



Southwestern Oklahoma State University  
**SWOSU Digital Commons**

---

Oklahoma Research Day Abstracts

2015 Oklahoma Research Day

---

Jan 1st, 12:00 AM

## **04. Nursing**

Northeastern State University

Follow this and additional works at: <https://dc.swosu.edu/ordabstracts>



Part of the [Curriculum and Instruction Commons](#), [Educational Assessment, Evaluation, and Research Commons](#), and the [Higher Education Commons](#)

---

Northeastern State University, "04. Nursing" (2015). *Oklahoma Research Day Abstracts*. 4.  
<https://dc.swosu.edu/ordabstracts/2015oklahomaresearchday/educationandprofstudies/4>

This Event is brought to you for free and open access by the Oklahoma Research Day at SWOSU Digital Commons. It has been accepted for inclusion in Oklahoma Research Day Abstracts by an authorized administrator of SWOSU Digital Commons. An ADA compliant document is available upon request. For more information, please contact [phillip.fitzsimmons@swosu.edu](mailto:phillip.fitzsimmons@swosu.edu).

## **Abstracts from the 2015 Oklahoma Research Day**

**Held at Northeastern State University**

### **02. Education and Professional Studies**

### **04. Nursing**

#### **02.04.01 Healthy Smile, Healthy Heart**

**Abigail, Daniel** *Northwestern Oklahoma State University*

**Corie, Kaiser** *Northwestern Oklahoma State University*

**Madison, Nichols** *Northwestern Oklahoma State University*

Endocarditis is an infection of the inner lining of the heart caused by bacteria and other germs entering from another part of the body such as the mouth. If left untreated, endocarditis can damage or destroy the heart valve and can lead to life-threatening complications. Our research suggests that untreated periodontal infections can lead to endocarditis which can possibly prove fatal. Antibiotic therapy following the initial dental procedure or after an infection has occurred has proven most effective in preventing endocarditis when taken for the full course of antibiotics prescribed. The term periodontal disease is used to describe a group of conditions that cause inflammation and destruction of the attached apparatus of the teeth. Periodontal disease is caused by bacteria found in dental plaque. This study showed that there is a relationship between dental infections and endocarditis in men who do not receive treatment with antibiotics.

## **02.04.02 Shift Work Among Nurses**

**Chelsea,Duffy** *Northwestern Oklahoma State University*

**Darcey,Kliewer** *Northwestern State University*

**Darcey,Kliewer** *Northwestern State University*

**Staci,Stewart** *Northwestern Oklahoma State University*

Nursing is a rewarding yet demanding occupation that requires dedication and personal sacrifice by the nurse on a daily basis. Long work hours and unexpected overtime can take a toll on the body and have negative effects on the health of workers. While shift work is common among nurses, it is not exclusive to this profession. Most nurses are hired for a fixed shift but there is a high possibility for schedule changes leading to shift work. Shift work is defined as shifts between the hours of 7 p.m. and 6 a.m. Monday through Friday. The high demand required during shift work puts nurses at risk for injury due to fatigue, stress and lack of consistency in scheduling. These risks contribute to dissatisfaction in the workplace along with an increase in absence from work. Suggested interventions to decrease the negative effects of shiftwork include stability of work hours, organized shifts for handover, and support from other staff members. Taking steps towards reducing complications associated with shift work will ensure that quality care is provided around the clock.

## **02.04.03 Long-Term Pharmacological Management in Adults with Acute Coronary Syndrome**

**Robin,Zornes** *Northwestern State University*

**Tiffany,Song** *Northwestern Oklahoma State University*

Dual antiplatelet therapy comprised of Aspirin and Clopidogrel has been used as a mainstay in patients with acute coronary syndromes (ACS). However, the recurrence rate of ACS events remains higher than desired, prompting interest in and research into newer medications that target thrombosis. Direct factor Xa inhibitors, orally administered anticoagulant medications, are one of the many new therapy modalities that are being investigated for widespread use. These medications directly inhibit the action of factor Xa, a major protein in the coagulation cascade. Since anticoagulants in general target a different aspect of thrombosis than antiplatelets (such as Aspirin and Clopidogrel), their incorporation into traditional dual antiplatelet therapy has gained interest. In this study, the recurrence rate of ACS events was analyzed in adults taking a daily traditional dual antiplatelet therapy consisting of Aspirin and Clopidogrel compared to adults taking a daily dual antiplatelet therapy with the addition of Rivaroxaban, a direct factor Xa inhibitor. The cohort of adult ACS patients who were administered daily doses of Rivaroxaban added to dual antiplatelet therapy were found to have decreased rates of recurring coronary events and overall mortality.

#### **02.04.04 Circulating-Water Garment in Prevention of Intraoperative Hypothermia**

**Lindsey,Nighswonger** *Northwestern Oklahoma State University*

**MacKenzie,Flowers** *Northwestern Oklahoma State University*

**Stephanie,Mast** *Northwestern Oklahoma State University*

General anesthetics impair the body's ability to achieve thermoregulation, which can result in intraoperative hypothermia. Hypothermia is defined as core body temperature that falls below 36°C. Hypothermia increases the risk of cardiac irregularities, infection, bleeding, and death. These complications may prolong recovery time and increase cost (Galvão, Liang, & Clark, 2010). The purpose of this evidence-based project is to compare the effectiveness of two warming methods in the prevention of hypothermia during the intraoperative period. Forced-air warming is currently the most used warming method during surgeries. However, due to the inability to cover adequate body surface area, hypothermia continues to remain an issue. Alternatively, circulating-water garments have been utilized as another effective warming method and in fact have been found to be superior compared to forced-air warming systems in the prevention of intraoperative hypothermia due to the system's ability to cover more body surface area (Hasegawa, Negishi, Nakagawa, & Ozaki, 2012). As well as the garments improve blood circulation by the pulsation of water through the garment, which further aids in thermoregulation (Galvão, Liang, & Clark, 2010).

#### **02.04.05 Skin-to-Skin Contact after Delivery**

**Chandra,Flynn** *Northwestern Oklahoma State University*

**Crystal,Waddell** *Northwestern State University*

**Taylor,Mathes** *Northwestern Oklahoma State University*

This poster summarizes the effects of placing the infant in skin-to-skin contact with the mothers immediately after delivery. Skin-to-skin contact after birth encompasses placing the naked infant directly on the mother's chest at, or soon after, birth. Skin-to-skin has been proven to help the newborn infant in their transition from intrauterine to extra-uterine life, including regulation of temperature, blood glucose levels, and hormone levels. Skin-to-skin contact decreases the incidence of hypoglycemia, regulates blood pressure and respirations, reduces the amount of crying, increases the bonding between the mother and infant, and promotes early breastfeeding. We show this evidence in our poster by using a case study and a model study, presenting a list of the nursing interventions, and providing supporting evidence. We also included five current, credible references that are dated from 2009 to 2014.

## **02.04.06 Nurse-Patient Ratios**

**Jermaine,Bell** *Northwestern State University*

**Loren,Quiram** *Northwestern State University*

Nurse staffing is a matter of great concern both here in the United States and abroad, because of its effects on safety and the quality of patient outcomes. The purpose of this study was to assess the correlation between patient to nurse ratios and adverse patient outcomes in a hospital setting. Nurse staffing is an extensively studied issue with results derived from nursing staff surveys and statistically analyzed data. Studies have shown that an increase in the number of nurses caring for patients has resulted in a fewer number of complications, lower morbidity rates, fewer number of medication errors, and decreased costs associated with medical care. Substantial links were found between nurse staffing and adverse patient outcomes. These links can be identified on a national and local level. In conclusion, this study indicates a need to implement safer patient to nurse ratios into nursing practice to ensure timely, efficient, and equitable patient care.

## **02.04.07 “Women and Cardiac Rehabilitation”**

**Audrey,Buss** *Northwestern State University*

**Juliana,Sismon Cooley** *Northwestern State University*

Cardiac disease is one of the highest causes of death in women. Women who have had a previous heart attack have an even higher risk of experiencing a reoccurring cardiac event. It is important to be compliant with treatment, especially Cardiac Rehabilitation, because of the effects it has on decreasing mortality rates and increasing quality of life. Although those facts are known by most of the female population, barriers such as modifiable risk factors, anxiety, depression, individualized exercise prescription and no referral or encouragement of the physician can prevent the participation in Cardiac Rehabilitation. Interventions should be implemented in order to change this scenario. This project shows that participation and awareness of nursing staff in education about the importance of treatment and about the removal of barriers plays a very important role in increasing enrollments and attendance for the twelve week program providing successful outcomes in the future. Nursing and medical staff should explain to clients the importance and the proven evidence regarding participation in a Cardiac Rehabilitation program.

## **02.04.08 Post Traumatic Stress Disorder Treatment: EMDR vs. Medications**

**Courtney, Herian** *Northwestern Oklahoma State University*

**Nayeli, Meza** *Northwestern Oklahoma State University*

The effects of first line medication and eye movement desensitization and reprocessing (EMDR) therapies, were compared in a research study of people diagnosed with post traumatic stress disorder (PTSD) over a 6-month treatment plan. Researchers selected eighty-eight random subjects and were treated with EMDR or fluoxetine. The participants received eight weeks of treatment and the outcomes were evaluated at a 6-month follow-up. EMDR consisted of 90-minute individual sessions, in which it allows the person to think about the traumatic event while focusing on eye movements. Although further research can be conducted for more evidence, researchers believe that the eye movements activate the brain's chemistry to permit changes in the person's memory structures. The outcomes were measured using the Clinician-Administered PTSD Scale (CAPS) that was proven to give reliable results in the reduction of PTSD symptoms. At a 6-month follow-up, it was concluded that the CAPS total score drop was 62.2% for EMDR and 48.3% for fluoxetine. When comparing EMDR with fluoxetine, EMDR is proven to be most effective in treating people suffering from PTSD.

## **02.04.09 Electroconvulsive Therapy**

**Carrie, Kaltenbach** *Northwestern State University*

**Katherine, Stewart** *Northwestern State University*

**Patrick, Karr** *Northwestern Oklahoma State University*

Electroconvulsive Therapy or ECT has been very controversial over the years. This is mostly due to the media portrayals of how Electroconvulsive Therapy is administered. However, despite what the majority of the public perceives, ECT is a safe and effective treatment. ECT is one of the oldest forms of treatment for major depression and mania. It is used after pharmacological treatment has failed. ECT is used continuously along with other forms of treatment for patients. ECT does have side effects such as memory loss, however, most of this memory loss is short term. It is comparable to general anesthesia after surgery. The effectiveness of ECT on the depressed, manic, and suicidal is high. The benefit of ECT outweighs the side effects of ECT in these type of patients due to the seriousness of their mental condition. If patients are given information, understand ECT, and have consented to treatment their opinions of ECT are positive.

## **02.04.10 Tai Chi in Fall Prevention**

**Benita, Coffin** *Northwestern Oklahoma State University*

Fall prevention is essential for the elderly population. With this group of people, one of the most common causes of injury is related to falls. This fact makes it a necessity to promote education and participation in activities that lessen the likelihood of impaired mobility and the consequences of losing one's balance. Tai Chi, a traditional Chinese exercise, has gained recognition in the United States among the elderly; in the areas of balance, coordination and the ability to increase flexibility. Our study involved evaluation of participants who were sixty years of age and older, in an effort to improve ambulation and reduce the risk and incident of falls. For our research, we evaluated elderly patients who were active in Tai Chi programs and others who currently live a sedentary lifestyle. In conclusion, it was found that Tai Chi did have a positive effect on reducing the risk of falls, but more extensive research would be needed to be completed in order to establish the importance of Tai Chi exercise among the elderly population.

## **02.04.11 Pertussis Recurrence and Decreased Vaccination Rates**

**Chelsey,Tapia** *Northwestern State University*

Research has shown that numbers of Pertussis have continued to rise. Outbreaks of Pertussis have been linked to age less than six months, non-vaccination due to personal beliefs, the immunocompromised, and the older population with waning immunity. Better education for the general population by healthcare professionals will facilitate the process of decreasing the incidence of Pertussis.

## **02.04.12 The Effects of 12 Hour Shifts on Nurses**

**Drew,Bartel** *Northwestern State University*

**L:iesl,Maloy** *Northwestern State University*

**Madison,Howard** *Northwestern State University*

Twelve hour shifts are the norm for most hospitals today because it has been shown to provide improved continuity of care for the patient and increased time for the nurses to ensure proper charting in patient records. These shifts also have the potential to cause negative effects on nurses due to fatigue and the errors that may result. The objective of this study was to determine a balance point between the advantages of extended shifts and the resulting fatigue that lead to loss of productivity and accuracy. This was achieved by an examination of current peer reviewed studies that address the topic of shift work and its advantages and disadvantages. It also addresses employee surveys pertaining to appropriate interventions. The study concluded that during a 12 hour work shift, day shift nurses reported fatigue during the beginning as well as ending of their shifts. The night shift nurses reported fatigue that continued to increase as their shift progressed. Each of these shifts reported increasingly diminished amounts of sleep between each shift. The conclusion finds that while a 12 hour shift provides benefits for the hospital nurse and care of patients, it brings a rise in the effects of nurse fatigue that continually increase over multiple shifts. It also finds that three consecutive 12 hour shifts should be followed by one full day off to ensure that adequate rest can be restored.

## **02.04.13 Perceptions of New Graduate, Post-Licensure Registered Nurses at the Initiation of Professional Responsibilities**

**Stephanie,Floyd** *University of Central Oklahoma*

The aim of this study was to identify any discrepancies between new graduate nurses' perceptions of their professional roles before they begin practice and what they experience at the initiation of their duties. Turnover and attrition is a major issue within the nursing profession. Better understanding of new graduate perceptions will provide the opportunity to identify the timeline of transition shock and be used to address the rate of turnover by better preparing new graduate nurses for practice. A case study research design was selected to survey a population of newly licensed Registered Nurses at the point just before and after initiation of professional responsibilities. Survey results were clustered thematically to look for common results among responses. Evidence was found of discrepancies between expectations and reality that indicate transition shock can be influential in nursing turnover as early as two weeks into practice.

## **02.04.14 The Effects of Folic Acid on Preterm Birth**

**Charlotte,May** *East Central University*

Preterm birth occurs before 37 completed weeks' gestation and is associated with many adverse effects for the newborn. Preterm birth prevention is a priority in public health, and the Healthy People 2020 MICH 9.1 objective is to "reduce total preterm births". Folic acid, a synthetic form of folate, is involved in multiple biological processes. Deficiency of folate during preconception and pregnancy increases the risk of fetal complications, such as neural tube defects and low birth weight. Adequate folic acid intake is also a public health priority, and the Healthy People 2020 MICH 14 objective is to "increase the proportion of women of childbearing potential with intake of at least 400 micrograms ( $\mu\text{g}$ ) of folic acid from fortified foods or dietary supplements". The purpose of this literature review was to explore the implications of adequate folic acid intake, a major component of early and adequate prenatal care, in the risk of preterm birth in the United States. The 1998 fortification of grain products with folic acid lead to an increase in serum folate levels in the United States. Interestingly, a decrease in the prevalence of preterm births occurred simultaneously, suggesting that adequate folate levels are a preventative factor to preterm birth. Nurses are in a valuable role to educate and implement nursing interventions concerning adequate folic acid intake. These activities are important and contribute to reaching the Healthy People 2

## **02.04.15 Student Learning in Simulation Based on Instructor Engagement in Design**

**Leann,Laubach** *University of Central Oklahoma*

Thesis: Simulation is a popular teaching/learning strategy to teach students in a safe environment. Faculty members who teach using simulation have the option to purchase or write scenarios, but writing scenarios can be time consuming and purchasing scenarios can be expensive. Faculty members who take the time to write scenarios may have a greater degree of engagement in the process than an instructor who uses a purchased scenario. Objective: The objective of this research was to determine if there was a difference in student learning based on instructor engagement in the design. Methodology: This mixed-methods study used multiple choice quizzes and open-ended journaling questions to elicit quantitative and qualitative responses. In a crossover design, students participated in both instructor written and purchased scenarios. Using the a priori p value of  $<.05$ , data was analyzed using a chi square analysis, t-tests and the Kruskal-Wallis test to determine differences in mean scores. A thematic analysis was conducted to find relevant qualitative themes. Summary: The results of this study indicated that both instructor written and purchased scenarios could be effective tools for teaching students using simulation. While the study indicated no significant difference between groups, learning was enhanced when students were given preparation materials and a pre-simulation orientation. Keywords: Simulation, Student Learning, Instructor Engagement, Mixed-Methods