Pediatric Nurse Confidence: Managing Pediatric Patients with Behavioral Disorders and Aggression in a Non-Psychiatric Setting

A Doctoral Nursing Project written by

Jaclyn Hull, MSN, FNP-C

B.S.N., Ashland University, 2018

M.S.N., Walsh University, 2022

Submitted in partial fulfillment of the requirements for the degree of

Doctor of Nursing Practice

August 2023

Approved by:

Janeen Kotsch PhD, MSN/Ed, RN, CNE, Doctoral Project Committee Chair and Chair of Graduate Nursing Programs

Shelly Amato-Curran PhD, APRN-CNS, CRRN, Doctoral Project Committee Co-chair

Acknowledgments

This dissertation would not have been possible without the love and support from my fiancé Max James, family, and friends that have walked this journey with me. I do not have the words to adequately describe my deep gratitude for all the love, patience, and grace you have shown me over the last three years. Your motivating words were what I needed to continue my study when I doubted myself. I am very thankful to Dr. Janeen Kotsch and Dr. Shelly Amato-Curran for your tremendous guidance and teaching throughout this entire project. To Dr. Patricia Beam and Sheree Hemphill, your help and direction were significant to my success. I owe thanks to Rainbow leadership and the Horvitz Tower 6 nursing staff for making this study possible. To Dr. Rab Razzak and Kehllee Popovich, your mentorship has helped me to believe that my education is an essential tool for leadership and serving others.

Table of Contents

Abstract

Nurses that care for pediatric patients with behavioral disorders and aggression in a non-psychiatric setting face unique challenges. Pediatric nurses are usually not trained to care for children with aggression and behavioral outbursts, which result in high rates of burnout. Providing formal trauma-informed patient care education and training to pediatric nurses can improve their confidence and the quality of care in managing patient aggression. The purposes of this study were to a.) examine if Welle behavioral-management training is effective in improving pediatric nurse confidence in the management of pediatric aggression in a non-psychiatric setting and b.) examine the relationship between demographic characteristics and nurse confidence.

A convenience sample of 13 registered nurses employed on the pediatric medical-surgical unit who received the Welle training educational intervention were recruited to participate in this study. A one-group pretest post-test study design was used to assess registered nurses' level of confidence in managing pediatric patients with aggression before and after the Welle training. To measure nurse confidence in the management of pediatric aggression, *The Incidence of and Attitudes Toward Aggression in the Workplace questionnaire* was administered before and up to two weeks after the Welle training.

Results indicate that the Welle training was effective in improving nursing confidence scores in the management of patients with aggression. Findings from this study provide information on how training and education can improve nurse confidence scores in the management of pediatric aggression. These findings can be useful when designing nursing orientation programs and standardizing aggression management education across health systems.

Chapter 1

Workplace violence has been steadily increasing in recent years, and hospitals have felt the strain placed on healthcare workers, especially in the pediatric setting. Nurses are some of the most vulnerable victims since there is a higher risk of exposure to workplace violence as they are in direct contact with patients and their families (Yildiz & Yildiz, 2022). Despite the limited number of studies, pediatric nurses are not spared from workplace violence (Yildiz & Yildiz, 2022). Pediatric patients face unique challenges such as psychiatric and behavioral disorders that become chronic, lifelong issues. A few of these dysregulation disorders include oppositional defiant disorder, autism, general aggression, intermittent explosive disorder, conduct disorder, depression, and anxiety. These patients are at risk for suicidal ideation, self-harm, and depression, which are risk factors for violence (Mroczkowski et al., 2021). Because these mental health concerns can become chronic, the patients usually do not qualify for inpatient therapies and rehabilitation services. Hospitalization is typically only indicated for highly acute mental health crises. The global Covid pandemic has intensified this issue. The problem of scarce and limited resources for children with behavioral disorders was further exasperated by the pandemic, due to budget cuts and prioritization elsewhere. Because behavioral disorders can be considered chronic problems and not acute, children with behavioral outbursts that require hospital admission are placed in medical wards that are not built to care for their unique needs.

One reason pediatric patients with aggression are placed in hospital medical wards is due to the lack of mental health services in the community. Some barriers to adequate mental health care include insurance coverage, provider availability, excessive appointment wait times, and lack of collaborating disciplines such as counselors and therapists (O'Brien et al., 2016). Insurance coverage does not always meet the mental health needs of its consumers. Finding

mental health providers that can offer services regularly is challenging because of healthcare staffing crises nationwide. Providers often face difficulties gaining insurance reimbursement for mental health diagnoses (O'Brien et al., 2016). Often these children are a safety risk to themselves as well as their families, friends, pets, and classmates. Because of this, they have difficulty completing traditional schooling and parents begin to fear for the safety of the family unit. Many children with aggression enter the foster care system. Research reports that more than 80% of children in foster care have significant emotional and behavioral health problems (Kang-Yi & Adams, 2017). Many of them have poor outcomes while in the foster care system, as well as when they turn 18 years old and exit the foster care system. Some of these outcomes include incarceration, inability to hold employment and generate income, learning delays, disabilities, and further mental health problems (Kang-Yi & Adams, 2017). Sometimes, hospitalization is when families realize they can no longer care for the child safely at home, and the child must be placed either in a nursing facility or foster care. While children and family services await foster care and facility placements for minor children with behavioral disorders, they are often admitted to medical wards in children's hospitals with nurses having to foster them sometimes for several months. This concept of fostering stems from the nurses accepting responsibility to help the children with their everyday activities, such as meals and schoolwork. These children are elementary-school age through 18 years old. According to the 2018 Children's Bureau's annual child maltreatment report for former foster youth, 678,000 children were reported to Child Protective Services as victims of child abuse and neglect (Lee & Fusco, 2022). Due to the vast trauma history these patients typically suffer, they often use verbal and physical aggression as means of expression. Pediatric nurses that do not work in a psychiatric setting generally are not trained to care for children with aggression and behavioral outbursts. Unfortunately, this

misalignment between patient needs and nurse training can create a turbulent environment and lead to high rates of burnout.

Tumultuous, disordered work environments can cause pediatric nurses to experience high levels of burnout and frustration with their work. At this time, there is a gap in evidence related to pediatric nurses, perhaps because they make up a small percentage of the nursing profession (Buckley et al., 2020). Burnout among pediatric nurses is unique from burnout among those in adult nursing because of the specialized nature of providing care to children who are typically seen as a vulnerable population. Caring for children has a high potential for empathetic engagement and pediatric nurses must consider the inherent complexities of having relationships with families (Buckley et al., 2020). Nursing specialties, like pediatric nursing, that require high levels of emotional involvement can cause high levels of burnout, and caring for pediatric patients with behavioral and emotional needs heightens the levels pediatric nurses may feel. Childhood and adolescence are critical years that shape lifelong coping skills. When their basic physical and emotional needs are not met, they are unable to learn how to properly communicate and cope. Hospitals are less than ideal places to learn proper coping skills as the medical staff is not trained to address the highly acute psychosocial needs of these troubled children. Additionally, the nursing staff is mainly focused on the medical needs of the other patients since these children are incorrectly placed in medical wards and not psychiatric wards. The management of pediatric aggression is not something nurses are commonly prepared for, as they often lack the proper education, training, and confidence to manage this specific group of young patients.

Background and Significance

To provide appropriate patient-centered care, patients should be placed in settings that fit their individual physical and mental health needs. In a pediatric hospital, different nursing units specialize in caring for different types of patients. A medical nursing unit is built for taking care of pediatric patients who are ill and suffering from medical conditions. This can include diagnoses like pneumonia, malnutrition, diabetes, and asthma. Psychiatric nursing units are built to take care of patients with psychiatric needs, such as patients with acute suicide attempts and major depressive disorder. Most pediatric patients with aggression are considered to have chronic behavior problems that do not qualify for acute therapies that would be provided in a hospital; these children are more suited for long-term therapies in outpatient settings (Kaminski & Claussen, 2017). As parents and families find themselves unable to care for their children, health systems and insurance companies place them in either foster families or long-term residential facilities. Sometimes the children are released from their long-term residential facilities due to their acute behavioral outbursts and are denied return. Finding a safe, long-term, stable living situation for these children becomes a significant problem.

These challenges result in readmissions for these children to pediatric hospital settings which are not equipped to provide a safe, hazard-free environment. Nurses trained to care for patients with medical needs are left struggling when the patients show signs of behavior dysregulation. Dysregulated children are subject to impairment throughout adolescence and adulthood and are at increased risk for numerous deleterious outcomes, including substance abuse, suicidality, psychiatric hospitalization, persistent psychopathology, and personality disorders (Ametti et al., 2022). Children with aggression and behavioral disorders require a

certain skill set from nurses to be safe in a pediatric non-psychiatric hospital setting. The literature states that nursing staff need a large set of skills and strategies that can be adapted to effectively interact with the spectrum of ages, developmental stages, neurodiversity, and parental/guardian involvement experienced in the acute pediatric setting (Mitchell et al., 2020). When children become physically aggressive, verbally threatening, and manipulative, most pediatric staff nurses are minimally equipped with evidence-based training and de-escalation techniques to care for these patients.

Nurses thrive in environments where they feel secure in their knowledge base and confident in the work that they do. The work environment is defined by the conditions in which nurses work; it influences work attitudes and, in turn, work outcomes (Buckley et al., 2020). When the environment nurses work in does not promote education, training, and safety, nurses are subject to burnout which has a direct relation to high hospital turnover. Research shows that nurses perceive work stress as being positively associated with burnout (Buckley et al., 2020). Fortunately, establishing a nursing education program focused on the behavioral patient population is a way to increase nursing confidence in caring for these children. Learning evidenced-based de-escalation techniques, safety measures, and trauma-informed communication techniques will provide nurses with a skill set that enables them to provide better patient care to the pediatric population.

Purpose of Study

The purposes of this study were to a.) examine if Welle behavioral-management training was effective in improving pediatric nurse confidence in the management of pediatric aggression in a non-psychiatric setting and b.) examine the relationship between demographic characteristics and nurse confidence.

Research Questions

1. Does an educational intervention for the management of pediatric aggression in a non-psychiatric setting improve nurse confidence?
2. Is there a relationship between the demographic characteristics of the nurses in the sample with their reported confidence scores?

Education and Training

Education and training can heavily influence nurses' attitudes toward their work and their degree of job satisfaction. Work attitudes are thoughts and feelings toward different aspects of the work environment. Positive and negative work attitudes can impact job satisfaction, levels of burnout, job satisfaction, and productivity outcomes. Research shows that improved work attitudes are reflective of the nurses' being cared for by management, communication, support from staff, and awareness of emotional and physical reactions to aggressive patient behavior (Abozaid 2022; Casey, 2019). If nurses are trained to manage the aggressive behaviors of their patients safely and effectively, they are more likely to have a better attitude and more positive feelings toward their work. Education and training can provide nurses with a higher level of confidence in carrying out their daily care. Without confidence in their skill set, nurses will have greater job dissatisfaction. Nursing turnover is defined as nurses leaving their jobs, units, organizations, or professions altogether, and it has become a major concern for the healthcare industry. Turnover is significant for health systems for several reasons and has both economic and non-economic impacts. One research study reported a partial negative impact of nurse turnover on nurse staffing, nurse outcomes, and patient outcomes (Bae, 2022). This kind of negative environment can become cyclical. High turnover can create poor work conditions that might be detrimental to patients, their safety, and the quality of care provided. Nurses can

become less engaged in environments where safety is at risk, and poor quality of care can lead to additional turnover among nurses (Bae, 2022). The financial impacts of turnover are burdensome on health systems, now more than ever since the pandemic. With nurses uprooting their careers or leaving the profession altogether, the literature indicates that the costs related to the orientation and training of new nurses and unfilled positions and vacancies comprise the largest proportion of expenses in nursing turnover (Bae, 2022). When hospital systems are putting financial focus on the orientation of new nurses, there is less financial emphasis on specialty training for various things like aggression management. The turnover of nurses caring for these patients with behavioral disorders poses a risk to the quality of care being provided. Without effective training and education, new nurses may not have the skill set or confidence to manage these patients.

Theoretical Framework

Patricia Benner's novice-to-expert theory was the guiding framework utilized in this study. In this model, nurses are categorized into different stages of professional development including novice, advanced beginner, competent, proficient, and expert (Ozdemir, 2019). It was expected that most nurses participating in this study would be at the level of novice before the educational intervention; some nurses with more than one year of nursing experience at the advanced beginner stage; staff nurses with several years of experience at the competent stage. Age may or may not influence nurse confidence. It could be inferred that an older nurse may be more confident than a younger nurse, but years of nursing experience may be a better influence on confidence scores. The goal of this educational program was that nurses have a seamless transition from a lower stage of professional development to a higher stage. Newly graduated nurses were considered novices because they have little-to-no practical knowledge of how to

care for patients with challenging behavioral needs. Per Benner's theory, these nurses use general rules in a context-free, inflexible, linear fashion (Thomas & Kellgren, 2017). Once these nurses can safely care for a few of these patients, they transition to an advanced beginner. They can adapt their skill set based on previous experiences and can start to identify what makes each patient's situation unique. Advanced beginner nurses can use general principles, hospital policies and guidelines, experience, and intuition to apply learned rules that guide actions (Thomas & Kellgren, 2017). The primary intention of this study was to examine the effectiveness of aggression management training in moving nurses to more advanced stages according to Benner's theory.

With training and education, it was expected that nurses would at least be competent in the management of pediatric patients with aggression. Nurses at this stage will be able to adapt to unique patient situations with efficiency. Thought-processing and decision-making skills at this level become more independent and advanced. Greater prioritization skills are developed at this stage and confidence is fostered by handling aggressive patient situations more efficiently. Nurses at the proficient stage can step back and see situations in their entirety. Patient situations that involve aggressive behavior are dynamic and these nurses will be able to adapt to the changing tensions that arise. Instead of spending time planning and thinking, proficient nurses spend time taking action (Thomas & Kellgren, 2017). Over time, it was expected seasoned nurses that received this training would transition into the expert stage. Expert nurses become the unit resources and can be educators to teach future novices. They can apply theory to practice and are fully engaged with the team. Expert nurses are reflective and have a wide breadth of knowledge so that they can communicate with others efficiently and effectively.

A nurse with several years of experience can be a novice in caring for patients with behavioral disorders. This nurse may be an expert with other patient populations but maybe has not had the opportunity to care for as many aggressive patients. Contrarily, a novice nurse may come to the hospital with years of nursing assistant experience with this patient population and may progress to more advanced stages at a quicker pace. The literature states that development through Benner's theoretical stages is affected by clinical experience and length of time working in the profession (Ozdemir, 2019). With greater experience, nurses will have more opportunities to advance through Benner's theoretical stages.

Theoretical Definitions

Among the pertinent definitions related to this study is that of self-efficacy. In the study of nursing confidence, self-efficacy was found to be an essential pillar to building a strong foundation. Self-efficacy is the belief that one can perform the behavior needed to produce the desired outcome, whereas outcome expectancy is the appraisal that a particular behavior will result in the desired outcome. Self-efficacy is a significant factor in the promotion of behavioral change (Smith, 2021). Nurses that have high levels of professional self-efficacy tend to have higher levels of job satisfaction and show high levels of quality decision-making skills (Yoo & Cho, 2020). Nursing confidence is related to staff retention as well as levels of burnout. According to Yoo and Cho (2020), the higher the self-efficacy perceived by pediatric nurses, the higher the professional perception, and the better the relationship between nurses and patients. Lacking self-confidence in caring for pediatric patients with aggression and behavioral disorders is concerning because it can result in frequent activations of hospital emergency response systems leading to increased and potentially unnecessary use of chemical and physical restraint and isolation of patients (Mitchell et al., 2020). Self-efficacy directly relates to nursing

performance. According to Bahrami et al. (2021), nursing research has shown that there is a significant positive relationship between clinical skills and self-efficacy. In addition, nursing self-efficacy is associated with professional competence and progress (Bahrami et al., 2021). Overall, self-efficacy is paramount to nursing confidence and satisfaction.

Nursing Burnout

Nursing burnout is a concept that has been widely studied in several different settings. Some of these settings include emergency nursing, intensive care nursing, and pediatric nursing. However, there is a gap in the literature that examines burnout in pediatric nurses caring for children with behavior problems outside of a psychiatric environment. Casey (2019) specifies that nurses in non-psychiatric health settings do not receive the same education as nurses working in mental health environments to care for patients with aggression. The effects of burnout are experienced at the nurse, provider, patient, and organizational levels. Another factor to consider is how burnout affects confidence. Poor confidence levels can lead to frustration with work. When nurses do not have the knowledge to care for their patients, they can have role conflict and role ambiguity, which both attribute to burnout. A study by Akkoç, Okun, and Ture (2020) examined the exposure to repeated stressors for a long time combined with the inability to cope with prolonged stress as causes of burnout in the nursing profession. In the context of this study, nurses are caring for patients whom they do not have the skill set to care for, and consequently, they are unsure how to respond when a patient demonstrates aggression or attempts to harm themself or others. Nurses who experience uncertainty in role clarity can also encounter poor job satisfaction and burnout.

Workplace Safety

Workplace safety is an issue for all healthcare workers and is often underreported. Pediatric nurses who care for patients who demonstrate aggression are subject to workplace violence. Nurses who worry about their safety while at work are subject to higher rates of burnout (Akkoç et al., 2020). Violence in the workplace is not only an act but also a threat of violence directed toward persons at work or on duty, ranging from verbal abuse to physical violence (Abozaid et al., 2022). Workplace violence expands beyond physical assaults and can include emotional and verbal threats and harm. One study estimates that the number of healthcare workplace injuries was three times greater than those officially reported by employees (Keller et al., 2022). The impact of violence in the workplace can cause feelings of distress in nurses and instill fear in taking care of future patients with dysregulation disorders. It is estimated that 61% of nurses reported having symptoms of posttraumatic stress disorder after a workplace violence incident (Keller et al., 2022). If nurses experience increased levels of self-confidence and self-efficacy because of their training in managing pediatric aggression, they will experience increased levels of job satisfaction.

Trauma-Informed Care

An important concept related to the management of pediatric aggression is trauma-informed care. Pediatric patients with dysregulation disorders frequently suffer from post-traumatic stress disorder and act out using aggression as an emotional response to their trauma. When that aggression results in violence, the impact on pediatric nurses can be profound and long-lasting and can include post-traumatic stress disorder in the nurses as well (Keller, 2020). Trauma-informed care is a tool that pediatric nurses can use to create and maintain a culture of safety in the nursing unit and transparency in the patient-nurse relationship. Trauma-informed

care allows nurses to empower their patients to use their voices productively and safely. Training nurses in trauma-informed care teaches them to recognize the unique presentations of trauma in their patients and their families and the importance of seeing the impacts of all aspects of well-being while acknowledging that there are paths to recovery (Berg-Poppe et al., 2022). Trauma-informed self-efficacy occurs when nurses carry positive attitudes toward their ability to successful implementation of trauma-informed care and are more likely to commit and succeed in the implementation of change-agent behaviors (Berg-Poppe et al., 2022). Since work attitudes affect levels of burnout and job satisfaction, pediatric nurses should be trained in trauma-informed care to improve their attitudes toward their work.

Significance to Nursing

There is limited research guiding the best means of education to provide for pediatric nurses to manage care for patients with behavioral disorders. This is a unique population of nurses since their roles are not clearly defined outside of a psychiatric nursing unit. Data generated by nursing surveys on the effectiveness of education can provide useful information that can be disseminated to pediatric hospitals and offer guidance on best practices. The American Academy of Child and Adolescent Psychiatry is responsible for current practice parameters which include the use of family interventions such as parent guidance, training, and family therapy, as well as individual or group therapy, with a preference for a combined behavioral and explorative approach (Kaminski & Claussen, 2017). Utilizing evidence-based training methods on trauma-informed care benefits both the nursing staff and recipients of the care. Understanding how nurses perceive trauma-informed care and de-escalation techniques can help nurse leaders to determine what educational interventions will be most useful to improve the nurses' skill sets. There is a large gap in evidence related to this population of pediatric nurses

caring for patients with behavioral disorders outside of psychiatric units, most likely due to the fact they represent a small percentage of the nursing workforce.

Chapter 2

The Walsh University online search library of peer-reviewed articles was used to guide this literature review. Articles from within the last five years were analyzed. Keywords used for research included *nursing confidence, pediatric aggression, pediatric nursing confidence, pediatric nursing burnout, nursing de-escalation techniques,* and *aggressive patients.*

Nursing confidence related to the management of pediatric aggression is not a widely studied concept. However, the literature supports the positive correlation between nursing education and nursing confidence. According to Casey (2019), nurses need to have knowledge and confidence to be effective in identifying, communicating, and intervening in aggressive behavior.

Definition of Confidence

The literature lacks a true conceptual definition of nursing confidence. One study describes confidence as an "acquired attribute that provides individuals with the ability to maintain a positive and realistic perception of self and abilities" (Evans et al., 2010, p. 335). Self-Confidence is a phenomenon that is essential for nurses to provide current evidence-based practices, offer psychosocial support, and employ critical decision-making skills. Nurses with confidence can build autonomy and progress through the stages of Benner's theory. A non-psychiatric nursing environment that requires nurses to care for complex patients with dynamic behavioral needs requires a certain level of confidence within the nurses, one that cannot be developed without education and exposure. A large portion of the nursing confidence research is geared toward nursing students and newly graduated nurses. There is a gap in the research studying the confidence of nurses caring for patients with behavioral dysregulation disorders and the impacts of having knowledge-backed confidence.

Factors Impacting Confidence

There are some natural risk factors for gaining confidence that have been studied in literature. One such factor that impacts nurse confidence is the interactions between nursing staff. One study reported where supportive relationships are freely given, participants describe increased confidence (Evans et al., 2010). Without a culture of inclusion and teamwork, nurses may not feel supported in their area of work. Seasoned nurses with experience in a particular skill set can be a wealth of information and if they are not freely sharing their knowledge, the environment can become hostile and other nurses will not feel comfortable seeking guidance. The importance of fostering relationships among colleagues strongly contributes to confidence (Evans et al., 2010). As nurses progress through the stages of Benner's theory, they work to become increasingly autonomous. In one study that examined the level of confidence of nurses in the intensive care unit, nurses explained the benefits of having ample opportunities to practice skills as well as having clear expectations to make autonomous decisions supported by knowledge, skills, time, experience, and communication (Evans et al., 2010). Negative interactions with staff members and a lack of practice opportunities can greatly hinder nursing confidence.

Development of Confidence

One factor that is clear in the literature is that education plays a significant role in the development of confidence. However, analyses of aggression management training programs for nursing staff working in acute care hospitals are scant in the literature, with even fewer studies regarding the pediatric population (Mitchell et al., 2020). Simulation is one educational modality that enables nurses to practice their skills in an environment that models their true work environment. By nurses being provided with the opportunity to test strategies in a risk-free

environment, they can improve their situational awareness, communication, and leadership skills (Mitchell et al., 2020). The more opportunities that nurses have to execute the skills they are taught, the more confidence they can gain.

A limitation of confidence is that it is measured subjectively. The research shows that subjective confidence predicts adaptive behavior in decision-making tasks. When nurses' confidence is low, they are more likely to take more time before responding to a crisis, which can harm efficiency in patient care (Dautriche et al., 2021). An outcome of increased confidence in the context of this research aim would be that nurses could make efficient and effective decisions regarding patient care that lead to fewer emergencies and fewer staff injuries. By having confidence in their learned de-escalation techniques, nurses would be less fearful during interactions with patients with known aggressive behavior.

Self-Efficacy

One concept related to confidence that is paramount to this research is the phenomenon of self-efficacy. This is a concept that is central to nursing behavior and plays an important role in nurses' professional functioning (Bahrami et al., 2021). There is a correlation between nursing skills and self-efficacy. By improving nursing clinical skills, a nurse will become more self-sufficient in those skills which build confidence and self-efficacy. According to Bahrami et al., (2021), "Nurses need to be confident in their ability to provide professional care for patients and to make professional decisions. They also need to believe that they can produce the desired and expected results" (Bahrami et al., 2015, p.158). Pediatric nurses must feel confident in their ability to identify escalating behaviors by patients with behavior disorders such as oppositional defiant disorder and intermittent conduct disorders. These children can have somewhat unpredictable behaviors and moods, but often there are subtle signs that they are approaching

aggressive behavior. When these signs are identified, nurses can confidently utilize their learned de-escalation techniques and respond in a way that makes the patient feel safe. By providing nurses with training to care for pediatric patients with aggression, they will have greater confidence and self-efficacy in moments of crisis.

Altruism

Altruism is a core value of the nursing profession. Without being patient-centered with a focus on the patient and family unit, nurses may not feel motivated to provide quality care. Altruistic abilities allow humans to care for others selflessly and grow their levels of self-efficacy. The nursing profession is noted to be an altruistic one, and this is why so many nurses choose this career path (Bahrami et al., 2015). When nurses act within their natural tendency to be altruistic and make the patients' perceived needs a priority, they will often have a positive response from the patient which will increase their levels of confidence and self-efficacy. The literature explains that a "professional pediatric nurse should be able to organize and manage childcare through good nursing assessment and diagnosis, achieving successful outcomes" (Bahrami et al., 2015, p.162). When nurses can take their training and adapt it to real-life scenarios, they are more likely able to achieve positive outcomes. The true essence of altruism is to improve the well-being of others. If nurses have high levels of self-efficacy and believe in their ability to care for others, they are more likely to be confident in their work.

Outcomes of Enhanced Self-Efficacy

Self-efficacy offers a level of confidence that directly translates to action. For nurses to be able to confidently deliver trauma-informed care, they should achieve competency in trauma-informed self-efficacy. Berg-Poppe et al., (2022) found that when nurses hold positive attitudes toward their ability to successfully implement trauma-informed care, they are more likely to

commit to and succeed in the implementation of change-agent behaviors (2022). Becoming confident in a skill requires repeated practice and implementation of the skill. Consistently utilizing and reflecting on trauma-informed care will allow nurses to have improved levels of self-efficacy regarding those skills. As with confidence, a barrier to analyzing self-efficacy is that it is measured subjectively. However, examining self-efficacy can give insight into the effectiveness of education and training programs because education is only as strong as the outcomes it delivers.

Nursing Burnout

Nursing burnout is a concept within nursing literature that is a key driver for so many research studies. Nurse leaders that understand burnout can implement interventions to reduce the levels of burnout in their staff members. Although nursing burnout is a widely studied concept, pediatric nurse burnout related to behavioral health nursing in a non-psychiatric environment is lacking research and evidence on best practices. Akkoç, Okun, and Ture define burnout as "a syndrome of emotional exhaustion and cynicism frequently seen in working individuals and can lead to incompetence and low productivity at work" (2021). When nurses feel that their emotional resources have been exhausted, they can become detached and less engaged with their work. Burnout does not motivate nurses to learn new skills or apply skills at a higher level. When burnout leads to poor job satisfaction, nurses will not feel as engaged with their patients and may not apply skills such as de-escalation techniques. A concern with this specific population of nurses is that they care for patients with behavioral disorders as well as patients with intense medical needs. When nurses feel as though their internal resources have been exhausted, any lingering energy is prioritized in caring for patients with medical needs for fear of those patients having poor outcomes (Mudallal et al., 2017). By nurse leaders providing

nurses with the tools, education, and training to successfully manage pediatric patients with aggression and trauma, they will feel confident in their skill set and be better equipped to manage the needs of their patients.

Chapter 3

The Welle behavioral management training is an educational intervention designed to inform participants about utilizing trauma-informed care and de-escalation communication skills to care for pediatric patients with aggression.

Study Design

A non-experimental one-group pre-posttest design was used to evaluate the participants' level of confidence.

Setting

The setting for this research was an academic medical center in the Midwest United States. The educational program was provided to registered nurses on a 31-bed pediatric medical-surgical unit in the children's wing of the academic medical center.

Sample

A convenience sample of registered nurses employed on the pediatric medical-surgical unit was recruited to participate in this study. The target participants of this study were registered nurses who received the Welle training educational intervention in a small group setting. There were 46 registered nurses working on the unit at the time of this study. This included 17 full-time nurses, nine part-time nurses, and 16 per-diem nurses. Inclusion criteria were any staff nurses on the unit who had not previously received the training. Participants must have been 18 years old and older to provide consent to participate in the study. Nurses who were instructors of the educational intervention or who previously received this training were excluded from participating in this study. A G-power analysis found that the minimum sample size for this study was 27 participants (see Figure 5).

Measurement Instruments

The data for this study was collected and analyzed in a quantitative format. A demographic data questionnaire and *The Incidence of and Attitudes Toward Aggression in the Workplace* (Deans, 2001) survey were used to answer the research questions.

Demographic Survey

Demographic data were collected about the participants and included in the questionnaire sent via a REDCap link. Continuous variables included age, years of nursing experience, and years of nursing experience caring for pediatric patients with aggression. Categorical variables were stages of confidence, the highest level of education, employment status, and current level of training in the management of pediatric patients with aggression before the Welle Training.

The Incidence of and Attitudes Toward Aggression in the Workplace Questionnaire

The Incidence of and Attitudes Toward Aggression in the Workplace Questionnaire by Deans (2021) was intended to examine three areas related to aggression in the workplace: incidents, perceived confidence, and attitudes (Casey, 2019). A modified version of the questionnaire was used for this study. Eight questions from the full-length questionnaire related to confidence were used to measure pediatric nursing confidence before and after the Welle Training education intervention. These questions were provided in a Likert-scale format. The available answers were “not,” “somewhat,” “very,” and “extremely” confident. Attempts were made to contact Cecil Deans, author of the questionnaire, to gain approval for the adaptation of this questionnaire. The full questionnaire by Deans has a reported split-half reliability score of 0.83 for the entire questionnaire (Casey, 2019).

Procedures

The one-group pretest-posttest study design assessed participants' level of confidence in managing pediatric patients with aggression before and after the Welle training education intervention. To recruit nurses to participate in the study, an email with a link to the questionnaires was sent to eligible participants before the training and after the training (see Figure 4). The pretest was available for participants one week before their scheduled educational session. They received one reminder via email 24 hours before the session. The Welle Training educational intervention was offered in multiple different sessions in March, April, and May 2023. Nurses were asked to sign up for a session using an online application. A maximum of seven nurses were permitted at each training session. The training sessions were five hours long, either from 8 am-1 pm or 6 pm-11 pm to accommodate the nurses' various schedules. The training sessions were to occur regardless of this study, as it is a requirement for nurses to attend one training outside of their normal work hours. The nurses did not receive compensation for attending the training sessions outside of their scheduled work hours. Nurses who received prior training to become Welle-certified trainers taught the sessions and were excluded from the study. The posttest was available for two weeks following the session. Participants received an email link with the posttest immediately after the training, and an email reminder one week after the training. A two-week time frame was used to allow participants time to practice the skills learned in the training session. There is no clear data to support that a two-week time frame was a sufficient time frame for nurses to practice these skills. This timeframe was based on the fact that the average nurse works three shifts weekly, meaning that the participants would have an average of six shifts to practice the skills and reflect on what they have learned. The pre and post-surveys each took approximately ten minutes to complete.

Data Management and Analysis

Data were collected using the REDCap secure web application, which is used to build and manage online surveys and databases (*REDCap, n.d.)*. The data collected within REDCap was exported into IBM SPSS Statistics. SPSS Statistics Standard version 29 was used to analyze the data generated from this study. The participants' email was linked to a study identification number which was stored in REDCap. The pretest and posttest were automatically linked in REDCap using a unique record identification number for each participant.

Before analysis, a preliminary analysis was used to screen and clean data, check for errors in data entry, and assess for normality. Descriptive statistics were used to describe the characteristics of the sample and check data for violations of the assumptions of the statistical tests. Continuous and categorical variables were analyzed using descriptive statistics. Since thirteen females participated in this study which resulted in a small yield of data, the non-parametric technique Wilcoxon Signed Rank Test was used to analyze the data before and after the educational intervention.

Protection of Human Subjects

Approval to conduct this study was granted by the Institutional Review Boards at the academic medical center and Walsh University. Subjects were provided with an information sheet that served as informed consent (see Figure 4). After reading the information sheet, eligible participants clicked "yes" stating that they had read the information sheet and voluntarily agreed to participate in the study. Participants were not asked to provide protected health information during this study.

The study involved minimal direct harm or benefits to participants for participating and participation was voluntary. Due to the emotional nature of the content as it relates to children,

nurses could have potentially felt emotional distress during this study and were able to withdraw at any time. This was clearly stated on the information sheet that served as informed consent for this study. While efforts to maintain confidentiality were prioritized, there was a small risk of breach of confidentiality. Participant names and other identifying information were not linked to questionnaire responses. Instead, a unique study identifier was used to code each participant's identifiable data. These were linked to a master list. The data generated from this study was collected and stored within the secure REDCap web application. Once the analysis of identifiable information was complete, the data was deleted from REDCap. An indirect benefit of this study was that the conclusions created from the data benefit the greater nursing knowledge base and offer insight into the effectiveness of formal training for the management of pediatric patients with aggression.

Chapter 4

The purpose of this study was to examine if Welle behavioral management training was effective in improving pediatric nurse confidence in the management of pediatric aggression in a non-psychiatric setting. Additionally, the study examined the relationship between demographic characteristics and nurse confidence. This chapter explains the results of the study and how the different variables and areas of confidence relate to each other.

Table 1 reports the demographic characteristics of the sample of nurses who participated in the study. All nurses who participated were female (n = 13, 100%) and most held a bachelor's degree (n = 9, 69.2%). The average years of nursing experience were 8.5 years (SD = 9.1), although years of nursing experience ranged from 0-31 years. Most of the nurses were employed full-time (n = 7, 53.8%).

Table 1

Demographic Characteristics

Characteristic	*n*	(%)	*M*	*(SD)*	*Range*
Age			33.31	(9.56)	23-56
Years of Nursing Experience			8.5	(9.1)	0-31
Gender					
Male	0	(0.0)			
Female	13	(100)			
Level of Education					
Associate's Degree	2	15.4			
Bachelor's Degree	9	69.2			
Master's Degree/Higher	2	15.4			
Employment Status					
Full-time	7	53.8			
Part-time	3	23.1			
Per diem	3	23.1			

Note. N = 13

Nurses who participated in the study had experience with managing aggression an average of 3.8 years (SD = 3.9), although the range was between zero and 15 years. Most nurses in the sample (*n* = 12, 92.3%) had little to no training, however, one nurse felt she had received a lot of training on behavioral and aggression management before this training. Most nurses (*n*=6, 46.2%) considered themselves to be competent in aggression management, while only one nurse (*n* = 1, 7.7%) considered herself to be a novice before the training. Despite one nurse reporting that she had a lot of training, none of the nurses considered themselves to be an expert in the management of pediatric aggression.

Table 2

Demographics Related to Training and Confidence

Characteristic	*n*	(%)	*M*	*(SD)*	*Range*
Nursing Experience with Aggression			3.8	3.9	0-15
Level of Training					
No Training	5	38.5			
Little Training	7	53.8			
A lot of Training	1	7.7			
Stage of Confidence					
Novice	1	7.7			
Advanced Beginner	4	30.8			
Competent	6	46.2			
Proficient	2	15.4			
Expert	0	0			

Note. N = 13. Nursing experience with aggression is measured in years.

Research Question One: Does an educational intervention for the management of pediatric aggression in a non-psychiatric setting improve nurse confidence?

The differences in scores before and after the educational intervention using the *Incidence of and Attitudes Toward Aggression in the Workplace Questionnaire* are presented in Table 3. The average scores for all areas of confidence improved from pre-intervention to post-intervention. Overall, the data support that an educational intervention for the management of pediatric aggression in a non-psychiatric setting does improve nurse confidence. The data analysis showed that the average score for each area of confidence increased after the educational session. The area that had the greatest improvement in average scores was confidence in communicating with persons who are becoming aggressive ($p = 0.008$). The other areas that showed significant improvement in confidence scores were responding to fearful situations ($p = .034$) and responding to someone intimidating and manipulating ($p = 0.011$).

Table 3

Confidence Levels Pre and Post Intervention

Area of Confidence	Pre- Intervention				Post-Intervention				
	M	*(SD)*	*Mdn*	*Range*	*M*	*(SD)*	*Mdn*	*Range*	*p*
Dealing with Aggression	1.77	(.60)	2.0	1-3	2.23	(.44)	2.0	2-3	.059
Team Response	1.92	(.64)	2.0	1-3	2.38	(.50)	2.0	2-3	.059
Communicating	1.69	(.48)	2.0	1-2	2.54	(.66)	2.0	2-4	.008**
Restraining	1.69	(.86)	1.0	1-3	2.25	(.62)	2.0	1-3	.107
Moving Freely	2.00	(.91)	2.0	1-3	2.42	(.67)	2.5	1-3	.157
Reporting	2.83	(.94)	3.0	1-4	3.08	(.95)	3.0	1-4	.414
Responding to Fearful Situation	2.15	(.56)	2.0	1-3	2.69	(.48)	3.0	2-3	.034**
Responding to Intimidation	1.85	(.56)	2.0	1-3	2.54	(.52)	3.0	2-3	.011**

Note. $N = 12$; * $p < .05$, ** $p = ¸.01$; 1= not confident, 2 = somewhat confident, 3 = very confident, 4 = extremely confident.

Research Question Two: Is there a relationship between the demographic characteristics of the nurses in the sample with their reported confidence scores?

The relationship between continuous-level demographic characteristics and confidence scores was investigated using Spearman's rho analysis. There was no significant relationship between age, years of nursing experience, and years of experiencing managing aggression and reported confidence scores.

Since the data were not normally distributed and had a small sample size, a Kruskal-Wallis Test was used to compare differences in confidence scores between groups. Kruskal-Wallis Test revealed a statistically significant difference in confidence scores in responding to

intimidating behaviors across four stages of confidence (*n* = 1: novice; *n* = 3: advanced beginner; *n* = 6: competent; *n* = 2: proficient), x^2 (3, n = 12) = 7.82, p = .05. The nurses who perceived themselves as competent had a significantly lower median change score (Md = 0) pre to post Welle Training than the nurses who perceived themselves as novice, advanced beginners, or proficient (Md = 1).

Chapter 5

This chapter concludes this research study, reviews the purposes of the study, and summarizes key research findings. It also reviews the limitations of the study and proposes opportunities for future research. The purposes of this study were to a.) examine if Welle behavioral-management training was effective in improving pediatric nurse confidence in the management of pediatric aggression in a non-psychiatric setting and b.) examine the relationship between demographic characteristics and nurse confidence. Pediatric nurses are experiencing workplace violence and burnout because of the increased workload demand of caring for children with behavioral disorders. Results from this study suggest that providing nurses with education and training to manage these patients effectively will improve their confidence and lower the risk of violence and burnout.

One significant finding from this study was that the Welle Training educational intervention was effective in improving nurse confidence in the management of pediatric patients with aggression. The data analysis showed that the average score for each area of confidence increased after the educational training. The area that had the greatest improvement in confidence levels was nurses' communication with persons who are becoming aggressive. Another significant finding from this study was that demographic characteristics such as age and years of nursing experience had no impact on reported confidence scores. There was a significant correlation between dealing with aggressive situations and being a member of a team response in aggressive situations. There was also a significant relationship between the reported confidence scores of responding to someone intimidating and manipulating and being a member of a team response in aggressive situations.

Significance to Nursing

The findings from this study are significant to nursing and nursing education. These results suggest that education and training are paramount in helping nurses build their confidence to do their work. Nurses that do not feel confident in their clinical skills and judgment are at risk for poor job satisfaction, and education is one of the ways to combat this. The results of this study show that the Welle Training was most effective in improving confidence related to communication. This is a positive and significant finding because communication and de-escalation techniques are key elements of the Welle Training. Education in patient aggression management may reduce the frequency and intensity of violent patient outbursts because nurses have been equipped with the communication skills to safely de-escalate the patient's behavior. Nurses that manage these outbursts with confidence will likely feel more in control of an intense clinical situation which can improve outcomes. Nursing leadership and educators must prioritize aggression management education to minimize the risks of workplace violence and safety issues. Leaders should design and continue policies and procedures that prioritize nursing education related to pediatric aggression management.

Study Limitations

There are limitations to this study that hinder the generalizability of the findings. The small sample size was not a full representation of the number of pediatric nurses that work in non-psychiatric settings. The small number of nurses may not represent nurses' overall confidence levels in the management of pediatric aggression. One possible reason for the small sample size was that nurses were recruited using their work email accounts. Another possible reason was that some nurses changed which training session they were attending and disregarded the email link to participate.

Another limitation of this study was the timeframe for completing the post-test. Participants were given two weeks to complete their posttest. Some nurses may not have had ample opportunities to care for pediatric aggression during that timeframe to accurately report their confidence levels.

Implications for Future Research

Most research regarding patient aggression is in the adult population in emergency departments and psychiatric settings. The results of this study emphasize that there is a continued need for more research regarding pediatric nurses and the management of patients with aggression. More research regarding pediatric nurse confidence and best practices regarding the management of pediatric aggression can improve both patient outcomes and nursing satisfaction. It was surprising to see that demographic characteristics did not significantly influence confidence scores. Testing these relationships on a large scale could elicit more information regarding pediatric nurse confidence.

References

Abozaid, D., et al. (2022). Patient and visitor aggression de-escalation training for nurses in a teaching hospital in Cairo, Egypt. *BMC Nursing, 21*(1), 1-8.

Akkoç, I., Okun, O., Ture, A. (2020). The effect of role-related stressors on nurses' burnout syndrome: the mediating role of work-related stress. *Perspectives in Psychiatric Care, 57*(2), 583-596.

Ametti, M., et al. (2022). Frustration, cognition, and psychophysiology in dysregulated children: A research domain criteria approach. *Journal of the American Academy of Child and Adolescent Psychiatry, 61*(6), 796-808.

Bae, S. (2022). Noneconomic and economic impacts of nurse turnover in hospitals: A systematic review. *International Nursing Review, 69*(3), 392-404.

Bahrami, M., Alavi, A., Zargham-Boroujeni, A., Yousefy, A. (2021). Pediatric ward nurses' caring self-efficacy scale: Development and validation. *Iranian Journal of Nursing and Midwifery Research, 26*(3), 210-215.

Berg-Poppe, P., Abdellatif, M., Cerny, S., LaPlante, K., Merrigan, M., Wesner, C. (2022). Changes in knowledge, Beliefs, self-efficacy, and affective commitment to change following trauma-informed care education for pediatric service providers. *Psychological Trauma: Theory, Research, Practice, and Policy, 14*(4), 535-544.

Buckley, L., Berta, W., Cleverley, K., Medeiros, C., Widger, K. (2020). What is known about pediatric nurse burnout: a scoping review. *Human Resources for Health, 18*(9), 1-23.

Casey, C. (2019). Management of Aggressive Patients: Results of an Educational Program for Nurses in Non-Psychiatric Settings. Medsurg Nursing, 28(1), 9-15.

Dautriche, I., Rabagliati, H., Smith, K. (2021). Subjective confidence influences word learning in a cross-situational statistical learning task. *Journal of Memory and Language, 121*,

Deans, C. (2001). *Nurses' responses to work-related aggression.* [Doctoral dissertation, Victoria University]. Victoria University.

Evans, J., Bell, J., Sweeney, A., Morgan, J., Kelly, H. (2010). Confidence in critical care nursing. *Nursing Science Quarterly, 23*(4), 334-340.

Kaminski, J. and Claussen, A. (2017). Evidence base update for psychosocial treatments for disruptive behaviors in children. *Journal of Clinical Child and Adolescent Psychology, 46*(4), 477-499.

Kang-Yi, C., Adams, D. (2017). Youth with behavioral health disorders aging out of foster care: a systematic review and implications for policy, research, and practice. *The Journal of Behavioral Health Services & Research, 44*(1), 25-51.

Keller, A., et al. (2022). Mitigating pediatric inpatient aggression: A quality improvement initiative. *Hospital Pediatrics, 12*(5), 499-506.

Lee, H. and Fusco, R. (2022). Multiple types of childhood maltreatment, sleep, and anxiety in former foster youth. *Child and Adolescent Social Work Journal, 39,* 279-290.

Mitchell, M., Newall, F., Sokol, J., Heywood, M., Williams, K. (2020). Simulation-based education to promote confidence in managing clinical aggression at a pediatric hospital. *Advances in Simulation, 5*(1), 1-12.

Mroczkowski, M., Walkup, J., Applebaum, P. (2021). Assessing violence risk in adolescents in the pediatric emergency department: Systematic review and clinical guidance. *Western Journal of Emergency Medicine, 22*(4.1), 37-46.

O'Brien, D., Harvey, K., Howse, J., Reardon, T., Creswell, C. (2016). Barriers to managing child and adolescent mental health problems: a systematic review of primary care practitioners' perceptions. *British Journal of General Practice, 66*(651), 693-707.

Ozdemir, N. (2019). The development of nurses' individualized care perceptions and practices: Benner's novice to expert model perspective. *International Journal of Caring Sciences, 12*(2), 1279-1285.

REDCap. REDCap. (n.d.). Retrieved February 25, 2023, from https://projectredcap.org/software/#:~:text=REDCap%20(Research%20Electronic%20Data%20Capture,Online%20or%20offline%20project%20design

Smith, A. (2021). Evidence-based practice training in nurse residency programs: Enhancing confidence for practice implementation. *Teaching and Learning in Nursing, 16*(4), 315-320.

Thomas, C. and Kellgren, M. (2017). Benner's novice to expert model: An application for simulation facilitators. *Nursing Science Quarterly, 30*(3), 227-234.

Yildiz, I., Yildiz, F. (2022). Pediatric emergency nurses' workplace violence experiences: A qualitative study. *International Emergency Nursing, 62, 1-7.*

Yoo, S., Cho, H. (2020). Exploring the influences of nurses' partnership with parents, attitude to families' importance in nursing care, and professional self-efficacy on quality of pediatric nursing care: A path model. *International Journal of Environmental Research and Public Health, 17*(15), 1-13.

Appendices

Figure 1

Novice to Expert Theory by Patricia Benner (Thomas & Kellgren, 2017).
Novice: This nurse has little-to-no practical knowledge of how to care for patients with challenging behavioral needs and uses general rules in a context-free, inflexible, linear fashion
Advanced Beginner: This nurse can adapt their skill set based on previous experiences and can start to identify what makes each patient's situation unique. They can use general principles, hospital policies and guidelines, experience, and intuition to apply learned rules that guide actions.
Competent: This nurse can adapt to unique patient situations with efficiency. Thought-processing and decision-making skills at this level become more independent and advanced. Greater prioritization skills are developed at this stage and aggressive patient situations are managed more efficiently.
Proficient: This nurse can step back and see situations in their entirety. Patient situations that involve aggressive behavior are dynamic and these nurses will be able to adapt to the changing tensions that arise. Instead of spending time planning and thinking, proficient nurses spend time acting.
Expert: These nurses will become the unit resources and can be educators to teach future novices. They can apply theory to practice and are fully engaged with the team. Expert nurses are reflective and have a wide breadth of knowledge that they can communicate to others efficiently and effectively.

Figure 2

Demographic Questionnaire
1. What stage of confidence would you categorize yourself? (novice, advanced beginner, competent, proficient, expert)
2. How many years of nursing experience do you have? [#]
3. How many years of nursing experience do you have caring for pediatric patients with aggression? [#]
4. What is your highest level of education? (associates degree, bachelor's degree, master's degree, and above)
5. What is your employment status? (full-time, part-time, per diem)
6. What is your age? [#]
7. What is your level of training in pediatric aggression management before this training? (no training, little training, a lot of training)
8. What is your gender? (male, female, prefer not to say)

Figure 3

The Incidence of and Attitudes Toward Aggression in the Workplace Questionnaire not confident =1, somewhat confident=2, very confident =3, extremely confident = 4 Deans, C. (2001). *The Incidence of and Attitudes Toward Aggression in the Workplace Questionnaire.*
1. I feel confident with dealing with aggressive situations
2. I feel confident to be a member of a team response to aggressive situations
3. I feel confident in communicating with persons who are/becoming aggressive
4. I feel confident in physical restraining persons who are aggressive
5. I feel confident in being able to physically move freely (ie clothing, hair, disabilities)
6. I feel confident about reporting an incident to my line manager
7. I feel confident in responding to someone who is fearful or frustrated
8. I feel confident in responding to someone who is intimidating and manipulating

Figure 4

Email Sent to Eligible Participants

Email subject line: **Research Participants Needed at University Hospitals**

University Hospitals conducts medical research to find out how to provide the best care to our patients. We are currently looking for people to participate in a survey. Participation is always your choice. Even if you start, you can always choose to stop.

A research team at University Hospitals is currently looking for people to join a survey study:

The purposes of this study are to:

a.) examine if Welle behavioral-management training is effective in improving pediatric nurse confidence in the management of pediatric aggression in a non- psychiatric setting

b.) examine the relationship between demographic characteristics and nurse confidence

This project is being conducted by **Jaclyn Hull MSN, CNP, DNP student at Walsh University.** It should take approximately **10 minutes** to complete.

You may or may not qualify to be in this study – please click the link to find out if this study is right for you. You can also call the study team with questions. If you know someone else who might be interested in filling out this survey, contact us but please do not forward this link. Many people find value in participating in research to help others, both now and in the future.

If you are interested in learning more about this study before you participate, contact the research team at **Jaclyn.hull@uhhospitals.org or 216-844-5184**.

We will send one reminder to take the pretest 24 hours prior to the Welle training session you have signed up for. We will send the posttest upon completion of the training, and one email reminder one week after the training. The posttest will be available for a total of two weeks to allow you time to practice the skills you've learned in the training**.**

If you would prefer not to be contacted for this study, or have any questions about the research, please call **Jaclyn Hull MSN, CNP, DNP student at Walsh University at 216-844-5184 or email Jaclyn.hull@uhhospitals.org**.

To learn more about all studies at University Hospitals click to visit our website at: uhhospitals.org/research. All UH research is approved through a special review process to protect patient safety, welfare, and confidentiality. The Institutional Review Board (IRB) is a Board that is charged with protecting the rights and welfare of people who take part in research studies. The content of this message has been approved by the UH IRB.

Please click the link to the survey below to participate or learn more about this research.

REDCap will auto-populate the below language. Don't erase the below language from the REDCap text box! (You may remove this text).

You may open the survey in your web browser by clicking the link below:

[survey-link]

If the link above does not work, try copying the link below into your web browser:

[survey-url]

This link is unique to you and should not be forwarded to others.

Figure 5

G Power Analysis