Participants in the aware and unaware groups wore the device for 3 days. Data analysis was conducted using SAS software version 9.4.

**Results:** One hundred and twenty five Thai participants with diabetes ages ranged from 39 to 75 years old were included in this analysis. The majority was female (n = 86, 69%) and married (n = 103, 82%). The number of steps taken for both aware and unaware group was positively associated with their physical functions (r = 0.225, p = 0.041) and their body pain (r = 0.300, p = 0.0059). No significant differences of self-care behaviors were found among the three groups. The number of steps in both groups was not significantly different.

**Conclusion:** The wearable assessment device was feasible and results of steps taken was associated with better physical function and pain, but not determined by awareness of their steps taken. While the device had no significant impact on exercise more information is needed on the usefulness of this information and its relationship to pain and how it can be utilized to enhance physical activity.

Correspondence should be addressed to Jillian Inouye; jillian.inouye@unlv.edu

**Spiritual Health among Relatives of Critically Ill Patients**

S. Jaiwongpab, P. Soivong, S. Sittisombut and M. Somrarnyart
Faculty of Nursing, Chiang Mai University, Thailand

**Background:** Critical illness is a life-threatening event that affects both the patients and their relatives. Critical illness can cause physical, mental, social, and spiritual problems. If the relatives are in good spiritual health, they can participate in the care for patients and help patients pass away with peace and dignity.

**Objective:** This study aimed to explore the spiritual health among the relatives of critically ill patients.

**Methods:** This descriptive research to explore the spiritual health among the relatives of critically ill patients admitted to the intensive care unit in Lamphun Hospital during November 2014 to February 2015. Two hundred and eighty three participants were purposively selected. The research instrument was the Spiritual Health Measure which was modified from the Spiritual Health and Life-Orientation Measure (Fisher, 2010). The content validity index and reliability was tested before collecting data. Data were analyzed using descriptive statistics.

**Results:** Participants’ overall perception of giving importance of meaning and purpose of life were at the highest level (X = 3.83, S.D. = 0.73) and the lived experiences in meaning and purpose of life were at moderate levels (X = 2.62, S.D. = 0.62); the spirituality was at distress level (mean scores = 2.01); and the need from health service to maintain spiritual health was at the highest level (X = 3.83, S.D. = 0.73)

**Conclusion:** This finding of this study confirms Fisher's spiritual health concepts (Fisher, 1998) that spiritual health is the dissonance between perception or giving importance of meaning and purpose of life and the lived experiences in the meaning of life and the purpose of life. These related to each of the four dimensions, including self-dimension, others dimension, environment dimension, and transcendent dimension. Future research should explore factors related to spiritual health as well as nursing interventions for enhancing spiritual health among relatives of critically ill patients.

Correspondence should be addressed to Sangaroon Jaiwongpab; s.jaiwongpab@gmail.com

**Comparing the Effects of Cryotherapy Use and non-use on Post-Operative Pain in Patients with Broken Bones**

B. Jantarachart,1 T. Singchalerm,1 J. Pungtong,1 A. Sumachareun,1 P. Loahawee,1 Chanakam Pompatkun2 and P. Wongtriratanachai2
1Nursing Division, Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University, Thailand, 2Faculty of Medicine, Chiang Mai University, Thailand

**Background:** Post-operative pain management is a very complex process and very difficult to deal with. Post-operative pain in orthopedic patients has a significant effect on patient recovery. These patients have moderate to severe pain depending on many factors. Some patients have inflammation and skin necrosis at the surgical wound, which leads to negative outcomes of the treatment. Prevention and effective acute pain management can improve clinical outcomes, prevent clinical complications, reduce health care cost, and improve quality of care.

**Objective:** This intervention study aimed to compare the effect of cold compression on post-operative pain in orthopedic patients.

**Methods:** The study samples were randomly assigned into either a control or an experimental group, with thirty in each. The samples in the control group received conventional post-operative nursing care, whereas those in the experimental group received conventional nursing care plus cold compression. The intervention consisted of receiving cold compression for twenty minutes and a pause for one hour continuing for 48 hours, except for six hours at night. Pain scores were used to evaluate post-operative pain at the patients’ arrival and every four hours, continuing for 48 hours. The patients’s satisfaction was assessed before and after the intervention using the Satisfaction Questionnaire (Fisher, 2010).

**Results:** The results revealed that the patients who received cold compression had less pain score, inflammation, swelling and skin necrosis than those patients who did not receive cold compression. It was statistically significant at levels 0.04, 0.001, 0.01 and 0.05, respectively. The patients’ satisfaction was not different between two groups.
Abstracts

**Conclusion:** The findings showed that applying cold compression had positive effects on orthopedic nursing care in the patients receiving internal fixation surgery. It could reduce pain, inflammation, swelling, and prevent skin necrosis of surgical wounds.

Correspondence should be addressed to Buppha Jantaracharut; bjantara911@gmail.com

**Work Climate and Turnover Intention among Nurses in Tertiary Level Hospitals, Republic of The Gambia**

F. Jaw, T. Akkadechanunt and O. Wichaikhum
*Faculty of Nursing, Chiang Mai University, Thailand*

**Background:** High turnover rate among nurses is regarded as a big problem leading to a shortage which does not only affects the quality of patient care but also affects the cost of recruitment and training new staff. Actual turnover is predicted by turnover intention and employee intention mark the most immediate motivator of task performance and an individual's choice of behavior is influenced by their intentions. From the literature review, work climate is the highest predictor of turnover intention and there are challenging situations faced by nurses regarding their work climate and turnover intention levels in The Gambia.

**Objective:** To examine work climate and turnover intention among nurses in the tertiary level hospitals and explore the relationship between work climate and turnover intention among nurses in tertiary level hospitals in the Republic of The Gambia.

**Methods:** A descriptive correlation research design was used to examine the level of work climate and turnover intention and identify their relationship among nurses in the six tertiary hospital in the Republic of The Gambia. Sample size was 224 and participants were selected by simple random sampling from 11 departments with a response rate of 89.73%. Research instruments used in this study were the demographic data form, CRISO Psychological Climate Questionnaire and turnover intention scale. Reliability of the CRISO Psychological Climate Questionnaire was 0.92 and the turnover intention scale was 0.80. Data were analyzed using descriptive statistics and Pearson correlation analysis.

**Results:** The level of overall work climate was favorable and the overall level of turnover intention at high level. There was a significant negative relationship between overall and each dimension of work climate and overall turnover intention.

**Conclusions:** A recommendation is made to study other factors related to work climate and turnover intention, such as payment, gender, education level, and work department.

Correspondence should be addressed to Fanta Secka Jaw; seckafanta@gmail.com

**Preparing New Nurses for Practice-Focus Areas**

G. Johnson
*Nursing, Evergreen Valley College, San Jose, California, USA*

**Background:** Original study that examined senior nursing student awareness of an Acuity Measurement tool. Study examined nursing student knowledge of patients who are more acute and potentially decompensating. Adds information to need for Rapid Response Teams, areas to focus in nursing education and strengths in student's learning.

**Objective:** Develop awareness of Early Warning Screening Tools as education tool for student nurses and novice nurses. Identify need for early recognition of acute deteriorating patients. Strengthen knowledge for Rapid Response Team interventions. Focus participants on areas of teaching for RN's working in high acuity areas.

**Methods:** A Quantitative Study using a validated questionnaire. Using a convenience sample, 89 participants were questioned.

**Results:** Nurses were unfamiliar with Acuity and Early Warning Screening tools. Nurses need more knowledge and practice to recognize Neurological Emergencies and Respiratory Deterioration. Cardiac responses were met adequately.

**Conclusion:** Incorporate more knowledge on Early Warning screenings into nursing education. Increase awareness of Rapid Response Teams and their assessment tools. Increase knowledge for nurses to identify Neurological and Respiratory Emergencies.

Correspondence should be addressed to Garry Johnson; garry.johnson@evc.edu

**Innovation of Educational Wound Model for Nursing Students**

N. Kasatpibal,1 P. Sawasdisingha1 and J. Whitney2
1*Faculty of Nursing, Chiang Mai University, Thailand, 2School of Nursing, University of Washington, USA*

**Background:** A clinical skills laboratory enhances nursing skills that can be translated to real professional practice. However, effective laboratory learning material that facilitates learners to achieve learning objectives may be inadequate in resource-limited settings.

**Objective:** This study aimed to develop models for practicing wound dressing changes and to evaluate the quality of the model and user satisfaction.

**Methods:** The study was conducted consisting of three steps, including preparing for model development, model development, and evaluation of the quality of the model and user satisfaction. This study recruited both nursing instructors and nursing students, 30, 10 and 271