate (DNR) Among Patients With Tracheostomy in Medical Intensive Care Unit (MICU)

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**Purpose:** To analyze do-not-resuscitate (DNR) among patients with tracheostomy in medical intensive care unit (MICU)

**Methods:** A retrospective study was conducted via electronic medical records to analyze patients with tracheostomy in MICU from 1st of August, 2013 to 31st of December, 2015 (2 years and six months in total).

**Results:** A total of 112 patients with tracheostomy were recruited with average age 71.1 years old (SD = 15.2) and none of them have signed Advance directive, with an average number of 4.3 (SD = 3.6) and 3.3 (SD = 3.3) readmitted to hospital and ICU retrospectively during the period of study (30 months in total). There are 103 patients who have implemented tracheostomy in our hospital and all of them were with consent made by their families. Among them, 30 patients (29.1%) have received a consultation regarding tracheostomy from medical personnel in advance, but only 12 patients (11.7%) had the consultations right before surgery. The group with consultation has a significantly higher rate of discussion in their family meeting compared with the group without consultation (30% vs. 6.8%; p = .002). There were 99 patients discharged from hospital with an average age 70.8 years old (SD = 15.3). Among the discharged patients, there were 48 patients (48.5%) were in coma or unconsciousness, 31 patients (27.7%) with pressure sores, and all of them (100%) had to be bedridden, dependent on others and almost all patients required 24-hour oxygen therapy and mechanical ventilation (n = 95; 96%) and many of them were transferred to Respiratory care ward (RCW) (n = 42; 42.4%).

**Implications for Practice:** patients in MICU were mostly elder and the decision of implementing tracheostomy was made by their families. Therefore, this study suggests medical personnel should respect the medical autonomy for conscious patients. Regarding to patients who are unconscious and required full-time cares, the medical team should convene a family meeting to fully inform follow-up care of the tracheostomy, medical status and most importantly to introduce the concept that the continuation of life could not ensure patients’ quality of life and to make medical decisions from the patients’ point of view, providing an option to stop futile medical care.

**Key Words:** DNR(do not resuscitate), MICU(medical intensive care unit), tracheostomy, plliative care.
**P2-058 Introduction of J-PAD Guidelines in the Intensive Care Unit and its Influence on Nursing Practice**

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**Purpose:**
In 2014, the Japanese Society of Intensive Care Medicine published “Japanese PAD (J-PAD) Guidelines”, which provided recommendations for general management of pain, agitation, and delirium in critically ill patients. However, practical efficacy of its introduction appears to depend on the circumstance of each institution. Therefore, we evaluated influence of J-PAD guideline on our nursing practice in the intensive care unit (ICU) of Kanazawa Medical University Hospital before and after its introduction.

**Methods:**
From June 2016 to November 2016, we performed a comparative study between two groups of adult patients admitted to our ICU. The first group was treated according to procedure used before introduction of the J-PAD guidelines (pre-J-PAD, June 27th to September 30th), and the second group was treated according to our revised procedures based on J-PAD guidelines (post-J-PAD, October first to November 30).

**Results:**
Of 136 total subjects, 82 were assigned to the pre-J-PAD group and 54 to the post-J-PAD group. We observed significant increases in execution rates of the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) (2% to 85%) and of the Critical-Care Pain Observation Tool (CPOT) for patients receiving mechanical ventilation (40% to 86%) (p < .01 and < .05, respectively) (Chi-squared test). The Richmond Agitation-Sedation Scale (RASS) was applied in all cases of mechanical ventilation. For the pre-J-PAD group, we observed 12 cases of treatment staff engaging in multi-disciplinary conferences to address pain or delirium. For the post-J-PAD group, we observed 53 such cases. As a result of these conferences, analgesics that had previously been administered as required (PRN) were switched to a scheduled administration model, and opportunities increased for nursing staff to make proposals regarding timing of drug administration to better facilitate patient rest and rehabilitation. However, no significant difference was observed between groups in number of days until the patient was able to assume an upright sitting position, duration of artificial ventilation, or length of ICU stay.

**Implications for Practice:** We observed improvement in our nursing practices and a trend towards inter-disciplinary cooperation among treatment staff as a result of our implementation of the J-PAD guidelines. Further studies should attempt to address and analyze number of days associated with patient recovery to be able to assume an upright sitting position, length of mechanical ventilation, and factors affected by the ICU stay.

**Key Words:** J-PAD guidelines, nursing practice, quality improvement nursing.
P2-059 Predictors of Nosocomial Infections Among Older Patients in the Intensive Care Units

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Purpose: The purpose of this study was to explore the predictive factors for nosocomial infections in the intensive care unit (ICU) older patients.

Methods: A prospective design was adopted. Convenience sampling was performed to enroll 102 older patients from medical and surgical ICUs in a medical center in central Taiwan. Data were collected through a datasheet, including demographic characteristics (age, gender, educational level, marital status, economic condition, presence of diarrhea, and use of mechanical ventilation), nutritional status [the body mass index (BMI), albumin level, hemoglobin (Hb) level], comorbidity index [the Charlson comorbidity index (CCI)], and the nosocomial infections in the ICUs.

Results: The results indicated that the nosocomial infections in the ICUs were significantly associated with gender, marital status, intake condition, presence of diarrhea, use of mechanical ventilation, and albumin level. The patients who were male ($p < .05$), married ($p < .05$), adopted mixed or parenteral nutrition support ($p < .001$), presented diarrhea in the ICUs ($p < .01$), used mechanical ventilation ($p < .001$), and had lower albumin level ($p < .05$) had higher incidence rates of nosocomial infections in the ICUs. In addition, logistic regression analysis indicated that the predictive factors for nosocomial infections in the ICUs were the use of mechanical ventilation [odd ratio (OR) = 15.8] and gender (OR = 0.3).

Implications for Practice: Nosocomial infections are common in the ICUs, the results of the present study can provide information for clinical personnel to reduce the incidence rate of nosocomial infections in the ICUs older patients. While implementing infection control strategies, it is recommended to include gender difference and the use of mechanical ventilation into special consideration.

Key Words: intensive care units, older patients, nosocomial infections.
P2-060 The Outcomes of Patients With Severe Influenza Infection Admitted to Intensive Care Units
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**Purpose:** Influenza is often under-diagnosed in acute-care hospital settings, and is also currently the greatest pandemic disease threat to humankind and places a large burden on healthcare providers and society. Influenza can cause complications ranging from pneumonia to severe respiratory failure or even death, particularly among old ages and patients with chronic underlying conditions. For the most severely affected influenza patients, intensive care units (ICUs) can provide supportive care. In 2015, there was a large outbreak of influenza in Taiwan, and a high portion of these patients required ICU admission for intensive care. Herein, we investigate the clinical outcome of patients with severe influenza infection admitted to ICU and identify the risk factor of death among this population.

**Methods:** In this retrospective study, all patients received anti-viral therapy (oseltamivir) soon and admitted to ICU were enrolled between January 1, 2015 and March 31, 2016. The differences of demographic and clinical variables between influenza groups (non-survival and survival groups) in the ICU were examined by independent two-sample T-test. The associations between each of categorical variables and influenza groups were analyzed using the \( \chi^2 \) or Fisher exact tests. Based on the results of univariate analyses, the variables significantly associated with influenza mortality in the \((p < .05)\) were further entered into the model of Cox regression.

**Results:** Influenza patients in Taiwan who require ICU admission during the recent outbreak in 2015. First, we found that the mortality of these patients remains as high as 26.4%. This findings is consistent with previous large scale investigations in other countries. the mortality was highest among the group of aged 50-59 years in this study. The mortality among this specific age group was 40.1% (9/22), which was higher than 37.5% (12/32) among age 60-69 years and 32.2% (10/31) among age 70-79 years. This finding should still point out that severe influenza can result in significant mortality in middle age group in this outbreak. Of course, further investigation should help clarify the impact of severe influenza on the outcome of patients with severe influenza.

**Implications for Practice:** The mortality of severe influenza patients admitted to the ICU remains high and the mortality was highest among middle-age group. The risk of mortality was associated with more organ failures. Additionally, a significant portion of patients with severe influenza in the ICU have co-bacterial or fungal infections.

**Key Words:** outcome of severe influenza patients, intensive care unit, influenza infection.
Purpose: The purpose of this study was to explore and understand the factors that make the once hospitalized patients unexpectedly readmitted and the improvement strategies in the Neurological Intensive Care Unit of a regional hospital in Southern Taiwan.

Methods: This study used the method of retrospective file analysis. The samples were collected from 46 unplanned readmissions reported at a regional hospital between January 2015 and October 2016. The variables being analyzed were age, gender, level of severity of illness (APACHE II), time and cause of unplanned readmissions occurrence. The coping strategies were approached accordingly.

Results: The major findings of this study were as follows. There are 46 patients identified as the unplanned return among 11077 patients; the unplanned return rate is 4.1%, with the return time less than or equal to one week (n=25, 54.3%); patients had unplanned readmissions within 48 hours (n=10, 21.7%). Mean age is of 70-90 years old (n=17, 37.0%). 35 patients (76.1%) are male. The level of severity of illness is (APACHE II) ≥ 15 points (n=41, 89.1%). Patients with pneumonia combined respiratory disorders had the highest readmission rate (n=27, 58.7%). Through cause analysis, the improvement measures to prevent patient unplanned readmissions are: (1) holding medical-nursing joint discussions in the cross-team reviews so as to prevent the unplanned readmissions; (2) holding courses for staff education to enhance the cognitive level and skills on the pneumonia care; (3) regularly monitoring the implementation of pneumonia prevention nursing measures and strengthening the exactitude of practical operation for the patient.

Implications for Practice: Based on the findings of this study, the clinical team in the ICU can understand the related factors of unplanned readmission of hospitalized patients and help develop improvement strategies of intervention programs especially for patients with pneumonia combined respiratory disorders. It is expected that the occurring rate of unplanned readmission can be reduced, the economic burden of patients and their families be lessened, and health care quality be improved.

Key Words: unplanned readmission, unplanned readmission related factors, improvement strategy, neurological intensive care unit.
Effectiveness of Non-Pharmacological Strategy on Sleep Quality of Critically Ill Patients

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Purpose: Sleep deprivation was one of the most experienced problems in clinically ill patients. It weakens patients’ immune systems; reduce recovering ability, affected memory integration and cognition functions, and prolonged hospital stay. We selected shifting ventilator to assist mode, environment control and earplug using during nighttime which was based on evidence as non-pharmacological strategy. The purpose of this study was to explore the effectiveness of non-pharmacological strategy to improve the sleep quality of critically ill patients.

Methods: This study was quasi-experimental design. Participants were recruited from 42-bed adult intensive care unit of a medical center in Taipei Taiwan. Institutional ethical review and approval were completed before the study. The inclusion criteria were conscious, literate, communicable, and had agreed to participate, predicted ICU length of stay more than 3 days. The exclusion criteria were diagnosed with sedative users, or had been consuming sleeping pills for over a month. Standard treatment was applied to control group during pre-stage; and non-pharmacological strategy was applied to experimental group during 10 pm-6 am during post-stage. The measurement included observation during 10 pm-6 am, Stanford Sleepiness Scale (SSS) and self-awareness of sleep measures on next morning. Descriptive statistics of patients demographics was using means, standard deviations, frequency and percentage. Analytical statistics was using chi-square test, ANOVA, and generalized estimating equation (GEE).

Results: We enrolled 131 participants, 62 were allocated to experimental group and 69 to control group. A total of 731 days were observed, the average of observation days were 4.16 days. The self awareness of sleep within the 6 days period were 2.4~2.9 in control group, and 2.1~2.4 in experimental group. The SSS were 2.7~3.3 in control group, and 2.3~2.7 in experimental group. The observed sleep hours were 3.3~3.8 in the control group, and 4.8~5.6 in the experimental group. The results indicated that experimental group better than control group including sleeping hours, SSS and self-awareness of sleep was significantly in three day. The slop of sleeping hours, SSS and self-awareness of sleep between groups had no significant difference. The patients’ sleeping hours, self awareness of sleep and SSS either the control group or experimental group exacerbated during the observation days.

Implications for Practice: Critically ill patients only had 3~4hrs of sleep at night. Sleep deprivation of critically ill patients was serious issue for health care team. This study found the benefits such as shifting ventilator to assist mode, environment control and earplug using during nighttime in promoting sleep in the ICU patients. We recommend non-pharmacological strategy in order to provide better quality care and to promote sleep in critically ill patients.

Key Words: critically ill patients, non-pharmacological strategy, sleep quality.
**P2-063** Effects of Environmental Modification on Delirium and Sleep in SICU Patients

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**Purpose:** The most common complication in ICU patients is acute delirium alone with sleep disturbance. Environmental noise and light could be the major causes on delirium and sleep disturbance in ICU. The purpose of this study was to investigate the effect of an Environmental Modification Program (EMP) on delirium and sleep in SICU patients.

**Methods:** A historical comparison study were performed at the ICUs of a medical center in Taichung. Patients who were adults (20 years old or older), with a Glasgow Coma Scale of 15, and stayed in ICU more than 24 hours were recruited (n=39 before and after program implementation, respectively). The EMP includes decreasing sound and light level during night time and placing clocks in each room for orientation. Delirium was assessed twice per day by using the CAM-ICU (Confusion Assessment Method for use in intensive care unit patients). Sleep perception was assessed in the forth day morning by using the Chinese version of the Verran and Snyder-Halpern Sleep Scale (VSH). Data of sound and light measures from 23:00 pm to 6:00 am for three nights were collected every 10 minutes. Chi-square, t test and regression analysis were used to analyze delirium incidence and relevant environmental factors on delirium and quality of sleep in patients in the ICUs.

**Results:** Results show that sound and light level were decreased from 54.7~70.5 dB and 208~230 lux to 40.6~44.1 dB and 44~53 lux after EMP implantation, respectively. Sleep quality were improved (VSH 451 vs. 945) and delirium incidence was decreased (25.6% vs 2.6%) after EMP. The risk of delirium was decreased 58% if sleep can be improved every 100 VSH score \( (p < .05, 95\% CI [.212, .827]) \).

**Implications for Practice:** Implantation of EMP to lower down light and noise level in ICU has effects on improving sleep quality and decreasing delirium risk. Improving environmental factors in ICUs can reduce the incidence of delirium and poor sleep and hence to enhance the quality of care in patients in ICUs.

**Key Words:** Delirium, sleep quality.
A Comparison Study: Follow-Up to Evidence-Based Bundle Care on Prevention of Central Line-Associated Bloodstream Infections in Surgical Intensive Care Unit

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Purpose: Central venous catheter is a common procedure for the critically ill patients, the National Nosocomial Infections Surveillance (NNIS) system of the centers for disease control and prevention reports that the average rate of central line-associated bloodstream infections (CLABSI) in all intensive Care Units (ICUs) in the United States range from 1.8 to 5.2 per 1,000 catheter days. CLABSI is a main cause of increased morbidity and mortality, and are largely preventable in critical unite. The importance and efficacy of a care bundle for preventing CLABSI and infectious complications related to placing an intravascular catheter in patients in ICU. The purpose of this study was to compare evidence-based bundle care intervention for preventing CLABSI.

Methods: This study was performed at the ICU of a medical center in Eastern Taiwan. The data collected from infection center database. Chinese CLABSI evidence-based bundle care guideline was modified as consistent as possible to CLABSI guideline of CDC preventing interventions and applied in this study. All of adult patients have received intravascular catheter for ≥48h. And we collected the CLABSI rate with and without the preventing interventions of evidence-based bundle care since 2014 to 2016.

Results: After evidence-based bundle care on CLABSI evidence-based bundle care intervention, the CLABSI infection rate was from 5.07 per mille in 2014 to 3.52 and 3.08 per mille in 2015 and 2016.

Implications for Practice: The ICU established evidence-based bundle care guidelines for prevention CLABSI. We expect the Evidence-Based Bundle Care can be continuous helpful to decrease the rates of CLABSI morbidity and mortality and to increase the quality of intensive care.

Key Words: central line-associated bloodstream infections (CLABSI), evidence-based bundle care, clabsi care bundle.
Performance Analysis of Exercise Training Program for Ventilator-Carried Patients Weaning From Respirator

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Purpose:
Mortality rate is proportional to the carried days of patients with mechanical ventilator. It is important to apply an appropriate intervention timely for assisting patients weaning ventilators early. The purpose of this study was to analyze the efficacy of exercise training program for patients with ventilators.

Methods:
A retrospective study was utilized. Subjects were recruited from intensive care units of a medical center in northern Taiwan. Medical charts of 2 years were reviewed to collect data related to ventilator-carried history. “Weaning ventilator scale” was used as a study instrument.

Results:
Medical Charts of 358 patients were collected in this study; they were divided into experimental (179) and control groups (179) according to their medical records. Weaning rate (90% vs 78.2%; \( t = 3.07, p = .002 \) ), weaning ventilator scale (44.07 + 4.91 vs 41.21 + 5.81; \( t = 5.03, p = .000 \) ), length of ICU stay (19.06 + 12.70 vs 23.35 + 17.77; \( t = -2.63, p = .009 \) ) and ventilator day (13.28 + 11.80 vs 18.17 + 17.22; \( t = -3.13, p = .002 \) ) were significantly different between the experimental and control groups. In logistic regression analysis, the predictors of weaning ventilator were gender (OR .430), BUN (OR .871), RSI (OR .915), ventilator day(OR .886), and length of ICU stay(OR .812). The total variance can be explained by the final regression equation 28.9%.

Implications for Practice:
Implementing the exercise training program for weaning ventilators in respirator-carried patients could significantly enhance weaning rate, reduce length of ICU stay days, and save medical and social cost.

Key Words:
ventilator, weaning, exercise training.
The Effect Appraisal for the Clinical Nutrition Nursing Guideline of Critical Ills With Ventilators in a Medical Center

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Purpose: The purpose of this study was to compare the effectiveness of evidence-based clinical nutrition nursing guideline with routine care among patients with mechanical ventilators in the levels of serum albumin and hemoglobin, and the duration of mechanical ventilators.

Methods: Quasi-experimental with time series study was utilized. Critical patients with mechanical ventilation were recruited from a medical center in northern Taiwan. Totally 185 subjects participated this study to be divided as control (90) and experimental (95) groups. “Patient Nutrition Monitoring Questionnaire” as study instrument was used.

Results: The results showed that serum albumin and hemoglobin levels were no significant difference in different timings. The average duration of mechanical ventilators in the experimental group significantly decreased 8.5 days than the control group (30.7 vs 39.2 days, $p=.02$). The odds ratio of the training duration for weaning mechanical ventilators was 1.57 ($p=.04$).

Implications for Practice: Implement of clinical nutrition nursing guideline in critical patients with mechanical ventilators could reduce the duration of mechanical ventilators. The findings of this pilot study revealed that some determinants might interfere nutrition status of patients. These factors should be included for future investigation to promote the nutrition status of patients.

Key Words: ventilator, nutrition, clinical nursing guideline.
P2-067 Efficiency of Traditional Bed Bath and Disposable Cloths Bath for Skin Hygienic in Critically Ill Patients: A Pilot Study
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Purpose: Bathing of critically ill patients can perform personal hygiene and comfort. However, patients' bath basins maybe a potential sources of infection. This pilot study compared two bathing practices, basin bath and disposable cloth bath, in time of bathing, microbial counts on the skin, and cost of bathing.

Methods: A randomized clinical trial was created to evaluate the effects of basin bath and disposable cloth bath for 20 patients in a medical intensive care unit. Investigators observed heart rate and shell temperature during bathing. Investigators also measured the time of bath and cost of bathing. Cultures of groin were obtained before and after each bath.

Results: Twenty participants were enrolled as participants. The time of bathing was 32.9 minutes and 20.2 minutes in the basin bath group and the disposable cloth bath group, respectively. Significantly less bathing time, fewer products, and lower cost ($p<.05$) were used in the group of disposable cloth bath. The basin bath group had significantly difference in the change of heart rate and shell temperature. The microbial counts were not significantly difference between the two groups.

Implications for Practice: The disposable cloth bath is a desirable bathing form for critical care settings.

Key Words: bed bath, disposable cloth bath, cost.
An Overview of How Nurses Interact With the Families of Postoperative Patients

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Purpose:
The purpose of the present study was to gain an overview of how on-site nurses interact with the families of postoperative patients immediately after surgery and to examine postoperative nursing care for the families of patients.

Methods:
The study included four nurses who were responsible for the postoperative care of patients. Participant observation was performed for situations in which nurses encountered the families of patients immediately after surgery in a surgical ward. Semi-structured interviews were conducted regarding the role of nurses for the families of patients while reflecting on postoperative care situations. Data were qualitatively analyzed. Participant observation data were used as secondary data. This study was conducted with the approval of the researchers’ affiliated institutions and hospitals in which the fieldwork was conducted.

Results:
The four nurses’ ages ranged from the 20s to the 40s; their nursing experience ranged from 3.5 years to 24 years, and their surgical ward experience ranged from 1 to 4 years. Patients receiving care included three with gastrointestinal disease and one with respiratory disease. The role of nurses for the families of patients receiving postoperative care was broadly divided into six categories. Nurses performed swift immediate postoperative care based on the idea of enabling [family members to meet the patient soon after surgery]. Nurses were [able to ascertain the psychological state of the family] through patient care by conversing with the family and ascertaining the preoperative family situation. Furthermore, nurses [provided information on the postoperative condition of the patient], such as the patient’s state of arousal from anesthesia, with explanations regarding the appearance of symptoms and detailed explanations to help families understand the patient’s current state and their future plans. Nurses also made [considerations for the family] so that the family could be met patients in a relaxed and comfortable environment. Moreover, the nurses felt [a good response to effective care] reflecting patient care that was conducted during family visits. When providing patient care during family visits, some nurses [were concerned about whether negative family behavior was exhibited], such as specific behavior by family members and doubts pertaining to care.

Implications for Practice:
Nurses not only provide immediate post-operative care for patients but also provide postoperative care for the family waiting for the patient. In [providing information about the postoperative patient], nurses provided detailed explanations in various situations in the immediate postoperative period, taking into account the psychological state of the family. Going forward, the effect of information provided on the family by nurses needs to be clarified and effective means for providing information need to be examined. Furthermore, nurses are concerned about whether negative family behavior is observed in the immediate postoperative period, and this appears to be affected by the decreased involvement of nurses with families resulting from shortened preoperative hospitalization periods and the fact that nurses are implementing care in tense situations.

Key Words:
postoperative patient’s family, nurse interaction, postoperative nursing care.
P2-069 Exploring the Influence of Sedative Drugs on Sleep Quality and Memory in Intensive Care Units

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Purpose: This study is conducted to find out whether ICU patients taking sedative drugs would affect the quality of sleep, or memory after inactive sedation.

Methods: We designed a prospective cohort study to evaluate the influence of sedative drugs on sleep quality, and the memory during the ICU stay in 2 medical ICUs. We measured the sleep quality with a miniature physiologic signal recorder, and the Richards-Campbell Sleep Questionnaire (RCSQ), which uses the Intensive Care Unit Memory Tool (ICUMT) to measure memory. We recorded the data of 16 patients for 48 hours while they were sedated and for 48 hours after inactive sedation. Patients were interviewed by a trained nurse who collected RCSQ and ICUMT data on Day 1, 2, 3, 7, 14, and 28 after the inactive sedation.

Results: The results revealed the sleep efficiency index(SEI) was <85%, indicating poor sleep quality. No matter which type or dosage of sedative drug was used, with/without neuromuscular blocking agents, the sleep quality was poor. After sedation, most patients experienced impaired memory, including factual memories, such as those relating to family, medical rounds, faces, presence of breathing tube, sounds, and light; feeling memories, including feeling uncomfortable, depressed, or pain; and delusional memories, such as nightmares, hallucinations, and believing someone wanted to hurt them. The higher the sedative dosage, the more delusional the patients’ memories were. Patients staying in ICU wards for a longer time, with higher score of APACHE II, and taking NMBA for a longer time are higher in score of delusional memories. Patients taking high dose of midazolam and those taking the same for no fewer than 3 days have higher score of delusional memories on day 7.

Implications for Practice: In respect to sleep quality of ICU patients taking sedatives, according to measurement results, the ICU patients have short sleep hours and low SEI, indicating that, we must pay attention to delusional memories of patients even after discontinuance to help maintain safety thereof and lower anxiety and relieve anxiety and disturbance of patients.

Key Words: sedative drugs, sleep quality, memory, intensive care unit.
**Purpose:** Pediatric intensive care unit (PICU) is high pressure working environment. In recent years, the use of extracorporeal life support (ECLS) becomes prevalent. The health care impacts on nurses are as follows: how to do the operation of ECLS in emergent situation, the influences of the prognoses and the complications of the patients, the future life quality of the patient, who will be in charge of removing the ECLS or keeping it without unknown ending. The purpose of this research was to explore the stressors that nurses of PICU may encounter when tending children using ECLS.

**Methods:** A qualitative descriptive study was conducted from January 1st to March 26th 2014. Focus groups were held with 15 nurses from Pediatrics ICU as participants. Semi-structured interviews were adopted to collect data, making the participants subjectively narrating and describing their experiences in taking care of children using ECLS. The interviews were recorded, processed and analyzed in hope to unveil its thorough picture beneath the data and to find nurses’ possible pressure sources when tending children with ECLS.

**Results:** The data was analyzed according to the phenomenology methods and categorized in two domains: the self-preparedness of nurse competence and the communication and cooperation between medical teams. First domain includes three themes: 1. medical care of ECLS, the subthemes includes the unfamiliarity with the medical supply and equipment, the rush of preparation, the fear to operate the medical devices and their alarms, the fear to operate the circuit of ECLS; 2. the learning curve of the newbie, the subthemes includes the pressure when they firstly face the patients with ECLS, the upset and helpless feeling of self-learning; 3. the judgment and reaction during emergency, the subthemes includes lack of experience of caring ECLS patients, the inconsistence of the standard of medical care, the emergent management in abnormal situation, the psychological trauma after compilation occurs in patients. Second domain includes two themes: 1. the adjustment of team work, the subthemes includes the urgent atmosphere during the placement of ECLS, the immediate support of emergent medical management, the capacity of cross-team members; 2. the decision making between different medical management, the subthemes includes multiple perspectives of medical management.

**Implications for Practice:** This research suggests that the nurses are under several kinds of pressure in treating children with ECLS, among which the most dominant ones come from the collaboration and communication required in inter-professional practice, the decision-making needed in clinical context, as well as their demand in ameliorating proficiency of nursing. This research hopes to provide a direction and guidance to medical staff who works in similar background to their better adaptation to the pressure, and to assist them in getting proper training in terms of learning new nursing skills with cutting-edge technology, and the ability to collaborate with others in inter-professional practice, as well as to increase hospice care for better nursing quality.
**Key Words:** pediatric intensive care unit, extracorporeal life support, stressor.
Predictors of Quality of Life in Community Dwelling Frail People

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Purpose:
The purpose of this study was to examine the general information in older adults with different levels of frailty. The second aim of this study was to examine the physiological indicators and health status in older adults with different levels of frailty. Third, this study was to examine the quality of life in older adults with different levels of frailty. Finally, frailty can predict the quality of life in elderly.

Methods:
This research applied the cross-sectional design, research subjects were community-dwelling elders, and purposive sampling. This research was studied during July to September 2013. When consent from older people, measures of SOF Frailty Index by graduate students. A self-made questionnaire was used for studies, aimed at obtaining basic information about elderly, the variables we included were gender, age, education, occupation, living alone, annual income, the number of diagnosed chronic illnesses, previous fall history, fracture history, smoking, drinking, perceived health status and perceived happiness status. The detected of physiology by senior nurse, the detection of DEXA by radiologists, and the quality of life questionnaires were filled out by elderly.

Results:
This study took the sample from communities that we found there are significant variances in age, education, annual income, living alone, waist circumference, systolic blood pressure, diastolic blood pressure, bone mineral density, grip force, the number of diagnosed chronic illnesses, previous fall history, smoking, perceived health status, perceived happiness status, and quality of life between three groups of elders. We hope this information can be a reference of intervention action to community registered nurses for the purpose of reverse weakness, decreasing disability, hospitalization, or even death, and reducing health cost as early as possible. For the prediction of life quality, the variance of effectively physiological prediction is up to 65.6% whose predictable variables are age, annual income, BMI, bone mineral density, the number of diagnosed chronic illnesses, fracture history, perceived health status, and perceived happiness status were significant predictors of the physical domain; the variance of effectively psychological prediction is up to 56.7% whose predictable variables are weakness, bone mineral density, the number of diagnosed chronic illnesses, perceived health status; the variance of effectively social relationship prediction is up to 27.8% whose predictable variables are age, bone mineral density, previous fall history, fracture history, perceived health status, and perceived happiness status were significant predictors of social relationships domain; the variance of effectively environmental prediction is up to 40.6% whose effectively predictable variables are gender, age, bone mineral density, previous fall history, fracture history, perceived health status, and perceived happiness status were significant predictors of environment domain, accounting for 40.6% of the total variance.

Implications for Practice:
Professional nurses must apply a comprehensive nursing intervention programme to improve the quality of life of older people.

Key Words:
aging, frailty, quality of life, community dwelling people.
Perspectives of Medical Futility in Community-Dwelling Older Adults With Chronic Illnesses

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Purpose:
Perceptions of medical futility in end-of-life care for terminally ill patients have been discussed, but less discussed in the community-dwelling older adults. It is an important issue that how to avoid medical futility and how to maintain medical autonomy for older adults. This study aimed to understand the perspectives of medical futility in community-dwelling older adults who 75 years or older with chronic illnesses.

Methods:
This study used a semi-structured interview guide and interviews were audio-taped, transcribed verbatim and analyzed by content analysis. Older adults with chronic illnesses were purposively recruited from a Community in Taiwan between January and July 2015. Inclusion criteria included (a) age of over 75 years, (b) one chronic illness at least, (c) ability to communicate, and (d) community-dwelling. Participants were asked to describe their feelings, thoughts, and attitudes as well as how they experienced. Data saturation was reached after the completion of 9 interviews.

Results:
The following themes emerged from the data: (a) Sense of medical futility, (b) Severe chronic disease as a caregiver’s burden, (c) Compliance with the physician’s advice, (d) Living with chronic disease and (e) Documenting advance directives in a timely manner.

Implications for Practice:
The authors hope that the findings may help health-related institutions understand medical futility from the perspective of health care consumers, which will allow them to better inform community-dwelling old adults about end-of-life care and the Patient Autonomy Bill.

Key Words:
community-dwelling older adults, chronic illnesses, medical futility.
Factors Associated With Caregivers' Burden and Depression in the Home Care Settings
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Purpose: The aims of this study are to examine the status of the burden and depression of primary caregivers and associated factors in home care settings.

Methods: The study was cross-sectional and correlation study. The numbers of subjects are estimated to be 97 caregivers and paired disabled patients receiving home care services provided by a home care center of the southern medical center. Data was collected from January to September 2015. Exclusive criteria included: (1) employment of caregivers; (2) caregiver being unable to communicate in Mandarin or Taiwanese. The structured questionnaires were administered by the home care nurse. The questionnaires include patients’ and caregivers’ demographic data and caregivers’ burden and depression condition. The descriptive and inferential statistics were used to analyze data.

Results: Most of the patients’ Barthel Index (93.8%) were below 20. The burden score of the primary caregivers was mean (±standard deviation) of 42.43 (±16.80). There are significant differences among three groups of the caregivers, including receiving only home services, receiving both home services and respite care, and receiving nothing (F (2,94) =4.62, p=.0122). The average score of the group receiving only home services (48.43±17.68) and the group receiving both home services and respite care (48.94±13.47) were higher than the group receiving nothing (38.42±16.36). The depression levels of the caregivers were 74.2% normal level, 9.3% mild level, 6.2% moderate level, and 10.3% severe level. Associated factors of caregivers’ burden included change of working status (t=3.03, df=95, p<.01), incomes decrease after taking care of patients (t=2.91, df=95, p<.01), and financial burden (t=4.75, df=95, p<.01). Associated factors of caregivers' depression included education level (t=-2.01, df=95, p=.0475), change of working status (t=2.45, df=95, p=.016), incomes decrease after taking care of patients (t=-3.35, df=95, p<.01), financial burden (t=3.47, df=95, p<.01). Caregivers' burden scores were significantly correlated with depression scores (r=.67, p<.01).

Implications for Practice: Perceived financial problem is the important factor of primary caregivers' burden and depression. Home services and respite care cannot alleviate caregivers' burden and depression. The study results can provide policy makers of long-term care laws to develop appropriate care programs and insurance. Additionally, the governors need to improve the care quality of home services and respite care in order to relieve caregivers' burden and depression and promote their physical and mental health. Further research will be conducted to increase the sample size and expand different settings to increase the internal and external validity.

Key Words: home care, disabled elders, caregiver, burden, and depression.
The Effectiveness of Weight Loss by Internet Supports to Promote Exercise Efficacy Among Obese Middle-Age Women in Urban Areas
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Purpose: The purposes of this study were to examine the effectiveness of internet supports to promote exercise efficacy and the weight loss for obese middle-aged women after a 16-week weight management program and an 8-week follow up stage.

Methods: A randomized controlled design with pre- and post-test design was conducted. The participants with obesity were randomly assigned by residential clusters to either internet-support (IS) group or paper-record (PR) group (PR). There were 25 in IS and 31 in PR group with completed activities during a period of 24-month. Both two groups received a 16-week instruction for weight management and an 8-week follow-up. Moreover, the IS group additionally received internet supports (e.g. a web-based system, wireless monitor for PA, and mobile phone Apps) to promote weight loss and maintenance. The outcomes were evaluated including exercise efficacy and health outcomes including body weight (BW), percentage of body fat (BF%) and body mass index (BMI). The data was treated by ANCOVA analysis.

Results: The study findings show the IS group had much more reductions than the PR group on BW (-3.0kg vs -0.98 Kg), BF% (-1.25 vs -0.42) and BMI (-1.08 vs +0.18) after a 16-week program and an 8-week follow up. Additionally, the IS group had significantly higher score on exercise efficacy than PR group had.

Implications for Practice: Internet supports (e.g. a web-based system, wireless monitor for PA, and mobile phone Apps) can significantly promote exercise efficacy on urban middle-aged women and maintain their weight loss after a 16-week weight management program and an 8-week follow up stage.

Key Words: obesity, middle-aged women, urban areas, exercise efficacy, internet support.
To Improve the Quality of Visiting Nurse Using Effective Human Resources of Specialized Nurse

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Purpose:
In Japan, the reconstruction of an integrated community care-system has been promoted for the super aging society. Because, elderly people utilizing home nursing station have been growing in diversity. And the degree of dependence on medical care has been increasing. Then, the quality of the visiting nurse should be improved. Thus, as a basic research for the use of human resources in the entire region of a specialized nurse, we investigated what kinds of supports the visiting nurse wants for the certified nurse.

Methods:
The study period was from July to September 2016. Mail survey - unregistered self-administered questionnaire was used. Total number of visiting nurses in Tokai area (Aichi, Gifu, Mie prefecture) Japan we sent questionnaire was 1,500. As ethical consideration, we regarded as consent with reply by mail. Statistical processing was performed using statistical software (IBM SPSS Statistics 24). As for free description, we also performed analysis (frequency analysis, word network) by text mining (Text Mining Studio 6.0 "NTT data mathematical system").

Results:
Among 403 answers we received (collection rate 26.9%), 402 answers was valid. The distribution of age in responders was as follows, 1.7% in 20 to 30 years old, 21.6% in 30 to 40 years old, 45.6% in 40 to 50 years old, 26.9% in 50 to 60 years old, 3.0% over 60 years old, and 1.2% of responders did not answer the question. The years of experience as nurse was 19.1 ± 8.7, that of visiting nursing was 4.9 ± 5.0. The visiting nurse seems to be difficult "always" 3%, "often" 14%, "occasionally" 39%, "rarely" 41%, "no" 3%, when they visited user's home. Visiting nurse felt difficulty regard to the knowledge of the user's condition assessment, care method, disease and technology. The specialized field that visiting nurse would like to receive guidance / consultation was "Wound, Ostomy and Continence Nursing", "Palliative care", "Dysphagia Nursing" in that order. By nursing experience years, visiting nurse with less than 5 years experiences, words regard to the wishes direct interaction with certified nurse were frequently extracted. Visiting nurses with less than 5 to 10 years experiences, words that systematically think about cooperation with certified nurses are extracted, and in 10 to 15 years, subjects of nursing such as relationships over time, after patient hospitalization, after discharge, and patients, families, etc. are extracted.

Implications for Practice: Visiting nurses required some supports of consultation and guidance for certified nurse working in hospitals. Additionally, there was a different request depend on the number of years of career nursing experiences. Hence, an individual support system using human resources of specialized nurse is necessary for visiting nurse to establish.

Key Words: integrated community care-system, visiting nurse, nursing support, human resource utilization.
Purpose: The purpose of this study was to identify the frequencies and types of urgent nursing care needs and the beginning of home care nursing. This study was approved by the Institutional Review Board at the University of Human Environments.

Methods: Home-care-nurses working for HCN agencies in Japan were asked to answer the survey for urgent nursing care, history of present illness, ages, and emergency response system from their home visit reports (applications for and instructions for in-home-visit nursing, nursing plans and reports, and pressing visit records). New 1,235 cases for home care nursing between October 2015 and September 2016 of 15 home care agencies were enrolled.

Results: Only cases older than 40 year-old were included in this study. Urgent nursing care was required in 102 cases (8.26%) during the first 14 days of home care nursing. There were 49 male and 53 female clients (Mage=77.8, SD=11.5). 58 cases had cancer diagnosis (56.9%) and 66 cases needed some medical treatment (64.7%). The most common medical procedure was bladder catheter (16 cases, 15.7%). Between 15 to 30 days, 12 cases (1.0%) needed emergency treatment. Urgent nursing care responses within the first 14 days were 38 responses by telephone (37.3%) and 64 by nurse’s visits (62.7%). Regarding physical symptoms were 21 cases of 38 urgent phone, and 10 cases were about medical treatment. Physical symptoms were 40 cases of 64 urgent visits. Cases using home care agencies were 123.9 ± 43.3, the full-time nurses were 4.5 ± 2.5, the cooperative medical facilities were 47.3 ± 12.9, and the cooperating doctors were 81.8 ± 19.6. The home care agencies had a response manual for urgent nursing care needs, contact method, medical treatment and the prevention of accident, and 24 hours telephone correspondence system.

Implications for Practice: In order to suppress urgent care at the beginning of home care, the importance of assessment on physical symptoms was suggested. Further investigation should be required about utilizing the manual for urgent responses, contact method, medical treatment and the prevention of accident at the home care agencies.

Key Words: urgent care needs, home care nursing, home care agency, older than 40 year-old.
Clinical Judgement of Nursing Care Staff Regarding Daily Life Assistance to Patients With Cancer Pain in Nursing Homes

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**Purpose:** The purpose of this study was to clarify the clinical judgement of the nursing care staff regarding daily life assistance of patients with cancer pain in nursing homes.

**Methods:** This study consisted of 60 nursing care staff members in a nursing home facility in Osaka, Japan who provided their informed consent. A researcher and two oncologists created a questionnaire to evaluate 27 items, including basic information and the clinical judgement of the nursing care staff. There were four possible answers: “strongly agree”, “agree”, “disagree”, and “strongly disagree,” which were given 4, 3, 2, and 1 points, respectively. Differences were evaluated using the Mann-Whitney U test. Regarding ethical considerations, we obtained permission from the facility director and explained to the subjects that there were no consequences for not participating or withdrawing in the middle of the study and personal information would be protected.

**Results:** Most of subjects were women (n=45, 75.0%) and the average age was 41.7 years. The mean experience of the nursing care staff was 2.1 years. Regarding the qualifications of the nursing care staff member, 48 (80.0%) members completed the 130-hour nursing training course, and 9 (15.0%) members completed the national care worker qualifications. For the question “do you know which patients are cancer patients”, 38 (58.0%) members answered “I strongly think so” or “I think so;” for the question of “do you report to a nurse when patients suffer from cancer pain,” 24 (40.0%) answered “I strongly think so” or “I think so.” The staff was divided into two groups according to amount of experience (at least two years and over vs less than 2 years), and those with at least 2 years of experience were significantly more likely to focus on changes in the daily lives of the patients (p<.05).

**Implications for Practice:** The findings demonstrate the clinical judgement of the nursing care staff regarding patients with cancer pain. Nursing care staff members desire to enhance their quality of care, thus nurses must provide adequate interventions in improving cancer supportive care of the nursing care staff.

**Key Words:** clinical judgement, nursing care staff, cancer patient, nursing homes.
**P2-078 Fact-Finding Survey for Establishing a“Mountain Health Care Room” Based on the Lifestyles of Local Residents in Foothill Regions**

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**Purpose:** For local residents in foothill regions to live healthy lifestyles, a care system that includes primary prevention needs to be constructed. Our university is aiming to establish a “Mountain Health Care Room,” which will become a space for continuous learning and face-to-face consultations with local residents. Therefore, the aim of this study was to conduct a survey on local residents to learn about the state of their lifestyles and to gain suggestions for infirmary activities.

**Methods:** An anonymous, self-administered survey was distributed to 649 households in two foothill regions in November, 2016. The survey covered basic attributes, current physical state, daily lifestyle activities, quality of life, and a free response section. Subjects were given written explanations of the study purpose and protection of personal information, and the return of the survey was considered as consent.

**Results:** The recovery rate was 40.7%. We found that 30%–50% of the local residents experienced increased forgetfulness and decreased physical strength. Approximately 50% of the local residents felt anxiety and depression. Anticipation for “Mountain Health Care Room” activities was mainly related to interest in courses regarding countermeasures for dementia and aging. It was also hoped that the infirmary would be a place where multiple generations could easily visit.

**Implications for Practice:** The results indicated that “mountain health care room” should be places for cooperation between health, medicine, and welfare specialists in the foothill regions so that courses of interest to the local residents can be held and activities rooted in local communities can be implemented.

**Key Words:** mountain health care room, community health, primary prevention.
Purpose:
This study expected to understand the correlation of the healthy quality of life, health satisfaction and negative feelings for Taiwanese in the community, and based on the research finding to plan an improving healthy quality of life program in the future.

Methods:
This study is a cross-section survey research, based on the population of the community in the Liuying District of Tainan, Taiwan and using a convenient access to the study sample, having the number of samples 100 and using a structured questionnaire.

Results:
This study has shown that average age was 42 years old of samples, and majority were female (71%), 92% for the Taiwanese people, and most were Taoist and Buddhism faith-based, the main educational background were college or university degree (67%), most were married (66%). The survey found that 69% of people rate their healthy quality of life in 'general', 55% of people on their health satisfaction in 'general', and 43% of people expressed 'sometimes' with negative feelings, such as depression, despair, anxiety and worry, 48% of people represented 'not often' with negative feelings. The results found that there were statistically significant correlations between healthy quality of life and health satisfaction ($p < .000$), and negative feelings ($p < .001$). A statistically significant between health satisfaction and negative feelings ($p < .000$) was found as well. It can be seen that if people perceived well healthy quality of life, they also perceived good health satisfaction and low in ranking of negative feelings.

Implications for Practice: The results of this study enable to know the correlations among healthy quality of life, health satisfaction and negative feelings for Taiwanese in the community. Expecting by this study provides information for community center or related health associations on the healthy quality of life educational program, and therefore enhancing health satisfaction and reducing negative feelings, thereby strengthening the healthy quality of life for the community of Taiwanese.

Key Words: healthy quality of life, health satisfaction, negative feelings.
**Purpose:**
In recent Japan, the proportion of the elderly aged 65 years and over to the entire population has reached 26.7% (as of October 2017). The needs of the visiting nursing care increases according to rapid aging. Nursing and long-term care increases at the community level. Visiting nurses should provide high quality care. The purpose of this study was to identify the components of the nursing practice working for visiting nursing services, and to consider continuing education programs based on actual competence requirements.

**Methods:**
Visiting nurses working in 135 visiting nursing services were provided with self-administrated questionnaires by mail. The study was designed using a structured questionnaire which consists of 59 items extracted from 16 articles published in Japan between 2001 and 2014 and from results of the preceding study. The data was analyzed statistically using the factor analysis, the principal factors method and varimax rotation. All data were analyzed using SPSS ver. 22.0 (SPSS, Chicago, IL, USA).

**Results:**
A total of 807 questionnaires were delivered and the 336 responses were analyzed. As the result, the seven factors of the nursing practice working for visiting nursing services extracted and explained 50.0% of variance. The seven factors were as follows: “Support to link with another care resources along the condition and will”, “advice for caregiver in the appropriative care skill”, “flexible care to accommodate the condition”, “exploration of the latency will”, “support of a decisionmaking”, “care of the stress reduction”, “empower a visiting nurse by self”. Cronbach’s alpha of each factor exhibited higher than 0.7.

**Implications for Practice:**
The visiting nurses practiced keeping of the stable life along the will of clients and families in a community. Therefore it was suggested that incorporating these factors for education programs of visiting nurse.

**Key Words:**
visiting nursing, nursing practice, factor analysis.
Purpose: This study was carried out to examine the effectiveness of a 3-month music therapy program in raising the self-perceived health status, and mood states of older adults living in community settings.

Methods: A quasi-experimental design was applied. A convenience sample of older adults aged 65 years or older was drawn from seven senior-citizen activity centers in southern Taiwan. Based on the senior-citizen activity centers participants attended, 146 participants were assigned to either an experimental group (3 centers, n=77) or a control group (4 centers, n=69). The experimental group remained their daily activities, and also received the music therapy program twice a week for three months, and each session lasted one hour. Level of the self-perceived health status, and mood states were measured before the intervention (pretest), and at 1-month and 3-month intervention.

Results: Seventy-one participants in the experimental group and 62 participants in the control group completed the 3-month study. Participants who received a three months music therapy program experienced significantly greater improvement of the self-perceived physical health, self-perceived mental health, and mood states than those in the control group at 1-month and 3-month intervention (all p<.05).

Implications for Practice: The music therapy program shows positive effects on improving the self-perceived physical health, self-perceived mental health, and mood states of older adults living in community settings. The study suggests that health care professionals can incorporate the music therapy program as one of the complementary and alternative therapies for older adults living in community settings to enhance their self-perceived physical health, self-perceived mental health, and mood states.

Key Words: music therapy, older adults, self-perceived health status, mood states.
Purpose: Over 80% of dementia patients in Taiwan are cared by family caregivers at home. Dementia care is a long-term, complex and highly individual process. Many caregivers can be overwhelmed due to their lack of related knowledge of dementia care and thus suffer from negative emotions. Past studies have shown that caregivers have high demands for information on dementia and support groups, highlighting the importance of training and emotional support.

Methods: The support groups in this study offered information about caring for dementia patient and assisted caregivers using stress relief activities and relaxation techniques. All the participants were family caregivers, and were recruited from two areas in Taoyuan, Taiwan with the help of the local Department of Health and divided into two groups. The study period was six months; a two-hour support group meeting was held for each group every month for a total of twelve sessions. During the first hour, participants were taught knowledge and skills pertaining to dementia care and stress relief, and mindfulness-based stress reduction activities were organized for the second hour. Emotional stress counselling was also provided during the study. Heart rate variability (HRV) was measured during the first and sixth month to assess emotional stress in order to help the participants become aware of and manage their stress. Focus group interviews were held at the middle and the end of the study to understand participants’ burdens, investigate the benefits of the lessons provided, and explore their future plan of caregiving.

Results: The results showed that all the caregivers suffered from heavy physical and mental stress. Participation in the support groups was an effective way to gain knowledge and skills pertaining to caring for dementia patients, as well as enhance caregivers’ awareness of self-care. The support groups also provided the participants with a place to share tips, relate to others, and relieve stress. The participants were satisfied with the activities and courses offered in this study and expressed the desire to continue the support group in the future.

Implications for Practice: The support group in this study received positive feedback from the participants and government agencies. Offering stress relief activities and relaxation techniques is effective for stress reduction. The results from this study can serve as a reference for institute related to dementia care and community support groups.

Key Words: dementia caregivers, support group, stress relief.
P2-083 **Lifestyle of Visually Impaired and Blind Massage Therapists: A Preliminary Study**

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**Purpose:** To investigate the lifestyle habits of visually impaired and blind massage therapists (VIBMTs) in Taiwan.

**Methods:** This is a descriptive cross-sectional study. A purposive sampling technique was used to recruit fifty VIBMTs from massage stations in southern Taiwan. All participants completed the Health-Promoting Lifestyle Profile II (HPLP II) and a survey of demographic characteristics. Both descriptive and inferential statistical tests, including Mann-Whitney U test or Kruskal-Wallis H test, were used for hypothesis testing. Statistical significance was defined as $p<.05$ in two-tailed tests.

**Results:** Findings: The mean subscale score for the HPLP II was 2.52±.37. The highest scores were for the spiritual growth (2.89±.56) and interpersonal relations (2.79±.46) subscales, and the lowest scores were for the physical activity (2.09±.67) and nutrition (2.35±.39) subscales. Compared to female VIBMTs, male VIBMTs had significantly higher scores for the stress management and physical activity subscales. Additionally, VIBMTs who exercised regularly had higher mean HPLP II scores compared to those who did not. Exercise frequency was also significantly associated with scores for the spiritual growth, stress management, and physical activity subscales of the HPLP II ($p<.05$). Compared to non-smokers, current smokers had significantly higher scores for the stress management subscale ($p<.05$).

**Conclusions:** The lowest HPLP II subscale scores were for physical activity and nutrition, and the highest HPLP II subscale scores were for spiritual growth and interpersonal relations. The results of this study indicate the need to develop workplace-based physical activity programs and to establish exercise and recreational facilities for disabled populations in the community. Specifically, programs are needed to educate VIBMTs in the importance of specific lifestyle behaviors such as nutrition.

**Implications for Practice:** This preliminary study collected lifestyle data for a specific visually impaired population that has never been studied in Taiwan or elsewhere. This study fills a gap in the literature on VIBMTs by showing that VIBMTs have lower HPLP II scores compared to the general population. Policy makers can use the data obtained in this study to develop strategies for increasing physical activity and for developing nutrition programs that improve safety and health in this vulnerable population.

**Key Words:** visually impaired, massage therapist, health-promoting lifestyle.
P2-084 Knowledge on Safety Measures regarding Earthquake Among Selected Secondary School Students of Dharan, Nepal

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Purpose: The purpose of this study was to assess the knowledge on safety measures during earthquake among high school students of Dharan.

Methods: A cross-sectional study design was adopted and purposive sampling technique was used to enroll 180 students. Data were collected by using the self-developed structured questionnaire. Data were analyzed using descriptive statistics (median, frequency and percentage) and inferential statistics (ANOVA and Pearson correlation) at 0.05 level of significant.

Results: This study revealed that more than half (52.8%) were male. Majority of the students (61.7%) were from age group (16 to 18). Regarding the type of family, majority of the respondents (60%) belonged to nuclear family. It was found that educational level of mothers and fathers was below SLC. However, the occupational status of the respondent’s mothers was house-wife and fathers were job holder. Almost all (96.7%) of the respondents had adequate knowledge on safety measures regarding earthquakes. There was significant association of knowledge with type of school ($p= .004$), mother’s occupation ($p= .028$) educational level of mother ($p= .001$) and educational level of father ($p= .001$). Private school students had higher knowledge than government school students.

Implications for Practice: The findings of this study provide the baseline data for developing educational package and booklets about safety measures before, during and after earthquake. The results of this study are useful for community and school to be safety from earthquake through joint effort of different organizations. Findings show that general education and knowledge about earthquakes are the factors which can influence the behavior of students during an earthquake. Therefore, in order to mitigate the damage from future earthquakes, it will be important to increase the population's general education as well as their knowledge about earthquakes, especially for those in high-risk regions.

Key Words: knowledge, safety measures, earthquake.
P2-085 Agreement Between Sleep Logs and Electroencephalography in Adults With Sleep Disturbances
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Purpose: An actigraphy plus single channel electroencephalography (single channel EEG) machine has a high agreement with polysomnography and is considered a simple method for monitoring sleep at home. Nevertheless, no studies have evaluated its agreement with sleep logs. A sleep log was compared to a single channel EEG in adults with sleep disturbances. The determinants of the agreement between the two recording methods were also explored.

Methods: This prospective comparison substudy was conducted in 2016 and included 71 participants aged 22–67 years, sampled from a previous study of nonpharmacological therapy for sleep disturbances. The participants concurrently used a sleep log and a single channel EEG machine for six days to measure their sleep in their homes. Total sleep time (TST) and sleep onset latency (SOL) were compared.

Results: Correlations between measurements were .43 for TST ($p < .001$) and .30 ($p < .01$) for SOL. Bland–Altman analysis revealed that the mean bias between methods was 81.54 min ($SD = 66.72$ min) for TST and 5.58 min ($SD = 25.38$ min) for SOL. Deviations for both TST and SOL were higher for the sleep log than EEG. A multivariate linear regression model demonstrated that age (standardized coefficient Beta = .42, $p = .001$) was a significant predictor of the mean difference of SOL measurements, accounting for 13.7% of the total variance in the mean difference of the SOL measurements.

Implications for Practice: Sleep-log and a single channel EEG sleep measures are distinct, and the disagreement is predicted by age in adults with sleep disturbances. The findings of the study generate new knowledge for nursing practice.

Key Words: actigraphy, electroencephalography, agreement, sleep disturbance, sleep log.
Reprinted with permission from P2-086 Relationship Between Drinking Attitudes and Problem Drinking According to Human Relationship Types in College Students

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**Purpose:** The purpose of this study was to identify the relationship between the drinking attitude according to the type of human relationship and problem drinking among college students.

**Methods:** The sample for this study of 223 students from S University at Chungcheong Province in Korea. The collected data were analyzed via frequency, mean, standard deviation, t-test, ANOVA, Scheffé test and Pearson's Correlation Coefficient.

**Results:** Drinking attitude and problem drinking was not to be affected by the kind of human relationship. However, drinking attitude and problem drinking have been found to be affected by several factors of general characteristics. In addition, It was that there was the positive correlation between the positive thinking of drinking behavior attitude and the amount of perception of drinking attribute, the negative correlation between idea of alcohol drinking attitude and the harm and drinking of alcohol.

**Implications for Practice:** It is necessary to develop nursing intervention that can change the type of individual relationship and drinking attitude, in order to prevent college student drinking using the results of the study.

**Key Words:** college students, human relationship, drinking attitude, problem drinking.
The AIDS Knowledge, Attitude, and Behavior Survey about Teenagers on Campuses

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**Purpose:**
As of December, 2016, the people infected AIDS in Taiwan have accumulated to 33,211, which the number of teenagers infected AIDS accounts for 28.93% and has a tendency of increase year by year. The purpose of this study is to understand the AIDS knowledge, attitude, and behavior survey about teenagers on campuses for the purpose of preventing from AIDS.

**Methods:**
The study is designed by descriptive statistics and conducted the questionnaire aimed to the AIDS knowledge, attitude, and behavior survey in junior high school students in south areas.

**Results:**
From the cases of 184 finished the research, the sources of knowledge related AIDS among youngsters come from classes indicated 81%, televisions accounted for 61.4%, and Internets presented 56.5%. The young people showed 89.1% had already received AIDS education in the classroom, and teens revealed 77.2% thought the AIDS information currently provided by the schools was sufficient. The result found the average correct rate of adolescent students’ AIDS awareness was 83.23%, which the lower accurate rates in order were that AIDS was transmitted through using shared bathrooms (64.1%) and razors (65.2%), and was infected by mosquitoes bite (71.7%). The subjects to negative attitude behavior were that AIDS was a disgraceful disease (1.98+_.87), they did not want to know more AIDS information (2.09+_.74), and that I would stay away from classmates, who were accompanied with AIDS (2.11+_.84). If there was a suspicion of infection, I would not seek for medical assistance (2.14+_.83) and I would not use condoms during the process of having sex in the furture (2.20+_.93).

**Implications for Practice:** Though the AIDS curriculum has been gradually incorporated into the health education curriculum in Taiwan schools, the study found that the concept of vigilant and safe sexual risk of infection among young people should be strengthened in the course of adolescent AIDS education curriculum. Reduce disease discrimination to enhance early treatment of the will, so it can really achieve the effectiveness of adolescent AIDS prevention and treatment.

**Key Words:** AIDS prevention and treatment education, adolescent, knowledge, attitude.
The Risk Of Irritable Bowel Syndrome In Patients With Endometriosis: A 5-Year Cohort Study

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Purpose:
Typically, endometriosis causes dysmenorrhea, chronic pelvic pain, deep dyspareunia, infertility. Some researches indicated endometriosis is a common disease that affects 6-10% of women of reproductive age in Taiwan. Irritable bowel syndrome is one of the most frequently encountered illnesses in our out patients setting of the female population. Severity of the endometriosis and irritable bowel syndrome may affect women’s quality of life. The association between these two disorders has never been investigated in Taiwan. This study elucidated the risk of irritable bowel syndrome in patients with endometriosis.

Methods:
We retrieved the data analyzed in this study from the National Health Insurance Research database (NHIRD) in Taiwan from the year 2000 to 2005. We selected patients were matched based on age ≥30, with the diagnosis of endometriosis (International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] code) ICD-9:617.X and defined irritable bowel syndrome with ICD-9: 564.1 in ICD9-CM code. Our study cohort consisted of women diagnosed with endometriosis between January 2000 and December 2005 (n=6,143). For each endometriosis patient, five age-matched control women were randomly selected as the comparison cohort (n=30,715). All participant cases were followed for 5 years from the index date to identify the development of irritable bowel syndrome. Cox proportional-hazards regression was performed to evaluate the 5-year irritable bowel syndrome-free survival rates.

Results:
The results show that 894 women developed irritable bowel syndrome during the 5-year follow-up period, among whom 252 were endometriosis patients and 642 were in the comparison cohort. The adjusted hazard ratio (HR) of irritable bowel syndrome in patients with endometriosis was higher [HR, 1.94; 95%CI [1.67, 2.24], p<.001] than that of the controls during the 5-year follow-up. We found increases in the risk of irritable bowel syndrome in women aged 20-49 years : 20-29 years (HR, 1.92; 95%CI [1.33, 2.77], p<.001), 30-39 years (HR, 2.17; 95%CI [1.62, 2.79], p<.001)and 40-49 years (HR, 1.80; 95% CI [1.47, 2.22], p<.001).

Implications for Practice: Our results show that our population-based study suggest an association between endometriosis and an increased risk of irritable bowel syndrome in women. In conclusion, health care professionals need to assess the risk of irritable bowel syndrome to implement interventions to promote the quality of life for women diagnosed as endometriosis.

Key Words: endometriosis, irritable bowel syndrome (IBS), national health insurance research database (NHIRD), cohort study.
Purpose: This study was to evaluate the clinical features and long-term prognosis of hemodialysis (HD) patients characterized by potassium (K) superimposed with serum uric acid concentration (UA).

Methods: According to mid-week pre-HD serum UA and potassium (K) concentrations, a total of 100 HD patients were divided into three groups: group 1 (n= 32): hypo K & UA; group 2 (n= 33); and group 3 (n= 35): hyper K & UA. The maximal observation period was 54 months.

Results: Group 1 patients had significant lower levels of urea nitrogen (BUN), Creatinine, normalized protein catabolism rate (nPCR), albumin, and Phosphours (P). After 4.5 years’ observation, the patients in group1 had old age (HR=1.2) were found to be independent factors and had worse cumulative survival than the other 2 groups (p< .05).

Implications for Practice: We hypothesize that these patients are under malnutrition and inflammation status, suggested clinical healthcare staff can health education focuses on dietary intake of high nutritional value to improve the long-term prognosis of patients.

Key Words: potassium, uric acid, mortality.
P2-090 Willingness to Use for Options of Long-Term Care Services for the Elderly in Hsinchu County

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Purpose: The long-term care is always a major concern for public policy. This research compared the difference of willingness of the different ethnic elderly in Hsinchu County to use for options of long-term care services between the year of 2011 and 2016.

Methods: The research data were from two data set of the survey of living status and welfare demand of the elderly in Hsinchu County 2011 and 2016. A random sample of 1530 older adults in 2011 and 836 older adults in 2011, stratified by gender, age and living area based on the previous year population distribution, were drawn from the county database. Descriptive and bivariate analysis are used to understand the willingness of the different ethnic elderly in Hsinchu County to use for options of long-term care services.

Results: The awareness of different types of long-term care services was increased in 2016 comparing to 2011. The results of two datasets showed that the elderly’s first options of long-term care services was to hire a foreign caregiver if the family is not available to take care of them. In 2016, using home care, hiring a Taiwan caregivers, and adult day care were ranked as 2nd, 3rd, and 4th, respectively. Institutionalization was the last option in both surveys. It is slightly different from 2011. Using home care services was ranked the 3rd in 2011. The elderly became more aware of and willing to use all different kinds of long-term care services, especially home care in 2016.

Implications for Practice: This study is useful to understand the choice of care for the elderly in Hsinchu County for the government to establish the long-term care policy. It is also important for the care providers to set up a better care system to improve quality of care.

Key Words: the elderly, willingness to use long-term care services, hsinchu county.
**P2-091** Effectiveness of Hydraulic Resistance Exercise on Bone Mineral Density Among Adults Older than 50 Years

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**Purpose:** The aim of this study was to investigate the effects of 12-week hydraulic resistance exercise training on bone mineral density in older adults.

**Methods:** This is a cross-sectional study. 17 patients in the community with low bone mineral density (BMD) aged more than 50 years (mean age 67.5 ± 10.2 years) participated in the study. They received a 12-week supervised resistance training program. The training programs was divided into 3 sessions per week and 60 minutes per session. Nurses assisted in training and health education during the period. Bone mineral density was obtained before and after exercise by Dual-Energy X-ray absorptiometry (DXA; Lunar iDXA, GE Medical systems, Madison, WI).

**Results:** The bone mineral density of lumbar spine was significantly improved after hydraulic resistance exercise training in 12 weeks (T-score -1.99 versus -1.82, respectively; \( p < .05 \)). Nurses played a key role in promoting community exercise programs. We recommended that hydraulic resistance exercise could be considered in exercise prescription.

**Implications for Practice:** Hydraulic resistance exercise was effective on improving bone mineral density in adults older than 50 years.

**Key Words:** hydraulic resistance exercise, bone mineral density (BMD), community.
P2-092  The Factors Associated With the Usage Intention of Home Visit Among Elders: A Cross-Sectional Study.

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Purpose: To explore the refusal reasons for home visit and to examine the factors associated with the usage intention of home visit among elders.

Methods: This was a cross-sectional design. Data were collected with the self-administrated questionnaires from September to November, 2016. Data analysis included 288 participants who were at least 65 years of age.

Results: About 47.2% of elders had no usage intention of home visit. The top three refusal reasons for home visit were no need by self-assessment, having the ability to see doctors by self, and having a fixed physician, respectively. Multiple logistic regression revealed that elders who used canes or wheelchairs for mobilization, unused home care services, and were uncertain of receiving better care under the home visit were more likely to have no usage intention of home visit. The perceived level of loneliness was borderline significantly associated with no usage intention of home visit.

Implications for Practice: Our findings suggested that healthcare personnel should help elders who were moderate or severe mobility limitation and were utilizing home health care have more access to home visit program in order to satisfy their home healthcare needs. Additionally, it is needed to improve the quality of home visit and service image as well as to develop effective strategies to improve elderly mental health.

Key Words: home visit, intention, utilization, loneliness.
Effectiveness of a Cloud Diet Assessment System In Nutrition Education to Promote Healthy Diets of University Students

Mei-Li Tsai  
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Chi-Jane Wang  
Department of Nursing, College of Medicine, National Cheng Kung University, Taiwan

Purpose: In order to foster healthy diets for University students in health promotion classes, a cloud diet assessment system (CDAS) is proposed, basing on self-monitoring design for automatically providing feedback on the nutritional intake of learners through a meal analysis algorithm.

Methods: A quasi-experimental, pretest and posttest method was used to evaluate the effectiveness of the CDAS (E) which received nutrition education combine with feedback through self-observation and behavioral recording as compared to a group which received nutrition education only (C). Participants who were university students from two classes were randomly assigned to the two groups (C, n = 34 and E, n = 32).

Results: Results demonstrated significant improvement for E in terms of most food groups (including Meats and Protein, Vegetables, and Fruit), as well as for macronutrients, such as calories and dietary fiber, and micro nutrients, including Calcium and Vitamin C and B2. Within- and between-group comparisons confirmed the advantage of the E group, suggesting that the CDAS can foster healthy diets among university students, improving most nutritional elements to nearly 100% the recommended daily intake.

Implications for Practice: The CDAS and the mobile Apps can be used in health promotion classes to support the lectured-base learning activities for improving healthy diets of university Students.

Key Words: cloud-based learning, healthy diets, nutrition education, metacognitive theory.
Using Life Review to Improve Self-Esteem and Self-Integration of the Elderly in Community

Wei-Chun Liao  National Taipei University of Nursing and Health Sciences, Taiwan
Miao-Yen Chen  National Taipei University of Nursing and Health Sciences, Taiwan

Purpose: To use life review to enhance the self-esteem and self-integration status of elderly in community care center of Bianzhou Village in Taoyuan city.

Methods: The purpose of this review was to improve the integration of community elderly by using life review and artistic creation for achieving the integration of life, successful aging and self-esteem improvement based on psychosocial developmental theory of Erickson. The research samples were people who are free to go out, well-communication, and 65 years old above. Besides, all participants were from the community care center of Bianzhou Village in Taoyuan city. The data was recorded by the structured questionnaire, activity observation record sheet, and interview. The research tools were used Geriatric Depression Scale-15 (GDS-15), and Self-esteem Scale (Chinese version), and applied them before and after intervention with comparative analysis. The intervention program was formulated by evidence-based practice in nursing, and it goes a 7 weeks course of 2~4 hours per week. The core activity of this course was included group interaction, relationship development, and retrieves the meaning of life, in order to integrate into the life of the elderly.

Results: A total of 23 elderly participates in this study with Wilcoxon Signed Ranks Test for sample testing, and compares the effectiveness of intervention. The result shows a significant improvement in depression (score was changed from 4.58 points (SD=±3.035) to 3 points (SD=±2.67) (Z=-2.434, p< .015) after intervention). The self-esteem also has significantly improved from 27.19 points (SD=±1.575) to 29.65 points (SD=±2.790) (Z=-3.395, p< .001) in Self-esteem Scale Score. In addition, qualitative data shows that life review and artistic creation may improve depression and self-esteem, also may promote self-consistency in elderly.

Implications for Practice: The using of life review may benefit for mental health of elderly. Furthermore, to combine nursing with artistic creation may present the unique and innovate of nursing, then promote the quality of elderly life.

Key Words: elderly, life review, artistic creation, depression, self-esteem.
P2-095 Changes in Novice Nurse Professional Values During the First Year Experience

Yu-Hua Lin I-shou University, Taiwan
Hui-Fan Yeh E-DA hospital, Taiwan
Li-Hsiang Wei E-DA hospital, Taiwan
Chia-Chan Kao I-Shou University, Taiwan
Yi-Ru Jang E-DA hospital, Taiwan
Mei-Tzu Chi E-DA hospital, Taiwan

Purpose: The study examined the change in the professional values of novice nurse from entrance to and one year work in the hospital.

Methods: The quasi-experimental design was conducted, and using a simple randomize sampling (as nurse registered priority order) to collect participants’ data. The participants were the novice nurses just graduated from nursing schools. Eligible nurses were assigned to the caring group ($n=50$, receiving caring consultation and usual training) or the control group ($n=50$, receiving usual training), outcome measurements included nurse professional value scale chinese version (NPVS C), and personal characteristics. The base line data was collected at the first day (T1) of training course, and the post-test were at the one month (T2), three month (T3), six month (T4), and one year (T5) after new nurse registered.

Results: The NPVS C mean scores showed that all the two groups’ nurses reported professional value decreased at all the time after received caring consultation, except Time 2 of consultation group. However, all the two group’s mean scores did not showed statistical significant difference (all $p > .05$). The generalized estimating equations (GEE) tests showed that only time was significantly different, indicated that both group nurses reported their professional value decreasing by time, however, two groups nurses professional value mean score were similar.

Implications for Practice: The study confirmed that novice nurses’ professional value mean score decreasing changed by time. The caring consultation may not a good strategy for improvement new nurses’ professional value. There are many factors will be influencing this issue. This results recommend for the nurse manager aware the changing and assisting new nurses to developing their professional value during the adaptation period.

Key Words: caring consultation, novice nurse, professional values.
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**P3-089** C12-322  To Discuss the Feasibility of Benchmarking Knowledge Management on Oncology Case Management  
Mei-Feng Chiang, Mackay Memorial Hospital, Taiwan

**P3-090** C12-325  Student Nurses’ Perceptions Toward the Use of e-Portfolios on the Practicum Course  
Ting-Ting Lee, National Yangming University, Taiwan

**P3-091** C12-346  The Gender Connotations in the Practice of Domestic Violence Prevention Act: An Analysis of Nursing Perspectives in the Context of Multi-Disciplinary Anti-Violence Network  
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**P3-001 Relational Factors of Pneumonia Among Psychiatric Patients Based on Patient Safety Reports**

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**Purpose:**

Pneumonia may extend psychiatric patient hospitalized days or discharges to general hospital. All patient who discharge due to physical condition need to be report to patient safety systems in order to notice as an important event. Hence, psychiatric patients with pneumonia and discharge should be concern as severe case in the clinical setting. The purpose of this study was to understand the relational factor among psychiatric patient.

**Methods:**

The retrospective study which reviewing medical records & patient safety reporting system was used to explore the incidence rate of psychiatric patient with pneumonia and discharge to general hospitals. The data was collected from 2012-2016. G*Power (version 3.1.9.2) was used to compute effect sizes and to display graphically the result of power analyses (α= .05, power=0.8, r²=0.13). At a power of 0.80, the necessary sample size was 85 and 159 cases was collected in this study.

**Results:**

There were 87 cases were collected during 2012-2016. The average age was 53.09 y/o (Male: 52.92y/o, Female: 52.60y/o). The average incidence of admission to other general hospital due to pneumonia was 0.20‰. In addition, 88.73% was male patient and 94.23% patients with pneumonia were in the acute ward. Unfortunately, only 32.70% patient was used clozapine as majority treatment drug. Since 2016, the average age of patients who suffered from pneumonia has increased by 1 y/o. Moreover, the age of male patients increased more than female patients who suffered from pneumonia. In addition, the incidence rate of admission to other general hospital due to pneumonia was 0.1‰ increased. However, the clozapine usage rate was decreased by 10%. In conclusion, the average age of patients, the incidence rate of pneumonia has increased ,but clozapine usage rate was decreased one year later.

**Implications for Practice:**

A previous study indicated that 28.6% patients, who took clozapine as primary antipsychotic treatment, with pneumonia were reported to ADR in total 25 cases. The result of this study showed that some patients with pneumonia which may cause by drug were not reported to ADR system. However, those patients was reported to the patient safety report system due to nurses were majority reporters. Therefore, patient with pneumonia, then admission to other general hospital eventually should be considered as a medication side effect rather than pointed it as a general infectious disease. As a result, psychiatric patient with pneumonia should be considered as an important issue for medical care. In addition, male patients in the acute ward and use other antipsychotic drug should be concerned as dangerous factors for medical care in the psychiatric hospital.

**Key Words:** psychiatric patient, pneumonia, clozapine, patient safety report.
Purpose: In aging society, many problems are serious public health challenges. Research evidence shows that physical activity delays mortality in comparison to inactivity and reduction in depression and anxiety or increase in levels of self-esteem and positive affect. The purpose of this study was to explore the relationship among exercise health belief and health behavior among community elderly in Taiwan.

Methods: The cross-sectional study was using purposive sampling method, conducted on 78 community elderly in an administrative division of Taipei city. Data were collected by exercise health belief scale and health behavior of the elderly questionnaire, with windshield survey, literature review, participatory survey, interviews with key person, and social surveys. Data was analyzed by using SPSS 20.0 for Windows software. The statistical analysis included percentage, mean, independent t-test and Pearson product-moment correlation coefficient.

Results: The mean age was 74.81±10.53. 47(60.3%) of them were male, 76.9% were married. Only 38 (46%) had regular exercise habit and 83.3% of the elderly mainly took a walk. The self-reported health status average score was 6.54 (score 0-10). In health behaviors and health status scores: smoking, drinking, chewing betel nuts for health status scores were not significantly different. In the regular exercise, the health status score of the regular exercise was significantly higher than that of the unregulated, with statistically significant difference ($t = 2.323$, $p < .05$). On the other hand, the health status scores of chronic diseases were significantly lower than those without chronic diseases ($t = -3.227$, $p < .001$), and the difference was statistically significant. In general, the cues to take action were low, the most familiar source for chief of village. The most barriers to take action in regular exercise is the "bad weather"(47%), and perceived benefit of action were improving their own health status (69.2%) and maintain happy mood (48.7%).

Implications for Practice: The results are hoped to give some useful information for clinical health care personnel to provide assistance and counseling to elderly aggregates. Health authorities in Taiwan need pay more attention to elderly to encourage them to exercise more and to generate greater environmental support for behavior modification and health promotion.

Key Words: community elderly, exercise, health belief, health behavior.
P3-003  Predictor of Exercise Beliefs Among Community Elders  
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**Purpose:** Although the positive effects of regular exercise on health are widely recognized, most people do not exercise enough. An increased understanding of exercise beliefs and their related factors may increase people’s participation in exercise. However, minimal empirical research has been conducted regarding factors related to perceived exercise beliefs. Thus, the aims of the study is to understand the perceived benefits of and barriers to exercise, as well as perceived exercise self-efficacy, and to identify related factors among community-dwelling adults aged over 55.

**Methods:** A cross-sectional survey method was adopted. We recruited 105 study participants from a community in Taiwan. People aged over 55 with a Mini-Mental State Exam score of 25 or above were invited to participate in the study. We used the Exercise Benefits/Barriers Scale (EBBS) and the Exercise Self-Efficacy Scale (ESES) to assess perceived benefits, barriers, and self-efficacy regarding exercise. Information on the participants’ previous or lifelong physical activity level (as measured by the Lifelong Physical Activity Questionnaire) was also obtained.

**Results:** The results of this study showed that approximately 59.3% of our sample exercised regularly. Walking was the most popular exercise, and the main benefit was improved physical fitness. The most commonly cited barrier was that exercise is hard work. Lifelong physical activity, living arrangement, and gender significantly predicted exercise self-efficacy (R2 = .462). Lifelong physical activity was the only significant contributor to perceived exercise benefits and barriers (R2 = .535). In conclusion, our study is seemingly the first to investigate lifelong physical activity as a predictor variable that influences exercise benefits and exercise self-efficacy. Our results add to the knowledge regarding determinants of beliefs regarding exercise. People with higher lifelong physical activity levels appear to enjoy higher exercise benefits and self-efficacy.

**Implications for Practice:** Previous studies appear to have focused mainly on various demographic factors that affect exercise behavior rather than exploring people’s beliefs on exercise and factors that relate to those beliefs. In order to promote the benefits of exercise effectively, healthcare professionals must first understand people’s perceptions and beliefs concerning exercise, and the related predictors. Professionals must assess lifelong physical activity, living arrangement, and gender so as to assist adults in starting to exercise effectively and to make a successful transition from a relatively inactive lifestyle to a more active one.

**Key Words:** exercise self-efficacy, exercise barriers, exercise benefits.
P3-04  Related Factors Osteoporosis of Middle-Aged and Aged People at the Northern Taiwan Healthcare Center

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Purpose: Taiwan will soon be an aging society, where the prevalence rate of osteoporosis will rise year by year and the accompanying medical care costs of the osteoporotic fracture will certainly place a heavy burden on families and the society. This research does a retrospective analysis on the central database of a Healthcare Center in North Taiwan to study the prevalence rate of osteoporosis of middle-aged and aged people and related factors to be used as reference of public health policies promotion and future researches.

Methods: It involves 9,039 middle-aged and aged people who underwent the test of dual energy X-ray absorptiometry from 2008 to 2012. The body parts examined are the first four lumbar vertebrae, and the neck of femur and the thighbone of the high bones at both sides; diagnoses are made based on the lowest T values of bone mineral density examination results of each part above; the data analysis includes the subjects’ age, gender, height, weight, BMI, examination results, bone density examination results, fracture rate and osteoporosis risk assessment questionnaire (including 16 questions); Chi-Square Test and one-way ANOVA are used to explore risk factors related to osteoporosis, and then for related variables that reach statistical significance, multiple logistic regression analysis is performed.

Results: The results show the prevalence rates of osteoporosis are 9.8%, and the prevalence rates of osteoporosis of male and female are 6.6%, and 13% respectively. Being older, and shorter, and having BMI < 24 kg/m², Alk-p > 94 U/L and “parents were diagnosed with osteoporosis or fractured their bones after a little fall” are common significant factors that cause both male and female to suffer from osteoporosis and low bone mass; besides, “Underweight (BMI < 19)” and “having been smoking for a long time or smoked” are significant factors that cause male to suffer from such diseases.

Implications for Practice: Underweight and smoking are controllable factors, so we suggest middle-aged and aged people maintain their BMI around 24 kg/m2, avoid smoking, undergo periodic health examination and participate in early screening programs for early treatment to prevent osteoporotic fracture and live a healthy life.

Key Words: osteoporosis, risk factors, dual-energy x-ray, health examination.
To Investigate Medical Practitioner’s Knowledge, Attitudes and Behavior About Metabolic Syndrome: A Case Study of Regional Teaching Hospital

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**Purpose:** In recent years, due to lifestyle changes, metabolic syndrome prevalence rate increased significantly. The purpose of this study aims to understand the medical practitioners of knowledge, attitudes and behavior about metabolic syndrome.

**Methods:** The study was a cross-sectional. The study was conducted in a regional teaching hospital in the southern region of the country and divided into two groups: medical staffs and non-medical staffs. The research tools included “metabolic syndrome prevention and treatment knowledge scale” (Shi Lizhu et al., 2010) and self-designed questionnaire “metabolic syndrome attitude and health behavior (diet, exercise) scale” which the CVI was 0.8-1, Cronbach $\alpha$ was 0.741-0.972, and the reliability and internal consistency of the questionnaire were tested. During the study period from 2016.08.01 to 2016.09.30, the staff themselves did online tests via the hospital internal web page. Finally, we collected 470 valid questionnaires and used descriptive statistics, t-test for statistical analysis.

**Results:** There were significant differences in the knowledge, health behavior survey results between medical staffs ($N=250$) and non-medical staffs ($N=220$). The average scores of knowledge while medical staffs ($7.78 \pm 1.70$) were significantly higher than non-medical staffs were ($7.35 \pm 1.80$) ($p< .001$). However, in the aspect of eating behavior, medical staffs ($54.15 \pm 5.53$) were significantly lower than non-medical staffs ($55.99 \pm 5.49$) ($p< .001$). The findings showed the medical staffs’s knowledge of metabolic syndrome is better than non-medical staffs, but the healthy eating behavior is worse than that of non-medical staffs. It may due to duty rotation related irregular dieting.

**Implications for Practice:** With the implication of this study results, we hope the knowledge, attitude and behavior of the medical practitioners will be improved from the results of this study. The concept of metabolic syndrome prevention and treatment will be reinforced by the education of knowledge, diet and sports habits in life to further reduce the risk of chronic diseases.

**Key Words:** metabolic syndrome, metabolic syndrome knowledge, attitude and behavior.
P3-006  Analyze the Factors About Burden of the Caregiver Who Cared for the Elderly With Neurocognitive Disorders in Penghu
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Purpose: To understand demographic variables of caregivers of the elderly with Neurocognitive Disorder in Penghu and to explore the impact of depression on the caregiver burden of caring for the elderly with Neurocognitive Disorder in Penghu; In addition, the impact of family function and social resource needs of the caregivers on the caregiver burden has also been discussed.

Methods: The quantitative research was performed. A sample of caregivers in the Department of Neurology and Psychiatric Clinics of several hospitals in Penghu was conducted. A total of 169 questionnaires were collected between November 2016 and January 2017.

Results: Pearson’s correlation coefficients were used to examine the strength of the relationship between demographic variables and caregiver burden. Some of variables had a statistically significant positive correlation with caregiver burden. These variables included as following: female ($r = .177, p < .05$), without nursing care workers ($r = .182, p < .05$), the poor health status ($r = .355, p < .001$). Others had a significantly negatively related with caregiver burden. The impact factor included education ($r = -.269, p < .01$), monthly family income ($r = -.167, p < .001$) and living distance ($r = -.164, p < .05$). Pearson’s correlation coefficients were used to examine the strength of the relationship among family function, caregiver burden, depressive symptom and social resources. According to CES-D, caregivers (63.3%) of the study sample had depressive symptom which presented a positive correlation with the caregiver burden ($r = .696, p < .001$). In addition, the caregivers (53.3%) of the study sample had poor family function. Family function had negative correlations with caregiver burden ($r = -.399, p < .001$) as well as depressive symptom ($r = -.446, p < .001$). Depressive symptom had a positive correlation with social resources ($r = .191, p < .001$), but the social resources did not show any significant correlations with caregiver burden. Based on regression analysis and correlation analysis, we found some variables are not suitable for prediction of caregiver burden. Therefore, only the variables which are family function, depressive symptom, education, health status, nursing care workers are selected in prediction model. According to the linear regression analysis, it indicated that the most powerful explanation of caregiver burden was depressive symptom (Beta = .650, $p < .001$), following by health status (Beta = .153, $p < .05$).

Implications for Practice: Our study confirmed that education, health status and family function could contribute to decreasing the caregiver burden and depressive symptom. The more depressive symptom the caregivers have, the more social resources they request. However, the social resources used cannot decrease caregiver burden efficiently in Penghu. The study results provide clinical evidence and suggest the nurses to assess about mental health and needs of the caregiver for the elderly with neurocognitive disorders.

Key Words: neurocognitive disorders, family function, caregiver burden, depressive symptom, social resources.
**P3-007 Community-Based Exercise Assessment and Intervention Program for Elderly Aggregates**

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**Purpose:**  
In recent years, the average life expectancy has been greatly extended, making the proportion of the elderly population has increased year by year. In an aging community, the problem for the elderly is a gradual decline in physical functioning and mobility, resulting in an inability to cope with daily needs and a consequent decline in their quality of life. The purpose of this study was to explore the exercise health belief and health behavior among community elderly, provide health promotion intervention program and hope to provide the elderly with proper physical activity skills and knowledge in Taiwan.

**Methods:**  
On the basis of the community as partner model, a cross-sectional study was conducted on 78 community elderly. Data were collected by exercise health belief scale and health behavior of the elderly questionnaire, with windshield survey, literature review, participatory survey, interviews with key person, and social surveys. An overview of core of population demographics, eight subsystems of the community, and perspectives of elderly aggregates were provided. Data was analyzed by using SPSS 20.0 for Windows software. The statistical analysis included percentage, mean, independent t-test and Pearson product-moment correlation coefficient.

**Results:**  
The results show that 54% had irregular exercise habit and 83.3% of the elderly mainly took a walk. Those who had fewer sources of health information. Overall, elderly aggregates perceived social support for exercise was not so good. The supports from their families, friends and health professionals were very low. Through data analysis and identification, lack of exercise, lack of exercise-related knowledge and potential risk of falls contributed to health problems. And then provide exercise health promotion intervention, participants expressed a willingness to continue to exercise, correctly answer the benefits and precautions of exercise, correctly perform stretching, muscle strength and ease the movement.

**Implications for Practice:**  
Exercise can be a rich medium for the elderly, maybe they do not care about the type of movement and posture is the standard or not, but through the movement to enrich and affirm the self and life satisfaction is their concern. The future suggest that health providers need pay more attention to elderly to encourage them to maintain the habit of regular exercise, promote health and reduce the risk of falling.

**Key Words:**  
community-based assessment, elderly aggregates, exercise, intervention program.
Situation of Male Family Caregivers Providing Home Care in Depopulate Regions

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Purpose: To clarify what factors contribute for male family caregivers to continue providing home care in a depopulated region.

Methods: A semi-structured interview was conducted for a male family caregiver in a depopulated region. The survey was carried out in September 2016. Contents of the survey included "basic attributes", "condition of care receiver", "usage of nursing care services and satisfaction levels", "difficulties in treatment and care", "whether he has changed his lifestyle and what changes he has made", "whether he receives help and his relationship to the helper", "Caregiver’s own health condition, his expectation and requests for the government", "Relationship with neighbours" and "Relationship between the caregiver and the care receiver". The interview was carried out over one and a half hours, and a verbatim report was created from the content recorded on an IC recorder to generate data. From this data, contexts related to factors that are considered to either help enable or prevent home care were extracted and examined. This study was conducted with an approval of the ethics committee of tsukuba international university.

Results: The care receiver is a woman in her eighties with dementia who requires the third degree of care. Mr A, a family caregiver, is her eldest son in his sixties and unemployed. Received care services include twice a week day care service and weekly home nursing visits. Five factors enabling home care are "kind assistance of a care manager", "attentive support of care service providers", "information provided by neighbours with experience of home care", "support from his sisters who do not live in the house" and "managing family meals by using pre-prepared food". Two factors making home care difficult are "difficulties in assisting daily living due to gender difference" and "feeling at a loss how to respond to a dementia sufferer".

Implications for Practice: Previous studies of the authors showed a result that male family caregivers received less support from family members and neighbours compared to female caregivers. Also, analysis of the level of satisfaction of both male and female family caregivers toward nursing care services revealed that male caregivers felt "insufficient amount of care service provided", "economic burden" and "dissatisfaction with policies". Results of this analysis showed that assistance of a care manager and a visiting nurse along with a younger sister who lived in a separate house allowed Mr A to provide home care. Information provided by friends and neighbours who had experience in caregiving also gave him reassurance. The factors which made carrying out home care difficult revealed "difficulties in assisting daily living due to gender difference", such as reluctance of a male to purchase female clothes. In addition, despite the fact that he understood the symptoms of dementia, he felt "at a loss how to respond to a dementia sufferer".

Key Words: depopulate regions, male, home care.
P3-009 The Exploratory Study of Diabetes Symptoms and Self-Management Behaviors

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Purpose: To evaluate the demographic and health correlates of reporting diabetes symptoms and the relationship between diabetes symptoms and self-management behaviors.

Methods: A cross-sectional survey method was used. Data were collected from 200 Taiwanese adults with type 2 diabetes who recruited from the outpatient Diabetes Shared Care Department of a medical center in northern Taiwan. Ethical approval was obtained from the regional research ethical committee and all participants provided informed consent. Data were collected from April to October, 2016. Participants completed the 27-item Diabetes Symptom Checklist (DSC). Associations of demographic and health characteristics with reported symptoms were evaluated. Multivariate linear regression models were used to examine the associations of DSC scores and diabetes self-management.

Results: Participants had middle scores on the DSC. They largely practiced appropriate diabetes self-management behaviors (self-foot checks, fruit and vegetable consumption, and self-monitoring blood glucose). Correlates of DSC included women having higher scores for hypoglycemia. Neuropathic pain and vision dimensions were significantly associated with educational attainment. Taking oral diabetes medicine was correlated with hyperglycemia; insulin use was associated with most DSC dimension. Diabetes duration >10 years was correlated with all dimensions. Higher levels of psychological fatigue were significantly associated with fewer self-management behaviors.

Implications for Practice: Demographic and health characteristics are associated with reported symptoms. Health care providers are uniquely positioned to assess patient symptoms and potential relationships with successful diabetes management.

Key Words: diabetes, symptoms, self-management.
P3-010  Substance Abuse Among College Students in Taiwan: A Comparison Between Results by Anonymous and Identifiable Self-Report Questionnaires

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Purpose: Substance abuse makes tremendous impacts on individuals, families, and countries. The self-report questionnaire has been a commonly used method to collect data from college students for investigating substance abuse before some biomarkers being detected such as urine screening. However, there is unknown about the differences of results between anonymous and identifiable self-report questionnaires. This study designed to have groups of students responding to the questionnaire at either anonymous or name-identifiable formats.

Methods: It was a cross-sectional study to investigate freshmen college students in one university in the Central part of Taiwan. All participants gave consents to participate in this study and they decided themselves to select one of two groups, either the anonymous self-report questionnaire or in the name-identifiable self-report questionnaire.

Results: Total of 1282 college students completed the questionnaires. There were 1034 decided to be name-identifiable and another 248 participants decided to be anonymous. Differences in background characteristics were found between two groups. Participants in anonymous groups had higher father education, higher self-income, and more family members in healthcare-related work. The health conditions also reported differently between two groups. Name-identifiable group reported less ill condition. Anonymous group reported more prevalent smoking or drinking behaviors for themselves and their families compared to the name-identifiable group. Some risky behaviors also reported more common in the anonymous group, such as going to a nightclub, ever stealing, some conduct tendency etc (all \( p < .05 \)). Among stressful life events, more abortion or sexual experience were more prevalent in the anonymous group too (\( p < .004 \)). Name-identifiable group reported higher family support than anonymous group (\( p < .008 \)). The college students in the anonymous group can report higher prevalence in smoking (\( p < .001 \)) and substance abuse risk (\( p < .05 \)).

Implications for Practice: From the current study, the difference exists between results of questionnaires between participants from the name-identifiable group or anonymous group. In the future, school nurses working to prevent substance abuse on campus need to consider the design of data collection by questionnaire in either anonymous or name-identifiable format.

Key Words: substance abuse, college students, anonymous, self-report, questionnaire.
**P3-011 Effects of an Advanced Case Management for Patients With Chronic Diseases Preliminary Result**

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**Purpose:**
A dramatic increase of medical expenditure is a common problem in advanced countries for reasons such as an increase of the elderly population and advances in medical technology. We analyzed the effect of an advanced case management for the subjects with chronic diseases and high medical needs. It was aimed to improve QOL of them and optimize medical and nursing care expenditure.

**Methods:**
A single-group pre-test and post-test design was used. The subjects were adult patients attending or hospitalized at any of the medical institutes in Kure city. The subjects fell under any of the following inclusion criteria: high medical expenditure; long-term / frequent hospitalizations; visiting outpatient clinics frequently; taking many kinds of internal medicine. After consent was taken, the nurse supported their making decisions about the recuperation and end of life, educated disease management and nursing care, and coordinated formal services and informal services in cooperation with multi-disciplinary. The intervention period was set to a maximum of 6 months. This time, we evaluated the process indicators as the preliminary result for 6 or 12 months after registration although we planned to follow for 2 years in the whole study.

**Results:**
30 met the inclusion criteria and 27 agreed to participate. Out of them, 4 died. Excluding those who died, stability of their disease conditions and maintaining or improving ADL were shown. Some subjects had decreased amount of internal medicine after the nurse’s intervention. From qualitative evaluation by subjects and their families, they were satisfied with supporting by the nurses and felt that they could receive medical and nursing care sufficiently. Furthermore, the family of the subjects who died felt that he could spend the terminal time which he desired.

**Implications for Practice:**
Although the result is limited, the subjects’ disease stabilized and ADL was maintained or improved after the intervention. It is very important to share the decision making with the patient and its family when the nurse support the recuperation and end of life. We think that it is necessary to track further for a long time and to evaluate QOL and medical expenditure.

**Key Words:**
case management, chronic disease, decision making.
P3-012 The Effects Spiritual Reminiscence in Hope and Life Satisfaction for Community Mild Depression and Dementia Elderly
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Purpose: Aged over 65 accounted for 10.98% of Taiwan's total population, and presented a continuous increase phenomenon. Gerotological nursing researchers have a responsibility to consider and design a practical and efficient caring intervention to enhance the quality of elderly health care. Based on literature, spiritual reminiscence group activities can help older people beyond the physical limitations, finding life meaning and hope, but this type of research still in the stages of enlightenment.

Methods: This is a quasi-experimental study. Three group (mild depression, mild dementia, normal elderly) of participants attended a six-week spiritual reminiscence small group activity. The group member is between 3 to 6 people, one hour per week. Three instruments (hope index, life satisfaction inventory, and spiritual well-being scale) was used before and after 6 period activities. It takes 10 to 15 minutes. The participants comes from geriatrics physician referral from community elderly. Descriptive statistics and paired t test was used to analyze the data. This study contains three groups of elderly, mild depression group (Geriatric Depression Scale scores from 5 to 10) 20 participants, the mild dementia group (MMSE scores were 18-24) 21 participants. Healthy elderly group (Geriatric Depression Scale score less than 5, and MMSE score greater than 24) 20 participants.

Results: This research get following three conclusions: 1. six-week spiritual reminiscence group activity can enhance hope, life satisfaction and spiritual well-being of mild depression elderly; 2. six-week spiritual reminiscence group activities can enhance hope, life satisfaction and spiritual well-being of mild dementia elderly; 3. elderly without depression and dementia can enhance hope and spiritual well-being from the six-week spiritual reminiscence small group activities.

Implications for Practice: So this spiritual reminiscence small group nursing activities suitable for all elderly, and it is worth popularizing.

Key Words: spiritual reminiscence, depression, dementia, elderly, hope, life satisfaction.
**Purpose:**
Taiwan has become a frequent region of enterovirus epidemics. According to local surveillance data, the vulnerable population for enterovirus infection is 0-6 years old, with high risk of severe neurological complications. This study will examine the attitudes and behavioral patterns of parents towards enterovirus through the health belief model including perceived susceptibility, perceived severity, perceived threat of disease, perceived benefits, perceived barriers, and cues to action and likelihood of behavioral change.

**Methods:**
Questionnaires distributed at a medical center in Northern Taiwan targeting parents of 0-6yrs children, and 200 valid questionnaires collected for analysis. The statistical analyses utilized including descriptive statistics, independent sample T-test, one-way analysis of variance, and Post Hoc test.

**Results:**
The results showed that parents’ perceived susceptibility, perceived severity and perceived benefits were significantly correlated with perceived threat of disease. Moreover, as the result from multiple regression, perceived susceptibility, perceived severity and perceived benefits were significant predictors to perceived threat of disease. Furthermore, parents’ likelihood of behavioral change and cues to action have strongly positive and significant relationships with perceived threat of disease. As we expected, parents’ perceived barriers was negatively correlated with likelihood of behavioral change ($r=-.16, p=.02$). In other words, the higher parents were perceived barriers, the worse they were likelihood of behavioral change.

**Implications for Practice:**
Hopefully, the results of this research can be used for promoting hygiene education and disease awareness of parents and ultimately minimize the risk of enterovirus infection to children.

**Key Words:**
attitude, behavior, health belief model, enterovirus.
P3-014 Investigate the Association of Metabolic Syndrome Incidence and Risk Factors Among Community Residents: A Cohort Study of Northeastern Taiwan

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**Purpose:** Metabolic syndrome was an important health issue for the elderly. It was often not easy to screen out findings in the health care system. Therefore, it was important to ensure that communities and workplaces outside the hospital were screened and selected risk groups were selected for appropriate health promotion interventions was worthy of attention. Thus few studies in Taiwan to long-term follow-up to observe the incidence of metabolic syndrome and associated risk factors. This study was designed to investigate the association of metabolic syndrome incidence and risk factors among community residents.

**Methods:** A total of 4,918 community residents from four communities in northern Taiwan from August 2013 to the end of May 2016 were selected for the study. The data were collected for analysis. Metabolic syndrome The metabolic syndrome incidence and its associated risk factors in the community were measured using a generalized estimate equation based on the criteria set by the Health Promotion Administration in 2007.

**Results:** The average incidence of metabolic syndrome was 31.15 ‰, and the incidence of males and females was 10.93 ‰ and 19.63 ‰, respectively, after an average follow-up of 2.22 years. The history of stroke, low Albumin, high TDQ, low HPLP, low PCS and MCS were all risk factors of metabolic syndrome.

**Implications for Practice:** The results of the study can help to clarify the risk factors of metabolic syndrome in community residents. Community managers can monitor the health of the residents early and plan health promotion programs to ensure the health of the community residents.

**Key Words:** metabolic syndrome, incidence and risk factors, community residents.
Purpose:
The purpose of this research is to grasp the actual state of the public health nurse’s support method for early support according to acceptance of disorder by parents of children with autism spectrum disorder.

Methods:
The survey targeted public health nurses who support children with autism spectrum disorder at 1916 municipalities nationwide. In this survey, questionnaires were distributed to 1916 municipalities nationwide and responses from public health nurses who support children with autism spectrum disorder were collected. Questionnaires consisted of questions by the 5-level Likert formula and free description. For the analysis method, the questionnaire survey results were simply summarized. As for free description, they were analyzed first so that one meaning content became one sentence. Then sentences obtained from the results were analyzed, classified, and integrated based on the content similarity. Furthermore, they were overviewed and reviewed regarding public health nurse’s support for early support. Ethical consideration was taken into with the approval of the University Ethics Review (No. 1016).

Results:
The response rate of the survey was 706 cases (36.8%) in the number of municipalities, and 767 cases (40.0%) in the total number of question paper collections. In the sex of respondents, there were 762 women (99.3%) and 5 men (0.6%). As to whether the acceptance of disorder by parents is related to support, 563 (73.4%) cases surveyed answered “I strongly agree”, and 194 (25.3%) did "I agree", which were 98.7% in total. As to whether the relationship by parental acceptance of disorder is necessary, 411 cases (53.6%) answered "I strongly agree" and 327 cases (42.6%) did "I agree". Also, free descriptions included “providing information on medical care support and advice”, “advising on how to treat children, considering their parents’ thoughts and feeling” and so on.

Implications for Practice: Public health nurses who support children with autism spectrum disorder believe that the acceptance of disorder by parents affects children's early support. Also, with the support by public health nurses for early support, it is necessary to provide information on support. As assistance according to the acceptance of disorder by parents, understanding parents who are faced with difficulty in raising their children and of advising parents on how to make relationships with their children are considered.

Key Words: children with autism spectrum disorder, 5-year checkup, early support acceptance of disorder, public health nurse.
Purpose: Very few empirically based programs for prescribing interventions have been developed for elderly people suffering from dementia at nursing homes, though activities of daily living are part of basic human needs. Purpose - The aim of this quasi-experimental study was to evaluate the impact of an endless loop walking exercise on elders’ physical, psychological, and cognitive functions.

Methods: The purposive sample was 7 elders with dementia, aged 69-82 (x=77), from a nursing home in southern Taiwan. The length of stay in the nursing home ranged from 0.3 to 7.5 years (x=1.5). Based on the Progressively Lowered Stress Threshold (Hall & Buckwalter, 1987), a walking exercise ran during the most likely hours for Sundowning Syndrome (4:30-5:30 pm), 3 times a week for eight weeks, 30 minutes per session.

Results: The Barthel Index score increased from 10.7 to 61.0 (p= .007); the Geriatric Depression Scale score decreased from 6.9 to 3.0 (p= .014), with 71% changing into a good mood.

Implications for Practice: While the data support positive effects of a walking exercise, larger sample size and individually tailored programs are strongly recommended for future studies.

Key Words: walking exercise, elders with dementia, nursing home.
Comparison of the Effect of Qigong and Brisking Walking in Patients With Diabetes.

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Purpose: This study will explore the impact of Qigong and brisk walking on body composition and blood glucose control in patients with diabetes mellitus.

Methods: This was a quasi-experimental study of 71 participants with diabetes mellitus. Participants were divided into the following groups: (i) Qigong group (QG, n=24), (ii) brisk walking group (n=24), and control group (n=23) then conducted exercise for 12 weeks. The control group maintained routine life. The data of the pre-test, 4th-week test, 8th-week test and 12th-week test and the achievement test of body mass index (BMI), body fat, circumference of waist and glycated hemoglobin. The GEE model was employed for statistical analysis to proceed the cross comparisons with repeated measurements of the time and between-groups.

Results: The results showed that after the intervention of Qigong and brisk walking, there were significantly differences with the control group on BMI and circumference of waist. Base on body fat, brisk walking groups’ was lower than control group after 12 weeks intervention only. Base on glycosylated hemoglobin, there was a significant differences on those groups, brisk walking group was superior to Qigong group.

Implications for Practice: Therefore, the intervention of Qigong and brisk walking can reduce the related indicators of the body composition. In the improvement of glycosylated hemoglobin, the brisk walking group was superior to Qigong group. The results of this study can be used as a reference for diabetic patients to choose the type of exercise.

Key Words: diabetes mellitus, qigong, brisk walking, body composition, blood glucose control.
P3-018 Relationship between Constitution and Dietary Pattern in Lung Cancer Patients: A Pilot Study
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Purpose: Constitution is an important performance of human life activities, and the particularity of individual constitution determines its susceptibility to certain pathogenic factors. According to the concept of physical physiology of the human body can be divided into gentleness constitution, yang-qi deficient, yin-xie deficient, tan-shi-yu-zhi constitution. But different constitution types can co-exist, and decide the susceptibility and tendency to cancer. According to the traditional Chinese medicine theory, food has five attributes, i.e. cold, hot, warm, cool and neutral. The attributes of each food and the preferences of food choices will influence the changes in constitution. However, there are few empirical studies and explorations of such topic in Taiwan. Therefore, the research purposes are to understand the correlation between the constitution and the dietary patterns of lung cancer patients before suffering from cancer as the basis for diet and health education.

Methods: Retrospective and descriptive study design was validated and approved by the Institutional Review Board (KMUH-IRB-20150152). The participants were a total of 50 lung cancer patients from the chest medicine ward of a medical center located in Southern Taiwan. The research instruments, including a demographic data sheet, the dietary behavior and preference evaluation form and the Traditional Chinese Medical Constitutional Scale, were used to collect and monitor participants’ constitution and dietary patterns and analyzed using the Spearman's rank correlation coefficient.

Results: The constitution type of the lung cancer patients before developing cancer was mostly gentleness constitution (74%), followed by the mixed constitution that was either deficient in yin-xie or yang-qi as well as tan-shi-yu-zhi (12%). Their dietary behavior and preference are dominated by meat, and the type of food they often ate was primarily neutral meat and fish (94%), followed by neutral vegetables and grains. Yang-qi deficient constitution was negatively correlated with cold and cool meat and fish, such as trotters and oysters ($r = -.301, p = .034$). However, yin-xie deficient and tan-shi-yu-zhi constitution have not correlations with dietary patterns.

Implications for Practice: The results indicate that the constitution type of the lung cancer patients with a yang-qi deficient constitution before getting cancer is correlated with the food of type. Therefore, clinical nurses are recommended to increase relevant knowledge about traditional Chinese medicine constitution and diet so as to get acquainted with people's constitution, offer different diet and health education and provide knowledge about food types and pay attention to food choices. For instance, people with yang-qi deficient constitution should have warm and hot food such as ginger, scallion and lamb, gain under the nurses' guidance concept of correct dietary patterns, and promote and maintain health.

Key Words: lung cancer, constitution, dietary pattern.
The Effects and Mechanisms of Massage for Cortisol Levels, and Anxiety in Patients With Hypertension: A Randomized Controlled Pilot Study

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Purpose: To investigate the effects and mechanisms of a 6-week massage program for Cortisol Levels, and Anxiety in patients with essential hypertension.

Methods: Participants in the massage group (n=22) accepted 6 weeks back massage program, whereas participants in the control group (n=14) were the same as the massage group routine except for the actual massage. The outcomes including cortisol and anxiety were employed to explore the underlying mechanisms. The outcome measures were assessed at baseline (week 1) the pre-to-post and after completion of the intervention (week 6) the pre-to-post.

Results: The outcome measures at post-test and in score changes revealed no significant intergroup differences in cortisol or anxiety. For the experimental group, the pre-to-post results showed no significant intragroup differences in outcome measures, with the exception of cortisol which was significantly reduced at posttest (p=.01). Finally, the association between the change cortisol levels and the change SBP and that between the change in anxiety scores and the change in SBP after massage were not statistically significant (p=.589 and .794, respectively).

Implications for Practice: The hypothesis that a decrease in cortisol levels and anxiety score results in a decrease in blood pressure through massage was not supported by our findings. Future studies should investigate the possible mechanism the underlying effects of back massage on SPB.

Key Words: hypertension, massage, cortisol, anxiety.
Effects of Progressive Muscle Relaxation Training on Symptom Distress and Anxiety in Colorectal Cancer Patients Undergoing Chemotherapy

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Purpose:
Some studies have proved that progressive muscle relaxation training can help improve symptom distress and anxiety during chemotherapy. The purpose of this study was to investigate the effect of progressive muscle relaxation training on symptom distress, anxiety, and vital signs of colorectal cancer patients undergoing chemotherapy.

Methods:
The quasi-experimental design was used in the study. The samples were chosen from the oncology and colorectal surgical ward of a medical center in northern Taiwan. Sixty-eight colorectal cancer patients who received chemotherapy were randomly assigned into experimental or control group. The experimental group received a 20-minute progressive muscle relaxation training twice a day during chemotherapy period. The control group received ward routine care. Symptom Distress Scale, Trait Anxiety Inventory, and Vital Signs were used to assess symptom distress and anxiety level during chemotherapy period. We collected statistical analysis by SPSS for Windows 19.0 Chinese version.

Results:
The results showed that: (1) Progressive muscle relaxation training can reduce symptom distress of the patients who undergo chemotherapy ($p < .01$). (2) Progressive muscle relaxation training can reduce patients’ anxiety arising from chemotherapy ($p < .01$). (3) Progressive muscle relaxation training can reduce patients’ blood pressure as the result of chemotherapy ($p < .05$).

Implications for Practice: Progressive muscle relaxation training can improve symptom distress and anxiety during chemotherapy after discharged, patients were recommended to continue practice progressive muscle relaxation training to help develop self-care skills.

Key Words: progressive muscle relaxation training, colorectal cancer, chemotherapy, symptom distress, anxiety.
Purpose: The goal of this system review is to evaluate the effectiveness of acupressure in improving the quality of sleep.

Methods: Sleep disorders, acupressure and sleep quality are used as the key words to search the literatures in the databases include CEPS, Pubmed, cochrane library and some other databases.

Results: Sixteen related articles represent the search results. Several articles were eliminated because they did not deal with acupressure and sleep. For example, the use of adjuvant therapy does not include acupressure or the use of non-care personnel can use the disposal. Moreover, the repetitive literature and research quality value is poor like Non-RCT, SR or Non-meta-analysis in the literature were excluded also. Finally, only five articles were included in this review, including RCT 2 articles, SR 2 articles, meta-analysis 1 articles, which are in accordance with JBI Reviewers Manual Critical appraisal. Three of these articles noted that acupressure can reduce fatigue in hemodialysis patients. The combination of acupressure with acute drug therapy for insomnia improves sleep quality and quality of life. Three studies demonstrated that acupressure improved the quality of sleep, using the Pittsburg Sleep Quality Index (PSQI). The other two papers revealed that the quality of existing evidence of using non-pharmacological methods to improve sleep in adults is very poor.

Implications for Practice: Based on the review of the literature, whether acupressure can effectively improve sleep cannot be clearly established. Valid literature exists for dialysis patients, adults with insomnia and the elderly. One possible cause of the lack of a clear conclusion in the literatures is the small number of samples. Also, related research is regional and the trial periods are not long enough. The quality of research can be improved in the future and the relationship between acupressure and sleep quality warrants further investigation.

Key Words: system review, sleep disorders, acupressure, sleep quality.
Purpose: Several previous studies have investigated the effectiveness of acupuncture for pain relief after total knee replacement. However, the results of these studies are mutually contradictory. This review aims to conduct a systematic review of studies evaluating acupuncture for pain relief after total knee replacement.

Methods: Electronic databases including PubMed, CINAHL, Cochrane Library, EMBASE, Taiwan and Chinese databases were systematically searched through Jan 2006 to Dec 2016. Randomized trials comparing acupuncture sham, placebo, or standard-of-care control were included that measured outcomes of pain and were published language in English and Chinese. Quality assessment and data extraction were performed independently by two reviewers. Standardized mean differences (SMD) were calculated for studies using a pain score or analgesic requirement as a primary outcome.

Results: Systematic review of 8 studies met inclusion criteria. There was an improvement in pain relief from acupuncture groups superior to controls for studies (SMD -0.289[95% CI -0.419 to -0.160]).

Implications for Practice: The available data from results showed acupuncture may be effective for pain relief after total knee replacement. However, these results were limited by the small number of trials. A more accurate estimate of the effect will require further large, well-designed RCTs with rigorous methods of randomized, and adequately concealed allocation, are needed.

Key Words: acupuncture, pain, total knee replacement.
Mindfulness-Based Stress Reduction for Insomnia: A Systematic Review

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Purpose: * Insomnia is a widespread public concern and associated with many physiological and psychological symptoms, such as anxiety, and depression, negative impact on individuals’ quality of life. * Mindfulness-Based Stress Reduction (MBSR) is used popularly in people with a variety of conditions. The aim of this review was to evaluate the quantitative evidence, application and effectiveness of MBSR for insomnia.

Methods: A systematic review was carried out according to the Modified Jadad Scale Accuracy Reviews.

Data sources: PubMed, CINAHL, Medline and Cochrane library databases were searched between January 1979 – July 2016.

The main search terms used were combined keywords for insomnia with keywords for mindfulness-based stress reduction or mindfulness -based interventions or mindfulness mediation, or MBSR.

Randomized controlled trials (RCTs) comparing MBSR to control conditions in patients with insomnia were included.

Results: * Ten randomized controlled clinical trials were found. In practice, MBSR has been offered to insomnia patients at variety situation, include cancer patients, adults, and older adults.

There was evidence that Mindfulness-Based Stress Reduction interventions improved insomnia symptoms and sleep quality.

A dose-response effect was associated daily practice of Mindfulness-Based Stress Reduction can reduced insomnia symptom severity.

Meditation-based treatments show positive long-term benefits. This is beneficial in terms of cost effective-ness and facilitates long-term self-care.

Implications for Practice: Mindfulness-Based Stress Reduction has potential as a clinically valuable self-administered intervention for insomnia. * MBSR can offer practical tools for insomnia promotion and lends itself to holistic health and practices on nursing care. Further research into its efficacy, feasibility and safety for insomnia client in the nursing context is recommended.

Key Words: MBSR, systematic review, insomnia, nursing.
Purpose: The Purpose of this systematic review is to provide the evidence for the application of static magnetic therapy on pain relief in adult patient.

Methods: The articles with the key word “static magnetic therapy” and “pain” were extracted from the databases. The data sources included PubMed, Cochrane Library, CINAHL, Willeey online Library, Medline, PEDro, CRD, Google Scholar and Chinese Electronic Periodicals: Airiti library, PerioPath: Index to Taiwan Periodical and China Knowledge Resource Integrated Database. Randomized clinical trials of static magnets for pain relief from any cause were considered. Data were collected from inception to December 2016 for the studies of English and Chinese language. Populations in these studies were adults aged 18 years or older. Two authors independently assessed trial quality and extracted data, compared the use of static magnets for the treatment of pain. The study methods and outcomes were also reviewed.

Results: Nearly seven thousand (6985) references were retrieved by the electronic searches, and 26 randomized controlled trials were included. The 14 studies were evaluated as qualified. The results showed that eight studies were positive and six studies were negative. The positive studies described a significant pain relief by using static magnets and magnets strength varied from 150 to 3950 gauss. The “metallic” placebo also created pain relief on the level that there was no significant difference between placebo and control. In three of the negative studies, there was a concern about the adequacy of the magnet strength for the kind of pain. If these three studies were excluded by the reason of insufficient treatment, then 8 out of 11 (72.7%) studies proved a positive effect of static magnets.

Implications for Practice: Static magnetic therapy can be considered as an alternative physical therapy for broad types of pain, including dysmenorrhea, facial pain, neuralgia, fibromyalgia and inflammatory, musculoskeletal, rheumatic, and postsurgical pain.

Key Words: static magnetic therapy, pain relief, systematic review.
**The Effect of Transcutaneous Electrical Acupoint Stimulation on Depressive Mood in Older Adults: An Experimental, Longitudinal Study**

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**Purpose:** To examine the effectiveness of transcutaneous electrical acupoint stimulation on depressive mood status for older persons living in long-term care facilities in Taiwan.

**Methods:** This was an experimental, longitudinal research design. One hundred and forty-three elders were recruited from nine long-term care facilities located in southern Taiwan. They were randomly assigned to receive transcutaneous electrical acupoint stimulation (TEAS), social visits (SV), or care as usual based on the long-term care facility in which they lived. One trained research assistant (RA) provided experimental groups with 15 min of the TEAS, twice a week for 36 weeks. The RA also provided comparison group with 15 min of social visits, twice a week for 36 weeks. Main outcome measures were depressive mood (GDS-SF) and a salivary cortisol level.

**Results:** Using the repeated measures analysis, results showed that subjects in the TEAS group showed a small increase in score of the Geriatric Depression Scale – Short Form (GDS-SF), they displayed mild depressive mood. Subjects received social visits regularly; the score of GDS-SF at Time 4 was significantly higher than that of Time 3. Results also found that a salivary cortisol level showed no statistical significant changes among these three groups. The salivary cortisol level has had slightly declined in the TEAS group and care as usual group, but slightly increased in SV group.

**Implications for Practice:** This study could provide care staff with a safe, noninvasive caring model to prevent the development of depressive mood in elderly residents.

**Key Words:** elder, depression, transcutaneous electrical acupoint stimulation.
P3-026  The Efficacy of Biofeedback in the Treatment of Headaches: A Systematic Review

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Purpose: Headaches is a high prevalent disorder and was usually be ignored easily. Biofeedback has proposed the effect of releasing patients’ headache; however, there is still lack of systematic review to explore the effect of biofeedback. To systematically review the efficacy of biofeedback in the treatment of headaches through literature and by reviewing the designs of biofeedback to propose how to use biofeedback intervention in nursing clinical practice.

Methods: The systematic review method was conducted using the following keywords: “Biofeedback” and “Headache” through online database, such as MEDLINE, PubMed, Cochrane Library, CINAHL and Airiti Library. We found a total of 1188 research papers, After the inclusion and exclusion criteria, 6 studies was selected for further analysis.

Results: A total of 6 random experimental studies was included with a total of 198 cases who were eligible to the criteria of International Headache Society having at least one time headache per week. We found that the biofeedback intervention improved the degree, duration and occurrence of headaches. It could also reduce medication dose for headache and symptoms of depression. However, the result of improving brain blood flow was not significant. The intervention time usually take 20 to 40 minutes twice a week for 4-6 months.

Implications for Practice: The findings support that it is useful for releasing headaches via biofeedback. Nurse could teach patients to learn how to regulate their autonomic nervous systems using biofeedback to gaining greater awareness of physiological functions and self-controlling their body. There is some limitation that samples are small in each study, intervention time is short and the result might not be generalized for long-term situations.

Key Words: biofeedback, headaches, systematic review.
Purpose: This study is to explore the perspective of religious hospice Buddhist chaplain regarding religious complementary approaches in Taiwan.

Methods: A qualitative research, the data were collected using triangular approaches, which included semi-structured audio-taped interviews, field notes and memos. Data collection took place from June to September 2012, after ethical approvals had been obtained. The data were collected using triangular approaches, which included semi-structured audio-taped interviews, field notes and memos. Audio-taped records were used to ensure the accuracy of the interview data as well as to record the exact words, tones, and emphasis conveyed by the participants.

Results: The findings reveal that all participants had experiences where palliative patients or their families asked Buddhist chaplains to offer “Dai-Bai (Great Compassion) Water” or any religious blessings for them; this phenomenon is related to “patients’ safety” in clinical end-of-life care in Taiwan. All participants used “Dai-Bai (Great Compassion) Water” for humans and for ghosts. The effect of this water depended on their faith. Perhaps faith was more important than science for the dying patients and their families. All participants knew how to make “Dai-Bai (Great Compassion) Water” by themselves; generally, they would not offer it to the patients automatically.

Implications for Practice: The folk approaches as complementary therapies are common in Taiwan, and that Taiwanese people asked religious people to offer folk medicine. Therefore it is necessary to take care of relevant issues about patients’ safety in the future.

Key Words: religious approaches, complementary therapies, end-of-life care.
P3-028 Relationship Between Fatigue and Resilience Among Burn Patients in Taiwan Formosa Fun Coast Explosion Disaster
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Purpose: Although the survival rate of young burn patients in water park blast disaster increased significantly, it remains a great physiological and psychological impact and challenge for patients experiencing and facing long-term rehabilitation, changes of physical appearance and fears and worries of the future during the long-course treatment. Therefore, the purpose of this study were to explore the relationship between fatigue and resilience in burn patients in Taiwan among Formosa Fun Coast Explosion Disaster.

Methods: We performed a cross-sectional, descriptive study conducted in a medical center in Northern Taiwan and a total of 30 burn patients were enrolled. Patients’ basic characteristics were collected and Resilience Scale, Pittsburgh Sleep Quality Inventory (PSQI) and Fatigue Severity Scale (FSS) were assessed. The predictive factors of resilience were analyzed by using descriptive statistics and regression analysis and $p<.05$ was considered statistically significant.

Results: Our data showed that there was a statistically significant negative correlation between fatigue and resilience ($r=-.46$, $p=.01$). The regression analysis further demonstrated that religious belief, sleep quality, fatigue and stress were positively correlated with resilience. The positive predictive power of stress was 58% and a 1-point increase in stress was accompanied by a 1.68-point decline in resilience ($p<.001$).

Implications for Practice: In this study, we found a negative correlation between fatigue and resilience in dust explosion burn patients in Taiwan Formosa Water Park blast disaster and stress was an important predictive factor for resilience. To provide high quality nursing care, we need to reduce the severity of stress and fatigue to improve resilience in burn patients.

Key Words: fatigue, resilience, burn patients, disaster.
P3-029 Experiences of Hospital Nursing Administrators Conducting Disaster Relief Who Were Themselves Victims in Areas Afflicted by the Great East Japan Earthquake

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Purpose: The purpose is to clarify through interview surveys with the parties concerned the feelings, thoughts and actions of nursing administrators who were victims of the Great East Japan earthquake and who also conducted disaster relief.

Methods: 1. Qualitative descriptive research through semi-structured interviews. The subjects are seven of nursing administrators in the area affected who were victims of the Great East Japan earthquake and who also conducted disaster relief. 2. Based on an interview guide, 30 to 40-minute interviews were conducted on "experiences during the Great East Japan earthquake" and "family safety." (July 2016 - August 2016). 3. Data was converted verbatim, and data trends and features were extracted using data mining technology. Analyses of word frequency and dependency frequency were conducted. 4. Approval was obtained from the Research Ethics Committee at the Japan Red Cross Hokkaido Nursing University.

Results: 1. The average age of the subjects was 40.3 years and the average length of experience was 18.7 years. Two were head nurses. Two were section heads and three were staff members. 2. Dependency analysis of “Great earthquake experiences” showed the phrases "shelf - collapse" and "ward - return" had frequencies of three. In the original text, the passages “The shelf swayed greatly. I ran back to the ward of the seventh floor in a dream-like state.” and “First, I checked the conditions of the serious patients, and fortunately, none of the hospitalized patients or staff members were injured...” showed that the individuals concerned desperately ran back to their wards amidst the large tremors, confirmed the safety of the staff and the patients, and then amidst the aftershocks, worked while waiting for contact from staff members who were not at work. 3. Word frequency in the context of “family safety” showed that the phrases “contact, return, tsunami, mail” were common. Dependency frequency analysis showed that the phrases “telephone - communicate + not” and “contact - make + possible” each had frequencies of three. In the original text, the passages “I received an e-mail from my daughter. I received e-mails showing that everyone in my family was safe ... Seeing these allowed me to concentrate on my work at the hospital...” showed the uneasiness of the individuals concerned during the period they were unable to make contact with family members and also that they were repeatedly checking their phones. However, they tried to suppress these feelings and fulfill their work responsibilities.

Implications for Practice: 1. Nurse administrators desperately ran back to their wards amidst the large tremors, confirmed the safety of the staff and the patients, and then amidst the aftershocks, worked while waiting for contact from staff members who were not at work. 2. Nurse administrators checked their phones many times due to their uneasiness during the period they were unable to make contact with family members, and they
tried to suppress these feelings and fulfill their work responsibilities.

**Key Words:** The great east Japan earthquake experiences, hospital, nursing administrators.
A Case-Control Study of Perceived Stress, Compassion Fatigue, and Compassion Satisfaction Among Nursing Staffs in Formosa Fun Coast Explosion

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Purpose:
The Formosa Fun Coast explosion was a major public disaster that caused shock internationally. The nursing staff made an all-out effort to care for everyone injured in the explosion and this may cause a lot of stress among nurses. Therefore, the purpose of this study was to explore the perceived stress, compassion fatigue, and compassion satisfaction among nursing staffs confronted with major disaster events.

Methods:
We adopted a case-control study in a medical center in Northern Taiwan. A total of 165 nurses were enrolled using convenience sampling, with 112 nurses who have cared the burn patients in case and 53 nurses who haven’t cared burn patients in control group. Data were collected on demographic characteristics; additional measures included the Perceived Stress Scale (PSS), and Professional Quality of Life (ProQOL). We performed descriptive statistics including frequency, percentage, mean and standard deviation. The differences between two groups were compared with Student’s t test, Pearson’s chi-square test, and regression models. A threshold of $p < .05$ was set as the level of statistical significance.

Results:
There were no statistically significance in compassion fatigue, and compassion satisfaction ($p > .05$) between cases and controls. We found that perceived stress and working years were the important predictors in compassion satisfaction ($\beta = .15, p = .002; \beta = .26, p = .029$, respectively), and perceived stress and age were the important predictors in compassion fatigue ($\beta = .20, p = .020; \beta = .42, p = .033$, respectively).

Implications for Practice: Based on this study, it is proposed to lower the stress among nurses through designing burn-related training program and social support. Therefore, it may lower the stress among nurses and improve professional quality of life.

Key Words:
perceived stress, compassion fatigue, compassion satisfaction, burn, disaster.
Factors Influencing Disaster Preparedness Behaviors Among Residents of Tainan, Taiwan - A Pilot Study of 0206 Kaohsiung Meinong Earthquake

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Purpose: Taiwan is a seismically active region, and risks for earthquake damage because it is part of the Circum-Pacific seismic belt. Residents should be aware of strategies of disaster prevention and mitigation including disaster preparedness. Understanding residents’ perception, intention and behaviors on disaster preparedness is the first step before developing related interventions. This pilot study aimed to describe perception, intention and behaviors on disaster preparedness and related factors among residents in Tainan, Taiwan after 0206 Kaohsiung Meinong Earthquake in 2016. A disaster preparedness questionnaire (DPQ) was developed and modified based on Roger’s Protection Motivation Theory for this study.

Methods: A convenience sampling method was used to recruit 30 residents in Tainan. The 51-item DPQ with six subscales (threat appraisal, self-efficacy, response-efficacy, behavior intention, actual behavior and obstacle) was used to collect data in this study. The psychometric properties of the DPQ was acceptable with a content validity index of .95, Cronbach's alphas of .78-.95, and test-retest reliabilities of .44~.79. Descriptive statistics were used to describe all variables. A multiple regression analysis was used to identify factors associated with the actual behaviour and behavioural intentions.

Results: The average age of the participants was 39 ± 14.3 years with a range of 21–78 years. Most (63.3%) participants were female, married (50%), and had a college or above degree (57%). The mean scores of threat appraisal, self-efficacy, response-efficacy, behavior intention, actual behavior and obstacle were 3.33±.58, 3.29±.64, 3.47±.67, 3.35±.72, 2.46±1.01, and 2.74±.72, respectively. Participants reported higher behavioral intentions, threat appraisal, self-efficacy, and response-efficacy (>3), but lower in actual behaviors and obstacle. Behavioral intention was found to positively predict residents’ actual behavior (β= .94, t=4.42, p<.001). Residents’ intention of disaster preparedness was predicted by self-efficacy (β= .35, t=2.21, p=.036), response-efficacy (β= .41, t=3.59, p=.001) and obstacle (β= .31, t=2.10, p=.046).

Implications for Practice: Based on our results, self-efficacy, response-efficacy and obstacle of DP were used as indicators to establish a model to effectively predict disaster preparedness intention. They can serve as a reference for future disaster education and relevant policies to elevate the residents’ behavioral intention. Additional tests on this model are needed before designing an appropriate intervention program.

Key Words: disaster preparedness, behavioral Intention, protection motivation theory, earthquake.
P3-032 Refinement and Psychometric Test of the Competency Inventory of Nursing Students With Junior Nursing Students and Registered Nurses

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**Purpose:** To refine and validate a measurement model for junior pre-registration nursing students’ core competences regarding score distribution and dimensionality.

**Methods:** The scale refining process took place in three studies. Study 1 establishes the item set via literature reviews and content validity testing. Study 2 determines that item set is suitable for use by self-report of 127 student nurses and 23 nurses. Then, further refines the item set and confirms the factor structure in 221 student nurses and 19 nurses using confirmatory factor analysis. Study 3 presents the 35-item scale evidence of validity and reliability. This study was conducted between 2015 and 2016 in Taiwan.

**Results:** Confirmatory factor analysis indicated that a 35-item scale with a 4-factor structure best fitted the data ($\chi^2 = 1374.15, p < .001$, RMSEA = .079, SRMR = .049, CFI = .919, TLI = .913). This scale had acceptable Cronbach’s $\alpha$ values (range .827 to .907). The strength of the inter-correlations among four latent variables was fully in line with the conceptualization as a multifactorial construct.

**Implications for Practice:** This scale had satisfactory validity and reliability for measuring core competence for nursing students. It should be used as a curriculum and teaching guide to increase students’ competences to ensure quality patient care in hospitals. The tool for validating the knowledge and work of nursing can be refined and assessed by a variety observers. For employers who care about the graduates’ level or pre-registration level of competences, the self-evaluated competences is not just an exercise to provide feedback to improve teaching and learning before the educational experience has ended, but has the potential for reassuring external audiences about students’ achievements. Further studies are needed to test the applicability of the scale to other populations.

**Key Words:** competence, nursing student, scale refinement.
**P3-033 An Educational Intervention to Improve Evidence-Based Practice Competence Among School Nurses in Taiwan**

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**Purpose:**  
When school nurses embrace evidence-based practice (EBP), higher-quality care is provided to students, their families, and the larger community. However, there is little or no research on the adoption and implementation of EBP among school nurses in Taiwan, many of whom have limited experience using and lack the necessary skills to confidently implement EBP. The purpose of this study, therefore, was to evaluate the effectiveness of a multifaceted EBP training program on the knowledge, attitudes, and skills.

**Methods:**  
The study was a pretest-posttest research design and 456 school nurses were recruited. The program comprised 9 hours of face-to-face lectures, 10 hours of online teaching, and outreach support for 3 months. Support involved email, online interaction and telephone contact. Knowledge, attitudes, and skills were assessed using a questionnaire, administered at baseline, post-training program, and 3 months follow-up, with the effectiveness of the training program being analyzed using a repeated-measures ANOVA.

**Results:**  
The age of the participants ranged from 31 to 66-years-old, with a mean age of 41.95 years, and the mean length of time employed as a school nurse was 8.4 years; the majority had a bachelor’s degree (73.3%), with 41.3% coming from medium-sized schools. The results revealed significant gains in knowledge at the post-training program stage ($p < .001$), which was maintained at follow-up. Although there was no statistically significant difference between pre-test and post-test attitudes, the scores at follow-up were significantly higher than at post-test ($p < .001$). The improvement in skills between post-test and follow-up was small and non-significant.

**Implications for Practice:**  
Targeted education and outreach support led to a marked improvement in EBP knowledge and attitudes, but only minor changes in skills. Health educators should focus on skill development and helping school nurses to establish new routines around evidence-based practice. Finally, this study can be used as a basis to developing a comprehensive strategy for building EBP competencies through proper training for school nurses.

**Key Words:**  
evidence based practice, competence, school nurse.
P3-034 A Comparison Study on Nursing Students’ Stress and Depression Level on Different Internship Arrangement
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Purpose: Initial clinical practice is a stressful situation for nursing students in college. Relieve stress of initial clinical practice in nursing students has been a major educational policy. The purpose of this study is to compare nursing students' stress and depression level during their initial clinical practice in two different internship arrangement.

Methods: Quasi-experimental design with purposive sampling. Total 97 nursing students were random sampling into two groups. 44 students assigned into a control group with initial clinical practice after foundational nursing curriculum and 53 students in an experimental group with initial clinical practice after medical-surgical nursing curriculum. Questionnaire with stress scale and depression scale were used to collect data in 2nd week and the 4th week during initial clinical practice. The SPSS 20.0 package software was applied to compare the difference of stress and depression level in these two groups.

Results: The average age of nursing students were 18.4±0.52 years, 85 were female and 12 were male. The result of stress scale revealed only one item significantly different in 2nd week during clinical practice was “Teachers clinical guidance and self-demand gap” ($p< .01$). The result with significantly different in three items of stress scale during the 4th week: “Disease diagnosis and treatment are not familiar with”, “Teachers clinical guidance and self-demand gap” and “Performance does not meet the demand for teachers” ($p< .01$). The result of depression scale during the 2nd week of clinical practice significantly different in seven items: “suicide idea”, “nobody know me”, “I hate myself”, “I have no future”, “I do not want to go out”, “Life has no meaning” and “No interested in anything” ($p< .01$). During the 4th week, of clinical practice, five items of depression scale were “suicide idea”, “lonely”, “Favorite things become no interested”, “chest tightness” and “I was a burden to others” with significantly different ($p< .01$). Stress and depression level were lower in experimental group.

Implications for Practice: Internship arrangement after medical-surgical nursing curriculum may decrease nursing students' stress and depression level during initial clinical practice. Nursing educators may consider the findings of this study when planning clinical practice.

Key Words: stress, nursing students, initial clinical practice.
Purpose: This study adopted the Transtheoretical Model to understand: (1) the distribution of stage of change (SOC) for quit smoking behavior amongst junior/senior high school students in the remote area of Eastern Taiwan and the contributory factors.

Methods: The author applied the probability proportionate-to-random sampling method drawing samples from students studying in junior/senior high schools living in the remote area of Eastern Taiwan in 2015, and generated 1017 effective samples. The questionnaire covered personal data, attitude for quit smoking, self-efficacy of quit smoking, a sense of meaning in life, and SOC in quit smoking behavior.

Results: The results showed that: (1) 20% of participants were in the pre-contemplation stage, 8.3% in the contemplation stage, 11.8% in the preparation stage, 10.2% in the action stage, and 49.7% in the maintenance stage; (2) Attitude for quit smoking, self-efficacy of quit smoking, and a sense of meaning in life had the significant positive correlation with the SOCs for quit; (3) The three most discriminative factors of the SOCs for quit were attitude for quit smoking, self-efficacy of quit smoking and a sense of meaning in life. The predictive power was 20.1%.

Implications for Practice: The results of the study might serve as references for interventions using the practice strategies of the transtheoretical model for quit smoking among junior/senior high school students and to evaluate the effectiveness of teaching program.

Key Words: transtheoretical model, quit smoking behavior, junior/senior high school students.
Perception of Safety and Security During the Clinical Placement at Japanese Nursing Students

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Purpose:
Clinical placement is essential for nursing education to improve clinical competence. However, clinical placement is very stressful experience for nursing students. Feel unsafe is one element that they feel stress. Safety and secure environment is essential for students to reduce stress. Therefore, study reports students’ perception of safety and security of Japanese nursing students. The purpose of this study is: 1. Describe safety and security scores of Japanese nursing students during the clinical placement. 2. Explore relationship with nursing students’ demographic characteristics and safety and security scores.

Methods:
This study used the Ascent to Competence Scale (ACS)* as the measurement instrument. The scale based on Maslow’s needs of hierarchy and consisted with five levels. Needs of safety and security are existed the lowest level of its hierarchy. Permission to use ACS was got from the inventor. The ACS was translated to Japanese and back translated and sent the inventor to check accuracy of the meaning. Needs of safety and security are that students feel physically physiologically safe and secure. They are consisted 13 items. These items are rated with a five-point Likert scale with 0 = strongly disagree; 1 = disagree; 2 = neither agree nor disagree; 3 = agree and 4 = strongly agree. Data was gather from August to October, 2016. Participants were 4th grade students. Ethical approval was accepted from ethical committee of Aichi Prefectural University. (* McCoy M A., Levett-Jones T, Pitt V, (2013). Development and psychometric testing of the Ascent to Competence Scale, Nurse Education Today, 33, 15 – 23.)

Results:
1) Demographic data: Sent the introduction letter and asked cooperation for 54 universities, and 4 university accepted participation. Possible candidate was 320, and 256 (80.0%) were answered and Valid response is 255(99.6%). The majority were aged 21–22 years (87.8%, n=224), and female (88%, n=223). 2) Score of safety and security: The highest scoring item was: “A structured orientation session was provided for me” (M=3.80), and the lowest scoring item was: "I was bullied during the clinical placement” (M=.32). There is no significant difference in sex. Compared “directory enrolled (DE) university group (age 21 or 22, N=224)” and “not directory enrolled (NDE) group (age 23 or moreover, N=31)” is found significantly different at 6 items. They are: “The nurse unit manager made me feel welcome when I commenced the placement” directory enrolled (M=2.9) , not directory enrolled (M=3.26) (t=-2.36, p=.019); “I was ignored by nursing staff when I started the placement”, DE (M=1.16), NDE (M=.71) (t=-2.28, p=.02), and others.

Implications for Practice: This study find that maturity (age) strongly affect sense of safety and security. Young students need to care special consideration who can relive clinical environment. This study is supported by Japanese Grants-in-Aid for Scientific Research (KAKENHI:15K15787).
Key Words: Japanese nursing student, clinical placement, sense of safety and security.
P3-037 Exploring Multicultural Competence and Its Related Factors Among Nurse Practitioners in a Medical Center: A Preliminary Study
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Purpose: The purposes of this study were to explore the multicultural competence and discover the relationship between multicultural competence and its related factors among nurse practitioner (NPs) in a medical center.

Methods: A simultaneous methodological triangulation was used to collect and analyze data. Purpose sampling was employed to recruit 10 licensed NPs from a medical center. Qualitative data were collected from 2 of 10 subjects drawn from the study sample, using semi-structured and taped in-depth interviews. The quantitative instrument, Nurses’ Multicultural Caring Competence Scale, which has 29 items categorize into four subscales: cultural awareness, cultural knowledge, cultural skill and cultural sensitivity. All items used a 5-point Likert-type, a higher score indicates a higher degree of self-evaluation. Content analysis, Mann-Whitney test and Kruskal-Wallis test were used to analyze the resulting data.

Results: The results were as follows: (1) 90% of respondents did not attend multicultural programs; (2) in the scores of four dimensions of cultural competence as following: Cultural awareness was 4.21, cultural knowledge was 3.18, cultural skills was 3.17 and cultural sensitivities was 4.00. (3) no significant factors associated with overall multicultural caring competence included sex, marital status, education level, experience of abroad and experiences in caring for foreigners. In addition, four major domains emerged from the interview data: (1) identification and care of diversity cultural groups in hospital, (2) the cultural shock related powerlessness, (3) the formation of cultural competence, (4) needs of cultural competence curriculum.

Implications for Practice: The results of this study provide a reference to the hospital educational institutions, schools and related institutions of NPs in the future design of nurse practitioner training courses or continuing education.

Key Words: nurse practitioners, cultural competence, culture, nursing education.
P3-038  The Experience of Full Year Clinical Practice for Students of 5-Year Junior Colleges of Nursing

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Purpose: The purpose of this study is to know the experience of one-year clinical practice in medical facilities for students within 5-year nursing program in a college.

Methods: This study was applied a qualitative research design. A qualitative analysis method was applied with semi-structured in-depth interviews and performing a text encoding and data analysis. Purposive sampling was used to collect data till data saturation from October 10, 2014 to June 30, 2015. Eight participants of grade-5 nursing students in a college of healthcare management were recruited.

Results: The results were divided into three themes and nine sub-themes. It includes: 1. the impact of physical, mental and social aspects: psychological impact, the changes of physical and daily life, effects of social relationship; 2. training the professional skills: growing up the professional skills, confirming expertise, enhancing the ability of nursing care experience, also getting the early first experience of professional nursing; 3. applying the strategies: responding to problem-solving and psychological adjustment.

Implications for Practice: There were seven suggestions according to the results of this research: 1. educational institutions should encourage schools, selected in an integrated clinical practice, to arrange emergency and intensive care units, operating rooms and other nursing students less contact care units, to provide nursing students on internship choice to nursing students multiple learning. 2. school should hold a meeting before clinical practice, to do first survey and to understand the problem, content-rich meeting, they can solve some questions to release the anxious of students. 3. school should enhance the professional skills of their clinical instructor, provide on-going training systems to improve the quality of teaching. 4. school can also hold some local language class to enhance the language ability of students. 5. the clinical instructor can build up a positive and professional environment to their students, also should adjust the teaching method from time to time. 6. clinical nursing staffs should provide a professional and positive attitude to students during clinical practice, also being more patient and tolerated to the students. 7. students should make a psychological and physical adjustment, also during class study, being ready for whole year practical training. Those were contributed of this research.

Key Words: nursing student, one-year clinical practice, experience.
Japanese Nursing Students’ Sense of Belongingness During the Clinical Placement

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Purpose:
Recently, sense of belongingness is identified as the effective element of improving clinical competence. There is no study about nursing students’ sense of belongingness during the clinical placement in Japan. Therefore, this study reports Japanese nursing students' sense of belongingness during the clinical placement. The purpose of this study is: 1. Describe belongingness scores of Japanese nursing students during the clinical placement. 2. Explore belongingness scores relationship to nursing students’ demographic characteristics.

Methods:
This study used the Ascent to Competence Scale (ACS) * as the measurement instrument. The ACS was translated to Japanese and back translated by native English speaker and sent the inventor to check accuracy of the meaning. Needs of belongingness is defines: “connectedness, acceptance and fit, as well as the assurance of having a legitimate place in the clinical milieu. This includes the needs for harmony between one’s professional values and these of team.” It is consisted 13 items. These items are rated with a five-point likert scale with 0 = strongly disagree; 1 = disagree; 2 = neither agree nor disagree; 3 = agree and 4 = strongly agree. Data was gathered from August to October 2016. Participants of this study was 4th grade Japanese nursing students. Ethical approval is accepted from ethical committee of Aichi Prefectural University. * McCoy M A., Levett-Jones T, Pitt V, (2013). Development and psychometric testing of the Ascent to Competence Scale, Nurse Education Today, 33, 15–23.

Results:
1) Demographic data Possible candidate was 320, and 256 (80.0%) were answered and Valid response is 255 (99.6%). The majority were aged 21–22 years (87.8%, n=224), and female (88%, n=223). The most of the longest clinical placement period was 3 weeks (58%, n=148), or 2 weeks (36%, n=92). 2) Sense of belongingness The highest scoring item was: “I actively involved myself in patient care activities

Implications for Practice: Students' sense of belongingness is identified relation with length of placement. Although, it was only one week longer, students improved sense of belongingness for the ward staff. This result suggests that staying longer at one place would become better learning than experience many place. This study is supported by Japanese Grants-in-Aid for Scientific Research (KAKENHI:15K15787).

Key Words: belongingness, clinical placement, Japanese nursing student, length of placement.
Teaching Plan Establishment for Responses to Situational Simulation of Violence in Psychiatric Wards

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**Purpose:**
The study aims to establish a teaching plan in response to situational simulation of violence in psychiatric ward; and by situational training, hopefully the abilities of nursing staffs in response to violent assaults will be enhanced in order to reduce their physiological and psychological stresses.

**Methods:**
Common clinical situations of patients in psychiatric ward were divided into two parts: “medication non-adherence” and “violent appearance”. Medical staffs were then randomly allocated into four groups to handle above situations. The management procedures were real-time video recorded and output using X mind software to summarize common measures. Independent doctors were invited to review the procedures and key rating points, and then establish a teaching plan based on the outlines of objective structured clinical examination (OSCE). The hard copy of teaching plan was subsequently revised by two psychiatrists, followed by contents validity test performed by five specialists. Study requirement was set as contents validity index (CVI) $\geq 80\%$.

**Results:**
The average CVI of the teaching plan in response to the 1st “medication non-adherence” was 84% while that involved in two experts was only 57% and 74%, respectively. Similarly, the average CVI of the teaching plan in response to “violence management” was 86% while that involved in one expert was only 57%. After amendment on the teaching plan based on advices provided by specialists, the results of the 2nd validity test showed that the CVI of the teaching plan in response to “medication non-adherence” increased to 97% while that to “violence management” increased to 96%.

**Implications for Practice:**
In order to facilitate academic motivation of the trainees and inspire their cognition, attitude and skills, clinical nursing teachers are encouraged to apply situational simulation to clinical teaching. By establishing teaching plans for responses to situational simulation of violence (medication non-adherence and violent appearance) and discussing the efficacy of situational simulation in psychiatric ward, not only are medical staffs allowed practicing responses to such stress, but the damages to nursing staffs when processing violent assaults caused by psychiatric patients can be diminished in order to establish a safe working environment and excellent healthcare quality.

**Key Words:**
psychiatric ward, situational simulation of violence, teaching plan.
P3-041 Investigating the Effectiveness of Basic Life-Support Training on the Knowledge, Attitude, and Behavioral Intention of New Nursing Graduates Practicing Basic Life-Support Techniques

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Purpose: As future nursing practitioners, nursing graduates are responsible for providing healthcare to emergency-department (ED) patients and thus should receive first-aid training on knowledge and skills pertaining to ED-patient management to increase the likelihood of patient survival or positive medical outcomes. Therefore, this study investigated the effectiveness of basic life-support (BLS) training on the knowledge, attitude, and behavioral intention of new nursing graduates practicing BLS techniques.

Methods: In this study, a quasi-experimental design was adopted, and 169 new nursing graduates from a nursing school in southern Taiwan were recruited as test participants. These participants were cluster randomized into an experimental group, which received an 8-hour BLS training intervention, and a control group, which did not receive any intervention. A covariance analysis was performed to evaluate the effectiveness of the BLS training.

Results: The experimental results revealed that the experimental group (consisting of 85 participants) scored significantly higher in BLS knowledge, but lower in BLS behavioral intention than they did before receiving the training. However, no significant differences were observed in the control group when their pretest and posttest results were compared. A simple main-effect test was conducted and revealed that the participants who received the BLS training gained significantly higher scores in BLS knowledge, but significantly lower scores in BLS behavioral intention than those that did not receive the training did. Overall, the BLS training, though effective in improving the BLS knowledge and skills of the new nursing graduates, resulted in conservative behavioral intention.

Implications for Practice: Therefore, the study results suggested that additional ED-patient management cases with positive outcomes should be introduced in first-aid training courses to enhance the attitude and behavioral intention of nursing graduates employing BLS techniques.

Key Words: basic life-support, training, behavioral intention, nursing graduates.
P3-042 Effectiveness of Nursing Education on Nutrition in Hemodialysis Patients

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Purpose: Sixty-five percent of hemodialysis patients experience malnutrition. Previously studies have confirmed that malnutrition is a good predictor of death in hemodialysis patients and have highlighted the importance of the rate of hospitalization. The Malnutrition-Inflammation Score (MIS) is a suitable and non-invasive tool for assessing the nutritional status for hemodialysis patients. The purpose of this study was to investigate the effectiveness of nursing education on nutrition in hemodialysis patients.

Methods: A convenient sample of 135 participants was conducted at a hemodialysis center in Southern Taiwan in November, 2015. According to the levels of serum potassium, patients were divided into three groups: (1) low serum potassium (<3.5 mEq/L), (2) normal serum potassium (3.5~<5.5 mEq/L), and (3) high serum potassium (>5.5 mEq/L). Nurse practitioner conducted the nursing education on nutrition to patients face to face, and the time for each nursing education was around 15 to 20 minutes. The Malnutrition-Inflammation Score (MIS) was conducted to assess the nutrition in patients. The paired t-test was used to analyze the collected data.

Results: The number of patients was 11 (low serum potassium), 113 (normal serum potassium), and 11 persons (high serum potassium). The average age was 72 (low serum potassium), 64 (normal serum potassium), and 61 years (high serum potassium). The duration of hemodialysis was 60 (low serum potassium), 52 (normal serum potassium), and 59 months (high serum potassium). After the nursing education on nutrition, the score of MIS decreased by 0.009 and 0.727 among the patients with normal and high serum potassium, respectively. However, the score of MIS increased by 0.182 among the patients with low serum potassium.

Implications for Practice: Through the nursing education on nutrition could help hemodialysis patients with normal and high serum potassium improve their nutritional status.

Key Words: nursing education, serum potassium, malnutrition-inflammation score, hemodialysis.
P3-043  Related Factors and Knowledge, Attitude and Behavior Intention on Basic Life Support Among Student Nurses

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Purpose: Student nurses are prospect nurses who will be responsible for treating injuries and managing emergency incidents; hence, they should possess knowledge of basic life support (BLS) as well as positive attitude and intention to ensure people’s safety. This study was conducted to investigate factors affecting the BLS knowledge, attitude, and behavioral intention of student nurses.

Methods: A cross-sectional method and regression analysis were employed, and 169 senior students from a five-year nursing school in southern Taiwan were recruited through purposive sampling. A survey was conducted using a self-administered structured questionnaire, which included items for collecting demographic data and scales for assessing the BLS knowledge, attitude, and behavioral intention. The collected data and responses were analyzed using SPSS 18.0 for Windows.

Results: The results showed that the students attained a score of 14.85 ± 1.64 (standardized score = 74.25) in the knowledge scale, 37.43 ± 2.33 (standardized score = 93.57) in the attitude scale, and 53.91 ± 6.48 (standardized score = 84.23) in the behavioral intention scale. Male students, those who have participated in BLS training, and those who are experienced with emergency treatment demonstrated higher behavioral intention scores. Students who are confident in executing BLS or passing BLS-related exams achieved higher attitude and behavioral intention scores. Students’ BLS knowledge correlated positively and significantly with their attitude, which correlated positively and significantly with their behavioral intention.

Implications for Practice: The research results can serve as a reference for nursing school instructors to plan emergency treatment curricula and related training, thereby facilitating prospect nurses’ competence in performing BLS.

Key Words: behavior intention, basic life support, student nurses.
Purpose: Empathy has been accepted as an ability or skilled behavior that can be learned and developed through education and practice. In other words, empathy is a skill that can be cultivated by nursing studies and it is a necessary part of nursing students’ theoretical and clinical training. Nevertheless, empathic attitudes as measured by the JSPE continue to decrease when health professional student progress through clinical training. It is essential to investigate nursing students’ levels of empathy that could provide vital information for restructuring the nursing curricula so as to ensure the cultivation of empathic skills of nursing students. The objective of this study was to examine the level of empathy in nursing students with varied clinical experience at a University of Science and Technology in Taiwan.

Methods: A cross-sectional descriptive design was used in this study. The participants were from the 5-year Associate Degree programs (ADN, n = 227). Students in the third year ADN was relatively new to clinical experience as nursing students, while students in the fourth year and fifth year ADN have had at least two clinical practices as nursing students. This study utilized the Chinese version of the Jefferson Scale of Empathy-Health Profession Students (C-JSE-HPS), which is a 20-item psychometrically validated measurement of empathy for nursing students. Participants rate their level of agreement with each statement on a 7-point Likert scale (strongly disagree = 1 to strongly agree = 7). Results range from a minimum of 20 through to a maximum of 140. The higher the score is, the higher the participant’s level of empathy. The data were analyzed using SPSS 17 statistical software.

Results: Of the 227 female students, 83 students were in the 3-year, 99 students were in the 4-year and 45 students were in the 5-year. Ages ranged from 17 to 20 with a mean age of 18.6 years. Overall, participants reported a good level of empathy as measured by C-JSE-HPS (M = 115.93; SD = 12.18). There was no statistically significant difference among the years of study. In addition, the mean score of the 7 point scale of respondents self-assessment level of ‘standing in the patient’s shoes’ was 4.78 (SD = 1.33). The mean score of the single item scale indicates that nursing students self-assessed their standing in the patient’s shoes lower than the overall mean score of their empathy level.

Implications for Practice: Nursing students demonstrated acceptable empathy levels, although it has also been said that nursing education does not provide students with the necessary skills to empathize with their patients once in a clinical setting. It is important for clinical faculty and practicing nurses to role model care and empathy for students. Suggested that faculty must strive to cultivate an empathic learning environment where students are exposed to positive role models who demonstrate empathic communication and behaviors.

Key Words: empathy, nursing student, C-JSE-HPS(Chinese version of the Jefferson Scale of Empathy-Health Profession Students).
Purpose: This study examined the sexual self-concept and potential factors of influence to the knowledge, skills and confidences of clinical sexual health care of undergraduate nursing students in Taiwan.

Methods: This study was used a cross-section design to recruit a total of 428 nursing students (mean age 22.61 years, \( SD = 4.06 \)). All subjects completed a structured questionnaires that included demographic data, Sexual Self-Concept Questionnaire, the scale of sexual health care knowledge, skills, and confidences.

Results: Participants reported that: 1. self-efficacy, sexual consciousness, sexual self-surveillance and awareness, and sexual self-esteem and other self-concept of nursing students have inclined to the negative, but none of them have displayed any anxiety response to sex; 2. the nursing students can responded with at least 80% of more of accurate answering rate regarding to the knowledge of sexual health care; however, for the part of on reproduction, treatment and health care for infectious sexual disease, and the domain of knowledge for sexual health care for sexual malfunction, the answering rate is relatively low; 3. 53% of students’ responses were considered as the tasks regularly experienced clinically; however, the students were not familiar with 51% of the skills, and the students have often found 35% of the skills/tasks uneasy to them. Of items of skills/tasks they find unfamiliar with, include the evaluation of sexual development and sexual health problem of patients, implementation of health care for infectious sexual disease, maintenance of comfort of sexual health for patients during the hospitalization, and the management of sexual harassment and sexual violence; 4. levels of self-confidence to perform the skills of sexual health care prominently related to the working experiences, and sexual health knowledge. The factors of nursing work experience, education or training experience of sexual health care prominently related to the working experiences, and sexual health knowledge. They can effectively interpret 67.0% variance of the confidence for sexual health care, while the practical work experience of sexual health care (\( \beta = .802, p < .0001 \)) can impact the highest upon the confidence for sexual health care.

Implications for Practice: As corroborated with study, it is necessary to enhance related programs and teaching of clinical practice for sexual health care in nursing education as it can be of the important strategy to assist nursing students to develop the knowledge and competences for sexual health care.

Key Words: sexual health care, sexual self-concept, undergraduate nursing students.
P3-046 Evaluating the Use of Inter-Professional Collaborative Practice and Education Model to Increase Nursing Ability to Discussion With Health Practitioners

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**Purpose:** The inter-professional workshop is a platform for communication and consolidation of healthcare practitioners working with other disciplines. But in the mode of cooperative discussion, the nurse lack of initiative to discuss and learn motivation. In order to enable the nurse to understand their role and responsibilities, and interprofessional communication, and teams and teamwork. The IPP / IPE model was used to assess whether this ability can be increased.

**Methods:** Since the beginning of this year, the team has been working on a team-based model of situational exercises and lesson plans, and has introduced IPP and IPE model to discuss the architecture of IPP, which will be completed by residents IPP writing, each healthcare practitioner has completed the writing of IPE templates, so that different professional colleagues in the context of the situation in order to meet the actual needs of the various types of clinical care; which nurses throughout the discussion of the meeting process, To the actual clinical care level, to enhance the health of the patient's whole health care practice. During the seminar, the whole process use video recording, and will be placed in the e-Learning, more nurses can learn again.

**Results:** From April to September 2016, a total of 906 nursing colleagues' satisfaction surveys were conducted using the e-learning platform. The results showed that the table-based exercise was used to simulate the situation of team-based care, supplemented by IPP / IPE model. Compared with the previous model, the proportion of satisfaction scale of 1-5 points was 4.3, and the highest of 93.91% was satisfied and very satisfied. In the learning outcomes, especially in the IPP / IPE model emphasizes clinical care skills (4.25), improve their ability to work (4.26), new knowledge of common care is more confident (4.27), show a high degree of feedback.

**Implications for Practice:** The IPP / IPE model can effectively help the nurse construct new knowledge, skills and behaviors, and apply it in the clinical and cross-field team to discuss the whole-person care of the patients.

**Key Words:** IPP, IPE, e-learning.
Organizational Changes Resulting From the Introduction of Clinical Training for New Nursing Staff- From the “Experiences” and “Impressions” of Nursing Administrators

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Purpose:
The purpose is to clarify the types of changes that occurred within the organization as a result of implementing the “complete rotation style” training method to train new nursing staff from the “experiences” and “impressions” of nursing administrators who experienced working both before and after the implementation.

Methods:
1. Five nursing administrators who worked both before and after implementation at the hospital concerned in a department that implemented complete rotation style training.
2. Focus group interviews. 3. Interview guide: 1) Staff changes, 2) Impressions of organizational changes, and 3) Impressions of training from the point of view of a nursing administrator. 4. Data was collected verbatim, and trends and characteristics were extracted from the data acquired in the interviews using data mining technology. analyses were made of word frequency and the frequency of dependency, characteristic expressions were extracted and an analysis was made of the original text using the language analysis software “Text Mining Studio 3.2” 5. Approval (Approval No. 138) was obtained from the Nursing Ethics Review Committee at Sugiyama Jogakuen University.

Results:
1. one nurse deputy general (education officer) and four nurse administrators (ward).
2. Dependency analysis of “staff changes” showed the phrases “awareness – able,” “environment – preparation,” “administrator – way of seeing,” “other departments – evaluation,” “important – nurture” and “trainee – coming” all appeared with a frequency of two. 3. Dependency analysis of “organizational changes” showed the phrase “awareness – change” had a frequency of three, as did the phrases “three years – it takes,” “portfolio – say,” “trainee – come,” “people – go,” “cultural climate – develop” and “look after – can.” 4. Dependency analysis of “things felt from the point of view of an administrator” showed the phrase “fourteen years – reach” and the phrases “one year – implement, take, require + not, employment contract, employment limit and enact” were put forward with a frequency of six.

Implications for Practice: 1. The training system is an important element in “organizational changes” as it allows for newcomers to internalize the phrases “trainee – come” and “three years – it takes” through their status as “trainees.” 2. Suggests that the entire hospital staff was connected by the phrase “cultural climate – develop,” and hints at the importance of the nursing administrators’ way of thinking toward the training of new nursing staff.

Key Words: organizational changes, clinical training new nursing staff.
**Purpose:** A 10-day nursing practicum in Vietnam in May, 2016 was performed by Miyagi University. This study is to determine the "international cooperation" that students learned based on the experience of the nursing practice in Vietnam.

**Methods:** We analyzed 4 students’ reports who participated in nursing practice in Vietnam and agreed to the purpose. The method of the study was qualitative analysis. We coded the phrases that described "international cooperation" from the reports. Then, we classified subcategories according to similar characteristics. Finally, we categorized the information. We received the approval from the committee for study ethic. There is no conflict of interests.

**Results:** We extracted 70 cords from a report. We classified them into 15 subcategories and 5 categories. Data analysis showed 5 main functions of international cooperation including understanding and respect for cultures, the cooperation desired by the country receiving support, upbringing of the human resources who can take international cooperation, maintenance of the foreign acceptance system in Japan, and countries developing together.

**Implications for Practice:** The students learned the necessity of international collaboration as culture is an important factor for the country receiving support. The students learned that international collaboration should not only occur abroad, but also be practiced in Japan. The nursing practice in Vietnam determined the thought of the international cooperation of the students.

**Key Words:** international cooperation, nursing practicum, experience.
P3-049 Nursing Students' Consciousness of Percutaneous Endoscopic Gastrostomy

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Purpose:
Percutaneous endoscopic gastrostomy is medically useful as a way to provide nutrition and it is simple, easy, and safe. However, the Japanese population is extremely elderly, and there are instances where a gastrostomy will slightly postpone death while nonetheless imposing a physical and mental burden on the patient and family. Gastrostomy involves ethical issues related to modern medical technology, and it raises ethical issues for nurses who will be caring for patients over a prolonged period. Thus, the aim of the current study was to ascertain nursing students’ attitudes towards the current realities of gastrostomy and related issues in order to enhance the basic education (which includes ethics education) of students who are studying to become nurses.

Methods:
After a lecture on Feeding and Nutrition, nursing students were given an anonymous questionnaire with open-ended questions, in November 2015. The questionnaire asked about students’ views and thoughts on gastrostomy. Method of analysis: Students’ written responses were grouped based on similarities in their content, and a content analysis was performed.

Results:
Questionnaires were distributed to 83 potential subjects, and responses were received from 63 subjects (response rate: 75.9%). 28 sub-categories were identified and grouped into 7 categories with a common meaning. Those categories were Favorable Opinions Regarding a Gastrostomy (31) (e.g. its medical necessity), Unfavorable Opinions Regarding a Gastrostomy (61) (e.g. it is an artificial form of nutrient intake and it does not allow one to die a natural death), Reaching a Decision on Whether to Perform a Gastrostomy (44), For Me Personally (21) (i.e. if the respondent would request a gastrostomy if he or she were a patient or family member), One’s View as a Medical Professional (1) regarding patients undergoing a gastrostomy, Hesitance over When to Forego Advanced Medical Care (3), and Lifestyle and Quality of Life (16) (i.e. dying with dignity and human life and its relationship to a gastrostomy). Numbers in parentheses after each category indicate the number of codes.

Implications for Practice:
Subjects were students in the first year of nursing school, so they were new to nursing. Thus, many of their written responses expressed views that were not substantiated by expert knowledge or opinions. Students’ responses about what they would want for themselves merely described how they would feel if they were the patient or a member of the patient’s family, and none of their responses described how they felt as nurses. Students’ knowledge of gastrostomy was limited to classroom lectures. Students had yet to care for an actual patient who had undergone a gastrostomy, and they had personally witnessed the psychological impact of a gastrostomy on patients and their family members. Nursing students need to receive further medical and nursing knowledge through education, nursing students need to ascertain the responses of patients and their family members through further clinical training, and nursing students need to be taught how to determine if a gastrostomy is warranted based on their own expertise.

Key Words:
percutaneous endoscopic gastrostomy, nursing students' consciousness.
P3-050 The Effect of Learning Community Program Based on NCS on Nursing Students’ Self Confidence, Leadership, Nursing Professionalism, and Clinical Competence

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Purpose: The active efforts of universities to expand the learning power of college students have increased significantly in recent years. In the past, learning communities or learning clubs, which are voluntary learning groups of students who were classified as non-formal education programs and who had not received much interest in college, began receiving interest and support. The purpose of this study was to identify the effect of learning community program based on NCS on nursing students’ self confidence, leadership, nursing professionalism, and clinical competence.

Methods: This study was conducted between October 17 and November 23, 2015 and subjects of the study were 37 students who were presenting at nursing department of university in A city. One-gorup pretest-posttest design was used, and the learning community program based on NCS was applied on 4 hours per week for 8 weeks after school. The obtained data were analyzed by IBM SPSS Statistics 18 program package, paired t-test used for hypothesis test, Cronbach’s α method used for the reliability and factor analysis used for the validity.

Results: The gender of the subjects was 81.1% for women and the most common age was 18 ~ 21 years (74.3%). The mean age was 20.9 ± 3.3 years. The grade distribution was the highest in the first grade (66.7%), followed by the second grade (22.2%) and the third grade (11.1%). The scores of leadership, nursing professionalism, and clinical competence were showed a significant increase after the application of the learning community program based on NCS.

Implications for Practice: We observed that the learning community program based on NCS is effective for increasing leadership, nursing professionalism, and clinical competence. Therefore, we could confirm that it’s application is available in nursing students.

Key Words: learning community program, self confidence, leadership, nursing professionalism, clinical competence.
Purpose: New nursing staff face great pressure during learning new clinical technology. The assessment of clinical competence has become central to nurse education. We hope by using OSCE (objective structured clinical examination) can be an effective tool to achieve new nurse training and clinical capability assessment.

Methods: Good preparation for an OSCE and evaluation is vital for both clinical educators and new nursing staffs clinical teaching relationship. Our OSCE development aim to assist students to incorporate their theoretical basis into clinical skill performance and high-acuity clinical placement. We go through 3 stages, that is the OSCE scenarios planning stage, implementation and evaluation stages. Planning stage including clinical teaching training program, the implementation stage include using adult learning mode and counseling methods, evaluation stages include observation and interview with under training nurses. Our OSCE scenarios selected those high frequency, high danger, high cost and potential problems included CPCR, blood transfusion, intravenous injection technique etc. After three months of working experience, our Nursing Department arrange them for theoretical basic test and OSCE assessment. Each clinical technical skill was assess by specific objectives and clinical scenarios, by the use of standard patient or teaching aids to simulate the real scenarios, each technology assessment time take 10 minutes, feedback time 3 minutes. Important skill need to will pass as a must, if not pass retest was requested and feedback. The scores are scored with Likert-like scale 5, which includes proficiency in the execution of the technique, answers to questions, tone and attitude of conversations, and suggestions and encouragement to enhance their self-confidence.

Results: Statistics From 2014 to 2016, a total of 21 classes OSCE assessment with a total of 228 nurses participated. The test and evaluation criteria threshold was 80 points, the average test mark was 83.3 points, they got administration and patient identification 89.1 points, CPCR 85.3 points, blood transfusion 86 points, Intravenous injection 90.4 points. Their weak point found in the OSCE was feedback to the individual and head of nursing educator who later give them reinforcement training, This help establishment of an education and training system that help avoid adverse events.

Implications for Practice: Preparing OSCEs to test student nurse is more difficult than preparing an examination for them. During OSCE, clinical skills are tested rather than only theoretical knowledge. It is essential for them to learn correct clinical management methods and repeated practices until they can perform the methods perfectly. This is to ensure they can simultaneously developing clinical skill with an understanding of the underlying theory. We use effective feedback method to evaluate our new nursing staffs to ensure patient safety and high quality medical environment. Suggest this method to be use in evaluation of other specialty training too. In practice, the use of effective new staff evaluation and feedback methods, to ensure the safety of patients to create a quality medical environment. The recommendations can be applied to other professional competencies.

Key Words: OSCE, new nursing staff, clinical training.
**P3-052**  
*Effectiveness of a preceptor program in New Staff Nurses training: An Evidence-Based Approach*  
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**Purpose:** New Staff Nurses possess the knowledge and basic skills to learn to become proficient acute caregivers, but lack the depth of experience necessary for complex clinical reasoning. The preceptor is paramount in New Staff Nurses assessment and the mentor should receive the support necessary to enhance New Staff Nurses learning.

**Methods:** This study aim to conduct RCT, systematic review, meta-analysis of available qualitative studies exploring the experiences of effects of a preceptor on turnover rate, personnel costs, quality of nursing care.

**Results:** Literature published in databases, including Cochrane library, PubMed, Medline, EMBASE, Chinese Electronic Periodical Services (CEPS) is searched were searched until 2016, combining the terms preceptor with turnover rate. Results are screened to include only clinical trials, systematic reviews, and meta-analyses. Finding 7 research studies are reviewed and appraised based with the tool of Critical Appraisal Skills Program (CASP). The results indicate that the new staff nurses received preceptor program had effectively lowered the turnover rate, personnel costs decreased, and enhanced the quality of nursing care, especially by reducing medication error incidents.

**Implications for Practice:** Through evidence-based literature research may provide employees with satisfactory relief and improve management and also provide more suitable incentives for clinical nurses.

**Key Words:** preceptor, new staff nurses, evidence-based nursing.
The Effectiveness of a Multiple Training Program on the Enhancement of Communication Ability Among Psychiatric Nursing Students in Clinical Practice

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Purpose:
The purpose of this study is to understand the effectiveness of the “Multiple Training Program” for nursing students in psychiatric practice.

Methods:
The communication ability scale, the Kalamazoo Essential Elements Communication Checklist (KEECC) and the self-confidence in communication (10-point scale) were used to investigate communication ability in the first & fourth week. The intervention group involved in “Multiple Training Program” includes: 1. Didactic Instruction: communication concepts and communication skills; 2. Role-playing: practical exercises; 3. Communication Record: Writing discussion. The intervention group were evaluated with the Multiple Training Program in the fourth week.

Results:
The results of the study showed that the average score of the communication ability scale was 28.5 ± 3.9 to 34.5 ± 3.2, the KEECC was 24.0 ± 3.3 to 29.3 ± 3.0 and the self-confidence in communication was 6.2 ± 1.2 to 7.8 ± 0.8 in intervention group (n=88). The score of the communication ability scale was 26.8 ± 4.2 to 32.7 ± 3.5, the KEECC was 23.1 ± 3.4 to 27.8 ± 3.5 and the self-confidence in communication was 5.8 ± 1.2 to 7.6 ± 1.0 of control group (n=85). The paired t-test showed that the communication ability scale, the KEECC and the self-confidence in communication of the intervention group and control group had significant progress and significant difference (intervention group: the communication ability, t = 14.7, p = .000; the KEECC, t = 15.1, p = .000; the self-confidence in communication, t = 17.8, p = .000); (control group: the communication ability, t = 14.5, p = .000; the KEECC, t = 12.8, p = .000; the self-confidence in communication, t = 12.8, p = .000). Independent t-test showed no significant difference (p > .05) from the communication ability scale, the KEECC and the self-confidence in communication between the two groups. After the internship program, 61.2% of the students from the control group expressed more needs of opportunities to learn communication skills and the intervention group only 11.2%. 67% of the intervention group evaluated “Role-playing” was most helpful, following was “Communication Record“ (17%) and the “Didactic Instruction” was the last (16%).

Implications for Practice: This study suggests that communication is one of the important abilities of clinical nursing work. It is also the core literacy of nursing education. Psychiatrics internship is an important course for nursing students to develop communication skills. Using the quantitative tools can help students to examine their own communication ability and deficiency. Using multiple communication training process can enhance their communication skills and self-confidence.

Key Words: multiple training program, communication ability, self-confidence in communication, nursing education.
P3-054 The Exploration of CPR Performance in ED Nursing Staff Using the Digital-Simulated Manikin System and Video Film Teaching

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Purpose:
(1) investigate the demographic characteristics and working experiences (i.e., of the emergency nursing staff, including gender, age, nursing skill level, work experiences and emergency experiences) and CPR related knowledge influenced the quality CPR techniques implemented (including depth, frequency, 1:1 compression-release ratio and frequency of un-interruption); (2) to explore whether the retention of high quality CPR skill diminishes with time, and (3) to investigate the effectiveness of instructional video on the retention of high quality CPR skill.

Methods:
This longitudinal, correlation with pre- and post-test in one group study investigated the current status of CPR skills in emergency nursing staff, and further explore whether CPR skills change with time, and examine the effect of instructional video on the retention of high quality CPR skill. The eligible participants were clinical nursing staff members from an emergency ward at a teaching hospital in northern Taiwan. The purpose sampling was used to recruit the nurses and collected data every 3 months for four times. The data for the first time was used to explore the baseline status analysis; Before the day for collecting the fourth data, instructional video were applied and the fourth recruitment in order to examine the immediate effect of the video. Measurement for collecting outcomes included digital CPR simulator, the demographic and work experience survey, a 20-item CPR knowledge test and CPR instructional video.

Results:
Totally, 77 nurses were completed the first survey, and 33 nurses were completed the four times of data collection. The results has shown that generally the high quality CPR implementation by the nursing staff was poor and only one nurse reached the high quality CPR. The factors associated with high quality CPR included gender, emergency work experiences, total nursing work experiences and frequency of CPR training. In addition, we found that the CPR skills were diminishing by time after 6 months, especially on compression-release ratio, which was decreased from 0.896 to 0.808 ($p < .05$). For depth of chest compression, we found that it decreased from 55.363 mm to 54.211 mm ($p = .209$). Although it was statistically non-significant, we nevertheless noted a decreasing trend. After intervention with instructional video, we found that the compression-release ratio has increased by 0.618 ($p < .05$) after intervention, indicating good results from instructional video. The factors associated with high quality CPR were age, gender, N level, total nursing work experiences, emergency work experiences, and frequency of CPR training.

Implications for Practice: It is recommended to have regular clinical training and evaluation of CPR skills in clinical settings and the re-evaluation period is recommended at very 6 months after CPR training in order to maintain high quality CPR.

Key Words: emergency room, nursing staff, CPR, demographic characteristics, instructional video.
Taiwanese Student Nurses’ Handover Experiences During Clinical Placement

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Purpose: Nurses’ handover is one of the important issues during nursing professional socialization process. To handover with senior nurses is one of the biggest challenges for student nurses and neophyte nurses as well. Insufficiency handover process may produce less work effectiveness and lead to patients’ unsafe. The researcher experienced that the handover is an important stress source for student nurse during their clinical placement. In order to coach the student nurses before and during the clinical placement, the aim of this study is to understand how the student nurses experience handover and how they interpret the experience.

Methods: The study was undertaken using a qualitative research approach and in-depth interview were used in this study. Thirty grade 5 nursing students of a Five-year junior nursing college in the middle Taiwan were voluntarily participated in this study. All interviews were conducted by the first author and each interview lasted about 30 to 60 minutes. All participants finished all of their clinical placement at the time of interview and shared their handover related experiences during their clinical placement. Data was transcribed verbatim and analyzed using thematic analytic approach.

Results: Five themes were merged from the process of data analysis, they are: (a) the opportunities of handover; (b) an anxious moment; (c) the teaching styles of clinical instructors (d) the attitudes of clinical nursing staff; (e) developing strategies for good performance. Basically, the nursing students welcome the opportunities of handover in the clinical practices, although most of them felt very stressful before and within the process of handover. The clinical instructors’ teaching styles and the attitudes of clinical nursing staff strongly impact the student nurses’ handover learning experiences. In addition, after having the opportunities to practice handover to next shifts, the student nurses’ have developed their own strategies for how to perform well in next handover.

Implications for Practice: The findings of this study enrich our understanding of student nurses’ handover experiences and provide important information for the nurse educators to coach their students before and during students’ clinical placement. Especially, the nursing instructors are suggested to provide the nursing students the opportunities to practice their handover skill and create a less stressful environment for the effective learning.

Key Words: student nurse, handover, clinical placement, experience, nurse education.
The Survey of Core Competence in Fundamental Nursing Practicum Among Nursing Students

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Purpose: “Fundamental Nursing Practicum” is the first time nursing students experience the professional learning in clinical practice. By the learning process, students are expected to build up the core competences to have good performance in their initial practice. The purpose of this study was to compare the self-expect of core competence and actual performance by student self-evaluation.

Methods: the purposive sampling was used in junior college of Nursing in southern Taiwan with cross-sectional design. The 229 participants who were in the grade-three of five–year nursing program have passed the fundamental nursing practicum within the three months at the recruited time, and all of enrolled students completed the fundamental nursing practicum core competence scale. The instrument was including two domains to evaluate how expected students felt and how satisfied students response to their performance, and the Cronbach's α was .957 and .948 separately. The following step was to use importance-performance analysis (IPA) to analyze the expectation and performance of students’ core competences.

Results: the expectation of core competences among students had significant lower than actual performance ($p<.001$). “use the communication skill to talking with patients”, “to observe the non-verbal needs of patients” and “make appropriate nursing plans depend on the patient’s individual problems” were located in the “concentrate here” by IPA analysis, indicating that instructors need pay more attention on these three weakest core competences to help students to build up their professional abilities.

Implications for Practice: the study used novel IPA analysis to compare the expectation and performance of students in fundamental nursing practicum, and results will help teachers understand the outcomes of teaching and put more emphasis on the weakness of students. Moreover, to build up the students’ self-confidence and help them to be professional nurses.

Key Words: fundamental nursing practicum, importance-performance analysis, core competence, nursing student.
A Study on Nursing College Students' Self-Assessment of Nursing Competency
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**Purpose:** This study applies nursing competency scale and focuses on nursing college students’ self-assessment of their nursing competencies. The aim is to understand current new nursing college graduates’ self-assessment of their nursing competencies and clinical requirements for nursing students which are reference to improve teaching in nursing education.

**Methods:** This cross-sectional survey included new clinical nursing graduates from a nursing college in southern Taiwan. Data was collected through structured questionnaires. The nursing competency questionnaires using a 5-point Likert scale consisted of questions about professional growth ability, communication skills, caring, teaching, management and research. Data analysis was used by SPSS 21.0 for windows, descriptive statistics, t-test and one way ANOVA.

**Results:** A total of 331 students including 311 female and 20 male students participated in the survey. The mean score of self-assessed competency was 3.25 ($SD=0.54$). The highest score was communication skills, with 3.50 ($SD=0.61$), and the lowest score was management, with 2.30 ($SD=0.50$). The survey showed communication skill was better than other nursing competencies among nursing students’ self-assessment of nursing competency.

**Implications for Practice:** This study explores the nursing competency of college nursing students to provide nursing educators with more comprehensive data associated with nursing competency and facilitates curriculum design further to meet clinical practice’s demand. Moreover, nursing students could be equipped with multiple competencies to provide high quality care.

**Key Words:** nursing competency, nursing education, nursing college students.
The Effectiveness of Instinctive Clinical Teaching (ICT) Workshop on Clinical Teaching Ability in Nursing Preceptors

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Purpose: Enhancing preceptors’ teaching ability is very important in training novice nurses. The purpose of this study is to explore the effectiveness of Instinctive teaching workshop on clinical teaching ability in clinical nursing preceptors.

Methods: This study is an Quasi-experimental design. It was divided into two parts. The intervention is Instinctive Clinical Teaching (ICT) workshop with 6 hours in class and 1 hour in continued discussion. The first part is a single group pretest – posttest study, comparing the difference in a group of 33 clinical nursing preceptors’ knowledge and self-efficacy of instinctive teaching before and after the intervention workshop. The measurement was a self-report Instinctive Clinical Teaching (ICT) questionnaire. The second part is a two-group (22 participants in experimental group and 70 matched participants in control group) posttest study, comparing the novice’s perception of clinical preceptors’ teaching ability in between two groups after the intervention. The measurement was the Cleveland Clinics Teaching Effectiveness Instrument (CCTEI) questionnaire.

Results: This result showed that the knowledge (23.03± 5.47 before and 27.64± 3.94 after) and self-efficacy (22.12± 5.10 before and 27.52± 4.56 after) of ICT were improved after the intervention. The differences in knowledge and self-efficacy of ICT between pretest and posttest were statistically significant ($p< .001$). The knowledge of ICT is highly related with self-efficacy of ICT ($p< .01$). In the 2nd stage, the mean score of CCTEI in experimental group was higher than control group, which exposed the statistically significant ($p< .05$).

Implications for Practice: The study reveals that the effectiveness of instinctive clinical teaching training in preceptors’ teaching ability, confidence, and teaching efficacy. The skills of Instinctive Clinical Teaching can provide preceptors’ teaching ability and confidence. The Instinctive Clinical Teaching methods serve as a reference for preceptor training of nursing practice in clinics.

Key Words: instinctive clinical teaching, clinical nursing preceptor training, novice nurse training.
The Successful Factors for High Fidelity Simulation Activities Running for Nursing Students: A Systematic Review

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Purpose: High fidelity simulation (HFS) with full size computerized manikin (high fidelity simulator) and scenarios have been considered an effective teaching strategy in nursing discipline. Recently, the published meta analysis articles verify that the large effect size of HFS for nursing education are 0.81 and 0.86 (Kim, Park, & Shin, 2016; Shin, Park, & Kim, 2015). And the high fidelity teaching strategy are effect for nursing students' problem-solving, critical thinking, clinical judgment, and clinical competence (Lee & Oh, 2015). However, what are the successful factors for HFS activities running? Up to now, there is no evidence to conclude the successful factors. This study explores the successful factors of high fidelity simulation activities with high fidelity simulator for baccalaureate science nursing students through systematic review.

Methods: This study is a systematic review according to the PRISMA guideline. Searching from 10 electronic database airti library, CINAHL, CNKI, cochrane library, EMBASE, ERIC, MEDLINE, Proquest, Psychinfo, and pubmed, with the terms as "high fidelity simulation, simulate*, nursing student" up to July 2016. And there was no published year limitation. Data extraction was conducted by three reviewers according to the inclusion and exclusion criteria. There were 38 from 13,886 studies included for review. And they were assessed the quality with cochrane handbook also by the three reviewers independently. The result were extracted from the consensus of the three reviewers.

Results: Among the 38 eligibility, there are 4 in chinese, 34 in english; and 2 master's thesis, 12 doctoral dissertation, 24 published article. The main result of review showed: the study that indicated no significant had no description of detailed simulation activities design.

Implications for Practice: This is the first systematic review related to the successful factors of high fidelity simulation teaching and include the doctoral dissertation. The result showed the evidence to verify that the Jeffries' simulation model is the suitable guideline for the high fidelity simulation activities. And the successful factor is the rigorous structure of high fidelity simulation activities design. Among the activities design, objective setting is the most important factor.

Key Words: baccalaureate science nursing students high fidelity simulation systematic review.
**P3-060**

**Effectiveness of Hospice Care Education and Training for New Nursing Staff**

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**Purpose:** The hospice care is an important topic, and hospice care training is the essential course for nursing staff to provide holistic training. The purpose of this study was to explore the changes in the end-of-life-patient care knowledge, self-efficacy, attitude and skill of the new nursing staff having received the hospice care education and training.

**Methods:** The two-group quasi-experiment design of the pretest and two times of posttests was adopted in the study. Convenience sampling was conducted on the new nursing staffs of a medical center in southern Taiwan in 2015. There were 56 subjects in the experimental group, and 46 in the control group. The new nursing staffs of the experimental group received the “hospice care education and training” intervention, including the hospice care concept course, hospice ward environment visit as well as holistic health care case analysis discussion; the control group did not receive any intervention. The self-developed hospice care knowledge examination as well as the hospice care self-efficacy, attitude and behavior examination was used to evaluate the difference between the pretest and posttests.

**Results:** The study results showed that after the hospice care education and training intervention, the average scores of the new nursing staffs of experimental group in knowledge, self-efficacy and behavior were significantly increased with no significant changes in attitude; the magnitudes of improvement in knowledge of the two groups were significantly different on the fifth day after the intervention; and the improvement magnitudes in behavior were also significantly different in the fourth week after the intervention.

**Implications for Practice:** The results indicate that the implementation of hospice care education and training allows the new nursing staff to have a clearer understanding of the hospice care and end-of-life care and improve the self-efficacy and behavior efficiency. Based on the results of this study, it is suggested to use the hospice care education and training plan of this study as the reference in planning the hospice care education and training courses for new nursing staff in the future.

**Key Words:** new nursing staff, hospice care education and training, effectiveness.
Purpose: Nursing education are facing challenges today in educating students to become life-long learners and versatile experts in their own fields. In recent literature review, problem based learning (PBL) has a long history rooted in medical education. This teaching method has encouraging students to development of lifelong learning skills such as problem solving and critical think. Unlike traditional teaching model, PBL makes students learn by discussing professionally relevant problems enhancing application and integration of knowledge. However, there is lake of longitudinal study about to explore PBL effectiveness. The purpose of this study is to explore the longitudinal effectiveness of PBL as a teaching method in nursing education.

Methods: This study was formulated as a longitudinal research. The sample consisted of all June 2014 graduates from baccalaureate nursing programs and following until 6 months. Cohen’s (1997) power analysis was used to estimate the required sample size. For a medium effect, a sample of 120 graduate nursing students (PBL=60; Non PBL=60) was required. The Graduate Competence Questionnaire that following four standards of practice identified by the critical thinking, problem solving ability, clinical decision making and knowledge based practice. All analysis performed with SPSS 21.0 for Windows statistical software.

Results: The results of the paired t-test and the comparison of the mean changes in the pre and post (6 months) intervention scores obtained in the NPBL and PBL groups. The PBL groups showed a significant improvement in the graduate students’ overall mean scores ($p=.002$) and no significant changes were observed in the Non PBL groups ($p=.078$). More PBL groups than Non PBL groups tend to work in intensive care unit (PBL=65%, Non PBL=23%) and the rate of certification is higher more than Non PBL groups (PBL=85%, Non PBL=40%).

Implications for Practice: The results suggest that the use of PBL can help integrate reflective, problem solving skills and critical thinking to prepare for the rapidly advancing healthcare environment.

Key Words: problem based learning (PBL), longitudinal Teaching effectiveness.
P3-062 Using the Triangulation Method to Investigate the Influence of the Professional Capabilities and Characteristics of Clinical Model Teachers on Students Entering the Field of Long-Term Care

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Purpose:
Due to an aging population accompanied with problems of disabilities, the need for long-term care is on the rise. In order to handle the growth of this need, the issue of long-term care workforce needs to be addressed urgently. In recent years, many colleges have established departments related to elderly and long-term cares. Although the enrollment rates showed a trend of annual growth, the willingness of students to enter the relevant career after graduation was low. According to the results of the survey, students who obtained the counseling from their clinical instructors during the internship had a higher retention rate. A good clinical role model not only can enhance a student’s professional commitment in the workplace, but can also affect the willingness of students to enter the field. Therefore, this study sought to investigate the characteristics and capabilities of clinical model teachers and the impacts on students.

Methods:
This study used the triangulation research method in collecting a variety of data from the experts’ advices, interviews with clinical model teachers and students focus groups. The data collected from the three categories of participants were analyzed by triangulation analysis, and past studies were taken into account. There were 14 qualified and outstanding care workers and clinical instructors were recruited through a medical center and a nursing home in the north. 48 first-year students from the department of elderly care and management at a university were selected.

Results:
Data analysis showed that a good model teacher should have the following characteristics: an enthusiastic attitude and eagerness to share; positivity and warmth on others; empathy; the ability to inspire, be thoughtful of the others; a passion for elderly and long-term care; and a sense of duty to teach. In regards to capabilities, all three categories of participants believed that a model teacher should have excellent communication skills. However, the three types of participants also put forth certain differing views. Experts mentioned that good model teachers should have good listening abilities to give students supports immediately. Furthermore, experts also thought model teachers should have professional knowledge of long-term care, to guide students to consider more of the process and methods in care delivering. On the other hand, clinical model teachers suggested that model teachers should have the ability to uncover students’ individual differences and experiences, but students felt a model teacher should be able to be both a teacher and a friend, and give positive feedback frequently.

Implications for Practice: The data analysis showed that experts, model teachers, and students mostly had similar views regarding the characteristics and abilities of model teachers, but also had few individual opinions. These results can serve as a reference and basis of the future selection of clinical model teachers of long-term care.

Key Words: clinical model teacher, long-term care, characteristics and capabilities.
P3-063 The Effectiveness Analysis of Psychiatric Nurses’ Participation in Professional Education and Training

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**Purpose:** Through professional education to manage psychiatric nursing courses, Professional ethics, professional quality and professional-related laws and regulations of the training courses. And assimilate into the advanced System of primary nursing staff’s clinical professional competence to enhance their professional ability, deepen teaching and learning, raising conservations and service quality.

**Methods:** The use of "Action Research Act" constantly self-reflection characteristics to reach consensus. After the cycle of reflecting and spiral of steps, statistic data and analysis of results.

**Results:** The implementation period was from January 105 to December 105, held course 61 times and a total of 2,024 attendances. Paired t-test statistics, the results showed that psychiatric nurses participated in professional education and training courses, on the analysis of Results before and after education: whether it is “degree of understanding of the subject matter of the course”, “preparation for the use of curriculum skills”, “interest in the course”, “the cognition of that the course is useful for the work”, “active reading this course related literature”, “the implementation of confidence in the course of clinical care”; “the implementation of ability in the course of clinical care”; “the willingness of that keep learning and development in this course and area” all have different. (p < .00)

**Implications for Practice:** To match the medical staff’s integral certification of department of health and welfare, manage in professional education and training. It also can promote the advanced system of primary nursing staff’s clinical professional competence. In the process of teaching and learning heritage, which will enable psychiatric nurses to acquire self-confidence and growth of the knowledge and skills of professional field, and continuously improve the quality of care.

**Key Words:** psychiatric nurses, professional education, advanced system of nursing professional ability, action research.
The Impact of Educational Contents of the Public Health Support Personnel Course and Community Exchange Salons on Students

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Purpose: In a rapidly aging society, like that in Japan, it is imperative to develop human resources for taking on medical care with the aim of offering regional medical services. In 2015, the nursing program at the department of medicine at Gunma University founded a public health support personnel course and implemented regional exchange salons led by course graduates in order to allow students from all majors and years to acquire the knowledge and skills necessary for visiting and interacting with the regional elderly. This study clarified the impact of the educational contents of the public health support personnel course and regional exchange salons on students.

Methods: The public health support personnel course comprised lectures and exercises on the following topics: mental and physical characteristics of the elderly, the points of cautions for their activities etc. After completing the lectures, the students participated in regional exchange salons with support from teachers. The salons involved icebreaking, physical exercises and singing, and handicrafts. Fifty-seven students registered for the public health support personnel course and they were licensed as supporters. We surveyed 33 of these 57 students who also participated in regional exchange salons. The survey was conducted before their student supporter development (hereafter “before development”) and after regional exchange salons (hereafter “after salons”). The questionnaire comprised 19 items on topics such as knowledge and skills necessary for communication with the elderly, communication with students from multiple majors, and implementation of lessons gained from special courses. They responded on a 5-point scale ranging from one point for “Totally Disagree” to five points for “strongly agree.” The ethics review committee on medical Research Involving Human Subjects of Gunma University approved this study.

Results: The subjects of the analysis were 19 students who completed the surveys both before development and after salons. The participants demonstrated higher scores on 17 of these items after salons as compared to those before development.

Implications for Practice: The difference between the scores from before development and after salons can be attributed to the students’ acquisition of knowledge and skills such as communication basics and communication with the elderly, which were taught in the lectures and exercises of the public health support personnel course. At regional exchange salons, students improved their knowledge and skills related to the elderly by deepening communication through direct engagement with them through handicrafts and calisthenics. Our results suggest that this program offers early exposure to the community to the students, and helps them develop as resources who can take on regional care. We will continue to examine the effects of educational efforts to induce maximum advantages of exchanges among students of all majors and years.

Key Words: community-dwelling elderly, student volunteer, community healthcare education.
P3-065 Health-Promoting Lifestyle and It’s Related Factors Among Nursing Students

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Purpose:
Based on Health for All, the concept of health promotion has been become attention in 21st century. During school Students to develop healthy behaviors is an essential stage, and schools play important role in fostering students’ health-promoting lifestyles. The aim of this study is to explore health-Promoting Lifestyles and It’s Related Factors among junior college students in southern Taiwan.

Methods:
This study is a cross-sectional descriptive correlation design with the stratified cluster random sampling. Subjects about 620 are junior college students from one college in southern Taiwan, all participants will be assessed with all instruments including health-promoting lifestyle profile, health conception scale, perceived self-efficacy scale, perceived health status scale, and demographic profiles. Data will be analyzed using descriptive and inferential statistics.

Results:
(1) 607 participants had completed and returned valid questionnaires rate 97.9%. A mean age was 17.36 years in this study. (2) The score of interpersonal relations and spiritual growth were the highest, the lowest score was physical activity and health responsibility. (3) Age, mothers’ education level, perceived health status, mental health status, self-efficacy, and health conception were the significant predictors, and self-efficacy was the most powerful factor of the health-promoting lifestyle.

Implications for Practice: the details and implications concerning nursing education, administration, and future research in health-promoting lifestyle of nursing students will be discussed.

Key Words: health-promoting lifestyle, health conception, perceived self-efficacy, perceived health status, junior college students.
P3-066  Achievement Degree for Nursing Skill in Clinical Practice

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**Purpose:** In basic nursing education, it is important to consider how to establish an education system capable of instructing nursing technique of students to a level closer to what is required in clinical setting. The current study aims to clarify status of students’ technical experience and achievement of technique in clinical training.

**Methods:** The study was conducted for 38 students of a nursing course in university A without any missing value from among those who had participated in practice in relevant field implemented at their third-year as well as in comprehensive practice implemented at their fourth year.

**Results:** As a result of examination of data regarding students of the nursing course in university A described in “Basic nursing technique experience record”, it has been proved that nursing techniques experienced by students are different depending on the practices.

**Implications for Practice:** Since even students’ experiences in opportunities to implement nursing techniques several times during the practice could not result in their confidence and self-appraisal in some cases, it is required for such involvement that may help find out some clue for the next learning by setting an opportunity to reflect the care provided. In addition, in order for students to obtain nursing techniques during clinical training, it is necessary to examine and suggest what kinds of nursing technique experiences and achievement degree are required until graduation according to the advanced level of learning.

**Key Words:** clinical practice, nursing skill, experience, achievement, nursing education.
To Be the Humanistic Nurses By the Innovated Curriculum of Communication

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**Purpose:**
The communication of nurse and patient has the core of nursing education, and humanistic qualities of students are to be strengthened by practice of lectures. The study was to design innovated curriculum of nurse and patient relationship, and to promote nurse students’ communicated skills in humane care.

**Methods:**
There were 21 students to join the research; the innovated curriculum of NPR was optional course to arrange in senior year in nursing department for one semester. The curriculum contents of communicated practice included scenario, DVD analysis, and role play, and then students wrote and discuss their reflections in every topic. These qualitative materials of homework and discussion in this curriculum were analyzed and categorized by participants’ agreement.

**Results:**
The qualitative data showed the curriculum aroused the students four abilities in clinical practice, 1) to realize the knowledge of communication in humanity, 2) to be sure a humanity nurse in the future, 3) to communicate in empowerment with patient, 4) to frame confidently the humanity care in practice.

**Implications for Practice:**
The application was that students can offer and create communication attitude and skill in humanity care, and then promote the nurses education politics in the nurse and patient relationship, to be self-awareness and go further deconstructed and transformed the implicit facts in the transitional medicine, and then to gaze and concern humanity to patients, furthermore to be education object in nursing profession.

**Key Words:**
nurse-patient relationship, communication, humanity.
P3-068 Enhancing Faculty Facilitators’ Competence in Evidence-Based Healthcare for Regional Teaching Hospitals in Northern Taiwan: Training Effects of a Multimodal Curriculum Monitoring by Chinese Version of Fresno Test

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Purpose:
Faculty facilitators play important roles in the promotion of evidence-based healthcare (EBHC) among frontline nurses in regional teaching hospitals. Faculty facilitators’ competency in EBHC is a key factor in determining the success of EBHC dissemination. Effective EBHC curricula are necessary such that faculty facilitators are equipped with proper competency in EBHC for the promotion of EBHC in regional teaching hospitals. For years, we have developed and adjusted our EBHC continuing educational program with multimodal training style of small class interactions, exercises with clinical scenario and group discussion/contest to best suit for our audience. The purposes of the study were to evaluate the training effects of the curriculum in enhancing EBHC competence among faculty facilitators, nurses designated by the nurse department of a regional teaching hospital in northern Taiwan.

Methods:
A pre-experimental, one-group, pretest and posttest study design was used. One educational intervention involved in six months EBHC faculty training with lectures, practices and group activities to simulate clinical scenario and in 4-hour monthly meetings. The study period extended from November 2015 and June 2016. All faculty learners enrolling to the multimodal EBHC training course were invited to participate in the study. A questionnaire including the Chinese version of Fresno Test was used to assess the training effects in EBHC skills which were measured in four dimensions (clinical question formation, searching techniques, critical appraisal, and clinical application). The PC software SPSS 21.0 was utilized to calculate descriptive statistics and paired t-test in statistical analysis.

Results:
34 faculty learners had participated of the EBHC faculty facilitators training program. All participants completed the questionnaire including the Chinese version of the Fresno test. The return rate was equivalent of 100%. Comparing the data between the pretest and posttest scores, the differences within the four dimensions of EBHC skills were positively correlated (p<.0001). The difference between the four dimensions of EBHC skills and total scores was statistically significant (df=33; p<.0001): clinical question formation, 17.0 vs. 24.5; searching techniques, 16.2 vs. 24.6; critical appraisal, 5.9 vs. 51.1; clinical application, 5.8 vs. 11.2. Furthermore, the posttest scores for searching techniques were correlated with faculty learners’ education level (r=.41; p<.001), which was an indication that faculty learners with advanced degrees or trainings in higher educational level gained more from the multimodal curriculum.

Implications for Practice: The faculty facilitator continuing education program, which incorporates interactive and multimodal training style, is an effective and innovative way of enhancing faculty facilitators’ competence in EBHC. It is also noticed that the Chinese version of the Fresno test is a tool useful monitoring objectively faculty learners’ training effects in EBHC competency. This study could provide a reference for future
studies in EBHC faculty education in clinical settings such as regional teaching hospitals in Taiwan.

**Key Words:** faculty facilitators, evidence-based healthcare, multimodal training curriculum, chinese version of fresno test.
P3-069 Reflection of Clinical Practicum in the Operating Room (OR) and PeriAnesthesia Care Unit (PACU) Among Undergraduate Nursing Students
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Purpose: For achieving goals in clinical practicum, analysis of students' experience is one of strategies for improving quality. The purpose of this study was to describe students’ experience in the reflective journal regarding clinical practicum at the operating room and PACU.

Methods: Descriptive study design was applied with reflective journal analysis. After completion of 2012-2013 school years, anonymous 108 reflective journals were analyzed with content analysis.

Results: After content analysis, 19 subcategories were summarized and finally 5 categories were inducted including 'impressions of the practicum in the OR/PACU', 'knowledge integration related to OR/PACU', 'recognizing specialized nursing care in the OR/PACU', 'ascertaining professional competency in perioperative nursing care', and 'understanding the necessity for a holistic approach toward patients inside the OR/PACU'.

Implications for Practice: For the future practicum, nurse educators and nurse preceptors in the operating room/PACU should be considered the right of patients.

Key Words: clinical clerkship, reflection, content analysis, perioperative nursing.
P3-070 The Learning Effect of High-Fidelity Simulation of Arrhythmia Patient Care Course for Nurses

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Purpose: This study aimed to investigate the effect of high-fidelity simulation clinical nursing staff training course on recognition of arrhythmia nursing care and care skills of arrhythmia interpretation and management skills as well as satisfaction of learning.

Methods: A quasi-experimental design was conducted. N1 ~ N3 nurses in a medical center in Taipei were selected as the subjects. A total of 64 subjects were enrolled in this study. 32 subjects in the experimental group received a simulated simulation training course, and the other 32 subjects in the controlled group received a traditional class education. The research tools include: 1. cognitive tests for arrhythmia patients care 2. arrhythmia interpretation and self - evaluation of the management skills 3. the questionnaire for the satisfaction of learning. Before and after the intervention of the teaching course, both groups received pre-post test. Cognitive assessments were conducted after 4 weeks intervention. Statistical analysis was performed using SPSS 21.0 software package, including descriptive statistical analysis (frequency distribution, percentage, mean and standard deviation) and t tests, ANCOVA, Mann-Whitney test statistical methods.

Results: (1) After the intervention of the high simulation training course, the scores of cognitive tests for arrhythmia patients care in the experimental group were significantly higher than those in the control group (p< .05), and the difference was statistically significant in the group; (2) the post-test scores of both group about arrhythmia EKG interpretation and self - evaluation of the management skills was no statistically significant difference among the groups. There were statistically significant differences among the groups. The progress of the experimental group was 25.06% and 5.46% higher than the control group. (3) There were statistically significant differences in learning satisfaction scores between the two groups in the experimental group compared with the control group.

Implications for Practice: 1. Continuously promoting the high simulation simulation training courses in nursing education. 2. Enhancing the administrative support for teaching support. 3. Continuing the planning of professional module courses in various professional training courses.

Key Words: arrhythmia patient care, high-fidelity simulation training courses, learning atisfaction.

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**Purpose:** This study was intended to clarify the challenges and analyze the current situation before the establishment and introduction of a self-regulated learning support system.

**Methods:** Subjects: 75 nursing students (first-years); Target nursing skill: Measurement of blood pressure by auscultation; Survey period: Two weeks of out-of-class learning after attending the first lecture on vital signs (a compulsory module of 2 credits (60 h), 4 out of 30 lessons), undergoing the second and third seminars and group work the following week, and until skill assessment by a teacher during the fourth class the week after that; Survey items: Answers were obtained by self-administered questionnaire on durations and locations of practice outside of class hours, and methods of learning the knowledge and skills necessary to be able to perform blood pressure measurements. The question about methods of learning skills and knowledge was multiple-choice.

**Results:** Forty-eight questionnaires were recovered (recovery rate: 64.0%). The mean duration of practice was 68 ± 45.8 min and the majority of answers given were between ≥ 30 and < 60 min. The locations where students practiced out-of-class included “basic training rooms only,” which was the most common answer at 68.8%, and the percentage of students who practiced in basic training rooms for at least 90% of their practice hours was 85.4%. With regard to methods of learning knowledge, students were asked to select the three main methods that they used from a list of 11 different options, including “other”. The most common answer was “I read textbooks and reference books,” chosen by 95.2% of students. With regard to methods of learning skills, students were again asked to choose the three main methods that they used from among 13 different options, including “other”. The most common answer was “I took measurements in a classmate who acted as a patient,” chosen by 93.4%.

**Implications for Practice:** At A. University, each (90 min) is equivalent to 2 hours of learning. In other words, 30 min per lesson is counted as out-of-class learning. That is why the three sessions of out-of-class learning until skill assessment equals 90 min. The mean practice time was 68 min, which, viewed alone, is not at all short assuming that the amount of time spent on out-of-class learning related to lectures is 30 min. On the other hand, some students do hardly any practice, which indicates the possibility that current out-of-class learning is inadequate. It was shown that the majority of students utilize peer learning to acquire skills. In learning nursing skills in basic nursing education, students aim to support actual patients by employing the skills they have learned. That is why seminars are designed to be similar to clinical reality and students take turns to simulate nurses and patients. Practice-based experience may serve as a clue for determining out-of-class learning methods.

**Key Words:** self-regulated learning, out-of-class learning, basic nursing skills.
Study for Quantification of Nursing Competency From the Response Analysis of the Audiovisual Information by Nursing Students

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Purpose: In Japan, in 2005 five groups showed the practical ability to become the core of nursing brains by ‘Study Commission on Nursing Human Resources Development at University’. In evaluating these abilities, there have been issues such as excessive burden of faculty members and neglect of the observation power of students. Therefore, in this research, we aimed at obtaining ideas for quantifying the observation power and judgment power by audiovisual information.

Methods: Prior to the study, video was created as audiovisual information. The scenario of video had been designed to include three of the five groups of abilities. The length of the video was about 7 minutes and created a scene from the proposal of footbath of diabetic patients to implementation. The question was potentially embedded in this video. Students watched the video while taking a note. After the video was over, the students answered the good points and the bad points in the practice of the nurses as free description. The response time was 20 minutes. Data was scored individually according to the presence or absence of description with "communication" "protection of rights" "safety assurance" "disease management" included as an index. And in each grade we compared in a longitudinal way. We respected the voluntariness of participants in the survey. In addition, we received approval from the Ethics Review Committee of undergraduate.

Results: The subjects were 4 first grade students, 7 second grade students, 13 grade 3 students and 17 grade 4 grade students. As a result of comparing at the beginning and at the end of the grade, "protection of rights" showed a significant increase in the third grader (t = -2.98, p < .01). In "safety assurance", the score significantly increased in the 4th grade (t = -2.98, p < .01). "Disease management" significantly increased the average score in the 3rd (t = -2.98, p < .05) and 4th (t = -6.98, p < .001) graders.

Implications for Practice: As a result of comparing at the beginning and the end of the grade based on the four evaluation indices, the score got higher at the time of the end. There was a possibility that the first and second grade students had few participants and the tendency of individuals remarkably affected the results. In the 3rd and 4th graders the score of the 4th graders was high, but the similarity was observed in the transition of the score. This was presumed to be the result of have fixed level observation ability and judgmental power being from the third grade who experienced clinical training. It is inferred as not only that result reflecting the networking of knowledge by clinical practice, but also suggesting the possibility of quantifying ability such as observation and judgment. In the future, it is necessary to verify by increasing the number of subjects.

Key Words: nursing student, nursing competency, audiovisual information, educational evaluation.
Purpose:
On nursing education, to learn ‘aid-related technical skills’ is one of underlying nursing practice. Several previous researches show that education about ‘technical skills’ is aimed at acquiring not only technical learning but also the fundamental attitude as a career in the nurse. The fundamental attitude includes that nursing students master technical skills with interest and aggressively, or they develop a deep understanding of patients by experiencing in the character of nurses or patients.

Purpose: To clarify what effort is necessary to get nursing students to learn ‘aid-related technical skills’ in the stage of basic nursing education.

Methods:
We performed semi-structured interview for 10 nurses working at hospitals. They had nursing experiences for more than five years and involved in the management of student advising as well as fresh nursing education. We analyzed data from the interviews using a qualitative inductive approach. Namely, we coded interviews, sub-categorized dominant conceptions and finally categorized highest conceptions. The highest conceptions were classified into three domains of educational goal proposed by Bloom. L et al. Finally, we considered these conceptions and domains from the nursing and pedagogical point of view.

Results:
As for an interview guideline of “What is aid-related technical skills expected during the basic nursing education”, 15 sub-categories and five categories were extracted. Five categories consisted of 2 of cognitive domain including “To do in the image of clinical patients when in the times of school practice” and “To do nursing evolvement based on the evidence to date”; 1 of emotional domain including “To govern ourselves and to keep learning voluntarily”; and 2 of psychomotor domain including “To ensure a steady implementation of basic nursing technical skills” and “To do with an understanding of the value of nursing”.

Implications for Practice: To gain the ability to perform properly the aid-related technical skills, it is therefore essential to provide better education for nursing students bearing in mind the notion of cognitive, emotional and psychomotor domains. Specifically, we, educators, should provide education in which (1) the students have their sights set on patients, (2) the students can select an optimal approach to patients, and (3) the students can put in practice accurately.

Key Words: nursing education, aid-related technical skills, nursing student.
Purpose:
In Japan, based on the economic partnership agreement, we began accepting nurses in the republic of Indonesia 2008 and the republic of the Philippines 2009. Economic partnership agreement (EPA for short) nurses must acquire national nurse national qualifications in Japan for a three-year stay. However, the EPA foreign nurse who came to Japan has passed Japan's national exam qualification rate of around 10% and the hurdle of acquiring qualification is high. In this research, we aim to examine the problems and support for EPA nurse's national examination passing in Japan from the viewpoint of learning, working and daily life of EPA nurse.

Methods:
1. Research method, qualitative research by semi-structured interview method. 2. research subjects: 3 EPA nurses 3. coding, category analysis method, document the semi-structured interview contents so as not to change the semantic contents of the vocabulary, extract important contexts, integrate and structure the categories. 4. ethical consideration, approved by the survey cooperation agency with the approval of the nursing college ethics committee.

Results:
From the learning side <National examination measures are planned in the hospital> <Since I can self-learn at home, I am satisfied with Japanese aid and hospital support> <There are many places that incorporate the American curriculum > <There is a difference depending on the school> <Differences in national exams are not home nursing, differences in the structure of the social security system are disadvantageous> <Japanese is difficult to use technical terms, kanji, katakana> etc. < People in the patient and the workplace will port when you are in trouble.> <The role of the nurse is mainly supplementary work of the medical examination and the daily life assistance is done by the family> etc. From the everyday life side <The person in the workplace is very It teaches cooperative Japanese culture and lifestyle, and it also carries out consultation> and 18 other integrated categories were generated.

Implications for Practice:
EPA nurses were satisfied with learning support, work support, and daily life support by public and accepted hospitals. However, differences in the curriculum in basic nursing education, differences in the social security system and difficulty in Japanese are affecting the national exam. Terminology is used for technical examination and technical terms are used for long sentences in situation setting problems, so the difficulty of Japanese is the wall. Also, differences in nursing practice such as daily living assistance can be a factor that decreases the ability of basic nursing skills regarding daily life assistance. Therefore, it is necessary to provide educational support for improving Japanese proficiency and educational guidance focusing on factors of stagnation of EPA nurse's national exam.

Key Words:
economic partnership agreement, foreign nurse, national exam.
**P3-075**  
**The Discriminative Ability Certification Examination on the Role Abilities of Nurse Practitioners**  
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**Purpose:**  
The training of NPs in Taiwan is mainly a short-term (6 months) hospital training, which is different from the NPs trained through the higher education system in the European countries and the U.S. Although the NP certification examination in Taiwan is a national examination, the discriminative ability of the examination on the abilities of NPs is still uncertain, as due to the lack of empirical studies. The main objective of this study is to explore the discriminative ability of the nurse practitioner (NP) certification examination in Taiwan on the role abilities of NPs.

**Methods:**  
This study combined two large-scale databases concerning the studies on NPs. This study treated one NP from each of the hospitals in Taiwan with NP staffing, as well as all the NPs from a certain medical center that first established the NP training system in Taiwan, as the research subjects. The data collection period was from August 2007 to February 2008, and the “NP role ability” scale was used as the tool. As only 302 hospitals in Taiwan have established the NP system and only 178 of them returned the questionnaires, the retrieval rate was 58.9%. Moreover, there were 145 NPs in the medical center that established the NP training system, and 129 valid questionnaires were returned, with a return rate of 89%.

**Results:**  
The results revealed that there was no statistically significant difference in the overall score ($t = .02, p = .99$) or the average score of various sub-scales between licensed NPs ($N = 129$) and non-licensed ones ($N = 178$). The analysis on the passing of certification examination and average score of various clinical abilities of NPs found that in comparison to license NPs, those who did not pass the certification examination have better direct care capacity of using non-medicinal intervention to help patients recover, better medical assistance ability for assisting in various surgeries within the scope of licensed practice, and better leadership and reformation ability for developing cost-effective care plan, with a statistically significant difference. However, the licensed NPs have better leadership and reformation ability for participating in relevant associations. The research results showed that the NP certification examination in Taiwan does not have the discriminative ability on the role abilities of NPs.

**Implications for Practice:**  
This study conducted substantial analysis on whether the NP certification examination has a discriminative ability on the role abilities of NPs. The research results can serve as a reference for the countries that adopt short-term NP training programs. The reliability and validity of the NP role ability scale used in this study are satisfactory, thus, can serve as a reference for other countries that intend to develop NP role ability scale in the future.

**Key Words:**  
discriminative ability, role abilities of nurse practitioner, nurse practitioner certification examination.
P3-076 Obstetrics Nursing Ability and Coping Behavior in Clinical Learning of Nursing College Students
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Purpose: This study purpose for obstetrics nursing ability and coping behavior in clinical practice of nursing college students.

Methods: Select a college student in taiwan for the study, approach sampling, Data collection to saturation, received a total of 30 cases, self-designed semi-structured questionnaire for the obstetric nursing student nursing capacity scale as a research tool, qualitative and quantitative data analysis.

Results: Students self evaluation obstetric care in postpartum care and postpartum evaluation can implement 80%, cesarean section care can implement 70%. Helps maternal breastfeeding and postpartum education, rooming in care can implement 60%, about 40%high-risk maternal care is seldom done. only identify nursing problems · care plan evaluation ability, literature verification can implement 30%. qualitative data : (1)Obstetric lack of experience do not know how to do it. (2)Without any idea to helps maternal breastfeeding. (3)Do not know why the reason can,t respond immediately. (4)Lack of knowledge want to learn more. (5)More practice can help maternal self-care.

Implications for Practice: This study can provide to develop further school nursing educational and improve the quality of nursing college students clinical obstetrics practice.

Key Words: Obstetrics nursing ability, coping behavior, nursing college student.
The Effectiveness of 「Evidence-Based Nursing (EBN)-Literature Retrieval and Empirical Study Report」Workshop on Its Related Attitude, and Skill Ability

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Purpose: Evidence-based practice has been demonstrated to improve quality of care, increase patients’ satisfaction, and reduce the costs of medical care. Therefore, evidence-based practice is now central to the clinical decision-making process and to achieving better quality of care. This study explored whether the attitude and skills of nursing staff self-evaluation were different between before and after the intervention of six courses of the practical reading report workshop.

Methods: This research for the single unit around measured the design, adopts north the convenience sample selection some region teaching hospital to accept 「Evidence-Based Nursing (EBN)-Literature Retrieval and Empirical Study Report」workshop official rank of n nursing staff the labor workshop is an object, altogether accepts a case 40. The study included self-designed empirical attitudes and skills questionnaire. Questionnaires were distributed through the reliability test, and the nurse was assessed by linker 5.

Results: The study found that nurses, after attending the workshop, had a slight increase in attitudes or skills to nursing attitudes. After participating in the workshop, nursing attitudes for nursing evidence from an average of 3.76 points rose to 4.33 points, including nursing staff will seek professional growth from the 3.83 points rose to 4.30 points. While in the nursing skills section from 3.30 points to 4.02 points, which use the keyword search literature part of the highest self-promotion from 3.35 points to 4.16 points, but in the future to complete the reading part of the independent report from the lowest 3.35 points to 3.84 points. Interestingly, nursing students were willing to take nursing courses after the relevant evidence-related training courses were 30 accounted for 75.0%, indicating that about 25.0% of nurses involved in reluctance to accept the relevant training courses.

Implications for Practice: In order to promote the trend of evidence-based practice, in nursing education, the organization can continue to promote the cohesion of the nursing staff by empirical study. Order courses to achieve the integration into the daily care, improve the quality of care.

Key Words: evidence-based practice, literature retrieval, evidence-based nursing, evidence-based practice workshop, nursing education, attitude.
Taiwanese Nursing Students’ Knowledge and Expectation About the Content of Pediatric Nursing Course in a Two-Years Nursing College Program and Associated Factors

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Purpose:
The two-year nursing college program was developed in Taiwan, which helps the students graduated from a five-year junior nursing college to get a bachelor degree in nursing in two-year. To avoid repeating learning content, and to learn useful nursing knowledge for clinical pediatric nursing practice, the course design of pediatric nursing is very important. However, there is little evidence-based research about this course design in previous study. The purposes of this study were: 1) to examine the students’ knowledge and expectation about the content of pediatric nursing course in a two-year nursing college program in Taiwan; and 2) to explore the factors which influence the students’ knowledge and expectation about the content of pediatric nursing course.

Methods:
A correlational study was conducted. A nonprobability sample of 102 two-year nursing college students was recruited from a technology university located in southern Taiwan. All participants completed the consent forms and the questionnaires. A demographic questionnaire and the questionnaire of the knowledge and expectation about the content of pediatric nursing course were used to collect data. Data were analyzed by descriptive statistical techniques, ANOVA and Pearson’s correlations.

Results:
The findings showed that student participants got higher scores in the knowledge about body system (mean score = 3.26) than the knowledge about nursing process (mean score = 2.76), and the knowledge about nursing concepts (mean score = 1.81). Moreover, student participants showed higher expectation to learn the knowledge about nursing process (mean score = 3.86) than the knowledge about nursing concepts (mean score = 3.11), and the knowledge about body system (mean score = 2.32). The years after graduation from five-year junior college were negatively and significantly related to the score of knowledge about body system, nursing process, and nursing concepts. The years of students’ working experience were positively and significantly related to the score of expectation to learn the knowledge about nursing process.

Implications for Practice: The results showed the students’ knowledge level and expectation about the content of pediatric nursing course. The findings can be used in the future to make a better design of pediatric nursing course in a two-year nursing college program to meet students’ expectation and to enhance the knowledge of pediatric nursing for clinical practice. The evidence-based research method for course design can be utilized in other countries to develop appropriate course content for a new course.

Key Words: pediatric nursing course, two-year nursing college program, Taiwanese nursing students.
P3-079 The Effect of a Situation Simulation Education on Improving the First Aid Skills of New Nurses
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**Purpose:** Resuscitation is a job task because it requires collaboration with physicians and other professionals, so it should standardize the resuscitation process. New nurses describe the most difficult is learning first aid skills. This study aims to explore the effects on enhancing first aid skills of new nurses after situation simulation test.

**Methods:** This study used an quasi-experimental design and an nonequivalent control group posttest design. The target population are new nurses of working after three months at a municipal hospital in new taipei city, taiwan. The experimental group received clinical situation simulation education for first aid. The control group received traditional education. Both groups received a first aid skills results were analyzed using SPSS 23.0 for windows software.

**Results:** A t-test showed significant increases in first aid skills ($p< .05$) between-group differences ($p< .05$) in first aid skills following the education intervention.

**Implications for Practice:** Simulation teaching is developed to similar situations of the clinical practice, to provide learners repeated practice skills and clinical assessment, or meet a critical, severe condition to make an effective decision. Studies have shown that simulations create a realistic and interactive learning atmosphere that facilitates student learning in safe and controlled environment. By actively participating in simulation activities, which culminate with a debriefing, students can repeatedly practice their nursing, communication, and critical thinking skills with the guidance of a facilitator.

**Key Words:** situation simulation education, first aid skills, nurses.
Purpose: Cardiopulmonary resuscitation (CPR) is a common and emergent medical intervention. For fresh nursing staff, it is quite a complex and stressful task. Clinically, resuscitation is unavoidable, though. That the newly-enrolled nurse was stuck in a mess has been a usual scenario in the emergency room. This not only results in the accumulation of frustration and despair, but also leads to more and more loss of working companions. Therefore, we suggested education in stepwise and so-called “Flipped learning,” trying to do some difference to improve the ever-being frustrating situation.

Methods: Characters in CPR were classified into four category: 1) Airway team: in response of airway maintenance, suction, and preparation for advanced airway intervention, 2) Breathing team: in response of ambu-bagging, 3) Circulation team: in response of chest compression, and 4) Drug team: in response of drug administration and related records. Responsibilities of each category were listed in a word file, while detailed skills in a power-point file. Related information was sent to e-mails of fresh staff and responsive supervisors, and was also easily available in online learning resource (e-learning). We distributed fresh nursing staff, who was referred to be enrolled within 6 months, to these four groups. Skills for each character were put emphasis on as the distribution. Characters were not changed until the staff has been in response for the same work for at least three times. Supervisors would perform DOPS as quality evaluation for each CPR as scheduled.

Results: From october, 2015 until november, 2016, stepwise flipped education was applied to totally twelve fresh nursing staff, with notably elevated DOPS from 3/9 to 8-9/9 in average. Satisfaction in CPR learning was evaluated in scales and the cheerful result showed a total satisfaction rate of 90%.

Implications for Practice: CPR was an unavoidable medical intervention which was usually in an extreme emergency and beyond expectation, especially for fresh staff. This provokes not only a huge challenge in learning, but also a tough task in teaching. Application of stepwise flipped education in CPR not only provides mutual materials in teaching and learning, but also inspired the discussion among companions, which effectively linked the teaching and learning together. This experience tells us that there are still a lot to do and more efforts could be made for effective learning in such stress. Similar application may be performed in other fields in the future.

Key Words: CPR, flipped learning, fresh staff.
P3-081 Introduction and Trials of Active Learning Method Using ICE Model for Students of Hiroshima Bunka Gakuen University- A Case Studies of Reverse Lecture by the Students

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Purpose: The ICE model is one of the teaching methods which Sue Young, a professor of the Queen's University, Canada, proposed and developed. “I” of ICE is ideas, and collecting and carrying out assessment of required knowledge and information is even included. “C” is connections and integration of relation between knowledge and the collected information. “E” means extensions for application to realize practice, which integrated idea can be shown to the others or can be practiced to the others as an education technique. We reported here the evaluation results on case studies of the model application to the reverse lecture by students who took an elective subject "science theory" for the first graders and for a third grader's specialized subject "epidemiology".

Methods: In the first graders (12 persons), the subject of "the feed system of oxygen" and the "digestive system of foods" was given to three groups constituted 4 students, and the reverse lecture by the students was performed. On the other hand, 3rd graders (140) were divided into 6 groups which consist of randomly selected 22 to 28 students. At the prior lecture, the simulation case story on adolescent/adult epidemics of the measles amongst university in Japan was introduced and the following task subjects were given to them; (1) the adolescent/adult cases and the efficacy of the vaccination in Japan, (2) the control measures of the disease in university administrations, and (3) problems on measles control in global health. The 3 groups in their duty and presenters of the reverse lecture specified at random just before starting the lecture. Structured assessment sheet was also distributed to all the students in advance for evaluation of each lecture and his/her own participation and contribution. The lecture evaluation of each group and the self-evaluation in connection with lecture participation were filled in the sheet on ascending point score of 1 to 5 during the lecture performance. The score totaled as frequency distribution and visualized to compare 2 time trials. The lecture performance time was limited to 20 minutes, and the preparation period for the lecture was assigned two weeks at both grader groups.

Results: From the active lectures of the students, they noticed themselves that the digestive system the respiratory systems are the energy flows in the cell system, and the cardiovascular system which they learned in "human body structure and its function study" another subject of our curricula, working systematically in conjunction with each other were elucidated. In the third graders, in the evaluations regarding the illustrative techniques, the difference between the first time and the 2nd time trial was not observed. However, about the contents of the presentations, evaluation score of the first time trial groups was high. On the other hand, although the evaluation of the values of hours for their study decreased, the achievement degree, motivation, interest, effectiveness of the learning increased at the second time trial.

Implications for Practice: Hence, the method was suggested to affect the active learning of the students.
**Key Words:** ICE model.
Using a Data Mining Approach to Explore the Quality of Records in a Nursing Process Record System: Examples of Electronic Nursing Records for Internal Medicine Patients

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Purpose:
Recently, most nursing records in Taiwan have been computerized, but the quality of electronic nursing records has rarely been discussed. This research involved employing a data mining approach to evaluate the quality of nursing records by exploring the application of nursing staff recording system-formulated and nurse-formulated nursing events.

Methods:
This cross-sectional retrospective study was conducted at a 2,300-bed medical center in Taiwan. A total of 235,798 electronic nursing records for 6,277 patients discharged from the department of Internal medicine between January and June in 2014 were selected through purposive sampling as the research sample. SAS Enterprise Guide 6.1 was employed to analyze the structural data of system-formulated nursing events, and SAS text miner was employed to analyze the unstructured data of nurse-formulated nursing events. The efficiency of text mining based on a benchmark established by nursing experts was compared with that of text mining performed using SAS text miner in order to establish the sensitivity, specificity, and accuracy of SAS. In addition, we analyzed the relationship between nurse-formulated nursing events and system-formulated nursing events to provide a reference for evaluating nursing process record systems in the future.

Results:
The results of this research show that (a) more nurses reported system-formulated nursing events (88.40%) than nurse-formulated nursing events (11.60%). (b) “routine nursing round,” “follow-up events,” “admission nursing,” “fever,” and “start of chemotherapy” were used most frequently in system-formulated nursing events, whereas “wound care,” “discharge nursing,” “pain,” “catheter care,” and “blood transfusion” were used the most frequently in nurse-formulated nursing events. (c) In the text data mining of nurse-formulated nursing events, the sensitivity of SAS text Miner in the training (testing) data set was approximately 0.96 (0.94), and the specificity and accuracy were 0.99 (0.99). (d) There was an 8.08% similarity between the nurse-formulated nursing events and system-formulated nursing events, and 29.72% of appropriately worded nurse-formulated nursing events were considered to have been added to the system-formulated nursing events. Therefore, the data-mining results could be considered a reference for updating nursing process record systems.

Implications for Practice: The results of this research can be applied as teaching materials for writing nursing records and as a model for auditing the quality of nursing records at the research hospitals. We recommend that hospitals apply SAS text miner as a tool to
facilitate auditing nursing record quality in the future. In addition, applying the proposed research data-mining model to auditing unstructured electronic nursing records may enhance the quality of electronic nursing records and facilitate implementing nursing records information systems.

**Key Words:** nursing record, record quality, data mining, text mining.
Purpose: Objective of study to compare risk factors between cvds and cerebrovascular diseases.

Methods: A cross-sectional study was conducted to compare the risk factors of patients between cvds and cerebrovascular diseases during 2009-2015. In two groups of 346 patients, there were 156 cvds and 190 cerebrovascular diseases’ patients. Inclusion criteria included 40-70 years old from family folder of ncd database and hosxp database of trang province using thai cvrisk score. The comparisons of risk factors were using Pearson chi-square and Fisher’s exact test.

Results: There were no significant differences in risk factors between cvds and cerebrovascular diseases. Mostly they were men with 58 years old on average who were non-smokers and waist circumference ≥ height/2. There were mostly no underlying diseases and had systolic blood pressure (sbp)<140mmHg on average(average sbp measured by 2 times x 2 intervals of at least 1 week) with blood cholesterol level<200mgdl and thaicvrisk score<10% (low risk). There were significantly risks more cerebrovascular diseases than cvds among patients who had high blood pressure ≥140mmHg on average and blood cholesterol level≥200mgdl(p< .001).

Implications for Practice: There were no different risk factors between cvds and cerebrovascular diseases, including sex, age, smoking, waist circumstance, diabetes and hypertension for patients who had sbp<140mmHg and blood cholesterol level<200mgdl. However, there were significantly differences for cerebrovascular disease more than cvds patients who had sbp≥140mmHg and blood cholesterol level≥200mgdl(p= 0.003). After intervention program for behavioral modification among intensive patients who could not control their hypertension and blood pressure, the incidence and mortality rate of cvds and cerebrovascular had dramatically decreasing.

Key Words: risk factors, cardiovascular disease, cerebrovascular disease.
The Effect of “Electronic Inform Consent” in Nursing Work

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Purpose: Purpose of this study is to understand the effect of “Electronic Inform Consent” project.

Methods: Designed by quasi-experimental. From August to December 2016, applied during outpatient and hospitalization to help patients conveniently and securely complete the electronic consent signature, including electronic signature table, consistency electronic file format, uniform signature field, improve signature recognition, increase signature security, stored in the same database. We collected the patients satisfaction, use rate. The outcome was analyzed by spss16.0.

Results: The results showed that: (1) used rate in outpatient was 97.7% (n=972) and inpatient was 92.3% (n=1089). (2) form patients showed that: average age is 49.7 y/o (n=150, SD12.2), male 42.7% average 48.8 y/o, female 57.3% average 52.8 y/o; 58.7% felt helpful with electronic Inform consent but 0.67% didn’t; 64.0% was satisfied for electronic inform consent service but 2.0% didn’t, 63.3% was felt security but 1.3% didn’t, 64.7% thought can save more time but 5.3% didn’t, 68.0% felt helpful to decrease paper waste but 11.3% didn’t. (3) form nurses showed that: average age is 40.3 y/o (n=46, SD 10.6), male 6.5% average 28.9 y/o, female 93.5% average 43.8 y/o; 34.8% felt helpful with electronic inform consent but 4.4% didn’t, 78.2% was satisfied for electronic inform consent procedure but 10.9% didn’t, 76.1% was felt security but 2.1% didn’t; 54.4% thought can save more time but 13.1% didn’t; 93.5% felt helpful to decrease paper waste but 2.2% didn’t. (4) form doctors showed that: average age is 52.3 y/o (n=6, SD 4.3), all male; 66.7% felt helpful with electronic Info consent but 0% didn’t; 66.7% was satisfied for electronic inform consent procedure but 0% didn’t; 50.0% was felt security but 0% didn’t; 66.7% thought can save more time but 0% didn’t; 100% felt helpful to decrease paper waste. Noteworthy that 32.3% of nurses did not clearly express their views on the change of electronic inform consent project.

Implications for Practice: Through the “Electronic Inform Consent” project could help clinical managers provide a more effective, eligible, timing, comprehensive, and patient-centered information-integrated structure electronic inform consent that can be shared to other hospitals and realize the era of paperless medical records in Taiwan.

Key Words: electronic medical record(EMR), paperless, consent, electronic inform.
Purpose: This study determined the current situations of patients with end-stage renal failure receiving hospice palliative care by analyzing end-stage renal failure data from nursing information.

Methods: This study was a retrospective analysis of nursing information. Eligible patients were filtered by comparing end-stage renal failure data and the registered files of shared hospice care. Samples were collected from October 2012 to October 2015, and descriptive statistical analysis was performed.

Results: Of the 354 patients with end-stage renal failure investigated in this study, 34 died during the research period. Moreover, 94.12% of the patients who passed away (32/34) were aware of their end-stage renal failure. Of the 34 patients who died, only 4 (11.43%) had received shared hospice care services before their death, showing that such care was relatively uncommon among patients with end-stage renal failure.

Implications for Practice: Patients with end-stage renal failure are eligible for hospice and palliative care. In addition to age, sex, and disease prevalence, patient intention should also be considered in the provision of such care. Therefore, to promote hospice and palliative care among patients with end-stage renal failure, related campaigns should target these patients. In addition, the care and execution levels of professional healthcare teams regarding hospice and palliative care promotion should be elevated to facilitate implementing a comfortable and dignified end-of-life process.

Key Words: nursing information, end-stage renal failure, hospice and palliative care, comfortable and dignified end-of-life process.
P3-086  Effect of Ointment on Infant Diaper Dermatitis: A Systematic Review

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Purpose: The occurrence of diaper dermatitis due to long-term skin contact with urine and feces cause the buttocks, genitals, anus and other skin inflammation. In infants and young children have a 25% -50% rate of predilection. In the early stages of diaper dermatitis if not in good care, there are 6% of the opportunity to cause severe rashes, and even cause candida infection. Therefore, this interventional ointment treatment of diaper dermatitis results do a systematic review.

Methods: Search from June 2005 to November 2016 MEDLIND, proquest, pubmed and other seven chinese and english databases for systematic review of the literature. The search for "iInfants and young children" "ointment" and "diaper dermatitis" as the keyword. Randomized controlled trials mining on controlled reports. Document retrieval process by the two authors on database characteristics and rigorous search strategy to gradually retrieve relevant documents. According to oxford journal in 2011 which raised the level of evidence to judge the article level, nine research reports were screened out. In line with the study sample of this article.

Results: Nine studies found that the composition contains (1) aloe, calendula, henna and other natural plants;(2) hydrocortisone1% (3) human milk (4) magnesium2% (5) 5%dexpanthenoland 5%Zinc oxide (6) miconazole ntrate 0.25% (7) imazol ointment intervention on diaper dermatitis treatment has a significant effect. In fungal skin infection caused by the severe diaper dermatitis henna, hydrocortisone 1%, magnesium 2%, 0.25% miconazole ntrate and Imazol put forward its therapeutic effect. Ointment intervention may be due to the use of ointment type, research tools, the number of samples and intervention time affect the results of the study, it can not be integrated analysis, as the literature review of the restrictions.

Implications for Practice: Infants and young children on long diapers use, there is a chance of excrement dipping without immediate replacement or increase the number of excretion caused diaper dermatitis, inflammation of the skin not only causes physical discomfort and crying infants, but also the lack of parental care. When the diaper dermatitis occurs early ointment interventional measures can improve inflammation and reduce severity. Rowe, mccall and kent (2008) showing daily skin protection can use a lower grade of empirical vaseline can prevent the occurrence of diaper dermatitis. The results of this paper may provide information on ointment intervention in the occurrence of diaper dermatitis, help clinical nurses to learn about infant diaper dermatitis care measures, and to develop preventive intervention ointment applications. Nursing staff can improve the importance of diaper dermatitis and increase the quality of clinical care.

Key Words: diaper dermatitis, ointment, infants and young children, systematic literature review.
P3-087 Effects of an E-Health Program to Improve Learning and Learner Satisfaction of Undergraduate Nursing Students: A Preliminary Study
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Purpose: In recent decades, nursing education has innovation models to current methods using information and communication technologies (ICT). E-learning was used increasingly in healthcare professionals' education of network technologies to improve effective in enhancing student-learning outcomes and satisfaction. The purpose of this study was to investigate the effectiveness of e-learning in enhancing health care learning and satisfaction of undergraduate nursing students in kaohsiung, in taiwan.

Methods: In this preliminary study, forty-one undergraduate students were enrolled in a 4-week e-leaning program of e-health and promotion care in nursing. All students received the interventions was two-three times a week, at least thirty minutes each time. The e-leaning programs included the cardiovascular hypertension, diabetes mellitus, asthma, menopause, stress management, internet addiction and emotional support, etc. Evaluate the improvement outcomes by the satisfaction of e-learning questionnaire. The SPSS 22.0 software package for windows was used for data analysis.

Results: The results showed that students average age was 19.24±0.49 years. The males were 29% (n=12), and females were 71% (n=29). After the interventions, there were showed high satisfaction of this web-site (91%, n=37). The satisfaction of the content in useful were 87% (n=36), and practical were 90%(n=37). And satisfaction in overall of e-leaning programs was also showed high degree (88%, n=36). They can be an excellent learn to understand the issues related to stress (56%, n=23), internet addiction (32%, n=13), and diabetes mellitus (12%, n=12). Furthermore,3 people who want to know the release stress techniques on this web-site.

Implications for Practice: There was improvement the self-learning and learn- satisfaction in this study. Further research is needed, to determine the e-learning programs how to enhance the effectiveness of student’s self-efficacy and effect on quality of nursing care and patient education. Further researches are necessary with increasing the number of students and video-viewing frequency may affect the learning outcomes.

Key Words: self-learning, learn-satisfaction, cardiovascular hypertension, diabetes mellitus, asthma, menopause, stress.
P3-088 The Study of the Relationship Between Nurses’ Work Values and Intention to Stay

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Purpose: The aimed of this study was to examine the relationship between nurses’ work values and intention to stay.

Methods: A cross-sectional and descriptive correlational design was utilized. The sampling frame for this study was employed nurses working at a regional teaching hospital in Tainan. The collected data was processed by the software package SPSS 20.0 for windows, and several statistical analyses, such as independent t-test, one-way ANOVA, pearson correlation coefficient, and linear regression, were performed.

Results: The study revealed that work values were positively correlated with intention to stay (=+0.490); the relationship between job satisfaction and intention to stay reached statistical significance. Factors influencing nurses’ intention to stay varied according to different unit type. The factors influencing intention to stay of nurses working in emergency room and intensive care unit were associated with job satisfaction, sense of accomplishment and reputation; the factors with general ward were associated with job satisfaction.

Implications for Practice: The results of this study could not only provide hospital administrator with different strategies, to be references for nursing management and clinical practice, but also keep staff nurses satisfied and on the job.

Key Words: nurses, work values, intention to stay.
To Discuss the Feasibility of Benchmarking Knowledge Management on Oncology Case Management

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Purpose:
By using the information management system as the quality index in oncology case management to enhance the efficiency of case management and the work performance of manager. Simplify the working process and systematize the quality control process.

Methods:
This study is executed in one medical center located in north area. Twelve oncology-case managers serves as the system planners with professional medical background and provide the patient consulting service for 3,200 cases per year. The process of building benchmarking knowledge management (BIKM) can be divided into two main steps. Firstly, the optimal information management factors should be selected out base on preliminary analysis result and needs evaluation including the extent of convenience, integration and distribution. Secondly, the classification and coding system are constructed by three indexes in terms of expandability, management efficacy and accessibility. The educational training and outcome measurement will follow the management system well constructed.

Results:
BIKM can improve the working efficiency by the less time-consuming and reduce the repeating graph making. The figure shows that it can shorten the reporting process and achieve the goal of simplification. After one year testing, the users are satisfied with the way of system usage and the illustration display. Moreover, it can also provide users with the information of the index rate change and achievement ratio in different time period (figure 2). Once the collected systematic data continually accumulate and helps the database building, it could also be analyzed and exploited for further research purpose. Table 1. The comparison cart of BIKM and EXCEL figure 1. Visual display figure 2. Different indexes comparison

Implications for Practice:
1. Various visual displays such as line chart, bar chart and pie chart can clearly present the outliers of indexes and tendency, which can also facilitate the users to do the performance management and further application and it also save the time on the repeating chart processing. 2. Benchmarking knowledge management provides both immediate and coincident data for different users at the same time. The supervisors and managers can exchange opinions through this system. The more faster and transparency information communication also increases the monitoring efficiency.

Key Words:
oncology case management, benchmarking knowledge management (BIKM).
P3-090 Student Nurses’ Perceptions Toward the Use of e-Portfolios on the Practicum Course
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Purpose: E-portfolio is designed as an assisted tool to integrate cognitive, psychomotor and affective skills on teaching and learning process. It has been applied on nursing education to focus on individualized study styles, reflection and self-management of learning outcomes. Based on the technology acceptance model 2 (TAM2), e-portfolio could be used by students due to its ease of use, usefulness and social influences to enhance their practicum experiences. Therefore, this study explored the needs and perception of student nurses’ perceptions toward the use of e-portfolio in Last Mile practicum course.

Methods: Data was collected from March to July 2013. Five focus groups were used to research students’ experiences or perceptions toward the use of e-portfolios on their Last Mile practicum course. The interview guides are as the following: 1) If you could use e-portfolio in your clinical learning, what would be your functional requirements for this platform? 2) How do you expect the use of e-portfolio to impact your learning method? 3) What issues concern you regarding the use of e-portfolio?

Results: Four research themes emerged as follows: expected high quality of learning results, accessible data upload and transmission, technology with multi-functions to meet user requirements, and informed learning criteria and usage regulations.

Implications for Practice: The use of e-portfolio is supposed to integrate nursing knowledge and skills on practicum experience to enhance students’ nursing profession. Students expected the use of e-portfolios assist them to meet with the course criteria of practicum competence, therefore their incentive to use this technology on practicum learning could be enhanced. Nursing schools should use the benefits of e-portfolio in course design and outcome evaluation to increase students’ learning in clinical competence and nursing profession.

Key Words: e-portfolio, last mile practicum course, tam2, student nurses.
P3-091 The Gender Connotations in the Practice of Domestic Violence Prevention Act: An Analysis of Nursing Perspectives in the Context of Multi-Disciplinary Anti-Violence Network

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Purpose: Since domestic violence prevention act (DVPA) has been implemented in 1998, those who were hurt by intimate partners were obligated to explore their privacy. Although they received protections and services, their own autonomy could be infringed. Their home affairs were translated into numbers and records. This research aims to explore the policy of reward and punishment, and the gender issues of the dvpa in nursing practice in the contexts of social workers, police and health professionals. The study examines how they faced the difficulties as working with the cases, what are the gendered implications involved. And the research was targeted to explore the real cases of dvpa via the interactions among multi-disciplinary professionals, so that we can have a deeper understanding of how their professional practice, gender awareness, human resource and training are constructed.

Methods: The research was conducted by in-depth interviews of the front-line primary workers, as well as case studies of dvpa. There were fourteen interviewees, including five social workers, three doctors, two nurses, three family violence prevention officers and one woman and child team security officer. Being the front-line workers, his or her attitudes and behaviors towards law enforcement and protection services were truly important as that gender sensitivity and value judgement would affect the practice of policy.

Results: The research discovered the complexity of structural factors and its application procedures of the dvpa, and that might affect the practice of the primary workers and caused oppression to the victims. The research tried to use multidimensional views and experiences to discuss how these primary workers to be “seen” under such complex structural constrain. These structural complexed viewpoints also made us understand what are gender issues involved in the practice of dvpa.

Implications for Practice: Various kinds of domestic violence have taken place nowadays. dvpa should not only focus on the cases that husbands abuse wives. We shouldn’t ignore the abused husbands and lgbt. The heterosexual stereotypes and prejudices actually have limited the visions of dvpa primary workers. It should be addressed more on the professional skills as well as awareness of gender, valuing the voice of the primary workers when we promote prevention and intervention of dvpa in the future. Thus the results of this research would provide a new gender perspective for the practice of dvpa.

Key Words: domestic violence prevention act, intimacy violence, gender, nursing.
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This dataset was compiled by the organizers of the APNRC 2017 conference. It includes a list of participants and their associated details. The primary text language is English.
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