

The Fifteenth Annual
Ranger Research Day

Friday, November 20, 2020

Via Zoom

<https://zoom.us/j/99579986166>



**LIST OF
ABSTRACTS**

The Fifteenth Annual
Ranger Research Day

Northwestern Oklahoma State University
Alva, Oklahoma ~ Friday, November 20, 2020
Via Zoom

A B S T R A C T S

Education

3.06 Psychology

3.06.01, “Breastfeeding Outcomes, Maternal Support, and the Prevalence of Postpartum Depression” [Poster]

Rachel Kraus (Dr. Jason Ferrell, Sponsor)

8:30 a.m. <https://zoom.us/j/99579986166>

Research on pregnancy, delivery, and the postpartum period is important because it can provide insight into best practices for mothers, families, and providers. Mothers and providers can benefit from information about breastfeeding outcomes to make evidence-based decisions for individuals and families. The purpose of the current study is to fill a gap in the literature about breastfeeding outcomes. The research question for the current study is: What are the relationships between breastfeeding outcomes, maternal support, and postpartum depression symptomology. Participants will be recruited from social media sites (i.e., Facebook and Instagram) and will report breastfeeding outcomes (measured by number of months a mother breastfed and the ease of breastfeeding output), maternal support (measured by the Quality of Relationships Inventory; Dennis & Ross, 2006), and postpartum depression symptomology (measured by the Edinburgh Postnatal Depression Scale; Pope & Mazmanian, 2016). We hypothesize there will be small but significant correlations among the variables, such that maternal support will be positively correlated with breastfeeding outcomes and negatively correlated with postpartum depression symptomology. Data collection is currently in process. Results and their implications will be discussed.

6.06 Nursing

6.06.01, “Covid-19 and Its Effect on Type II Diabetes” [Poster]

**Angela Waggoner, Jessica Hammack, & Natalie Semmel
(Dr. Mary Brune, Sponsor)**

9:00 a.m. <https://zoom.us/j/99579986166>

The coronavirus (COVID-19) has become a worldwide pandemic that has greatly caused morbidity and increased the mortality rate. Just in the United States alone, there have been

220,000 deaths related to COVID-19 since the pandemic started. Worldwide, there have been roughly 1 million deaths reported since the beginning of the pandemic. Adding to the severity of COVID-19, there are many diseases and risk factors that are considered comorbidities that have largely increased the risk for hospitalization and death in patients with COVID-19. These diseases and risk factors include cancer, COPD, chronic kidney disease, obesity, asthma, cardiovascular disease, smoking, type 2 diabetes, and many others. This research project will primarily focus on the relationship between type 2 diabetes and COVID-19. After reviewing the content, it is clear that there is an increased risk of mortality, but the complexity of this relationship is still unclear due to the lack of research.

6.06.02, “Effects of the COVID-19 Pandemic” [Poster]

Breanna Johnson, Rachel Shryock, & Caitlin Harris

(Prof. Amanda Clepper, Sponsor)

9:30 a.m. <https://zoom.us/j/99579986166>

The purpose of this study was to determine if there is a casual relationship between providing family contact for hospitalized COVID-19 patients using technology and COVID-19 patient outcomes. It has been shown that the effects of loneliness and isolation has a negative impact on both the physical and psychological health of COVID-19 patients. Not only do the patients need medical intervention but healthcare professionals should treat the patient as a whole and consider the psychological effects of isolation on patients' health. This can be achieved by providing communication through social media, video calls, and phone calls. Because little is known about COVID-19, more research should be done to determine further impacts the virus has on COVID-19 patients.

6.06.03, “Breastfeeding and the Effects of Illness on Children” [Poster]

Olivia Denney, Angelica Rangel, & Carli Russo

(Dr. Leslie Collins, Sponsor)

10:00 a.m. <https://zoom.us/j/99579986166>

The current world situation has led us to generate questions about immunity, how to reduce the risk, and how to minimize the symptoms of acquired infections. Nutrition is influential to immune strength and the body's vulnerability to genetic and communicable diseases. Breastfeeding has been proven to be an important factor related to nutrition in public health. Although data suggests that a good portion of infants are breastfed initially, the numbers decline as the infant's age. The purpose of this evidence-based project was to determine the effects of optimal breastfeeding on the amount of illness in children during the first two years of life. Studies show that there is an inverse relationship between optimal breastfeeding and rates of infection. The promotion of breastfeeding is dependent upon education that is achieved through evidence-based research. Extensive studies have shown that superior health outcomes may be attained through more ambitious breastfeeding education systems involving both staff and patients during hospitalization.

6.06.04, “Nurse Staffing and Safety of Patients” [Poster]

**Jessica Johnson, Jamee Ramsey, Kylee Alexander, & Meghan Corr
(Dr. Krista Tilley, Sponsor)**

10:30 a.m. <https://zoom.us/j/99579986166>

Nurses are a key feature in the health care system, and they have a large impact on patient care. Their roles consist of direct patient care, assisting with activities of daily living (ADLs), medication administration, advocating for their patients, and many other tasks. The purpose of this evidence-based project was to determine if adequate nurse staffing produced better patient outcomes. To answer this question, information was gathered from research databases such as CINAHL, EBSCOhost, and PubMed. Keywords that were searched included, nurse staffing, patient outcomes, mortality rates, and quality of care. The results showed that when nurse staffing was inadequate there were increased rates of mortality, readmissions, increased costs, and poor work environments. It was also found that when nurse staffing was increased there was a direct improvement in the quality of care, workplace morale, patient experiences, and more cost-effective units. This led to the conclusion that when adequate nurse staffing a priority, there are improved patient outcomes throughout and after the patient’s hospital stay. The impact of this study is related to nurses and their patients. If units could adequately staff, it would result in improved patient safety, reduced mortality, improved work morel, and a reduction in overall costs both for the hospital and the patients.

6.06.05, “Hydrotherapy vs Epidural Analgesia” [Poster]

**Farah Proffitt & Jentrey Lancaster
(Dr. Leslie Collins, Sponsor)**

11:00 a.m. <https://zoom.us/j/99579986166>

The labor process is divided into three different stages. The first stage is from the beginning of contractions to the complete dilation of the cervix to when pushing begins. The second stage of labor occurs when the cervix is completely dilated to the time the infant has been delivered. Finally, the third stage occurs from the time of delivery of the infant to the time of delivery of the placenta (9). Prolonged labor times can increase the risk of infant and mother complications during labor and delivery. Some of the complications that can occur due to prolonged labor times may include low oxygen saturation, fetal distress, infection, and intracranial hemorrhage (9). The purpose of this evidence-based project was to compare hydrotherapy and epidural analgesia and its effects on labor and delivery outcomes. Hydrotherapy is an elective intervention that a pregnant woman can implement in her delivery process. This involves immersion into warm tub of water. Hydrotherapy benefits the women by decreasing pain, anxiety, and promoting muscle relaxation (1). Epidural Analgesia is another intervention that can be applied to a laboring women’s delivery process. This process involves a catheter being inserted into the epidural space in the back that allows anesthetics to be administered. This creates a nerve block which, if done correctly, will eliminate the pain felt during the delivery (8). Both of these interventions are effective at decreasing the pain that is felt during delivery, but it is important that the benefits and risks are both considered when making a decision.

6.06.06, “Breastfeeding Education” [Poster]**Camerann Johnson & Sheridan Duncan****(Dr. Jennifer Mahieu, Sponsor)****11:30 a.m.** <https://zoom.us/j/99579986166>

Research confirms the numerous benefits of breastfeeding for both baby and mother. However, it also reveals a small percentage of mothers successfully and exclusively breastfeeding for the recommended length of time. So, the question of what we can do to improve these statistics and therefore promote health across the globe needs to be asked. The purpose of this project is to determine if incorporating breastfeeding education during pregnancy in comparison to postpartum education has a positive impact on successful breastfeeding outcomes. Further research revealed that there are various factors effecting breastfeeding. For example, patients who had familial support, had a strong desire to breastfeed, attended breastfeeding education classes during pregnancy and continued education during the postpartum period, and had the tools/knowledge to overcome problems that may arise were found to be more than twice as successful. Therefore, prenatal breastfeeding education does result in a better outcome. The most successful outcome, however, is a result of a combination of prenatal and postnatal education as well as other supporting elements that encourage and uplift mothers during their journey.