



### ***Sleep Duration and Childhood Obesity Risk***

**Presenter:** Jessica Edwards, UNC Charlotte School of Nursing

**Collaborators:** Elizabeth Miranda, Michelle Porter, and Cecily Thompson

**Faculty:** Dr. Florence Okoro

#### **Abstract:**

**Background/Objective.** Childhood obesity rates have steadily increased for the past decade. This is concerning due to the well-documented link between childhood obesity and many adulthood chronic health issues. While childhood obesity is a multifactorial problem, sleep duration has emerged as a possible indicator. Inadequate sleep duration is common among diverse groups of children. Understanding the relationship between sleep duration and obesity can help guide initiatives to promote a healthy childhood weight and prevent adverse outcomes in adulthood.

**Methods.** A systematic review of current literature was performed. An initial search was conducted using the UNCC Atkins Library. A comprehensive search utilizing specific search terms was subsequently performed across three databases. This search identified 674 studies. Duplicates were removed, and the remaining articles were reviewed against the following criteria: full text, English language, published within the past 10 years, with sleep duration as an isolated independent variable. 22 articles remained for inclusion. All articles were evaluated using the Critical Appraisal Skills Program (CASP) checklist.

**Results.** The review returned three themes. Primarily, short sleep is positively correlated with obesity. Additional themes include a link between short sleep and unhealthy food consumption and longer sleep duration as protective against obesity.

**Conclusion/Discussion.** Adequate sleep duration is linked to childhood obesity risk. Education on appropriate sleep duration and promotion of adequate sleep in the pediatric population are viable interventions to decrease obesity risk for children and may contribute to better health outcomes in adulthood.

**Keywords.** Childhood Obesity · Sleep Duration · Obesity Prevention



***Nurses' Experiences in a Blended Learning Course for Nurse Preceptor Development***

**Presenter:** Katrina Green, UNC Charlotte Cato College of Education

**Faculty:** Dr. Ayesha Sadaf, Dr. Florence Martin, Dr. Jae Hoon Lim, Dr. Meredith Troutman-Jordan

**Abstract:**

Most staff development offerings for health care workers is done either through traditional classroom approach or by an online module. Blended learning is not typically an option used. This case study research focused on developing an understanding of the perceptions of the nurses who attended the blended learning preceptor course. Twenty-one nurse from a large health system participated in the blended learning course which included doing a pre-course assessment, five online modules, and an in-person role play course with observations. Sixteen completed the post course assessment. Eleven of those who participated went on to do the first interview, looking at immediate perceptions of course. Seven completed the focus group to clarify data from first interview, and then six participated in second interview. This interview had limited ability to participate as the nurse had to have been able to work with new hire. Results showed that blended learning is an option for healthcare staff development. This study showed that blended learning is an option for staff development in health care setting. Nurses who participated in this study had diverse learning needs but were all able to navigate through the course and demonstrate knowledge gained. One concern that had been identified was staff concerns regarding losing the ability to socialize, this was not found in this study. Blended learning provided the nurses with the knowledge and support that they needed to precept a new hire. Nurses were able to verbalize and demonstrate knowledge gained.

**Keywords:** Preceptor, blended learning, staff development



***The Effect of a Leadership Development Program on Healthcare Leaders***

**Presenter:** Felicia Hipp, UNC Charlotte Cato College of Education

**Faculty:** Dr. David Langford, Dr. Kathleen Jordan

**Abstract:**

This scholarly project evaluates the effect of a leadership development program (LDP) on healthcare leaders. The impact of leadership competence on organizational success has become an important topic. Leadership development programs equip leaders to perform with increased competence and confidence, thereby improving quality, safety, and overall organizational effectiveness.

The LDP was an educational intervention to increase comprehension of effective transformational leadership strategies to improve the healthcare leader's knowledge, style, and performance. The setting for the project was an academic health center in western North Carolina. Out of 33 participants, 28 (85%) completed the pre and post Multifactor Leadership Questionnaire (MLQ). The MLQ includes 45 Likert-scale items that allow leaders to complete a self-assessment of transformational, transactional and laissez faire leadership characteristics. The participants who completed the pre and post MLQ had significantly higher scores in the transformational leadership principles of idealized attributes, inspirational motivation, and intellectual stimulation, with p-values of less than 0.05 and t-values greater than 1.96. They had significantly lower scores in management by exception, active, and passive or laissez-faire leadership style. The results show that participants perceived that their transformational leadership qualities improved or that they became more transformational.

Notwithstanding the limitations (self-reported outcomes that may be over or under-rated, a small sample size (n=28) that may limit generalizability, a lack of gender balance amongst participants), the study contributes to the body of research on leadership development programs and demonstrates that LDPs can have a positive impact on leaders in healthcare organizations.



***Stress, Fatigue and Medication Adherence by Race Post Myocardial Infarction***

**Presenter:** Dr. Carolyn Horne, UNC Charlotte School of Nursing

**Collaborators:** Dr. Willie Abel, Dr. Patricia Crane

**Abstract:**

**Background.** A frequently reported symptom post myocardial infarction (MI) is fatigue. Fatigue has been shown to influence behaviors, but little is known how fatigue can affect medication adherence.

**Purpose.** The purpose of this study was to explore fatigue and medication adherence in Black and White adults.

**Methods.** Secondary analysis was completed on a cross sectional sample (N= 152) who had experienced at least one myocardial infarction in the past 3 to 7 years. Fatigue was measured using the Revised Piper Fatigue Scale which has 4 subscales and adherence was measured by self-report of how likely they would forget their blood pressure medication.

**Analysis.** The total fatigue score was divided by 220 to place fatigue on a ten-point scale allowing total fatigue to be categorized by levels. T-tests were used to compare means of the sample. Chi-square for independence was used to measure the differences between observed and expected outcomes of the variables. Logistic regression was used to determine influence of the variables on medication adherence. A p-value of .05 was used for statistical significance.

**Results.** The sample age was a mean of 65.4 years with 30% Black and 70% White participants. More than half the sample (55%) reported fatigue as moderate to severe. Despite the mean fatigue and behavior/severity subscale being higher in Black participants no significant difference in fatigue by race was found. Adherence differed by race ( $p = .037$ ) with Black participants reporting less adherence. Only two variables, behavior/severity fatigue and race, significantly predicted adherence.

**Conclusion.** Findings support adapting the assessment of fatigue by race to enhance medication adherence and prevent MI recurrence.



### ***Infant Sleep Safety Education***

**Presenter:** Kyrstin Jackson, UNC Charlotte School of Nursing

**Faculty:** Dr. Florence Okoro, Prof. Rebekah Overcash

#### **Abstract:**

**Background and Purpose.** Sudden Infant Death Syndrome, otherwise known as SIDS, is an extremely heartbreaking topic for new and experienced mothers and their families. SIDS is a form of sudden unexpected infant death, where the cause of death cannot be fully explained (Ellis, et al., 2022). This study oversees the current research that supports the correlation between safe sleep and the reduction of Sudden Infant Death Syndrome (SIDS). This is a quality improvement project that aims to educate low-income mothers (N=4) on sleep safety tactics such as sleeping on the back, sleeping in a bassinet in the same room, and keeping the bassinet free of loose blankets, pillows, and toys.

**Method.** Education tools included a recorded video, along with a tri-fold brochure with all of the information discussed, to reference. To analyze the results of the session, pre- and post-tests were provided, consisting of the same five questions.

**Results.** The results of this study showed a significant increase in knowledge regarding infant sleep safety after the education session. The participants showed a 75% increase in three of the five questions, along with a 50% increase on one question, and a 25% increase on another.

**Conclusion.** This study analyzes the impact of educating mothers on these tactics, using a pre- and post-test design. Given this, it is important for healthcare workers to acknowledge this as an area that needs education in both prenatal and postnatal encounters.

**Keywords.** SIDS, Sleep safety, Prenatal education, Infant education



### ***Practicing Student Nurse***

**Presenter:** Luke Kucko, UNC Charlotte School of Nursing

**Faculty:** Dr. James Montegrigo, Dr. Kelly Powers

**Abstract:**

My concept model includes a proposal that the NCBON should create a new role for nursing students above the scope of a CNA II. This proposed role of the 'Practicing Student Nurse' would include all CNA II skills, with the addition of IV insertion, phlebotomy, NG tube insertion, and oral medication administration. This would utilize the same checkoff process as the current NAII skill verification in universities. The purpose would be to alleviate the stress on nurses in the clinical setting while better preparing and engaging nursing students to transition into the role of the RN.

Our research includes a survey administered to participants in Atrium's 2022 summer nursing externship program. The purpose of the survey was to evaluate the effects of an 8-week nursing externship program on the knowledge, skills, and attitudes of senior nursing students. The survey, which was administered at the end of the externship, consisted of 18 questions, asking students to grade their growth across several categories e.g. (Critical thinking, interdisciplinary communication, time management). Our results showed growth across all categories, showing the beneficial effects of early immersion of nursing students into the clinical environment.

The categories with the least growth were psychomotor skills, and documentation. In this externship program, students were not allowed to practice outside the scope of a CNA II. Creating the role of the Practicing Student nurse would allow for externships to transform into a more immersive and constructive experience, as well as assist nurses during a worsening nursing shortage.



***Nursing Students Battle against Mental Health***

**Presenter:** Kiara Mattern, UNC Charlotte School of Nursing

**Faculty:** Dr. Meredith Troutman Jordan, Dr. James Montegrigo, Prof. Dee Langford, Dr. Susan Lynch

**Abstract:**

Mental health decline in nurses is shown by the rising number of suicide in nurses, burnout, and nursing shortages. This study aims to assess the impact of nursing school on students' mental health and to help decrease mental health issues. The effects of stressful schedules and a difficult course load are examined by a pre-test and post-test with an educational presentation following each. Will nursing students in their Junior year at UNC Charlotte have an increase in knowledge from an educational module about mental health, compared to the knowledge they hold before the presentation, have improvement in their own self-efficacy, and confidence with mental health, by 14 weeks from the start to the end of the semester? The focus on equipping nursing students with skills to maintain adequate mental health could be imperative to decreasing the burn out rate in the nursing field. The findings of this study were that there was an overall increase in knowledge about ways to improve mental health after the educational module. The study also found a vast majority of students felt nursing school negatively affected their personal mental health. Future research should include investigation in other schools and further teaching of material that gives students the knowledge needed to fight the mental health toll that nursing in general can carry.



***Internationally Educated Nurses NCLEX-RN Preparatory Experiences: Facilitators, Barriers, and Recommendations***

**Presenter:** Dr. James Montegrigo, UNC Charlotte School of Nursing

**Abstract:**

**Background.** About 6%-8% of the U.S. nursing workforce is composed of internationally educated nurses (IENs). The National Council Licensure Examination-Registered Nurses (NCLEX-RN) is required to practice nursing in the U.S. From 2002 to 2022, almost 400,000 IENs took the NCLEX-RN but more than half failed on their first attempt. IENs have unique contextual characteristics that may impact NCLEX-RN outcomes.

**Purpose.** To describe the facilitators and barriers that IENs experience while preparing for the NCLEX-RN and provide recommendations for positive NCLEX-RN experiences and outcomes.

**Methods.** A qualitative descriptive research design was used for this study. Purposive sampling was used to recruit participants. Twenty individual virtual interviews using a semi-structured interview guide were conducted until data saturation was achieved. NVivo 12 software was used to facilitate data organization and analysis. Qualitative content analysis was used to analyze the participants' responses.

**Results.** IENs have positive and negative NCLEX-RN preparatory experiences. The unique meaning of NCLEX-RN for IENs, assistance during the exam application, availability of time, support, and resources, structured schedule, nursing education, initial nursing licensure, and nursing practice are facilitators of positive NCLEX-RN preparation. Multiple roles, NCLEX-RN unfamiliarity, finances, lack of nursing experience, and environmental factors are barriers to effective NCLEX-RN preparation.

**Conclusions.** The unique characteristics of IENs influence their NCLEX-RN preparation. Identifying barriers to effective NCLEX-RN preparation and designing interventions to overcome these barriers are crucial in achieving positive NCLEX-RN experiences. Further studies are needed to explore the multidimensionality of IEN NCLEX-RN experiences and outcomes.

**Keywords.** NCLEX-RN, internationally educated nurses, qualitative research





***Transition to Practice Readiness of New Nurses who Graduated During the COVID-19 Pandemic: A Statewide Study***

**Presenter:** Dr. James Montegrigo

**Collaborators:** Dr. Kelly Powers, Dr. Kimberly Pate, Dr. Julie Pagel

**Abstract:**

**Background.** The COVID-19 pandemic caused major changes in nursing education, namely a shift to remote learning and significant reduction of clinical practice experience. It is not known how these changes will affect new graduate nurses transitioning to practice.

**Purpose.** To provide guidance to transition-to-practice programs, this study quantitatively described and compared nurse faculty perceptions of readiness for practice among students who graduated pre-pandemic and those who will graduate during the pandemic.

**Methods.** A convenience sample of 116 nurse faculty across North Carolina completed surveys online. Surveys collected information on demographics, professional experience, and teaching changes experienced during the pandemic. The Nursing Practice Readiness Tool was used to measure perceptions of readiness for practice.

**Results.** Nurse faculty reported a wide range of changes due to the pandemic, with limitations in clinical learning prevalent. There was a statistically significant decrease in practice readiness scores for the total scale, six subscales, and all tool items at  $p < 0.001$  for all paired comparisons.

**Conclusions.** While there was an overall significant decrease in scores for all competency areas, further analysis of the tool subscales and items can provide guidance for clinical nurses working with new graduates and nurse faculty working with continuing students.

**Keywords.** nursing education, nursing workforce, new graduate nurses, COVID-19, transition to practice



***Utilizing Nursing Psychoeducational Groups to Increase Patient Engagement***

**Presenter:** Christy Morley, UNC Charlotte School of Nursing

**Faculty:** Dr. Meredith Troutman-Jordan

**Abstract:**

**Purpose.** This project looks at the evidence behind nursing led psychoeducational groups. Using this information, several group handouts were created for nurses to use on inpatient units long with lesson plans to make the process of conducting the group more streamlined.

**Background.** Data indicates that increasingly large numbers of adults are experiencing mental health issues. Patients who are admitted to inpatient units are in need of multiple groups during their stay. These groups allow for patients to develop coping skills and understand their diagnoses and medications.

**Results.** Little time in nursing school is devoted to teaching nurses how to conduct or utilize psychoeducational groups. These groups are beneficial for any nurse, not just psychiatric nurses. Nurses often feel as though they do not know how to lead group. Another common issue nurses cite is that patient's do not want to participate in groups. However, nurses have expertise that other health professionals do not and the patients report that they want to interact with their nurses (Salberg, et al., 2018). Nurses report being uncomfortable with the group process.

**Conclusion.** Based on research, nursing led groups increase patient satisfaction with their stay and their care (Radcliffe, 2007). Nurses often state that they do not have time for groups and that patients do not want to participate. Research demonstrates the opposite, however. Much of the time patients spend during inpatient care is spent alone and nurses are very helpful with the recovery process (Radcliffe, 2007). Since nursing school does not provide nurses with the skills to conduct inpatient groups, creating an easy to follow format with examples and handouts should increase the likelihood that nurses will conduct groups. Further research needs to be conducted to determine the outcome of this hypothesis.



*The following are virtual presentations available at:*

<https://professional.charlotte.edu/researchsymposium>

***The Influence of Different Organizational Factors on Certified Nursing Assistant Job Satisfaction***

**Presenter:** Bailey Nelson, UNC Charlotte School of Nursing

**Faculty:** Dr. Susan Lynch

**Abstract:**

Low retention rate among Certified Nursing Assistants (CNAs) continues to be an ongoing issue within healthcare, resulting in disruption of high-quality patient care. Although there is sufficient literature concerning this issue, little attention has been paid to the different factors of specific healthcare settings that contribute to this high turnover. This qualitative study explored the perceptions of CNAs working in different types of healthcare settings to differentiate the challenges associated with each to determine how to best improve retention. The sample included 14 CNAs participating in semi-structured interviews regarding their personal work experiences. With some participants having experience in multiple healthcare settings, a total of 20 responses (n = 20) was recorded. The work experiences were allocated into two groups for comparison: acute care and non-acute care. Within the acute care setting, 75% of respondents felt there was effective teamwork in their facility in comparison to 0% of non-acute care respondents. Half of acute care respondents felt valued while only 12.5% of non-acute care respondents felt valued. Only 25% of non-acute care respondents felt supported by their supervisor and/or manager while 58% of acute care respondents felt supported. Lastly, 42% of acute care respondents felt that they had a voice in patient care decisions compared to 50% of non-acute care respondents. The results of this study provide insight to administration on how to best support and retain CNAs within their specific facility. Retention strategies focused on teamwork, CNA recognition, and managerial support are more effective in non-acute care settings while strategies focused on CNA input are effective in acute care settings.

**Keywords:** Certified nursing assistant, retention, turnover

***Improving Surgical Patient Outcomes Through the Utilization of Forced-air Warming Devices to Regulate Core Body Temperature***

**Presenter:** Caroline Klimowski, UNC Charlotte School of Nursing

**Collaborators:** Tuesday Berning; Emily Stanfield; Sean Brannan

**Faculty:** Dr. Florence Okoro

**Abstract:**

Background and Objective. Perioperative hypothermia is often associated with adverse surgical outcomes including: impaired pharmacodynamics, surgical site infections, blood loss and impaired coagulopathy, prolonged recovery, thermal discomfort, myocardial ischemia, and mortality. Despite this knowledge, roughly 45% to 70% of patients undergoing anesthetic surgical procedures will experience perioperative hypothermia. Current recommendations emphasize the use of forced-air warming (FAW) systems perioperatively in the prevention of hypothermia an associated adverse outcome. Thus, the purpose of the current systematic review was to determine the effectiveness of forced-air warming versus competing warming devices, as well as explore the effect of forced-air warming on surgical patient outcomes, specifically surgical site infections as well as patient comfort.

**Methods.** Comprehensive literature review was conducted via credible database selection by four independent investigators. A total of 3,729 relevant articles were initially identified based on precise keyword selection; removing duplicates, studies were then assessed for inclusion as well as exclusion criteria, full-text eligibility, and CASP endorsement ensuring relevance, validity, and dependability of selected articles. A total of 14 studies were selected to be included in systematic review.

**Results.** Common themes noted throughout review included: (1) reduced perioperative complications; (2) duration; (3) warming device used; (4) prewarming; (5) passive/active warming; (6) risk of surgical site infections; (7) shivering; and (8) surgery times.

**Conclusion.** The studies for review all appeared to agree that forced-air warming is the superior choice versus competing devices in reducing the incidence of perioperative hypothermia; however, several studies do indicate that devices can be used in congruence of one another for optimal patient outcomes. Secondly, in terms of adverse outcomes, patients who were able to maintain normothermia perioperatively experiences lower levels of surgical site infections, experienced reduced recovery times, and reported higher levels of patient comfort.

**Keywords.** · hypothermia · perioperative · forced-air warming · surgical site infections · surgery · patient outcomes · warming devices · normothermia · adverse events ·

***The Benefits of Early Treatment and Prevention of Childhood Obesity in Offspring Whose Mothers Were Diagnosed with Gestational Diabetes: An Integrative Review***

**Presenter:** Sara Berky, UNC Charlotte School of Nursing

**Collaborators:** Michaela Hadad, Dana Kuprane, Thais McCoy, and Sally Warren

**Faculty:** Dr. Florence Okoro

**Abstract:**

**Purpose.** An integrative review of the literature was conducted to determine if offspring born to mothers who are diagnosed with gestational diabetes (GDM) are at an increased risk for childhood obesity (CO) between the ages of 0-6 years old as compared to offspring of mothers that were not diagnosed with GDM.

**Background.** CO has become a serious health concern worldwide that leads to an array of metabolic conditions. This literature review aimed to determine if GDM is a direct cause of CO between the ages of zero to six years of life. Prior literature has used other factors such as maternal body mass index (BMI), familial lifestyle, socioeconomic status, and paternal factors. This review of literature focused solely on GDM and the outcomes of CO.

**Methods.** An integrative review of literature was conducted that screened 793 articles and fifteen (15) pieces of literature were utilized between the years 2018-2023 for the purposes of this review. Of the articles utilized, one was quantitative, and one was qualitative, one meta-analysis, one case-controlled study, one randomized controlled trial, and ten cohort studies.

**Results.** Analysis of the literature revealed a strong correlation between GDM and CO in children aged zero to six years in mothers who were diagnosed with GDM between twenty-four (24) and thirty-one (31) weeks gestation. More studies should be conducted to better support this correlation. Researchers believe there are other maternal factors that could impact CO in early years.

**Conclusion.** This review of literature found evidence that GDM does cause early childhood obesity.

**Keywords.** Gestational diabetes (GDM), childhood obesity (CO), body mass index (BMI), pediatric obesity, offspring obesity.