Pediatric Nursing Resiliency Program to Combat Stress and Burnout Syndrome

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July 11th, 2023

Abstract

Registered Nurses (RNs), particularly in pediatric specialties, are facing increased responsibilities related to caring for vulnerable patient populations who are critically ill. Difficulties in carrying out complex patient care tasks have resulted in heightened levels of burnout, traumatic stress, and mental health crises leading to a shortage of bedside RNs. Anxiety and burnout syndrome is directly correlated with increased risks for patients (Waldron, 2021). The completion of a twelve-week pediatric nursing resiliency program developed based on Dorothea Orem's Self Care Deficit theory and The Community Resiliency Model was conducted in an inpatient pediatric progressive care unit. Professional Quality of Life (PROQol) scores developed by the Centers for Victims of Torture were utilized to obtain baseline measurements. Participants then completed PROQol scores post-implementation to allow project coordinators the ability to determine program effectiveness. Data analysis revealed an overall increase in perceived support and compassion satisfaction scores and a decrease in burnout, moral distress, and traumatic stress scores. The improvements in PROQol scores are expected to improve patient safety ratings and patient satisfaction scores, leading to increased reimbursements from the Centers for Medicare and Medicaid Services. Limitations for the project include limited participant numbers. Recommendations for future study include offering the program virtually and incentivizing the program by paying the participants their normal wages during the program duration or offering Continuing Education Units required to maintain licensure.

KEYWORDS: burnout syndrome, pediatric nursing, mental health, resiliency program, resiliency module, clinical skills, selfcare skills

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Section I. Introduction

Background

As the population of North Carolina continues to grow exponentially, nonprofit medical centers are experiencing an influx of high-acuity patients. This 234-bed pediatric hospital is located within a large non-profit academic medical center. This organization has earned awards across eight pediatric specialties, which allow the organization to exceed the organizational aim of achieving pediatric excellence (The United States News and World Report, 2022). As this hospital and the population expands, Registered Nurses (RNs) leave the bedside in droves (Grabbe et al., 2019). RNs are vacating inpatient staff nursing positions for various opportunities, including educational attainment, travel nursing experience, and pay raises in different departments. The commonalities behind the loss of bedside nurses are mental health crises, burnout, and exceedingly high-stress levels. Therefore, the topic of interest regards pediatric nursing stress and burnout reduction through completing a pediatric resiliency program.

Organizational Needs Statement

This organization is losing experienced RNs as they continuously leave the bedside to combat the stress associated with high-acuity pediatric care in understaffed environments. Many employees opt to return to school for different degrees, enter ambulatory specialties, or travel to provide improved pay allowing more breaks and time off (The United States Bureau of Labor Statistics, 2022). Without experienced RNs, this organization struggles to maintain its goal of providing exceptional pediatric care to patients and their families, as displayed in fluctuating patient satisfaction scores that commonly miss target scores for the organization. The neglect of the mental health of RNs has led to poor retention, understaffing, and the absence of experienced

professionals within inpatient units (Krolak, 2022; Waldron, 2021). As evidence-based practice findings transform patient care, the responsibility and critical thinking skills of RNs are at an all-time high. Understaffing and inexperienced nursing staff are placing entire specialties at risk as near misses and sentinel events resulting in patient harm, and dissatisfaction are more likely to occur under these circumstances, resulting in the loss of reimbursement and recognition from the nationally recognized Centers for Medicare and Medicaid Services (CMS) (Waldron, 2021). Undoubtedly, the non-profit organization desires to maintain and achieve its aims, awards, and honors. Therefore, inexperienced travel RNs are hired to fill the gaps, and monetary incentives to work overtime are offered to experienced staff, which is unsafe and inefficient (Hetzel-Riggin et al., 2020).

Approximately 50% of healthcare professionals across various specialties endure stress-related burnout syndrome during their careers (Delaney, 2018). Approximately 40% of nurses experience career anxiety (Zamanifar et al., 2020). Pediatric RNs are at a heightened risk for developing stress, anxiety, and burnout syndrome due to factors associated with the profession. Caring for pediatric patients of critical acuity has taken a psychological toll on healthcare providers due to the difficulties in balancing family-centered care with the patient's needs. Sometimes, grief and loss can be dysfunctional, disrupting the family unit and further affecting the healthcare providers caring for this specific population (Waldron, 2021). Caring for vulnerable patient populations may lead to sentiments of depersonalization, anxiety, and depression (Waldron, 2021). Additional risk factors for stress and burnout include extensive shifts and time away from support systems and social networks (Waldron, 2021; Zamanifar et al., 2020). Additionally, properly trained and experienced nurses who exhibit empathy and compassion suffer from compassion fatigue at increased rates as patient suffering, acuity, and

expectations rise (Pehlivan & Guner, 2020).

As nurses are experiencing the symptoms mentioned above, they are responding either with increased absenteeism due to stress-related illness or leaving the bedside for different opportunities across different specialties, resulting in higher nurse-to-patient ratios and increased inpatient nursing responsibilities (Grabbe et al., 2019). These responsibilities include medication tasks, patient hygiene priorities, infection prevention measures, patient documentation, and interdisciplinary collaboration (Grabbe et al., 2019). The increased workload and nursing responsibilities have led to increased patient errors due to impaired daily functioning and altered decision-making skills related to stress and anxiety (Zamanifar et al., 2020). Patient survey responses and responses to treatment largely drive total performance scores. Therefore, hospital metrics in total performance scores, patient engagement, and safety have declined, negatively affecting hospital reimbursement rates and national rankings (The Centers for Medicare and Medicaid Services [CMS], 2022A).

Routinely, CMS launches measurements and evaluations of various hospital-based metrics to determine hospital value-based purchasing across numerous areas. These scores are compared to national averages and expectations to determine reimbursements, hospital funding, awards, and honors (CMS, 2022A). The 2022 Total Performance Score of the organization of interest is 50%, ranked by CMS (2022). The top three scoring organizations in North Carolina earned total performance scores of 68%, 76%, and 86%, respectively, with many additional organizations scoring between 60-68% locally and nationally (CMS, 2022A). When evaluating community and patient engagement, this organization also lacks. Scores are currently 78.8% in nursing communication, 58.3% in nursing responsiveness, and 73.5% in overall engagement (CMS, 2022B). Top-scoring organizations in North Carolina earn scores averaging 80-86% for

nursing communication, 65-72% in nursing responsiveness, and 76-82% in overall engagement (CMS, 2022B). Top patient engagement scores nationally reach 90% and above (CMS, 2022B). A more specific analysis of the organization by evaluating patient satisfaction scores of the Children's Hospital determines the need for the resiliency program. The organization's target patient satisfaction score for inpatient pediatric services is a minimum score of 86.2% (RN Manager, personal communication, August 23, 2022). The specific unit where the project will be taking place barely meets this criterion, with a score of 86.3% as of August 2022 (RN Manager, personal communication, August 23, 2022). The unit was well below target scores at 84-85% in January, February, June, and July 2022 (RN Manager, personal communication, August 23, 2022). The project site has lower patient satisfaction scores than Neonatal Intensive Care, Neonatal Progressive Care, Pediatric Progressive Care, Pediatric Intensive Care, and Pediatric Cardiovascular Intensive Care specialties within the same organization (RN Manager, personal communication, August 23, 2022).

It has been proven that compassion fatigue is inversely correlated with decreased patient satisfaction scores since nurses combatting this issue often suffer from poor performance when ranked by patients and their support systems due to emotional exhaustion and time constraints (Waldron, 2021). Patient safety also becomes at risk as nursing anxiety levels increase due to anxiety's effect on the sympathetic nervous system clouding critical thinking and decision-making skills (Zamanifar et al., 2020). Therefore, interventions to combat stress and burnout syndrome symptoms have improved patient satisfaction scores, nursing satisfaction scores, and safety and efficacy ratings (Grabbe et al., 2019; Waldron, 2021; Zamanifar et al., 2020).

The organizational needs for this project are further supported by Quadruple Aim, which has been adopted from Triple Aim, which contains guidelines for organizations to improve

healthcare organization efficiency and total performance (Arnetz et al., 2020). The concepts discussed in Quadruple Aim include cost reduction, patient experience improvement, community health among populations, and healthcare professional well-being and emotional health (Arnetz et al., 2020). The resiliency program for pediatric nurses addresses each concept within Quadruple Aim. The goal of this project is to improve nursing well-being through the reduction of stress and burnout syndrome. The resiliency program is expected to reduce organizational costs associated with loss of reimbursements due to low patient experience scores, total performance scores, and safety scores ranked by CMS (Arnetz et al., 2020; Grabbe et al., 2019; Henshall, Davey, & Jackson, 2020; Waldron, 2021). The resiliency program is also expected to improve the overall wellness of the population of healthcare team members and patients due to the reduction in compassion fatigue, sentinel events, and near misses associated with excessive stress and burnout syndrome (Pehlivan & Guner, 2020; Zamanifar et al., 2021). A Healthy People 2030 aims to improve mental health by preventing mental health crises while managing patients with symptoms and diagnoses (The United States Department of Health and Human Services [USDHHS], 2022). The resiliency program offered in the project directly addresses this aim by measuring current stress and anxiety levels with a focus on preventing and managing stress and burnout syndrome to positively impact the mental health and wellness of pediatric RNs, pediatric patients, and their families.

Problem Statement

Increased stress, anxiety, and burnout syndrome are responsible for losing experienced and compassionate RNs from inpatient nursing. This has resulted in understaffing, inexperienced RNs facing high acuity caveats, and elevated nurse-to-patient ratios. As rated by CMS, these factors have directly related to patient infection, illness, injury, medication errors, near misses,

low patient engagement scores, and declining organizational performance scores. Therefore, hospital reimbursement and staff retention are rapidly declining, which has caused losses of corporate funding and decreased revenue.

Purpose Statement

The educational and interventional resiliency program aims to improve the psychological well-being of inpatient pediatric RNs to reduce burnout syndrome symptoms, including psychosocial and physiological complaints. Improvements in the mental health of RNs are expected to improve staff retention, creating a safer environment for patients due to adequate staffing with experienced professionals, thus decreasing the risk of error, infection, and injury. Finally, this organization can maintain and restore the Quadruple Aims and Healthy People 2030 objectives while providing exceptional pediatric care across various specialties, creating an example of excellence for the nation.

Section II. Evidence

Literature Review

Consultation with an experienced health sciences librarian was completed to develop simple phrases using the connection words “AND,” “OR,” “EITHER,” and “NOT.” The words and phrases were applied across the Cumulative Index to Nursing and Allied Health Literature (CINAHL) (EBSCO), PsycINFO (EBSCO), and Nursing and Allied Health (ProQuest) databases. The first literature searches began broadly with the terms (“nursing resiliency” OR “nurse burnout”) to gather background information on the topics of stress and burnout in the nursing profession. These broad literature search terms initially had hundreds of results, mainly about the 2020 coronavirus pandemic, so search terms were modified. The search continued by including the terms NOT ("COVID-19" OR "coronavirus pandemic" OR “SARS-CoV-2") to

obtain a consensus on the topic. Additional search terms employed include (“nursing resiliency interventions” AND “healthcare”), (“aromatherapy” OR “music therapy”) AND “nursing,” (“triple aim” OR “quadruple aim”) to obtain relevant data on what is currently being performed to solve the issue of nurse burnout. Initially, the search terms (“COVID-19” OR “coronavirus pandemic” OR “SARS-CoV-2") and (“pediatrics”) were excluded to eliminate bias in the results. However, later literature searches included “COVID-19” and “pediatrics” to generate additional information on the current knowledge base of the topic since the pandemic has increased the prevalence of mental health crises, including burnout syndrome and work-related stressors among healthcare workers. The project site champion recommended a specific article entitled "The Community Resiliency Model to promote nurse well-being" and was searched for specifically. The above search terms yielded a total of 283 articles. After the application of inclusion and exclusion criteria, seventeen were kept. Inclusion criteria include up-to-date literature published within the last five years, the English language, full-text works relevant to the nursing profession, and details of measurable and desirable outcomes. The level of evidence hierarchy details a research study’s design, methodology, and ability to be repeated based on evidence (University Libraries, 2022). This hierarchy has seven levels, with level one evidence being the most reliable, including randomized control trials and systematic reviews, and level seven being the least reliable, including expert opinions. The levels of evidence hierarchy were considered when choosing literature for this project with inclusion criteria to choose articles that rank at least a level five: evidence from systematic reviews on the hierarchy. However, most articles rank level two: evidence from a single randomized control trial and level three from quasi-experimental studies (University Libraries, 2022). All abstracts were read to determine if inclusion criteria were met, then the full-text articles were read entirely, with important points

highlighted for later reference.

Current State of Knowledge

Literature has outlined common characteristics and sources of nurse burnout syndrome to address this problem better. Nurse burnout is related to modifiable and non-modifiable risk factors that must be addressed when combatting this issue (De Kock et al., 2021). Non-modifiable risk factors that cause a greater incidence of work-related stress include younger age, female gender, less than five years of work experience, and workers who do not have siblings (De Kock et al., 2021). Modifiable risk factors for increased levels of burnout syndrome include heavy workloads, poor company support, and lack of knowledge in clinical specialty areas combined with poor coping strategies (Buckley et al., 2020; De Kock et al., 2019). Literature has supported different methods to address modifiable risk factors in developing protective factors to combat stress and burnout within nursing, including educational seminars, self-care education, debriefing opportunities, and medical care team events (Buckley et al., 2020; De Kock et al., 2019; Hines, 2019). The literature does not address specific best practice guidelines for handling stress and burnout in this profession. However, it details the importance of developing best practice guidelines for staff managerial support. Communication, meetings, and performance evaluations have offered employee support. Clinical education sessions in pain management have improved employee satisfaction in person and remotely. Personal coping workshops with debriefing opportunities reduced the risk of burnout syndromes and the mental health cascade that often follows (Buckley et al., 2020; De Kock et al., 2019; Hines, 2019).

Current Approaches to Solving Population Problems

Literature reviews indicate that the most successful interventions to address the problem of nurse-related stress and burnout syndrome are educational approaches aimed at developing

protective factors against stress and burnout. The most accepted and evidence-based education is based on resiliency training and mindfulness strategies, improving workplace satisfaction and patient safety scores (Delaney, 2018; Waldron, 2021). Resiliency has been achieved by implementing the community resiliency model, which outlines the importance of resiliency training. The Community Resiliency Model emphasizes adapting six self-care strategies: grounding, tracking, resourcing, gesturing, shift and stay, and helping others (Grabbe et al., 2020). The skills developed by the Community Resiliency Model focus on teaching participants to recognize and track when they leave their comfort zones through recognizing sensations and feelings that are grounding or relaxing compared to emotions and reactions to stressful situations and triggers. Making certain gestures and using resources while helping others has been proven to shift emotions in positive directions leading one back into resilient or comfort zones. The community resiliency model is further applied to maintain resilient states once reached by enhancing self-awareness, identifying internal triggers, and controlling responses to stress and trauma (Grabbe et al., 2020).

The literature review also indicates a need for self-care improvements made in the profession. Aromatherapy, visual, and music therapy have been proven effective in decreasing work-related stressors, demonstrating increased mental health and overall quality of life (Zamanifar et al., 2020). This was accomplished in a study of inpatient nurses by initiating a parasympathetic response to aromatherapy, specifically mint and lavender scents, and music therapy, specifically nature, and relaxation soundscapes. Data were evaluated by reviewing self-rated stress scores prior to therapy and after the initiation of therapy. Results in lower self-reported stress levels concluded the study (Zamanifar et al., 2020). Additional self-care strategies have been studied throughout the COVID-19 pandemic, further worsening the nursing shortage

(De Kock et al., 2021; Hossain & Clatty, 2020). Moral resilience, self-stewardship, and structural support have been proven to reduce moral distress, injury, and mental health crises (Hossain & Clatty, 2020). Moral resilience was reached in the study above through mindfulness education sessions and meditation over sixteen weeks. Self-stewardship approaches may be reached by providing participants with self-care mechanisms, including exercise, sleep hygiene strategies, aromatherapy through lavender and mint essential oils, and meditation. Structural support is implemented by creating coping workshops consisting of debriefing sessions by communicating as a team (Hossain & Clatty, 2020).

Evidence to Support the Intervention

The project site fully supports employee education through the Community Resiliency Model since this model has been implemented in numerous literature review studies and proven successful. Education that will be utilized addresses the six domains of the Community Resiliency Model: Grounding, Gesturing, Resourcing, Shift and Stay, Tracking, and Help Now (Grabbe et al., 2020). Completion of the course has yielded results of decreased stress levels, lower compassion fatigue scores, and improved overall resiliency scores when administered to inpatient RNs (Grabbe et al., 2020; Henshall, Davey, & Jackson, 2020; Pehlivan & Guner, 2020). Grounding is accomplished by increasing attention to the senses to notice when one is shifting out of resilient states. Gesturing is performed when one is experiencing certain emotions and can be a sign of satisfaction or stress. When stressed, comforting gestures have proven to improve mood and response to triggers. Resourcing is achieved by identifying positive resources in one's life and relying on these resources to guide one back to resilient states. Shift and stay provide mechanisms to remain resilient once resiliency is achieved. Tracking is the ability for one to notice when they are entering resilient zones. Tracking must be utilized to recognize that

one is becoming uncomfortable and dissatisfied to utilize the resiliency skills to shift and stay in resilient zones (Delaney, 2018; Grabbe et al., 2020; Pehlivan & Guner, 2020; Waldron, 2021).

Educational seminars will be held to discuss each aspect of the community resiliency model while providing opportunities to practice each skill, ask questions, and incorporate debriefing periods, which have been shown to improve workplace satisfaction demonstrated by various cross-sectional studies completed among inpatient settings (Delaney, 2018; Orem & Vardiman, 1995; Pehlivan & Guner, 2020). Previous studies have accomplished this training by providing educational sessions in a dedicated area to ease access to learning materials and support from presenters and other program participants. Allowing participants time to debrief and ask questions at the end of each session has made the sessions more enjoyable. It has been shown to reduce the risk of participants dropping out since questions and concerns may be addressed immediately while allowing skills to be reinforced during each session (Orem & Vardiman, 1995). Since the literature review also demonstrated the benefit of self-care strategies such as aromatherapy, music therapy, safe sleep, and exercise, the educational sessions will be concluded with a different self-care activity to be completed at home after each session (Zamanifar et al., 2020). Self-care strategies through aromatherapy and visual aids have been proven to improve personal well-being and quality of life via experimental and cross-sectional studies completed among inpatient nurses (Delaney, 2018; Hossain & Clatty, 2020; Zamanifar, 2020).

The organization supports the resiliency program interventions. The program is predicted to assist in meeting organizational goals in patient satisfaction, patient safety, and total performance score goals (Krolak, 2022; Waldron, 2021). The success of the resiliency program will also assist the organization in continuing to represent its mission statement, which details

improving health, hope, and healing for all (Atrium Health, 2022). The program also mirrors the organization's vision of leading health, learning, and community (Atrium Health, 2022). The resiliency program also aligns with the benchmarks illustrated in the Quadruple Aim to improve the cost-effectiveness of care, patient safety, clinical experiences, and outcomes for all (Arnetz et al., 2020).

Evidence-Based Practice Framework

The program will be executed following Dorothea Orem's self-care deficit theory. Guidelines of the theory elaborate on the premise that basic conditioning factors include personal factors (age, gender, developmental capacity, emotional stability), healthcare system factors, and environmental factors (patterns of living, sociocultural supports, and the allocation of self-care resources) (Orem & Taylor, 2021). The conditioning factors build the structure for one's self-care requisites (Orem & Taylor, 2011). Nurses who become aware of conditioning factors gain the ability to address and meet the demands of their self-care requisites, placing them at a decreased risk of falling into a self-care deficit (Orem & Taylor, 2011). Understanding mental health behaviors improves nursing focus and patient satisfaction (Orem, 1995). This theory has also identified ten positive mental health behaviors that patients and nurses may utilize to promote positive mental health. The behaviors outline enjoyment, understanding happiness and where it stems from, emotional control, and enduring suffering following unavoidable debriefing (Orem, 1995).

Six Sigma define, measure, analyze, improve, control (DMAIC) framework will further support this project. The Six Sigma framework is effective in nursing when conducting quality improvement projects to improve processes and save costs since it combines the best practices and processes to solve issues (Dawson, 2019). The first step in the Six Sigma framework

involves defining the problem: increased nurse stress and burnout levels that have resulted in declined patient satisfaction and safety outcomes (CMS, 2022). The next step in the process involves data collection to obtain accurate measurements for tracking and later analysis. This project will involve pre- and post-intervention self-reports of resilience, quality of life, and stress scores to obtain baseline and post-intervention measurements. During the data analysis, baseline measurements will play a role in identifying the top causes of work-related stress and burnout so the program can be modified to address these areas and improve the nurse burnout syndrome practice problem. The six-sigma framework's control aspect will represent the evaluation of the program's effectiveness through the utilization of the Professional Quality of Life Survey (PROQol) developed by the Center for Victims of Torture and completion of the post-intervention survey, which was developed specifically for the pediatric nursing resiliency program to determine the overall success of the specific program. This theoretical framework is expected to guide the program to success, efficiency, and the ability to make process changes.

Ethical Considerations and Protection of Human Subjects

Completion of University Quality Improvement/Program Evaluation Self-Certification Tool (Form 8272.22) has deemed the project a quality improvement process that does not constitute research or risk to human subjects, defined under 45 CFR 46.102(d) (University and Medical Center Institutional Review Board [UMCIRB], 2022). The intervention is equal to all RNs employed in the unit where the project occurs. Participation in the pediatric nursing resiliency program is voluntary and open to full-time, part-time, and pro re nata (PRN) employees. The program is also open to new graduates and highly experienced staff. Dayshift and night-shift employees are invited to participate. The pediatric nursing resiliency program does not pose a risk to participants by the University or project site institutional review boards

(IRBs). For this reason, formal IRB approval was not required.

The formal approval process prepared included specialty training provided by university guidelines and the project site's IRB. IRB training in ethics, unanticipated problems, and research involving vulnerable populations were completed in preparation for the project (UMCIRB, 2022). Collaborative Institutional Training Initiative (CITI) Program Modules were completed in Clinical Research Foundations, Social and Behavioral Research, and Biomedical Investigations (CITI Program, 2022). The CITI Program training initiative illustrates the importance of clinical advancement and integrity for project participants (CITI Program, 2022). Completing various programs in ethics, including a review of the Belmont Report and clinical research guidelines, has provided adequate preparation to adhere to ethical guidelines during the project program.

Section III. Project Design

Project Site and Population

The project site is within a large pediatric hospital in Central North Carolina. The pediatric hospital comprises nine inpatient medical units, a pediatric psychological unit, and a pediatric emergency department. The project will be taking place in one of the inpatient medical units. The population for which this project is aimed is inpatient RNs with various backgrounds and levels of patient expertise. Facilitators of the project site and population include the project site manager, the project site champion, and the project site educator, who played a large role in discovering the problem that needed intervention. Barriers include most of the participants being female, the education session only being offered at one location within the facility, and limited participants due to lack of time and energy to participate.

Description of the Setting

The project site is a twenty-four-bed inpatient pediatric unit specializing in neurosurgery,

trauma surgery, orthopedics, and complex medical conditions of the respiratory and neurologic systems. The project setting is within the medical unit to ensure all participants can access live educational and self-care sessions. The unit has a large, private conference room where educational seminars, debriefing sessions, and self-care activities will be discussed and practiced. Self-care activities are encouraged at home to enhance resiliency strategies in more comforting environments. These settings were selected to make the resiliency program more accessible to all interested in participating.

Description of the Population

The population of the project is inpatient pediatric nurses specifically employed in the medical unit where the project will be taking place. The expertise of the RNs encouraged to participate ranges from ten years of experience to new graduate nurses. Expertise levels are an average of three years of experience and range from Clinical Nurse I to Clinical Nurse II. All participants are female. The population's ages range from twenty-one to fifty, with an average age of thirty. Most participants are full-time employees. Approximately one-fourth of participants are African American, and three-fourths are Caucasian.

Project Team

The project team comprises a project leader, expert facilitators at the project site, and well-versed university faculty members. The project leader is a bachelor's degree-prepared RN with six years of nursing experience and enrolled in a doctoral program. Project lead responsibilities include conducting resiliency-based education sessions, self-care activities, monitoring debrief sessions, and administering and analyzing survey results of participants. The project site champion is a doctoral-prepared Nurse Practitioner (NP) with experience in leadership and research. The project site champion has assisted in developing the implementation

plan and project goals and measurements. The project site manager, site supervisor, and site educator have all worked together to analyze employee satisfaction, patient satisfaction, and patient safety scores ranked by CMS to determine the problem that needs to be addressed by the project implementation. The university faculty members have played a role in developing the project phenomenon, project implementation plan, data collection process, and data analysis while maintaining organization.

Project Goals and Outcome Measures

The project aims to improve employee resilience levels, which have been proven to impact employee satisfaction and patient safety directly. The method to achieve this goal is to implement a six-step educational resiliency program following the community resiliency model. Outcomes will be measured by obtaining self-reports of work-related stress and satisfaction scores by utilizing the Professional Quality of Life (PROQol) for healthcare professionals tool, which has been provided and developed by the Center for Victims of Torture (Center for Victims of Torture, 2023). An additional self-reporting tool was developed to evaluate the effectiveness, enjoyment, and likelihood of recommending the resiliency program to other specialty areas. Data from CMS will also be analyzed to compare the project site's pre- and post-intervention patient safety scores to determine the program's overall effectiveness.

Description of the Methods and Measurement

The tools utilized to obtain data for measurement include using self-reporting tools and comparing data sets provided by CMS and the specific project site. The PROQol survey and the Pediatric Resiliency Post-Intervention Tool are self-reporting surveys that provide data for the program’s effectiveness analysis. CMS provides annual patient safety and satisfaction scores that have been collected before the initiation of the resiliency program and will be recollected after

the completion of the program to provide a comparison. The patient satisfaction and safety scores are predicted to increase at the project site after the completion of the program. The six sigma DMAIC framework will provide a guide to obtaining data via self-reporting surveys and CMS measurements, measuring the survey and metric results, and appropriately analyzing the results to adequately control the problem that is rising nurse burnout and stress levels resulting in decreased employee satisfaction and patient safety.

Discussion of the Data Collection Process

The PROQol survey and the Pediatric Resiliency Program Post Intervention Tool are both Likert-style self-reporting surveys. Likert style surveys ask participants to rank certain categories on a numeric scale, with a score of one being the lowest and a score of five being the highest score. The PROQol survey is a short questionnaire that will be filled out before and after completion of the resiliency program to compare scores of stress, burnout, resiliency, and compassion fatigue. The post-intervention tool is a five-question Likert-style survey that requests feedback from project participants in areas of enjoyment of the program, usefulness, and recommendations for the future. The first PROQol survey will be completed in person before the start of the first lesson of the program. The last PROQol survey and the Post-Intervention Tool survey will be completed together after the completion of the final lesson of the program. The project facilitator will type the PROQol results into the PROQol webpage provided by the Centers for Victims of Torture to obtain results, which will be stored in a passcode-locked Excel file for analysis and comparison (Centers for Victims of Torture, 2023). All PROQol and Post Resiliency Program survey results will remain anonymous.

Implementation Plan

Development of the implementation plan is a team approach. It has been approved by the

project site champion, project site manager, and project site supervisor to assure the repeatability and success of the program. Participants will be randomly assigned a number or letter to remain anonymous at the program's start. The pediatric nursing resiliency program is a twelve-week program divided into six lessons on resiliency training following guidelines from the community resiliency model. The six lessons will focus on tracking, grounding, resourcing, gesturing, shift and stay, and help. Each lesson will be concluded with a self-care activity. A total of six self-care activities have been incorporated into the program so that a self-care activity can be discussed and performed with each education session. The self-care activities incorporated into the program are meditation, mindfulness, music therapy, sleep hygiene, aromatherapy, and exercise therapy. Self-care activities will be presented during lessons by handing out printed information sheets and discussing each activity while encouraging participants to complete these activities in the weeks following the lesson. Each topic will be covered separately for six lessons and six self-care activities. Lessons will begin during week one of the project and will occur biweekly. The lessons will occur in person, in a conference room at the project site. The education structure incorporates communication through one PowerPoint presentation that embeds one five-minute video presentation and one informative handout on a self-care activity for each lesson. The learning sessions will occur every other week and take approximately one hour. However, the same lesson will be re-taught between sessions to allow participants who could not attend the original lesson easy access to lesson plans and education materials while remaining on track with the program. Each in-person learning session will be followed by a new self-care activity to be completed at home with information about the intervention's background, effectiveness, and evidence. Every session will conclude with a debriefing period to ask questions, offer comments, converse, and share feedback. In accordance with the six-sigma framework aspects of measure

and analysis, the first lesson (lesson one) and the final lesson (lesson six) will be concluded by completing the PROQol survey, where participants are asked to complete these forms without signing names but signing their assigned number or letter and submit them to an enclosed box to remain anonymous. The control and improvement aspects of the Six Sigma framework will be met with the completion and analysis of the post-intervention tool.

Timeline

From May 2022 to August 2022, a project site was secured through communications with employees of the desired project site. A project site champion who provided information about developing a project phenomenon was established. Meetings were conducted with the project site manager, supervisor, and educator to develop the project phenomenon of nursing resiliency. The literature review sought background information on nurse burnout, stress, and resiliency strategies. A review of CMS metrics was also completed to establish baseline measurements in employee satisfaction, patient satisfaction, and patient safety scores. The literature review was completed from August 2022 to December 2022, which determined that the community resiliency model has effectively improved resiliency scores on the PROQol and patient satisfaction and safety. The implementation plan and project education PowerPoints, videos, flyers, posters, and handouts were finalized during this time. From January 2023 to April 2023, the nursing resiliency program was implemented on a twenty-four-bed inpatient pediatric unit. From May 2023 to July 2023, the results were disseminated and evaluated to ascertain the effectiveness and repeatability of the project across other specialty areas.

Section IV. Results and Findings

Qualitative results were continuously gathered throughout the implementation period. Feedback and recommendations were collected in two-week intervals through texts and in-

person one-on-one communications with all participants. Requests for feedback on the Resiliency Program materials, structure, and clinical skills were made three times throughout the program. Most participants expressed gratitude for the program with words such as “well organized,” “useful,” and “beneficial.” Qualitative results were gathered in further detail from the Pediatric Nursing Resiliency Program Post-Intervention Survey (Appendix F), where space was created for comments and recommendations for future resiliency programs. The Post Intervention Survey was administered on April 1st, 2023, after the completion of the program in its entirety. Participants were given seven days to complete the survey. Results yielded 100% appreciation and thanks from participants. Approximately 90% of participants appreciated the hybrid/virtual option and recommended that any future programs adhere to this course structure.

Quantitative results have been gathered pre- and post-intervention to obtain baseline measurements in Compassion Satisfaction, Perceived Support, Burnout, Traumatic Stress, and Moral Distress. The Centers for Victims of Torture granted permission to utilize the PROQol for Healthcare Professionals tool to gather numeric data. Pre-implementation PROQol scores were collected in January 2023 and post-intervention scores were developed for comparison on April 1st, 2023, after the completion of project implementation. PROQol score comparisons are labeled in the chart located in Appendix G, which shows increases in scores for compassion satisfaction and perceived support with decreases in scores for burnout, traumatic stress, and moral distress after successful completion of the Pediatric Nursing Resiliency Program.

Project participant demographics include African American and Caucasian RNs, an average age of thirty years, and an average experience of five years as an RN. Approximately 50% of participants are dayshift, 50% are nightshift, 25% are part-time employees, and 75% are full-time employees.

Discussion of Major Findings

The evidence found in the literature demonstrates improvements in employee and patient satisfaction because of resiliency-based education seminars and improvements in clinical skills. Gaps in the literature were discovered and mainly centered on the lack of participants, the majority are female participants, and a lack of new graduate participants. The participants' PROQol scores for compassion satisfaction and perceived support showed a positive correlation with the completion of the resiliency program. The participants' PROQol scores for burnout, traumatic stress, and moral distress correlate negatively with the completion of the resiliency program.

The project results were further supported after contacting the site manager for unit patient satisfaction scores. Patient satisfaction scores as of August 2022 were at an average of 86.2%. As of May 2023, patient satisfaction scores increased to 86.5% (Personal Communication, Nurse Manager, May 31st, 2023). The unit also exceeds the goal of 85% for comfort with communicating with nurses with a score of 88.3% as of May 2023 (Personal Communication, Nurse Manager, May 31st, 2023).

The literature further guided the implementation of the project by suggesting self-care strategies ranging from meditation, mindfulness, sleep hygiene, and exercise. During bi-weekly check-ins with participants, the feedback was positive for the self-care strategies chosen. Participants were happy to know that most of the self-care activities could be successfully completed in five minutes or less and could be utilized both in and out of the workplace.

Clinical skills education was implemented after week two of the project to strengthen the resiliency training, which 30% of participants requested. Clinical skills were carefully selected based on evidence found in the literature to ensure that the specific skill sets would positively

impact resiliency and could be utilized in clinical practice on a regular basis. The clinical skills selected include post-code debriefing, which participants requested, pain management in pediatrics, family-centered care, critical thinking skills, and clinical decision-making. Clinical skills education was developed utilizing resources such as textbooks, PowerPoint presentations, and journals from the University library system. Resources were gathered specifically from the American Heart Association, the American Academy of Pediatric Nurses, and the University Library system for healthcare professionals and allied health.

Section V. Interpretation and Implications

Costs and Resource Management

The project cost factors in supplies, personnel, and time. The cost of supplies is free since the program is based on the Project Site's Community Resiliency Model, a free online education offered through the organization. The Community Resiliency Model education is also offered free through YouTube. However, appropriate leadership personnel must teach the materials and effectively engage participants to see positive results. Only one staff member is required for education sessions to complete the program successfully. This individual may have a more significant influence if one is in a leadership role such as Nurse Manager, Clinical Supervisor, Nurse Educator, or Graduate Student. The annual salary for leadership positions ranges from $80,000-$100,000 annually. The virtual option further saves on cost as the organization was not required to provide space, meals, electricity, and Wi-Fi for individuals participating at home.

The costliest aspects of the project are the time spent during literature reviews (three separate reviews were completed and compiled into one), project planning which included creating an implementation plan and formulating project tools, and the time spent modifying and implementing the program. Approximately 125 hours were spent from July 2022 to August 2022

- compiling the initial literature review to gather background data on the project phenomenon. An additional fifty-hour literature review was completed from September 2022 to November 2022 to gather information on the specific education, theoretical framework, and self-care strategies with the most evidence of success in improving resiliency scores among inpatient RNs. Lastly, a twelve-hour literature review was completed from February 2023 to March 2023 during implementation to modify the implementation plan when incorporating clinical skills into the program. The average hourly salary for those in leadership roles ranges between $35 to $50 hourly.

Creation of the implementation plan required the completion of The Community Resiliency Model, a six-part education session that took approximately two hours to complete. Information from each aspect of the session was combined with notes taken during the literature reviews to compile all pertinent information into individual lesson plans for the Resiliency Program, which took twenty hours. Project modifications were made throughout the implementation phase, which included modifying Resiliency Program lesson modules, incorporating clinical skills into the program, and personally communicating with participants throughout implementation to gather feedback. The most significant modification was incorporating all learning materials, including recorded lessons, into a Resiliency Program Website, a central location for participants to access all learning materials at any time during and after program completion. Ten to twelve hours were spent teaching and broadcasting the materials.

Time, money, and resources can be salvaged by offering the Resiliency Program 100% virtually, not having to provide Wi-Fi, venue, electricity, and meals. Offering the Resiliency Program as a two-day event would save time and resources for bi-weekly check-ins throughout

the twelve-week program. The Resiliency program can be supported from a cost standpoint, proven in the budget. The Resiliency Program is a relatively low-cost program costing approximately $800 to implement if participants are voluntary and unpaid. If participants are paid for their participation, this incentivizes the program and costs approximately $300 per participant. However, the program is expected to improve RN retention rates, which saves the organization $50,000 in training costs per participant retained (Appendix H). The organization also saves money in CMS reimbursements based on improved patient safety and satisfaction scores.

Implications of the Findings

The project has made a difference in PROQol scores and Patient satisfaction scores when evaluating the quantitative data and comparing it with pre-intervention results. The project can continue to impact health and wellness, particularly for RNs completing the program, since it focuses on the self-care strategies of meditation, mindfulness, sleep hygiene, music therapy, aromatherapy, and exercise to improve physical well-being. The incorporated clinical skills of post-code debriefing, pediatric pain management, pediatric communication, family-centered care, and critical thinking skills have also improved patients and their family's health and wellness in addition to staffing compassion satisfaction scores.

Implications for Patients

Participation in the Resiliency Program has led RNs to reach executive functioning as their best mental selves. Patients are safer when RNs are well-equipped with self-care strategies and clinical skills to maintain resiliency and reduce burnout. Nurses are less likely to make medication errors and less likely to overlook physical assessment findings. Resiliency also makes RNs less likely to become fatigued and burnt out, ultimately leaving the bedside. Higher

nurse retention means that experienced nurses are available to tend to critical patients, leaving patients at a lower risk of sentinel events and near misses.

Implications for Nursing Practice

The project has improved nursing practice in multiple aspects. Interpersonal skills learned in skills training assist in the management of patient demands. In contrast, the skills learned in the CRM and Self Care sessions assist in managing work-related stress. The Resiliency program has also allowed teammates to demonstrate increased support for one another through the improvements made in team bonding.

Implications for Healthcare Systems

The healthcare system should utilize this model and framework for new hires to initially equip RNs with the necessary resiliency skills to prevent burnout and compassion fatigue before its development rather than trying to reverse feelings of stress, fatigue, and burnout. The Community Resiliency Model may also be utilized with experienced RNs as it effectively improves PROQol scores, demonstrated by the project. The cost analysis provided in the appendixes demonstrates that approximately $50,000 is saved in the retention of one Registered Nurse. This model is also expected to increase patient safety and satisfaction scores and increase the patient's likelihood to recommend the facility to family and friends, improving hospital revenue and reimbursement from the Centers for Medicare and Medicaid Services.

Sustainability

Project sustainability was a collaborative effort between the project site manager, educator, and supervisors who play a vital role in the program's continuation. The organizational stakeholders such as the Nurse Manager and project site manager are inclined to continue the program via the Resiliency Toolkit. Meetings were held with the Unit Based Council teams, and

ideas were also shared with compassion champions to promote the Resiliency Program throughout the organization. The Resiliency Program webpage and learning materials may remain public and shared for future use to promote sustainability. Sustainability measures were further supported by information learned in the leadership course, where strategies were developed to influence larger groups across different care settings. Although no additional units within the organization planned to use the Resiliency Program, the University showed an interest in the program for both undergraduate nursing students and graduate students. Therefore, the Resiliency Toolkit was shared with members of the faculty and counseling center at the University.

Dissemination Plan

The Resiliency Program was published to the University College of Nursing through a poster presentation on July 11th, 2023. The formal results were also published in the ScholarShip publication within the College of Nursing. Additional dissemination plans at the project site include the availability of an electronic Resiliency Toolkit that remains available for all employees at the project site. Further dissemination included sharing the electronic Resiliency Toolkit with faculty members within the University's Counseling Center to reduce burnout syndrome among student nurses prior to starting nursing careers.

Section VI. Conclusion

Limitations and Facilitators

Limitations include having only ten participants, all of whom were female. Not having any new graduate nurses also acted as a barrier since the program was unable to prove that it can prevent burnout and fatigue. Facilitators for the project include a doctorally prepared and experienced leader functioning as the project site champion, support from an experienced faculty

mentor, feedback and responsiveness of participants, a virtual option making the program more accessible, and different demographics among project participants.

Recommendations for Others

For future practice it is recommended that others are in leadership positions or take a leadership course prior to implementation to have a more large-scale impact and the ability to influence and reach a greater audience. Leadership strategies of organization skills, excellent communication, and the ability to gather feedback and modify the program's pending feedback are crucial in reducing participant dropout rates. A virtual option is a must as most participants operate on different schedules, and approximately 50 to 75% of participants attended sessions virtually or asynchronously. Leadership skills and connections to leaders are imperative to the project's sustainability since these individuals have influence and access to communications with RNs through email and huddles, impacting staff accountability.

Recommendations for Future Study

Although this project was launched among inpatient pediatric RNs, the findings indicate that this project may be implemented among other inpatient specialties, particularly those with increased burnout rates, including Critical Care Specialties, Emergency Departments, Operative areas, and Medical Surgical Units, to improve retention in highly critical patient care specialties. The project may also be modified to include clinical skills applicable to other healthcare professionals experiencing high rates of stress and burnout, including Nurse Practitioners, Physician Assistants, and Medical Doctors. The Resiliency Program may also provide benefits to students in undergraduate and graduate programs to prevent burnout syndrome in new professional roles. Gaps in service were identified during the project as a lack of support and

poor coping resources for RNs. These gaps were addressed by equipping the participants with debriefing and mental health tools available for free from the organization.

Final Thoughts

Inpatient RNs are leaving the bedside in droves, especially after the international health crisis of the COVID-19 pandemic. The loss of these experienced professionals has resulted in increased nurse-to-patient ratios, the loss of experienced RNs at the bedside, organizational reliance on expensive and inexperienced travel RNs, and losses in revenue from CMS due to patient errors, sentinel events and near misses. Improved RN resiliency and self-care strategies have been shown to improve compassion satisfaction and nursing retention resulting in improved nurse-to-patient ratios, retention of experienced staff, improvements in RN team building, and reductions in patient errors.

The Pediatric Nursing Resiliency Program has aimed to address an RN population vulnerable to stress and burnout due to the increasing demands of inpatient nurses and stressful patient losses. As medical advancements are continually being made, children with chronic illnesses are visiting the hospital more, children are more likely to survive traumatic accidents, and lifesaving surgeries are being executed. The health of our inpatient RNs is vital to prevent healthcare system collapse. Our nurses represent the future of healthcare, and we must make their health, safety, and wellbeing a priority.

References

Arnetz, B. B., Goetz, C. M., Arnetz, J. E., Sudan, S., Van-Schagen, J., Piersma, K., & Reyelts, F. (2020). Enhancing healthcare efficiency to achieve the quadruple aim: an exploratory study. *BMC Research Notes, 13*(362). DOI:10.1186/s13104-020-05199-8

Atrium Health. (2022). Our mission and vision. https://tinyurl.com/mr3nbaks

Buckley, L., Berta, W., Cleverley, K., Medeiros, C., & Widger, K. (2020). What is known about paediatric nurse burnout: a scoping review. *Human Resources for Health, 18*(9). https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-020-0451-8

2022A. Centers for Medicare and Medicaid Services. (2022). Hospital value-based purchasing (HVBP)-person and community engagement domain scores (HCAHAPS) [Dataset]. https://data.cms.gov/providerdata/dataset/ypbt-wvdk

2022B. Centers for Medicare and Medicaid Services. (2022). Hospital value-based purchasing (HVBP)-total performance score [Dataset]. https://data.cms.gov/providerdata/dataset/ypbt-wvdk

Center for Victims of Torture. (2023). PROQol: Professional Quality of Life. ProQOL

Collaborative Institutional Training Initiative Program. (2022). *CITI Program.* https://about.citiprogram.org

Dawson, A. (2020). A practical guide to performance improvement: Implementation of systemic methodologies. *Association of Operative Registered Nurses Journal, 110*(1). http://doi.org/10.1002/aorn.12723

De Kock, J. H., Latham, H. A., Leslie, S. J., Grindle, M., Munoz, S. A., Ellis, L., Polson, R., & O'Malley, C. M. (2021). A rapid review of the impact of COVID-19 on healthcare workers' mental health: implications for supporting psychological well-being. *Human Resources for Health, 21*(104). DOI:10.1186/s12889-020-10070-3

Delaney, M. C. (2018). Caring for the caregivers: Evaluation of the effect of an eight-week pilot mindful self-compassion (MSC) training program on nurses' compassion fatigue and resilience. *PLoS One, 13*(11). DOI:10.1371/journal.pone.0207261

East Carolina University and Medical Center Institutional Review Board. (2022). *IRB Frequently asked questions.* https://rede.ecu.edu/umcirb/irb-faqs/

East Carolina University and Medical Center Institutional Review Board. (2022). Quality improvement/program, evaluation self-certification tool. https://Ecu.az1.qualtrics.com

East Carolina University Libraries. (2022). *Library Resources for DNP Students: Understanding Results.* https://libguides.ecu.edu/c.php?g=945858&p=6818835

Grabbe, L., Higgins, M. K., Baird, M., Craven, P. A., & San Fratello, S. (2019). The community resiliency model to promote nurse well-being. *Nursing Outlook, 68*(3), 324-336. https://doi.org/10.1016/j.outlook.2019.11.002

Henshall, C., Davey, Z., & Jackson, D. (2020). Nursing resilience interventions- A way forward in challenging healthcare territories. *Journal of Clinical Nursing, 29*(19), 3597-3599. DOI:10.1111/jocn.15276

Hetzel-Riggin, M. D., Swords, B. A., Deck, J. M., & Spurgeon, N. S. (2020). Work

engagement and resiliency impact the relationship between stress and burnout. *Journal of Applied Psychology, 123*(5), 1835-1853. https://doi.org/10.1177/0033294119876076

Hines, M. (2019). Implementing self-care guidelines for nurses. *The Oklahoma Nurses Association*. Oklahoma Nurse - November 2019 (yumpu.com)

Hossain, F. (2021). Self-care strategies in response to nurses' moral injury during the COVID-19 pandemic. *Sage Journals, 28*(1). https://doi.org/10.1177/0969733020961825

Krolak, K. (2022). Nurse resiliency and burnout- NCNA membership forum. *Tarheel Nurse*. https://pubs.ncnurses.org/pub/5B9DA4D3-F6F2-3349-4197-033AB590794F

Liyanage, S., Addison, S., Ham, E., & Hilton, Z. N. (2022). Workplace interventions to preventor reduce post-traumatic stress disorder and symptoms among hospital nurses: A scoping review. *Journal of Clinical Nursing, 31*(11), 1477-1487. DOI:10.1111/jocn.16076

Orem, D. E. & Taylor, S. G. (2011). Reflections on nursing practice science: The nature, the structure, and the foundation of nursing sciences. *Sage Journals, 24*(1). https://doi.org/10.177/0894318410389061

Orem, D. E. & Vardiman, E. M. (1995). Orem's nursing theory and positive mental health: Practical considerations. *Sage Journals, 8*(4). https://doi.org/10.1177/089431849500800407

Pehlivan, T., & Guner, P. (2020). Effect of a compassion fatigue resiliency program on nurses' professional quality of life, perceived stress, resilience: A randomized

control trial. *Journal of Advanced Nursing, 76*(12), 3584-3596. DOI: 10.1111/jan.14568

United States Bureau of Labor Statistics. (2021, May). *Occupational employment and wages, Registered Nurses*. United States Department of Labor. https://tinyurl.com/4raxwczx

United States Department of Health and Human Services. (2021, May). *Mental health and mental disorders*. Office of Disease Prevention and Health Promotion. https://tinyurl.com/2mjwrnfa

United States World and News Report. (2022). *Levine childrens' hospital overview*. https://health.usnews.com/best-hospitals/area/nc/levine-childrens-hospital-PA6360280

Wake Forest School of Medicine. *Wake Forest eIRB.* https://research.wfu.edu/irb/

Waldron, M. K. (2021). Pediatric nurses' perceptions of patient satisfaction. *Continuing Nursing Education, 47*(1), 17-22. https://tinyurl.com/26ktvey2

Zamanifar, S., Bagheri-Saveh, M. I., Nezakati, A., Mohammadi, R., & Seidi, J. (2020). The effect of music therapy and aromatherapy with chamomile-lavender essential oil on the anxiety of clinical nurses: A randomized and double-blind clinical trial. *Journal of Medicine and Life, 13*(1). https://doi.org/10.25122/jml-2019-0105

Appendix A: Literature Search Log

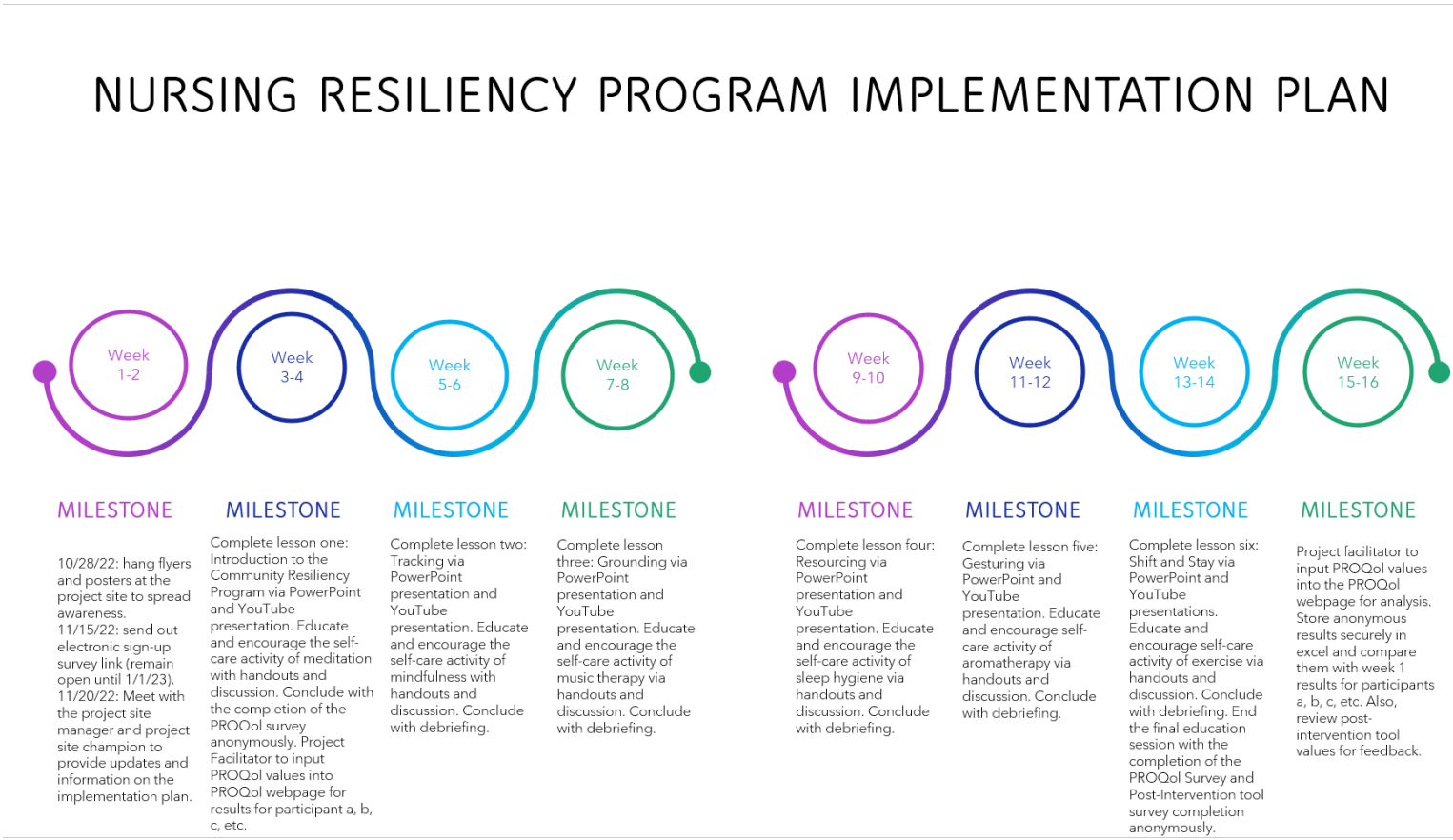
DNP Project
Literature Search Log

Student: Brittany Ortiz				**Date of Submissio**	**07/14/2022**
Project Title: Pediatric Nursing Resiliency Program					
Date of Search	**Database**	**Key Word Searches**	**Limits**	**# of Citations Found / Kept**	**Rationale for Inclusion / Exclusion (include rationale for excluding articles as well as for inclusion)**
7/6/22	*CINAHL*	nursing resiliency NOT COVID-19 OR Coronavirus pandemic	5 year time period, English language	21 found, 3 kept	Inclusion: full text available, meets nursing specilaty requirements, detailed, easy to follow, evidence-based Exclusion: Not pertaining to nursing, pertaining to patients or families, redundant, no full text available, not appropriate nursing specility, low level of evidence, difficult to follow
7/7/22	PsycInfo	nursing resiliency NOT COVID-19 OR Coronavirus pandemic	5 year time period, English language	7 found, 1 kept	Inclusion: full text available, meets nursing specilaty requirements, detailed, easy to follow, highly ranked on evidence-based heiriarchy Exclusion: pertaining to students, focused on community setting, no full text available
7/7/22	Pubmed	The community resiliency model AND nurse wellbeing	3 year time period, English language	6 found, 1 kept	Inclusion: Full text available, discusses this particular model pertaining to nursing Exclusion: discusses context of covid-19 pandemic, discusses provider resilency (not nursing), community based focus, outpatient centers
7/7/22	Pubmed	Nursing Resiliency Interventions AND Healthcare	2 year time period, English language, Free Full text, Associated Data	44 Found, 2 kept	Inclusion: Full text, discusses interventions outside of the scope of solely education and training, discusses measurement and assessment tools, nursing focused Exclusion: COVID-19 related, non nursing related (students, providers, patients), community focus, no full text available, religious intervention, Emergency Department centered
7/8/22	Pubmed	Aromatherapy, Music Therapy, Nursing	2 year time period, English language, Free full text	5 found, 1 kept	Inclusion: relates to nursing, highest level of evidence, organized, consise, ability to replicate the study Exclusion: centered on patient experience (acute pain, palliative, psych patients)
7/8/22	PsycInfo	Interventions to Reduce Stress in Nursing	2 year time period, English Language, Free Full text, Academic Journal	41 found, 1 kept	Inclusion: related to inpatient nursing profession, clear and consise, high level of evidence, from a reputable source, up to date, provides methods that are repeatable and align with aims of DNP project Exclusion: related to physical stressors (back pain, migraines), related to patient symptom management, related to provider stress (non nursing), not appropriate specialty (ED, outpatient, psych)
7/10/22	Pubmed	Triple Aim, Quadruple Aim, Healthcare	2 year time period, English language, Free full text, academic journal	4 found, 1 kept	Inclusion: answers my question on what the aims are, how achieved, how measured, easy to read, accurate, and up to date Exclusion: Repetitive, not pertaining to hospital-based care or nursing
9/12/22	CINAHL	guidelines on nurse resiliency	5 year time period, English language	3 found, 2 kept	Inclusion: English language, directly related to pediatric specialty, discusses the current state of knowledge on the topic Exclusion: Out of date, not clear to reader, not pertaining to inpatient specialty
9/12/22	Pubmed	guidelines, nurse, mental health	3 year time period, English, Full text, Systemic Peer Reviewed	6 found, 1 kept	Inclusion: At least level V on evidence-hierarchy, easy to follow, clear methods, so easy to replicate Exclusion: Not related to the field of nurses but related to patient education
9/18/22	PsycInfo	self-care strategies AND nursing	3 year time period, English, Full Text	5 found, 1 kept	Inclusion: At least level V on evidence-hierarchy, easy to follow, clear methods, so easy to replicate Exclusion: Not related to the field of nurses but related to patient education
9/19/22	Sage journals	Dorothea Orem	Full e-text, Primary Source	57 found, 1 kept	Inclusion: AP least level V on evidence-hierarchy, easy to follow, clear methods, so easy to replicate Exclusion: Not related to the field of nurses but related to patient education
9/20/22	ECU Laupus Library	Dorothea Orem	Full e-text, Primary Source	187 found, 1 kept	Inclusion: AP least level V on evidence-hierarchy, easy to follow, clear methods, so easy to replicate Exclusion: Not related to the field of nurses but related to patient education
9/20/22	ECU Laupus Library	Six Sigma Framework	Full e-text, nursing specialty, journal article	34 found, 1 kept	Inclusion: level V on evidence-hierarchy, easy to follow, clear methods, discusses framework at hand, so easy to replicate Exclusion: Not related to the field of nurses but related to patient education or business theories

Appendix B: Literature Review Log

Authors	Year Pub	Article Title	Theory	Journal	Purpose and take home message	Design/Analysis/Level of Evidence	IV DV or Themes concepts and categories	Instr. Used	Sample Size	Sample method	Subject Charac.	Comments/critique of the article/methods GAPS
Krolak	2022	Nurse resiliency and burnout - NCNA membership forum	N/A	*Tarheel Nurse*	North Carolina Nurses Association held their annual Membership Forum where the chosen topic of discussion was nurse resiliency and burnout. Members had opportunities to discuss causes of burnout (fear, fatigue, anxiety, anger, PTSD after pandemic). Members also provided recommendations (education to assist in self care/resiliency, advocate for experienced bedside nurses, safe staffing).	Level V Opinions of nursing experts and NCNA Members	Concepts of burnout, stress reduction, and resiliency.	Unstructured interviews and discussions containing storytelling, description of issues, recommendations, and debriefing. NCNA resiliency educational material NCNA Post-Convention Survey	100	Convenience Sampling. Voluntary NCNA Members	Students, members, guests, practicing RNs	The authors found that nurse burnout is a key indicator of the bedside nursing shortage due to early retirements and career changes. Limitations: Large sample size, informal, the lowest level of evidence. Usefulness: Provides a starting point to begin combatting the issue of nurse burnout. Nurses are open and even requesting education on this topic. Synthesis: Most common cause of stress is mental health crises due to the growing demands of inpatient nursing. Many occupants request resiliency and self-care education along with advocacy for patient safety through safe staffing and experienced nurses.
Waldron	2021	Pediatric nurses' perceptions on patient satisfaction	Professional Quality of Life Framework	*Continuing Nursing Education*	Nurses play a vital role in patient satisfaction. Compassion fatigue and burnout result in lower satisfaction scores. When nursing resiliency is achieved patient and employee satisfaction exceed goals.	Level II Quasi-Experimental	Concepts of compassion satisfaction, compassion fatigue, nurse burnout, patient satisfaction	RN Perception Questionnaire (perceptions on patient satisfaction) PROQOL-V (to measure burnout and stress)	102	Convenience sampling. Voluntary Participation. 5 pilot pediatric units.	Full or Part-Time. Employed in 1 of 5 pilot units representing acute care, critical care, specialty care, and ambulatory care. Exclusions: float or travel RNs, non-direct care.	The authors found that many inpatient pediatric nurses are at risk for burnout due to 12-hour shifts, high patient acuity, high patient ratios, and environmental stressors. Patient satisfaction is higher in organizations with low nurse turnover and high nurse satisfaction. Limitations: The majority of participants were young (60% < 30), and inexperienced (80% < 4 yrs experience) Usefulness: This provides mechanisms to improve compassion satisfaction which is directly related to patient satisfaction scores, which are tied to reimbursements from the Centres for Medicare and Medicaid Services Synthesis: Compassion fatigue has 3 domains: psychological, physical, and behavioral. These are all combatted with reflective debriefing, resiliency education, recources, and the facilitation of self-care activities including yoga, meditation, and mindfulness.
Hetzel-Riggin, Swords, Tsang, Deck, Spurgeon	2020	Work engagement and resiliency impact the relationship between nursing stress and burnout	Work Engagement and Burnout	*Applied Psychology*	Increases in work-related stress are related to short staffing and high acuity patients, which can lead to burnout syndrome. Absorption, resiliency, vigor, and dedication are targets to address in employee support and education to reduce turnover and improve nursing work environments to decrease stress leading to high turnover.	Level II Quasi-Experimental	Concepts of resiliency, adversity, and positive adaptation. Burnout Syndrome.	Nursing Stress Scale (measure work-related distress) Utrecht Work Engagement Scale (measure dedication, absorption, vigor) Rebmed Resiliency Scale (Rate levels of resiliency) Maslach Burnout Inventory (assess burnout levels)	76	Convenience sampling was utilized to recruite from the Pennsylvania State Nurses Association.	93.3% Female 34.2% Associate Degree Nurses 36.8% Bachelors Degree Nurses 13.2% Masters Degree Nurses 3.9% Doctoral Degree Nurses 0.5 to 52 years experience in nursing.	The authors found that increased resiliency in the nursing profession is accountable for increased job satisfaction and intent to stay due to the ability to combat stressors of work and life. It was also found that increased stress accompanied by low resiliency levels is responsible for emotional exhaustion and depersonalization. Limitations: Small sample size, recruited from the same place, majority of female participants, self-reporting surveys. Usefulness: This article provides many evidence-based tools that may be utilized to assess stress, engagement, and resiliency. Synthesis: The greatest risk of increased stress is depersonalization and burnout syndrome which will result in increased turn over staff rates and contribute to the nursing shortage.
Pehlivan & Guner	2020	Effect of a compassion fatigue resiliency program on nurses' professional quality of life, perceived stress, resilience: A randomized control trial.	N/A	*Journal of Advanced Nursing*	The most effective reducers of compassion fatigue are training and institutional arrangements. The Compassion Fatigue Resiliency Program (CFRP) is structured training provided to inpatient nurses to reduce and combat stress while improving resiliency.	Level I Randomized Control Trial	IV: Resiliency and Compassion Scores DV: Stress Levels, Quality of Life	The Compassion Fatigue Resiliency Program (CFRP) Professional Quality of Life Scale IV (ProQOL-IV) Perceived Stress Scale Resilience Scale for Adults	125	Random Assignment of Heme-Onc nurses across three different organizations Experimental 1: 10 hours of resiliency training (34) Experimental 2: 50 hours of resilience training (49) Control: No training (42)	Inpatient Heme-Onct Bone Marrow Transplant Nurses Outpatient chemo nurses Excluded: pediatric nurses and non direct care	The authors found that the CFRP training alone did not impact CF or resiliency scores. Pbothaps additional interventions should be carried out in combination with training opportunities for greater effects. Limitations: based on self-reporting, high rate of employee turnover, drop-out during study, high work-load in particular hospitals Usefulness: This training may be more useful in other facilities where staff is not as short and environment is more favorable. Resiliency is not achieved through education alone, it is a combination of environment and educational opportunity. Synthesis: Compassion fatigue was not greatly reduced after the CFRP training, but decreased to some degree in the long-term education group. CFRP Had no effect on patient satisfaction or resiliency in both the long-term and short-term groups in comparison to the control group.
Grabbe, Higgins, Baird, Craven, & San Fratello	2020	The community resiliency model to promote nurse well-being	Theoretical concept of the "Resilient Zone" described as a state of balance where learning, problem solving, and efficacy is highest.	*Nursing Outlook*	The American Nurses Association has initiated "Healthy Nurse, Healthy Nation Initiation" to reduce nurse stress, burnout, and fatigue. This study utilized evidence from the CDC pertaining wellness as a guide for nurses everywhere during the initiation of the community resiliency model.	Level I Randomized Control Trial	IV: Resilient zone DV: Stress and fatigue	Community Resiliency Model (enhanced self awareness, identification of internal triggers, control of response to stress and trauma). WHOS Well Being Index Connor Davidson Resilience Scale Secondary Traumatic Stress Scale Copenhagen Burnout Inventory Somatic Symptom Scale-8	196	Convenience sampling Nurses were selected via an email invitation Experimental group: attended CRM Class Control Group: Attended healthy diet and exercise class	95% female Median age 47 yrs Median experience 17 yrs Various specialties (ED, OR, ICU, Specialty, MedSurg)	The authors found alarm numbers of stress and burnout upon initial assessment and the study results indicated that the CRM training on psychosocial awareness is beneficial to inpatient nurses. The study suggested that resiliency training be included in annual in-service training to improve resiliency. Limitations: majority of participants women, many people cancelled or did not show up to training, drop outs mid study, self reporting discrepancies. Usefulness: This tool is beneficial in improving resiliency of inpatient nurses through its ability to educate staff on mindfulness, body sensation awareness, and sensory awareness. Synthesis: CRM in combination with adaptive exercises (exercize, journaling, debriefing, meditating) has shown to improve resiliency, staff satisfaction, and retention.
Henshall, Davey, & Jackson	2020	Nursing resilience interventions- a way forward in challenging healthcare territories	Perconal resilience and resilience enhacement	*Journal of Clinical Nursing*	Resiliency programs are sometimes seen as being for weaker or vulnerable staff. However, when this viewpoint is shifted nurses are no longer deterred from this concept. Resilience interventions do not stop at training and education, however peer relations and environmental change must occur to improve resilience in the long run.	Level III Non experimental	Concepts of resiliency interventions, altruism, compassion, and empathy.	United Kingdom NHS National Retention Strategy (launched to decrease staff nursing turnover rates in all hospitals)	N/A	N/A	N/A	The authors found that resiliency is a dynamic and individualized concept that varies for different personalities, dynamics, and experiences. Therefore, different approaches across various areas must be made to improve resiliency. Limitations: Non-experimental, not performed in USA (healthcare is different in structure, access, type, coverage, laws in different geographic locations) Usefulness: This article provides resiliency interventions outside of educational training that has proven to be of impact including storytelling, debriefing, eliminating negative stigma). Synthesis: Resiliency plays a role in employee retention, which keeps experienced staff in patient care areas, imperative for safety.
Delasoy	2018	Caring for the caregivers: evaluation of the effect of an eight week pilot mindful self compassion (MSC) training program on nurses' compassion fatigue and resilience	Self Compassion Self Awareness Mindfulness A sense of common humanity	*PLoS One*	40-60% of healthcare professionals are plagued by severe stress and burnout during their careers. Compassion skills training provided to nurses has been shown to improve resiliency while decreasing compassion fatigue.	Level II Quasi-Experimental	IV: Mindfulness and Compassion DV: Stress and burnout All participants were provided with the intervention and pre and post-intervention scores were compared for analysis.	Mindfulness Meditation Loving Kindness Meditation Compassion Meditation Neff Self Compassion Scale Freiburg Short Mindfulness Scale ProQOL Scale Conor-Davidson Resilience Scale	13	Convenience Sampling	100% Female Avg age 44 yrs Avg experience 2.5 yrs	The author found that this particular training has led to increased self-reported resiliency and positive mental states. Limitations: Small sample size, lack of a control group, a pilot study Usefulness: This information may be utilized when finding a tool to assess baseline levels of compassion, resiliency, and QOL. Mindfulness education may be used to improve self-care and mental health, which is an aim of Healthy People 2023. Synthesis: Meditation and mindfulness training is effective in improving staff retention and patient satisfaction.
Zainasifar, Baghavi-Saveh, Nezakati, Mohammadi, & Seidi	2020	The effect of music therapy with chamomille-lavendar essential oil on the anxiety of clinical nurses: A randomized and double blind clinical trial	Aromatherapy, Self Care, Stress reduction	*Journal of Medicine and Life*	Approximately 40.3% of nurses in this facility were experiencing some levels of anxiety contributing to poor job satisfaction and high turnover. This study aimed to non-pharmacologically reduce stress among inpatient nurses across various specialties to reduce anxiety and improve job satisfaction. The utilization of non pharmacological methods in the reduction of anxiety is effect when compared to control groups.	Level I Randomized Control Trial	IV: Therapy effects DV: Nursing Anxiety Levels	Beck Anxiety Inventory Chi-square test (to assure randomization of groups)	120	Purposeful Sampling in a hospital setting Inclusion Criteria: healthy sense of smell, willingness to participate, shift work Exclusion Criteria: pregnancy/lactation, COPD/Asthma/Allergy, unwillingness to participate, taking psychological pharmaceuticals	Nurses from Adult ED, Adult ICU, Peds ED, PICU, NICU, Heme/Onc, General Pediatrics Group 1: Music Only Group 2: Aromatherapy Only Group 3: Both Group 4: None	The authors found that the utilization of essential oils during aromatherapy and music significantly reduced anxiety in comparison to the control groups. Limitations: length of study was short, shift work of nurses makes it difficult to provide all therapy sessions to all nurses, self reporting of anxiety. Usefulness: This may be used in inpatient settings to reduce stress among nurses. Synthesis: This intervention is also something that can be provided to nurses to utilize in their homes off shift to improve work life balance and overall quality of life.
Lipsange, Addleton, Hain, & Hilton	2021	Workplace interventions to prevent or reduce post-traumatic stress disorder and symptoms among hospital nurses: A scoping review.	Mental Health and Wellbeing	*Journal of Clinical Nursing*	This study reviewed the literature to determine effective workplace strategies to reduce symptoms and risk of PTSD among nurses. The most effective interventions were determined to be guided imagery, debriefing and reflection, and mindfulness exercises.	Level I Meta Analysis	Themes and concepts include mental health, PTSD, work-related trauma. Opposing concepts discussed were reduction in workplace trauma and reduction of stress.	PRISMA Scoping Review Checklist	6	12 databased (CINAHL and Medline included) were searched with terms PTSD, nursing interventions, stress.	3 RCT 1 Quasi Experimental Study 1 post feasibility study 1 descriptive-correlational study	The authors found that through the utilization of guided imagery, debriefing, and mindfulness exercize PTSD symptoms are reduced in nurses. Limitations: Small sample size, this study was published in 2021 but utilized literature from > 5 years ago. Usefulness: These techniques may be utilized to assist nurses in work-related traumas to improve employee satisfaction and patient care. Synthesis: Nurses suffering from PTSD or similar symptoms are at risk of compassion fatigue and burnout, thus leaving the profession. The utilization of particular activities in the workplace has shown to reduce these feelings of stress and assist PTSD diagnosed nurses with coping with work related stressors.
Arnetz, Goetz, Arnetz, Sudan, Vanlchagen, Pieversa, & Reyelts	2020	Enhancing healthcare efficiency to achieve the quadruple aim: an exploratory study	Organizational efficiency and productivity	*BMC Research Notes*	This article discusses what the quadruple aim entails (adopted from the triple aim): cost reductions, improved patient experience, and healthcare team well-being. This tool optimizes organizational success and performance. When environments are created to optimize efficiency while minimizing stress, anxiety, and burnout for members of the healthcare team results of improved patient outcomes occur.	Level II Quasi-Experimental	Discusses themes of rest, health, well-being, productivity, and efficiency.	Efficiency-focused flow intervention to energize care teams (EFFECT) (revised patient flow to allow planning and huddles)	202	Convenience sampling of sonters in a single-specialty clinic. 46 team surveys were completed and 156 patient surveys were completed and analyzed.	Not disclosed	The authors found that when work roles are addressed and modified to reduce stress and burnout among healthcare workers patient experience and satisfaction scores are improved. Limitations: small sample size, short study (2 weeks), theoretically informed intervention Usefulness: When stress, anxiety, and burnout are properly addressed and working conditions are modified to promote teammate well-being patient experience and satisfaction improves Synthesis: The EFFECT tool provided staff with appropriate skills to combat tasks in a more efficient manner to reduce work related stress and thus allowed the organization to meet quadruple aim objectives.
Buckley, Berta, Cleveedy, Medeiros, & Widger	2020	What is known about paediatric nurse burnout: a scoping review	Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines	*BMC Human Resources for Health*	The purpose of the article is to discover what is already known about pediatric nursing burnout. The goal of this study is to guide future research to assure it is effective, reproductive, and meaningful. The results show that the most effective way to assess burnout is through self report. The most common sources of burnout in this specialty include **level of experience** (less than 5 years more burnout), **work environment** (higher in med-surg, ED, PICU, NICU), Higher emotional exhaustion in pediatric nurses, higher **organizational supports** have lower burnout, **work attitudes** (lower mindfulness has more burnout). Comorbitires commonly co-exist with burnout- anxiety, depression, PTSD. Most effective burnout interventions include coping workshops (retreat style), mindfulness intervention, clinical skills sessions (how to treat pediatric pain most effectively).	Level IV Peer-Reviewed Systematic Review	Discusses the theme of burnout, stress, mindfulness, and nursing supports available.	Emotional Exhaustion and Depersonalization Subscale Personal Accomplishment Subscale	78 studies were analyzed	N/A	N/A	The authors found that the most common sources of burnout among nurses, in general, are level of experience and university degree, work environment, organizational support, and work attitudes/personal characteristics. When these areas are targeted with interventions, they are most effective in reducing burnout and co-existing syndromes. Limitations: Non-English studies were excluded, nonformal annual surveys were not utilized, different burnout tools were utilized in different studies, so a direct comparison was not always made. Usefulness: When the proper areas of the diverse condition of burnout are addressed in ways that assist nurses in developing life skills, results are more effective. Synthesis: coping workshops, clinical supports and skill training, personal and professional supports, and mindfulness education is most effective in reducing burnout among nurses.
De Kock, Latham, Leslie, Grindle, Munoz, Ellis, Polson, & O'Malley	2021	A rapid review of the impact of COVID-19 on the mental health of health care workers: implications for supporting psychological well-being	Mental Health and Wellbeing	*BMC Public Health*	The purpose of this was to identify the toll the COVID-19 pandemic took on the mental health of healthcare workers and to identify who is the most vulnerable to mental health issues while identifying risk and protective factors associated with mental health issues. Nurses and Doctors have the highest risk of mental health crises in comparison with other HCWs. Common sources of stress during the pandemic are related to lack of personal protective equipment (PPE), fear of contamination, familial concerns, and a heavy workload. The most common factors associated with the highest level of burnout are younger age, female gender, less experience, higher workload, and less company support. Interventions that boost one's psychological resiliency have been suggestive to improve mental health among HCWs since these are the common causes and factors effecting burnout and mental health crises such as anxiety, depression, insomnia, OCD, PTSD.	Level IV Peer-Reviewed Systematic Review	Concepts include mental health and well-being. Themes of psychological makeup were discussed.	N/A	84 studies were reviewed	N/A	N/A	The authors found that many nonmodifiable risk factors place one at risk of mental health crises and burnout during times of crisis in the healthcare field. These psychological factors can be addressed through resiliency training to strengthen responses to stressful situations in the work environment. Limitations: Only one reviewer responsible for per-screening of articles, China based literature, does not include studies of lower socioeconomic status. Usefulness: Resiliency training centered at one's own psyche is recommended based on the most common risk factors for the development of burnout. Synthesis: The COVID-19 Pandemic brought a lot of additional knowledge to the concepts and themes of mental health and suffering in healthcare workers' lives. This study demonstrates that the most common themes associated with burnout are personal factors, supports, and work environment. Nonmodifiable risks can be improved with education, training, and support.
Hines	2019	Implementing Self-Care Guidelines for Nurses	Susan Leddy's middle range theory, Human Energy Model (HEM)	*The Oklahoma Nurses Association*	The purpose of this study was to improve self-care strategies employed by nurses.	Level IV Peer-Reviewed Systematic Review	Change Model, concepts of stress reduction, self-care	Demographic questionnaire, Expanded Nurse Stress Scale (ENSS), and evaluation survey.	11 articles were reviewed	N/A	N/A	The authors found that self care strategies employed both in and out of the workplace play a role in employee resiliency, mindfulness and staff retention. Limitations: Small sample size, limited geographic location, and only english speaking studies were reviewed. Usefulness: Many of the self-care strategies and ewducationidentified in this article can be utilized during the resiliency program to promote effectiveness of the program. Synathesis: Self care strategies in mindfulness, stress reduction, inanimate support, debriefing,
Hossain & Clatty	2021	Self-care strategies in response to nurses' moral injury during COVID-19 pandemic	Moral distress and moral injury	*Sage Journals*	The purpose of this study was to identify self-care strategies to improve moral resiliency among inpatient nurses suffering from stress, burnout syndrome, GAD, MDD, OCD, and PTSD amidst the COVID-19 Pandemic.	Level IV Peer-Reviewed Systematic Review	Self-Care, resiliency, moral injury, self stewardship, support systems	N/a	N/A	N/A	COVID-19 RNs	The author's found that the COVID-19 pandemic played a role in the burnout of RNs and a rise in Mental Health crises particularly in those who are inexperienced, female, and have lex coping mechanisms. Limitations: Only COVID-19 specialty studied, limitations in access during pandemic, lex control for environmental stressors during this time period. Usefulness: Stress does not just stem from the workplace, many non modifiable risk factors exist and may be accounted for. Synthesis: Knowledge in non modifiable stress risk factors must be obtained so these particular populations can be targeted when employing coping, resiliency, and mindfulness strategies.
Orem & Vardiman	1995	Orem's nursing theory and positive mental health: Practical considerations	Orem's self-care theory	*Sage Journals*	The purpose of this theoy is to prove that self-care is required for mental health status to perform basic functions.	Level II Quasi-Experimental	Self-Care	N/A	N/A	N/A	RNs	The author's developed the self-care deficit theory around the fact that many non modifiable risk factors predispose others for stress which can be triggered when modifiable risks are unresolved. Limitations: Only englich speaking, only inpatient, limited in technology due to dating. Usefulness: Addressing modifiable risk factors for those with those that are non modifiable is beneficial. Synthesis: When self-care is not met then physiologically, self-care defecit occurs which can lead to mental health desease.
Orem & Taylor	2011	Reflections on nursing practice science: The nature, the structure, and the foundation of nursing sciences	Orem's self-care deficit theory	*Sage Journals*	The purpose of this was to develop nursing as a science and identify the broad concepts associated with the profession.	Level IV Peer-Reviewed Systematic Review	Self-Care and Self-Care Defecit	Self-Care Deficit Nursing Theory Tool (SCNDT)	N/A	Convenience	N/A	The authors further elaborate on the self-care nursing theory and discuss that nursing is evolving but must still continue to build on the foundational knowledge of nursing to teach ourselves and our patients to practice self-care strategies. Limitations: A lot of nurses show little interest in the urge to develop a conceptual and theoretical knowledge base outside of the clinical setting. Usefulness: Understanding that this is a broad topic and phenomenon will allow us to build on this theory. Synthesis: Self-care is a capability and responsibility to oneself.
Dawson	2019	A practical guide to performance improvement: Implementation of systemic methodologies	Performance Improvement strategies	*Sage Journals*	The purpose of this article is to discuss various theoretical frameworks and how they pertain to process and quality improvements.	Level IV Peer-Reviewed Systematic Review	Theoretical Frameworks: Six-Sigma	Six-Sigma Methodology Model	N/A	N/A	N/A	The author illustrates how the six-sigma methodology is effective in promoting change and quality improvement metrics in healthcare. Limitations: Other similar frameworks exist in conjunction with six-sigma. Usefulness: The steps in six-sigma are beneficial for me to follow when completing my study so I can perform an effective quality improvement proces. Synthesis: Definine, Measure, Analyze, Implement, and Control components must be met when utilizing six-sigma methodology.

Appendix C: Implementation Plan



Appendix D: Pediatric Nursing Resiliency Program Course Schedule

Date	Lesson/Activity
Week 1 and Week 2 01/10/23 to 01/24/23	Complete ProQOL pre-intervention survey Community Resiliency Model (CRM) Lesson 1 Introduction Self-Care Activity: Meditation
Week 3 and Week 4 01/24/23 to 02/07/23	CRM Lesson 2: Tracking Self-Care Activity: Mindfulness Clinical Skill: Post Code Debriefing
Week 5 and Week 6 02/07/23 to 02/21/23	CRM Lesson 3: Grounding Self-Care Activity: Music Therapy Clinical Skill: Pediatric Pain Management
Week 7 and Week 8 02/21/23 to 03/07/23	CRM Lesson 4: Resourcing Self-Care Activity: Sleep Hygiene Clinical Skill: Family Centered Care
Week 9 and Week 10 03/07/23 to 03/21/23	CRM Lesson 5: Gesturing Self-Care Activity: Aroma Therapy Clinical Skill: Critical Thinking
Week 11 and Week 12 03/21/23 to 04/05/23	CRM Lesson 6: Shift and Stay Self-Care Activity: Physical Activity Clinical Skill: Clinical Decision Making Complete ProQOL post-intervention survey Complete Program Evaluations Thank you!

Appendix E: PROQol Survey

ProQOL Health, Version 1 5/1/2021

PROFESSIONAL QUALITY OF LIFE SCALE FOR HEALTH WORKERS

As a health worker working in difficult humanitarian or pandemic situations, you have direct contact with the lives of your patients and beneficiaries. As you may have found, your compassion for those you help can affect you in positive and negative ways. Below are some statements about your experiences as a health worker, both positive and negative.

Consider each statement about your ***current work situation***. Circle the number that most accurately reflects how frequently you have experienced these things in the ***last 30 days***.	Never	Rarely	Sometimes	Often	Very Often
1. I am happy that I choose to work in healthcare.	(1)	(2)	(3)	(4)	(5)
2. At times I have had to do things that go against my personal values.	(1)	(2)	(3)	(4)	(5)
3. Because of my work, I have unwanted, distressing thoughts.	(1)	(2)	(3)	(4)	(5)
4. I have seen things at work that I believe to be morally wrong.	(1)	(2)	(3)	(4)	(5)
5. I feel supported by my colleagues.	(1)	(2)	(3)	(4)	(5)
6. I feel energized by working with my patients.	(1)	(2)	(3)	(4)	(5)
7. I often find myself thinking about my patients when I am with my family.	(1)	(2)	(3)	(4)	(5)
8. Administrative procedures and rules make my job too hard.	(1)	(2)	(3)	(4)	(5)
9. At times, I have been unable to provide the care that I believe should have been provided.	(1)	(2)	(3)	(4)	(5)
10. I think that I have been affected by the suffering I see at work.	(1)	(2)	(3)	(4)	(5)
11. My family supports me in my work in healthcare.	(1)	(2)	(3)	(4)	(5)
12. Because of my work, I feel anxious about many things.	(1)	(2)	(3)	(4)	(5)
13. The people who make the decisions that affect my job care about my wellbeing.	(1)	(2)	(3)	(4)	(5)
14. At times, I have felt ashamed of the choices I have made at work.	(1)	(2)	(3)	(4)	(5)
15. I am unhappy at work.	(1)	(2)	(3)	(4)	(5)
16. I feel depressed because of the suffering I see at work.	(1)	(2)	(3)	(4)	(5)
17. I am unhappy because I have observed health workers doing things that I believe are unethical.	(1)	(2)	(3)	(4)	(5)
18. My manager cares about my personal wellbeing.	(1)	(2)	(3)	(4)	(5)
19. My workload seems endless.	(1)	(2)	(3)	(4)	(5)
20. My workplace is an extremely harsh place to work.	(1)	(2)	(3)	(4)	(5)
21. I feel satisfied by my work in healthcare.	(1)	(2)	(3)	(4)	(5)
22. Because of my work, I have very little time for a personal life.	(1)	(2)	(3)	(4)	(5)
23. I have people who I can talk to about my struggles at work.	(1)	(2)	(3)	(4)	(5)
24. I believe I can make a difference through my work in healthcare.	(1)	(2)	(3)	(4)	(5)
25. I have close friends who support me in my work.	(1)	(2)	(3)	(4)	(5)
26. I avoid activities or situations that remind me of patients' suffering.	(1)	(2)	(3)	(4)	(5)
27. I am proud of what I can do to help.	(1)	(2)	(3)	(4)	(5)
28. I feel responsible that I have not always been able to help people.	(1)	(2)	(3)	(4)	(5)
29. My work exhausts me.	(1)	(2)	(3)	(4)	(5)
30. I feel that my work in healthcare makes the world a better place.	(1)	(2)	(3)	(4)	(5)

Appendix F: Post Intervention Survey

Pediatric Nursing Resiliency Program

Post-Intervention Survey

1: Strongly Disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly Agree

1. After the completion of the pediatric resiliency program, I feel more satisfied with my position as a Registered Nurse in Pediatrics.

   1 2 3 4 5

2. After the completion of the pediatric nursing resiliency program, I feel like I have more resiliency, mindfulness, and self-care tools to utilize as I progress in my career.

   1 2 3 4 5

3. After the completion of the pediatric nursing resiliency program, I feel more supported by my fellow teammates.

   1 2 3 4 5

4. I enjoyed completing the pediatric nursing resiliency program.

   1 2 3 4 5

5. I would recommend the pediatric nursing resiliency program to my coworkers, friends, and peers.

   1 2 3 4 5

6. Please feel free to share any comments, feedback, or suggestions below:

Thank you!

Appendix G: PROQol Scores

PROQUOL Pre and Post Intervention Mean Scores		
CATEGORIES	PRE-INTERVENTION	POST-INTERVENTION
Compassion Satisfaction	23 (avg)	26.7 (high)
Perceived Support	21.1 (avg)	23.1 (high)
Burnout	17.6 (avg)	12.1 (low)
Traumatic Stress	17.4 (avg)	12.2 (low)
Moral Distress	16.3 (avg)	12.7 (low)

Appendix H: Cost Analysis

Pediatric Nursing Resiliency Program Budget Summary		Totals
Project Budget Expenses		
Community Resiliency Model (CRM) Education	$0 for CRM Education	$0.00
RN Leader's Wages for Completion of CRM Education	$33/hr x 2 hours	$66.00
RN Leader's Wages for CRM Educational Instruction	$33/hr x 10 hours	$330.00
RN Wages to Attend Leadership Course (Not Required)	$33/hr x 8 hours	$264.00
Educational Supplies	Microsoft 365 Subscription for Powerpoint, Microsoft Word, Sharepoint Access x 1	$100
	$30/month Internet Connection x 3 months	$90
	$200+ Laptop/Tablet/Computer x 1	$250
Project Budget Expenses Totals		$1,100
Project Revenue		
Nursing Retention	Salary of 1 new RN x 12 week orientation	$20,000.00
	Salary of 1 RN Preceptor x 12 week orientation	$20,000.00
	PTO/Benefits/Insurance x 2 RN (new hire and preceptor)	$10,000
Nursing Retention Savings Totals		$50,000 x 1 nurse retained