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Respite for Acute Care Nurses With the Use of a Resilience Room

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RESPITE FOR ACUTE CARE NURSES WITH THE USE OF A RESILIENCE ROOM

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Presented to the Faculty of the University of the Incarnate Word
in partial fulfillment of the requirements
for the degree of

DOCTOR OF NURSING PRACTICE

UNIVERSITY OF THE INCARNATE WORD

December 2021

ACKNOWLEDGEMENTS

As I look back and reflect on the road that has led me to this point, I am grateful for my wonderful family who supported me through every step of the way. To my wonderful husband Eddie, I love you and thank you for always being there through the ups and downs. I would not have survived without your encouragement, inspiration, and for always being in the background ready to help, “My IT Guy.” Eddie, without your support I could not have reached the finish line.

I would like to thank Dr. Laura Muñoz for guiding my work for the past year. Your countless revisions, Zoom meetings, and teaching shaped my writing, creativity, and made me a stronger researcher. Thank you for being so considerate and understanding and I could not have imagined a better person to have been with me throughout this educational journey.

I would also like to thank Dr. David Allen for being my mentor for the past year. I would not be at this point without your support, guidance, and time. As a CNO you led nurses through a pandemic always kept their best interest in mind and allocated the funds to build a safe, quiet, space for nurses to respite during the turmoil of COVID-19. I appreciate the knowledge and experience I gained over the past year working with you and you are an inspiration to many.

Thank you to my University of the Incarnate Word family and Veterans Affairs family. A special thank you to Dr. Irene Gilliland, Theresa Pomerleau, and Vanessa Cotton for always being there in supporting me through the tough times. Liza Robles, AJ Angeles, Bridgette Hott, and Dr. VJ Pellekonda thank you for always supporting me.

God Bless you all.

Marisella G. Perales

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Abstract

Background and Significance of the Problem. Nurses are exposed to higher levels of occupational stress in acute care units when compared to other departments within the hospital (Faraji et al., 2019). A qualitative assessment identified a need for resources to be provided for acute care nurses experiencing occupational stress. **Purpose.** To establish an area for respite and increase nurses' knowledge about a Resilience Room and a support system to manage occupational stress. **Objectives.** To educate 75% of acute care nurse on respite care, have 50% of the nurses report utilization of Resilience Room, and increase the nurses use of a support system by 25%. **Methods.** In a quality improvement project conducted in a large metropolitan hospital a respite area with a massage chair, music and aromatherapy was established. All acute care nurses received education on the room and support system with a follow-up survey administered at week three and six of project. **Results.** The Resilience Room was used by 100% of nurses with the massage chair the most commonly used feature in the room. Seventy-one percent of the nurses who completed the survey reported a positive response. There was also a 36% increase in use of the support system. **Implications for Nursing.** The provision of a Resilience Room and support system is an effective way to assist acute care nurses. The overall response to the Resilience Room was positive and will be maintained for future use. The establishment of additional respite sites may be useful to other staff.

Keywords: Resilience Room, massage therapy, music therapy, aromatherapy, nurses

Respite Intervention With the Use of a Resilience Room

There is a need to educate and provide resources to improve the well-being of nurses. A Resilience Room and onsite support resources such as social workers and pastoral care services are practical interventions to increase job retention, job satisfaction, and reducing absenteeism. Across the world nurses are leaving their positions in New Zealand (44.3%), United States (26.8%), and Canada (15.1%) (Ya-Wen et al., 2017).

The American Nurses Association (ANA) in the past 5 years focused on an initiative to improve the health of nurses by providing educational opportunities for nurses to increase physical activity, understanding the importance to sleep for 7 hours within 24 hours, eat healthily, participate in and enjoy life, and keep safety first (American Nursing Association [ANA], 2018a). The Healthy Nurse, Healthy Nation recommendations included a 10-minute workday break to work on mindfulness, meditation, or other health-related activities (ANA, 2018a). The ANA Code of Ethics states that nurses should extend the high quality of care they provide to patients, to themselves (ANA, 2015b).

The purpose of this Doctor of Nursing Practice (DNP) quality improvement project aimed to provide resources to manage occupational stress for ICU and PCU nursing staff in a specialty and transplant facility. The establishment of a Resilience Room and the developing a mechanism to improve access to support staff within the facility were provided to promote resilience in the nurses.

Significance of the Problem

Nursing is seen as a demanding and stressful occupation. Occupational stress is a situation in which work-related factors affect employees, causing a reaction to multiple types of stressors that endangers an individual's health and emotional well-being. Physical effects of

occupational stress include fatigue, weakened immune system, headaches, body aches, pain, and change in eating and sleeping habits (Huang et al., 2019). Insomnia, emotional exhaustion, anxiety, and depression are mental effects of occupational stress (Shariatkhah et al., 2017). The American Association of Colleges of Nursing (AACN, 2019a) estimated 20% of nurses would resign from their position due to occupational stress. The average cost to replace a nurse in 2019 ranged between \$40,300 to \$64,000 (Nursing Solutions Inc., 2020).

Nurses working in acute care units are typically exposed to higher levels of occupational stress related to heavy workloads, high patient acuity, multiple patient deaths, and interpersonal conflict. Occupational stress for nurses can cause a decrease in job satisfaction contributing to a high turnover rate within hospital units (Faraji et al., 2019). To exacerbate the issues related to stress in the clinical setting, the COVID-19 pandemic threatened nurses' health by possible exposure to the virus, increased patient acuity, increased number of deaths in the units, and poor patient outcome due to the unknown effects of COVID-19.

Novice nurses who enter the clinical setting must often care for complex patients with increased demands and limited resources (Sinclair et al., 2017). Studies have shown that novice nurses with less than 24 months of experience have a higher level of stress and the highest resignation rate (Chiu et al., 2018). Approximately 25% of novice nurses resign in the 1st year, and 34% leave within 2 years (Hampton et al., 2020). The loss of these novice nurses may negatively affect staffing which may also impact nursing care (Kelley et al., 2017).

Between 2013 to 2016, the American Nurses Association (ANA) examined the United States nursing workforce health. There were 13,500 nurses and nursing students who responded

to a survey and found that 82% of participating subjects reported an extraordinary level of occupational stress (Carpenter, 2017).

Many nurses focus on the needs of others and neglect their wellness. Nurses may feel like taking time for their needs is selfish but caring for one's wellness increases the nurse's ability to care for others (Henson, 2017). The interventions created in this project for nurses were meant to address the importance of maintaining a healthy mind, body, and spirit and to improve the available resources to cope with occupational stress.

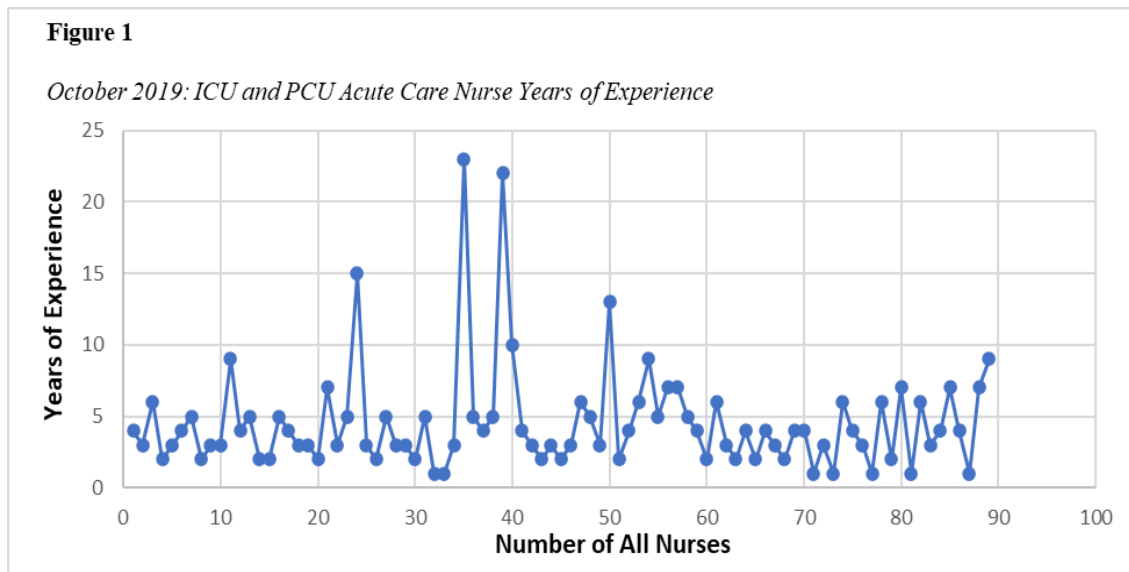
Problem

Setting

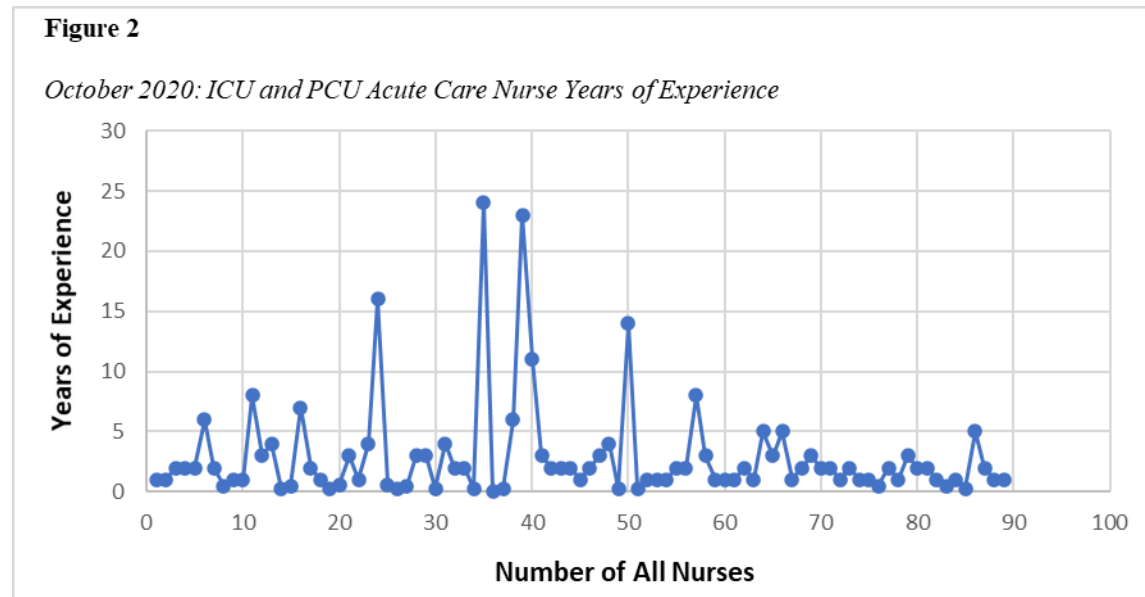
The acute care hospital located in a large medical complex employs 2,800 nurses. The facility includes an intensive care unit (non-COVID patients), an intensive care unit (COVID-19 patients), and a progressive care unit. The COVID-19 unit has 12 beds, the non-COVID intensive care unit has 15 beds, and the progressive care unit has 16 beds. The progressive care unit serves as a step-down unit between intensive care and telemetry or medical-surgical floor. The transplant unit provides care for patients who are post-transplant liver, kidney, or pancreas. Staff members in these three units rotate to assist with increased patient admissions and decrease occupational stress within the COVID-19 unit.

Currently, the Intensive Care Unit (ICU) and Progressive Care Unit (PCU) have a resignation rate of 25%, which exceeds the hospital system benchmark of 16% and the national average of 17% (Nursing Solutions Inc., 2020). Before the COVID-19 pandemic, the turnover rate in the 3rd quarter of 2019 was 6%, compared to 25% in the 3rd quarter of 2020. Turnover has increased by 19%. Due to the increase in nurse resignation rate, there is also a change in acute care years of experience for nurses working in the ICU and PCU. In October 2019, 37% of

nurses working in the ICU and PCU had more than 5 years of acute care experience (see Figure 1).



At the start of the 3rd quarter in 2020, only 13% of nurses working in the ICU and PCU had more than 5 years of acute care experience (see Figure 2). Novice ICU and PCU nurses working towards the professional nurses' role have 2 years or less experience working in the acute care setting (Sterner et al., 2019). Currently, novice nurses with 2 years' experience or less account for 43% of nurses working in the ICU and PCU. In a cross-sectional study, novice nurses who had less than 24 months of experience lacked stress coping skills, reported difficulty asking for social support, and had limited emotional control (Suzuki et al., 2020).



Assessment of Organization

The site of the quality improvement project was at a Level 2 Trauma Center in South Texas. The facility serves Bexar County, the largest county in Texas, and 73 other counties in central and South Texas. Many of the patients reside in Bexar County, which currently has a high rate of COVID-19 cases. In Bexar County, the COVID-19 death rate in 2020 was 50.7 per 100,000 people, the highest rate compared to other urban areas since the beginning of the COVID-19 pandemic (Texas Department of State Health Services, 2020).

The hospital cares for patients over 18 years of age who are critically ill and require a high level of care. A retrospective chart review of common diagnostic related groups for the patient population revealed diagnoses that included kidney transplants, acute renal failure, liver diseases and transplants, respiratory illnesses, multiple types of infections, substance abuse, including overdose and withdrawal. The intensive care unit also cares for hepatobiliary, vascular, urology, bariatric cases requiring complex medical care.

The nursing staff of the acute care and progressive care units consist of 59 full-time nurses, 12 part-time nurses, six on-call nurses, seven resource nurses, and three contract labor

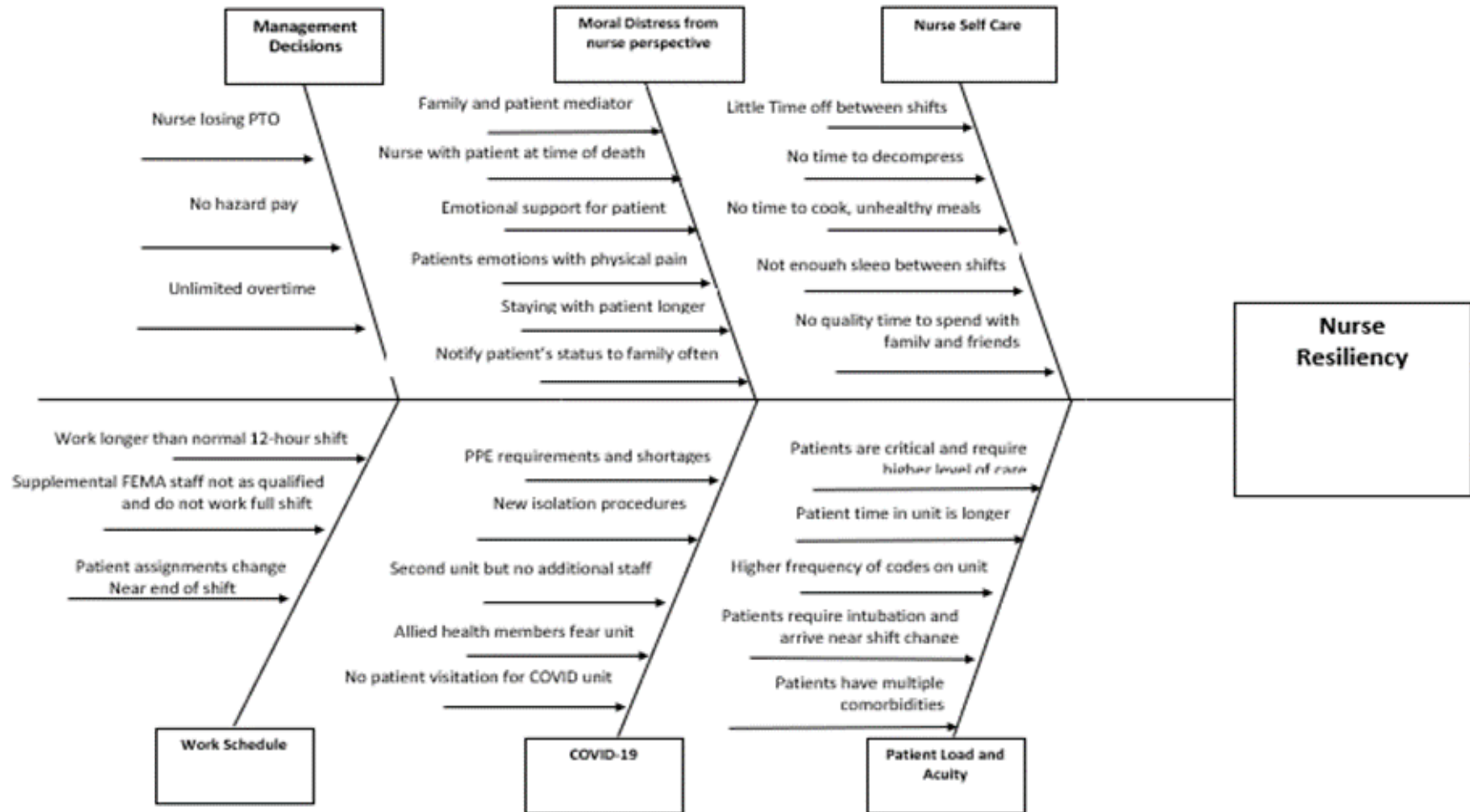
nurses. Of the current nurses working at the ICU and PCU, 17% are not permanent staff nurses. These nurses are more likely to leave the ICU and PCU, increasing the percentage of nurses who are not familiar with working specifically in this ICU and PCU. The educational level of these nurses includes Bachelor of Science in Nursing (BSN) degree (67%), Associate Degree in Nursing (ADN) (32%), Master of Science in Nursing (MSN) degree (1%). Sixteen percent of the nurses hold a critical care certification. Currently, 56% of nurses working in the units have less than 5 years' experience. Since the hospital strives to attain Magnet status, all nurses must possess a bachelor's degree within 5 years from the hiring date. ADN prepared nurses may be required to leave the unit and work in less demanding areas or take a leave of absence to complete a BSN within 5 years, which will further decrease the retention rate in the ICU and PCU.

Patients who enter the intensive care and progressive care units may be sent from the emergency department, transfers from other floors, or direct intensive care unit admission from satellite hospitals. An intensivist physician evaluates patients before they can be transferred to the unit. Some patients require mechanical ventilation, renal support, neurological monitoring and support, and circulatory support.

Patterns within the intensive care unit deliver care to liver, kidney, and pancreas post-transplant patients. Some patients transferred to the intensive care unit may require intubation and monitoring to assess carbon monoxide, cardiac and hemodynamic status. Some patients admitted into the intensive care unit are critical because of multiple comorbidities and COVID-19 positive status. Some COVID-19 patients require intubation and may have an extended length of stay in the ICU compared to non-COVID-19 admissions.

Figure 3

Root Case Analysis Diagram



Root Cause Analysis

When completing Root Cause Analysis using a fishbone diagram, multiple issues affecting nurse resilience are identified (see Figure 3). The Root Cause Analysis showed six areas of concern nurse self-care, patient load, and acuity, COVID-19, moral distress from nurse perception, management decisions, and work schedule. Nurse self-care issues include little time off between shifts, decreased time to decompress or cook healthy meals, poor sleep patterns between shifts, and no quality time to spend with family and friends.

Needs Assessment

Oral interviews with 32 nurses during a microsystem assessment showed that the pandemic caused moral distress, increased patient load and acuity, and decreased time for themselves. In anecdotal reports from human resource exit interviews, many of the acute care nurses who resigned noted that due to COVID-19 they wanted to move closer to family and friends, seek employment outside of acute care units, and take a leave of absence to care for family members (D. Allen, personal communication, August 11, 2020).

The assessment results confirm a need for an intervention to assist nurses in decreasing occupational stress and possibly reduce the resignation rate of ICU and PCU nurses. Hospital management may minimize occupational stress by providing nurses an informative program covering available resources to cope with stress, a nurse Resilience Room for respite, and access to professionally trained social workers and pastoral care services within the facility.

Strength Weaknesses, Opportunities, Threats (SWOT) Analysis

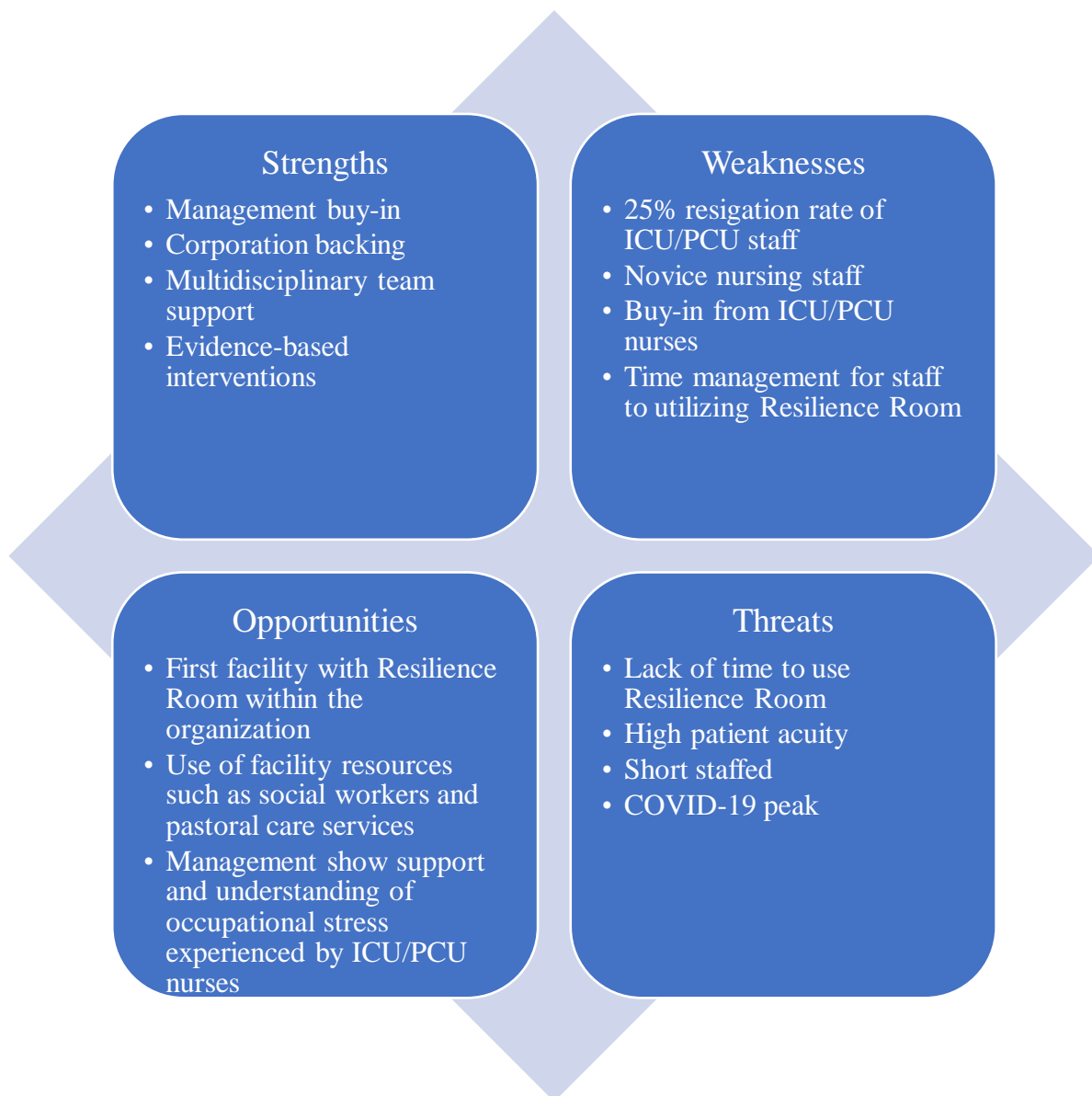
Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis is a valuable tool to support the quality improvement project and provide easy to see opportunities for stakeholder buy-in (Motevali & Torabi, 2018). A SWOT analysis depicted in Figure 4 shows opportunities

which included building a stronger relationship between management and nurses by management showing support for nurses who experienced occupational stress, the use of available resources within the facility, and the establishment of a Resilience Room.

Strengths of the project include multidisciplinary team utilization, support from corporate and nurse leadership management, and the availability of evidence-based interventions.

Figure 4

SWOT Diagram



Threats identified include COVID-19, lack of time to utilize the Resilience Room, heavy patient load, and high patient acuity. A weakness includes time management to provide education training for nurses about Resilience Room and available resources. The Resilience Room guidelines also present a weakness due to adhering to the cleaning process after use and nurses scheduling room use. Novice nursing staff buy-in is another weakness due to negative opinions of the need to respite during scheduled shifts. Opportunities identified when completing the SWOT include the first facility with a Resilience Room in the organization, resources are on-site, and the Resilience Room can make staff feel valued. The analysis uncovered threats within the clinical setting. Threats were related to the COVID-19 pandemic, including lack of time to use the Resilience Room, increased patient acuity and workload, and shortage in staffing.

Stakeholder Involvement

The Agency for Healthcare Research and Quality (AHRQ) is part of the United States Department of Health and Human Services that focuses on improving healthcare. AHRQ has identified reducing nursing stress and staff turnover as continuous quality improvement in healthcare (Hughes, 2008). Stakeholders were provided evidence to justify the need for the quality improvement and to gain stakeholders' buy-in.

The stakeholders are the people who have something to gain from the project's outcome (Leviton & Melichar, 2016). The quality improvement project stakeholders included the Chief Nurse Officer (CNO), ICU and PCU director, nurse managers, and corporate representative. The CNO oversees and manages the entire nursing staff of the hospital and ensures that nursing staff are well trained and are supported (see Table 1). The ICU and PCU directors are concerned with retaining qualified nursing staff and ensuring quality care to patients (see Table 2). The nurse manager is concerned with job satisfaction and creating a teamwork environment (see Table 3).

The social workers and pastoral care visited units and were available to nurses as site available resources (Table 4 and Table 5). The employee health nurse has always been available to nurses but is not considered a new resource for project (Table 6). Corporate stakeholders are concerned with finances related to nursing retention and potential poor patient outcomes. They want to support each facility to be successful and provide necessary resources. The nursing staff has an interest in improving the work environment, which will ultimately improve patient outcomes.

The stakeholders were interviewed and asked about their professional opinion on the contributing factors to the current nurse resignation rate in the ICU and PCU and other questions related to the quality improvement project.

Table 1

Summary of CNO Stakeholder Interview

Position	Role description	Reason why resignation rate so high	Recommendations for improving retention rate	Thoughts about QIP goals
CNO	Implements and establishes policies and procedures; supervises all nurses in the facility; improves services; ensures health care operations meet national standards	Many nurses working at the facility are from out of state and due to COVID-19 nurses desire to move closer to home. Other nurses are going to contract jobs, COVID-19 has increased the demand for experienced ICU and PCU nurses	Show nurses they are a vital part of the corporation, and nurses should be shown how much they are valued and appreciated. Hire nurses who live in the city or county to decrease the resignation rate.	The Resilience Room and use of available resources within the facility are improvements to help nurses cope with COVID-19 working conditions. They also show staff we are here to support them.

Table 2*Summary of Director Stakeholder Interview*

Position	Role description	Reason why resignation rate so high	Recommendations for improving resignation rate	Thoughts about QIP goals
ICU & PCU Director	The director is responsible for the quality-of-care nurses provide, interprets policies that apply to the units, and advises medical staff and management.	The resignation rate is high due to the increased acuity of patients, more extended stay on units, the high death rate due to COVID-19.	Hire more nurses to assist in caring for higher acuity of patients due to COVID-19.	Resilience Room and utilizing social work and pastoral care will help nurses experiencing occupational stress.

Table 3*Summary of Nurse Manager Interview*

Position	Role description	Reason why resignation rate so high	Recommendations for improving retention rate	Thoughts about QIP goals
ICU & PCU Nurse Manager	The manager provides guidance and direction to new employees and provides input on standards of care, responsible for day-to-day operations, hiring and retention, budgeting, and quality improvement.	The resignation rate is high because we cannot compete with salaries from other facilities in the area or contract positions. COVID-19 has increased the demand for experienced ICU nurses. Many of the nurses stated they want to move to be near family and friends.	Increase salaries of ICU nurses, hire nurses from within city, hire more nurses with experience or move experienced telemetry nurses into ICU and PCU, and backfill those positions.	Great interventions help nurses feel appreciated and give nurses an opportunity to relax and feel refreshed before returning to the unit.

Table 4*Summary of Pastoral Care Stakeholder Interview*

Position	Role description	Reason why resignation rate so high	Recommendations for improving retention rate	Thoughts about QIP goals
Pastoral Care	Provide counsel to staff, patients and family members. Support during crisis intervention, end-of-life support, pastoral visits. The acuity of patients is high, pastoral care provides counseling to physicians, nurses, and staff.	The resignation rate is high, possibly due to COVID-19. Nurses are concerned if they are taking the virus home to family. The increase of deaths in hospital are due to the virus and having to wear extra PPE.”	Pastoral care can offer spiritual counseling for employees experiencing professional or personal problems. Pastoral care can assist staff by being present on the unit to offer spiritual counseling in a group or individual setting.	Being involved in quality improvement project serves as a reminder pastoral care is available to provide spiritual counseling to employees 24/7.

Table 5*Summary of Social Workers Stakeholder Interview*

Position	Role description	Reason why resignation rate so high	Recommendations for improving resignation rates	Thoughts about QIP goals
Social Workers	The social worker for ICU and PCU is also over Palliative Care. She is part of the interdisciplinary team with patients and family members to assist during hospitalization.	The resignation rate could be high since the hospital is a transplant hospital there is a long-term relationship with some of the patients, and if the patient’s health declines, it can be difficult.	One of the needs could be to provide refresher training over coping skills. Another could be to provide a fifteen-minute group intervention to discuss how important it is to self-care with employees.	The QIP is a great start to reinforce the importance of taking breaks from the unit, provides an opportunity for nurses to regroup, finish shift strong, and return home safely.

Table 6*Summary of Employee Health Nurse Stakeholder Interview*

Position	Role description	Reason why resignation rate so high	Recommendations for improving retention rate	Thoughts about QIP goals
Employee Health Nurse	Cares for hospital employees, medical surveillance, case management, physical examinations, and assists in developing health and safety policies.	Resignation was high due to new PPE guidelines, overtime, and difficulty competing with contract position pay.	Support the nurses who are staying, provided them counseling if need, and educate them on available resources the hospital offers to all employees. One program is the employee assistance program (EAP) which is paid at 100% by the hospital. The EAP program provides counseling services to employees dealing with emotional distress, illness, injuries, relationship issues, and stress management. The program also provides consultation services for wellness and nutrition, medication information, and child/elder care referrals.	The quality improvement project is an opportunity for ICU and PCU staff to learn more about available resources provided at no cost to the employee.

Readiness for Change

Readiness for change in the hospital setting requires stakeholders' readiness for change, leadership, and staffing (Sharma et al., 2018). Acute care nurses report occupational stress and emotional demands were high compared to other departments within a hospital (Elshacer et al.,

2018). Varying influxes of patient load, increased patient acuity, and medical events requiring rapid response can create a stressful environment for nurses (Rozo et al., 2017). Occupational stress has been shown to cause an increase in absenteeism, reduced job satisfaction, and increased turnover rate (Dyrbye et al., 2017). Nurses are dedicated to their patient's care and are determined to deliver quality care, but often place their own needs last (Wood, 2018). The current staff has evolved to a higher rate of novice nurses with 2 years less of acute care experience due to the pandemic. As mentioned previously, this facility is striving to attain Magnet status, which involves areas related to nursing retention and a positive workplace environment. This effort to address these areas has created a perfect opportunity to move forward with the quality improvement project.

Purpose of the Project

This quality improvement project aims to provide resources to assist in managing occupational stress for ICU and PCU nursing staff. The project resources include establishing a Resilience Room and developing a mechanism for accessing support resources such as social workers and pastoral care services with the hospital.

The aim is to: (1) provide a safe space for nurses to take a break at work for respite; (2) provide support services for nurses in collaboration with social work and pastoral care; (3) develop guidelines for the use of the Resilience Room; and (4) institute a referral system for nurses to visit with a social worker and pastoral care.

Objectives

The objectives of the evidence-based quality improvement project are to: (1) create a Resilience Room available to ICU and PCU staff in collaboration with nursing leadership by January 2021; (2) develop a protocol in collaboration with nursing leadership to address usage,

guidelines, and referral system by January 2021; (3) educate 75% of the ICU and PCU nursing staff on the purpose of the Resilience Room and associated resources by February 2021; (4) have 50% of the nursing staff utilize the Resilience Room within three months of availability; (5) survey 75% of nursing staff of the ICU and PCU at 3 and 6 weeks evaluating the usefulness of the Resilience Room and support resources provided; and (6) support an increase of staff consultation by social workers or pastoral services for ICU and PCU staff to 25% within 12 weeks after staff education is presented.

Review of Evidence

The review of literature included a search of evidence to support acute care nurses and novice nurses experiencing occupational stress. Evidence from the literature review was conducted to support the project interventions, including the Resilience Room, music therapy, massage chair, and aromatherapy. In addition, evidence advocating, support by pastoral care and social workers to increase coping abilities for nurses with occupational stress was sought.

Resilience is an individual's ability to manage the effects of stress (Lachman, 2016). Nurses with resilience can cope and grow from stressful situations and decrease the harmful effects of occupational stress (Lachman, 2016). The concept of resilience is an approach to processing the personal impact of stress, which allows the person to cope or experience distress. Fortunately, resilience can be learned by using coping skills, reaching out for support, being optimistic, and having a positive frame of mind (Mealer et al., 2017). The literature uses several terms when referring to a place expressly set aside for respite. These include Wellness Room, Resilience Room, and Tranquility Room as spaces designated within the facility.

Research has shown factors contributing to occupational stress for nurses includes understaffed units, ethical issues, caring for patient suffering from pain and patient death

(Bakhamis et al., 2019). Hatzel-Riggin et al. (2020) conducted a qualitative study that showed that work engagement (vigor, dedication, and absorption) and resilience are related to personal performance, emotional detachment, fatigue, and nurse stress. In a quasi-experimental study, Wijnen et al. (2020) found that a work-related stress prevention educational intervention reduced occupational stress for nurses. The introduction of techniques for stress-prevention at work educated nurses about the management of occupational stress, evaluation of causes of occupational stress, how to create a personal action plan to manage stress, and development of a personal action plan to impact occupational stress. In another quasi-experimental study, researchers found an effective intervention to reduce occupational stress is to educate nurses about stress management skills (Niedhammer et al., 2020).

During the pandemic, the Center for Disease Control [(CDC; 2020a)] suggested that essential workers take a break during their shift to regroup thoughts, relax, or have a conversation with coworkers to increase resilience and decrease stress. The Resilience Room intervention provides an environment for nurses to find a space and quiet time for respite, spirituality, and reflection. Respite periods allow nurses time to regain focus to provide quality care to patients and respond appropriately to the unit needs. In a qualitative study they examined the effects of a multiple relaxing retreat space in a hospital (Van Horne et al., 2020). The oasis room has a massage chair, music, and aromatherapy. Nurses in the study were allowed in the room for 15-minutes to have a brief respite during work hours. Using a Likert scale to record nurse stress before and after using the room, 96% of occupational nurses reported a drop in stress levels. With the Resilience Room, nurses can retreat to relax, take a mindful pause, and find a few minutes for themselves. In a surgical unit, evidence showed that the use of a wellness room

and an educational intervention to address stress management and improve coping skills resulted in a decrease in occupational stress by nurses (Jacques et al., 2018).

To focus on a variety of senses to produce relaxation, several approaches have been identified in the literature. A study utilizing progressive muscle relaxation with music therapy showed a positive outcome by intensive care nurses reporting decreased stress and fatigue levels (Ozgundondur & Gok Metin, 2019). In a study exploring anxiety in clinical nurses, the use of music therapy and aromatherapy showed lower levels of anxiety. Many subjects in the study found the lavender scent relaxing and used to relieve stress, anxiety and promote rest (Zamanifer, et al., 2020). Aromatherapy uses essential oils for therapeutic benefit and has been used for centuries (Ghods et al., 2017). A quasi-experimental study, aromatherapy with the use of lavender essential oil, showed a decrease in work-related stress among nursing staff (Johnson et al., 2017). The study's relevance also showed that the use of essential oils, which was found to have a positive impact on nurses experiencing occupational stress and improved nurse satisfaction, decreased nurse resignation rate, and supported a positive workplace setting (Johnson et al., 2017).

The benefit of a support mechanism for nurses has also been found in the literature. Utilizing pastoral care has been effective in providing a support system for nurses during times of occupational stress (Kelly et al., 2017). Hospitals allow nurses to call in chaplains to talk about stress and provide emotional support to their employees, and it is also helpful for nurses to seek counselor resources when feeling signs and symptoms of occupational stress (Meng, 2016). Kelley et al. (2017) found that when chaplain services were implemented after the death of a patient, nurses reported they felt less sadness and stress. During times of occupational stress, the study also noted that a chaplain would take a cart with snacks, aromatherapy, stress balls,

inspirational cards, and journals for nurses to provide resources that would redirect thoughts and reduce stress (Kelley et al., 2017).

A study by Owens (2020) found that due to the COVID-19 pandemic, hospitals are supporting nurses with increased availability of social workers and chaplains. The facility utilized chaplains and social workers to evaluate nurses' current state by asking nurses if they felt mentally able to work. Nurses who answered negatively had the option of taking a pass and could be reassigned to another area or go home. Harrison and Wu (2017) utilized team debriefing sessions that included social workers and chaplains when there was a death on the unit or traumatic event. The role of the social workers and chaplains was to provide support for nurses experiencing increased stress levels. Professionals who utilized debriefing teams reported lower stress levels after a traumatic event and a decrease in the duration of stress when social workers and chaplains participated in the debriefing session.

Synthesis of evidence has supported the interventions in the quality improvement project. Other studies that used a Resilience Room for respite in oncology and acute care units reflected increased coping skills and positive attitude in nurses (Jacques et al., 2018; Shriver, 2016). Interventions of massage (Dewi et al., 2018), music therapy (Zamanifar et al, 2020), and aromatherapy (Ghods et al., 2017; Johnson et al., 2017), are supported by research used independently or in combination (Ozgundondu & Gok Metin, 2019). The use of pastoral care and social workers to assist nurses experiencing occupational stress is limited, although due to the COVID-19 pandemic, there has been an increase in evidence for the use of pastoral care (Kelly et al., 2017; Meng, 2016) and social workers to support facility healthcare workers (Harrison & Wu, 2017; Owens, 2020).

Summary of Evidence

The review of literature showed a decreasing nurse workforce, high resignation rates, high levels of occupational stress, and decreased time to devote to themselves. Evidence also showed that there is a need to improve hospital work environments for nurses. The literature identified a correlation between nurses who had the opportunity to respite decreased occupational stress, improved job satisfaction, and increased nurse retention.

Methodology

Intervention Plan

The interventions of the quality improvement project were aligned with the objectives to provide resources to manage occupational stress for ICU and PCU nursing staff. Interventions included establishing of a Resilience Room to provide a safe space for nurses to take a break at work to respite. Safe distancing was followed with the assistance of nurse management, who created a calendar for 15-minute appointments to schedule use of the Resilience Room. A protocol was developed in collaboration with nursing leadership and environmental service for the Resilience Room to ensure nursing coverage of patient care, maintain safety and sanitation, replace supplies, schedule staff, and address the rules for a room used (see Appendix A). The protocol followed CDC guidelines for cleaning and disinfecting massage chair for 5 minutes (CDC, 2020b), hand sanitizing use before using items in Resilience Room and before leaving (CDC, 2020c), and only one nurse can be in Resilience Room to maintaining social distancing (CDC, 2020d). A brief survey was developed to measure use and satisfaction with the Resilience Room. During nurse educational training sessions, information regarding the use of the Resilience Room was presented to nursing staff.

Interventions were developed in collaboration with other professionals, including social workers, pastoral care, occupational health representatives, and nurses educators. The intervention to promote interprofessional collaboration included:

1. Development of evidence-based resources for the use of the Resilience Room in collaboration with nursing leadership. These resources could include but were not limited to music therapy, aromatherapy, massage therapy, or a dedicated room with Bluetooth sound system, essential oils, dim lights, or massage chair.
2. Development of a referral system for nurse consultation.
3. Design an educational program to increase the knowledge base of the ICU and PCU registered nurses on utilization of the Resilience Room, available resources, and to introduce social workers and pastoral care services to the nursing team.
4. Evaluation of the nurse workload to inform the development of a schedule to ensure the highest percentage of nurses attended the training.
5. An educational intervention session with a 20-minute educational PowerPoint and video available on the facility's communication system and a pamphlet accessible with a QR code.
6. Morning huddle training once a month for nurses with assistance from social workers and pastoral care services. The availability of support services was advertised with signs posted in the Resilience Room.

Processes of implementation included training small groups of nurses on day and night shifts at unit nurse workstations. By implementing training in this manner there was no interruption in inpatient care. The Resilience Room is located near units to allow for quick response if unit emergencies occurred. Pastoral care visited the units on day and night shift to

reinforce their availability to nurses. A social worker was available in-house on day shift and available on-call during off shift hours, when needed.

Project Material and Resources

The cost of the Resilience Room is less than half of the cost to replace one nurse within the ICU and PCU. The CNO has allocated \$15,000 to create a Resilience Room for nurses to use during work hours. The intervention items in the room included massage chair, ceiling Bluetooth speakers, aromatherapy which included eight different aromas for nurses to select from. See Table 2 for an itemized list of materials purchased for the Resilience Room. Other additional costs include copy paper for flyers and survey. In addition, approximately 30 minutes for nurses to attend training is factored into the cost to implement various project components.

Table 7

Project Budget

Budget	Resilience Room Project
<i>Project Cost:</i>	
Survey Cost	
Cost Per Survey	\$ 0.15
Total Cost of Survey	\$ 26.55
Time Participants Cost	
Project lead QI Project Leader	\$ 0.00
Social Worker (3 Hours)	\$ 90.00
Pastoral Care (3 Hours)	\$ 90.00
Staff Nurse Cost (work hour training)	\$ 700.00
Total Cost of Training	\$ 880.00
Resilience Room Cost	
Panasonic Pro ULTRA 3D Massage Chair	\$ 8224.00
Ceiling Bluetooth Speakers	\$ 160.00
Dimmer lights	\$ 293.00
Interior Paint	\$ 150.00
Aromatherapy	\$ 70.00
Installation & Preparation Resilience Room	\$ 500.00
Miscellaneous Clean Wipes/Water Bottles	\$ 300.00
Waterfall	\$ 345.00
Total Cost of Resilience Room Items	\$10,042.00
Total	\$10,948.55

Evaluation Plan

Data collection was conducted at 3rd and 6th weeks after opening the Resilience Room and education on available resources. The survey (see Appendix B) evaluated nurses' ability to access the Resilience Room and available resources and evaluate their experience when utilizing the Resilience Room and available resources.

The Kirkpatrick evaluation model was used in the quality improvement project. The Kirkpatrick model has four levels that include the reactive, learning, behavior, and result level. The first level is the reaction level, in which participants in the training see the importance to their job (Reio et al., 2017). By measuring nurses' reaction, it helps to have a better understanding of how well the nurses received the educational information and willingness to change (Reio et al., 2017). The second level, the learning level, evaluates how participants receive the knowledge, skills, attitude based on their participation. The information gathered includes what nurses have learned throughout the educational training. At the third level, the behavior level, nurses are expected to have changed their behavior and apply the information they learned in the training session. The fourth and final level is the results level, in which the evaluation of results is completed to determine if targeted outcomes occurred because of the training (Reio et al., 2017).

With the Kirkpatrick model, the project lead in reaction level evaluated the environment of the unit and observed the use of the Resilience Room and available resources. All nurses in ICU and PCU were given a survey to elicit feedback regarding satisfaction with the Resilience Room and available resources, the location of the Resilience Room, and the referral system. Participants rated their basic knowledge regarding Resilience Room, music therapy, aromatherapy, massage therapy, and available resources in the learning level. The project lead

evaluated behavior in the third level by asking two questions related to knowledge application and if the nurse experienced decreased occupational stress. In the result level, the survey (see Appendix B) measured if education increased nurses' knowledge about the importance of respite during working hours using Resilience Room and available resources. The project lead selected the Kirkpatrick model to improve evaluation of the educational training. The model invoked a behavioral change from nurses who viewed a need to respite as a sign of weakness to nurses who recognized respite as an opportunity to decompress and regroup before returning to the unit. The time-test design led to lessons learned and improvement opportunities for educational training.

The Kirkpatrick evaluation model (see Appendix C) was created to show how various aspects of each project objective were evaluated, and the individuals responsible (Kirkpatrick & Kirkpatrick, 2016). There is evidence to show that the Kirkpatrick's evaluation model has been effective in evaluating quality improvement projects. A mixed-methods study to evaluate training and its impact on acute care practice showed that nurses changed the current practice and applied what was learned (Jones et al., 2020).

Data Analysis Plan

Data analysis included tracking nurses who attended the education training about the Resilience Room and available resources for nurses to utilize when experiencing occupational stress. The project lead developed a survey for nurses participating in the quality improvement project was to be completed on the 3rd and 6th week after the educational training and opening of the Resilience Room. Data from the 3rd and 6th week surveys were presented in percentages to simplify data and easily compare results of surveys and determine if goals were met.

Timeline

The scheduling of ICU and PCU nurses for educational training began on April 6th, 2021. On March 29th, all ICU and PCU nurses were sent an email to participate in the quality improvement project, and an additional email with a flyer was sent 4 days before training as a reminder. A Resilience Room flyer was also placed in the unit breakroom, unit nurses station, and outside of the Resilience Room. The ICU and PCU nurses were given multiple time options to attend educational training during shift from April 6th through April 9th. On May 3rd, the survey was given to all nurses in the ICU and PCU who attended educational. The survey collection was completed on May 9th. The second survey distribution started on May 20th. The surveys were sent to all nurses who attended the educational course and were collected on May 25th. On May 29th, the analysis of the outcomes was completed, and on June 1st, the results were presented to stakeholders. The timeline in (see Appendix D) depicts activities conducted in the project.

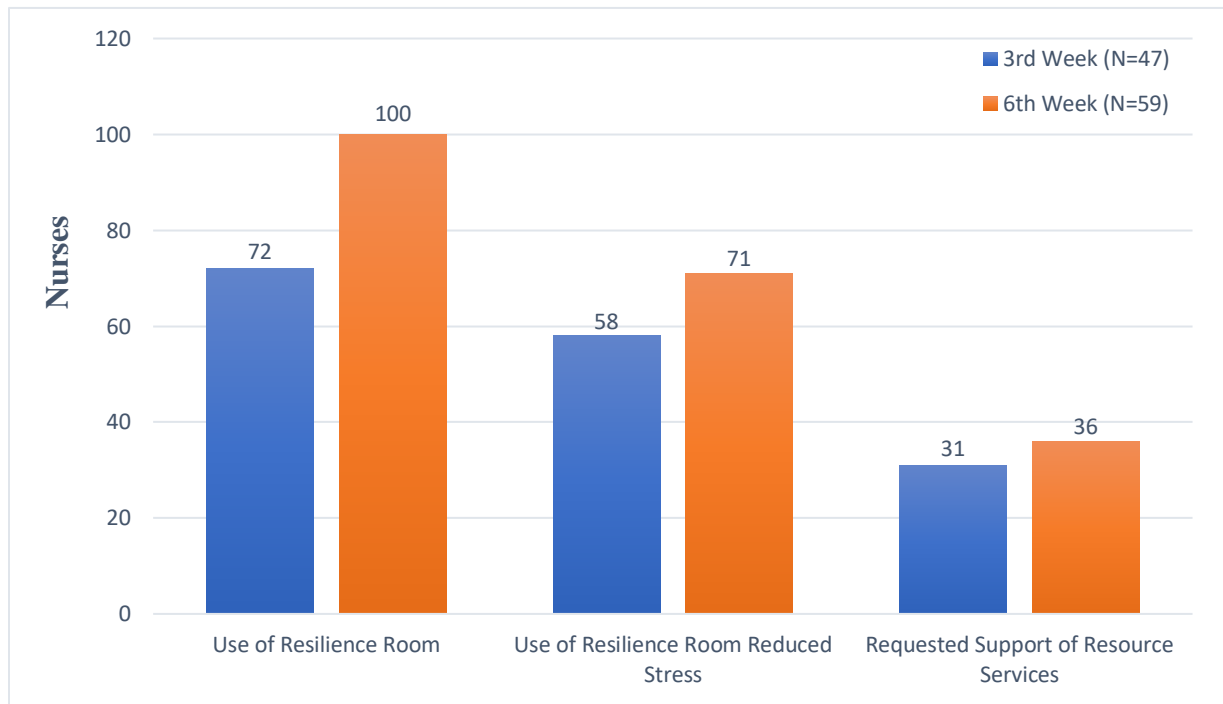
Ethical Considerations

Applications to the Institutional Review Board of the academic university and the clinical setting were completed and waivers of review were requested since this was completing a quality improvement project and not research. A waiver for the quality improvement project was obtained from the academic university (see Appendix E) and the clinical setting (see Appendix F). Participant consent was not required. Data collected was stored in a locked box inside the ICU nurse manager's office accessible only to the Project led. A letter of support was completed by CNO of the clinical site (see Appendix G). No patients at the facility were directly involved in the quality improvement project.

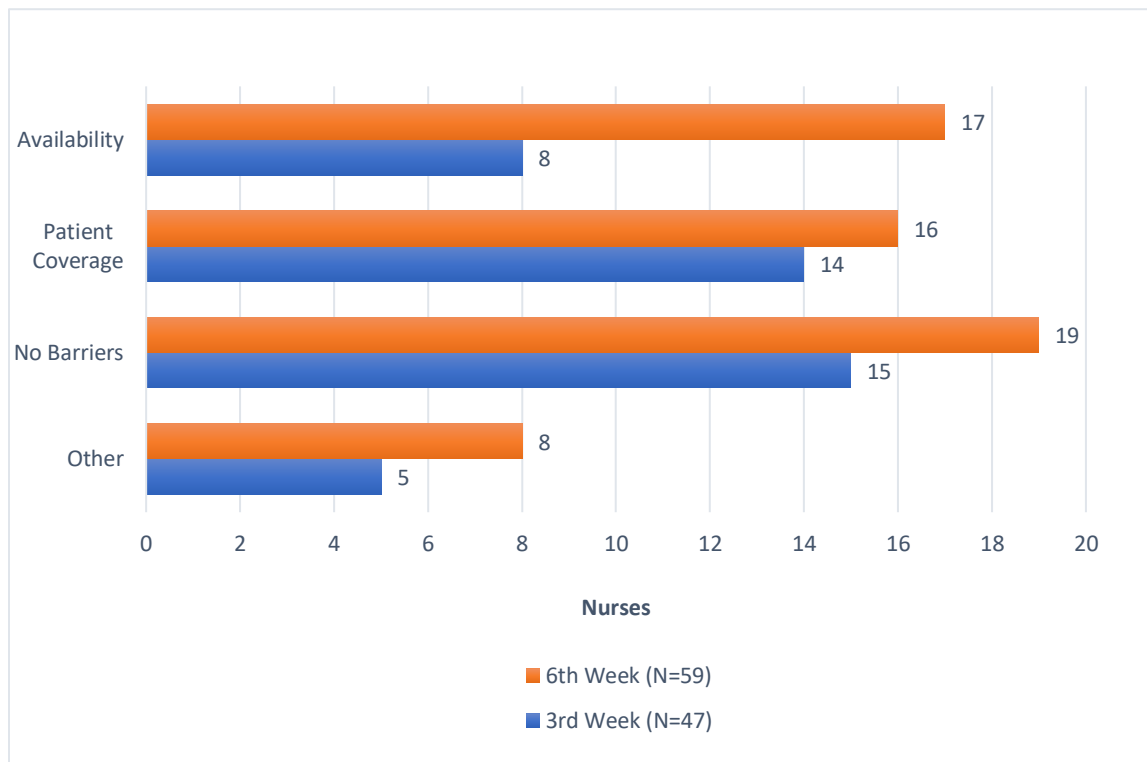
Results and Findings

Demographic information was collected to determine characteristics of the population in the quality improvement project. The project included all the nurses 100% ($N = 59$) working in ICU and PCU: 92% are female nurses and 8% male nurses. Ethnicity assessment showed Hispanic 37%, White/Caucasian 32%, Asian/Asian American 28%, Black/ African American 2%, and 1% other ethnicities. The nurse level of education was also collected with results showing that 67% held baccalaureate degrees, 32% have associate degrees, and 1% master's degrees.

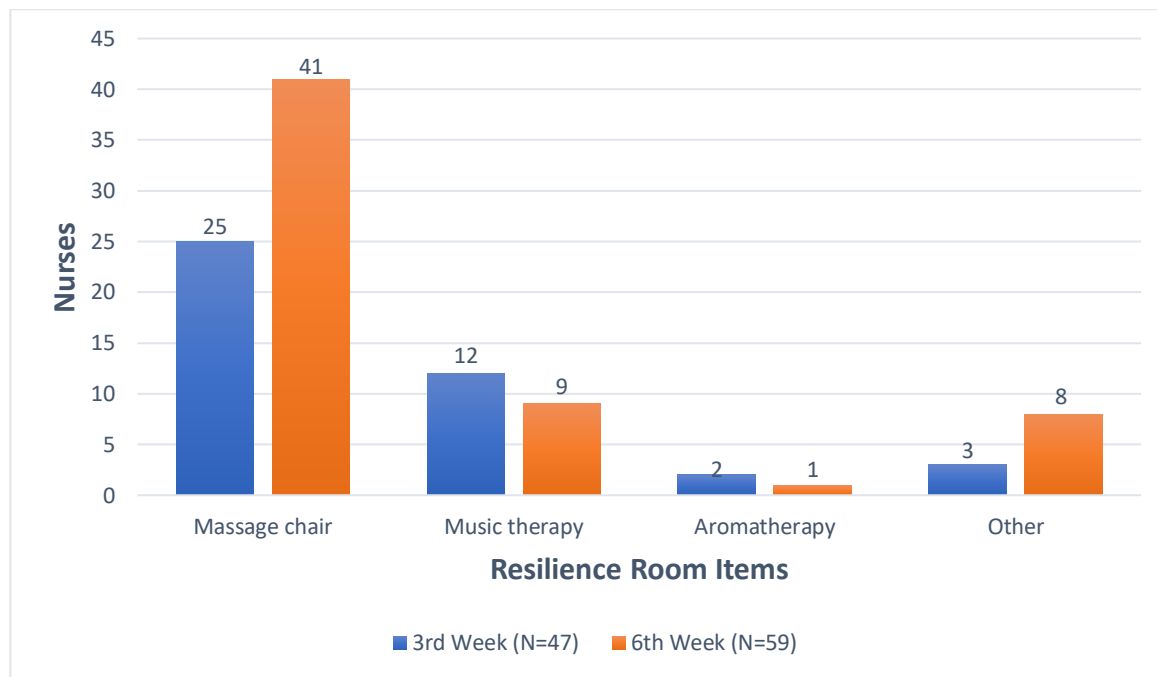
Over a 12-week period 100% ($N = 59$) of the nurses completed the survey. Seventy-six percent ($n = 45$) of the nurses used the Resilience Room once a work week. The night shift nurses used the room twice as often as nurses on the day shift and 24% ($n = 14$) utilized the Resilience Room several times within a week. Results showed that by the 6th week 100% of the nurses had utilized Resilience Room, 71% ($n = 42$) of nurses reported reduced stress after using the Resilience Room, 36% ($n = 21$) nurse utilized resource services (see Figure 5). In the 3rd week of the project, three nurses reported utilizing the Resilience Room every day while working.

Figure 5*Surveys 3rd and 6th Week*

Regarding barriers for use of the Resilience Room on the 3rd week survey, 29% ($n = 14$) of the nurses identified patient coverage as presenting the greatest barrier. For nurses who completed the survey at the 6th week, 27% ($n = 17$) reported availability of the room as the most common barrier for using Resilience Room. In addition, 32% ($n = 15$) and 31% ($n = 19$) nurses identified no barriers to use of the Resilience Room at 3rd and 6th week respectively (see Figure 6).

Figure 6*Barriers Preventing Use of Resilience Room*

Nurses who used the Resilience Room reported the massage chair as the most commonly used item used in the Resilience Room. Music therapy was used by 26% ($n = 12$) nurses on 3rd week and 15% ($n = 9$) nurses on 6th week making this the second most commonly used item in the Resilience Room. Nurses also reported aromatherapy was the least used item in the Resilience Room on both 3rd and 6th week surveys (see Figure 7).

Figure 7*Resilience Room Items Use*

Nurses reported utilizing support of resource services on the 3rd week 38% ($n = 18$) and on the 6th week 36% ($n = 21$). Survey results showed that on the 3rd and 6th week nurses exceeded the use of resource services beyond the goal of 25%. Surveys of the nurses also showed that pastoral care was used more often when compared to social workers.

The results showed all goals were reached by the 3rd week of the Resilience Room availability for nurses working in the ICU and PCU:

Goal 1 – Create a Resilience Room available to ICU and PCU staff in collaboration with nursing leadership by January 2021. There was a two-month delay with goal not being met until March 2021.

Goal 2 - Develop a protocol in collaboration with nursing leadership to address usage, guidelines, and referral system by January 2021. There was a one-month delay with goal not being met until February 2021.

Goal 3 - Educate 75% of the ICU and PCU nursing staff on the purpose of the Resilience Room and associated resources by February 2021. There was a two-month delay with goal being met in April 2021 with 100% ($N = 59$) of nursing staff educated.

Goal 4 – Have 50% of the nursing staff utilize the Resilience Room within three months of availability. Goal was met during the 3rd week of Resilience Room availability with 89% ($n = 42$) of nurses using the room at least once a week. During the 6th week of Resilience Room opening 100% ($n = 59$) of nurses reported using the room.

Goal 5 – Survey to be completed by 75% of nursing staff of the ICU and PCU at the 3rd and 6th week from Resilience Room availability to evaluate usefulness of the Resilience Room and support resources provided. Goal was met at the 3rd week with only 80% ($N = 47$) of nurses completing survey. At the 6th week 100% ($N = 59$) of nurses completed the survey and goal was met.

Goal 6 – Support staff consultation by social workers or pastoral services for ICU and PCU staff will increase from 0% to 25% within 12 weeks after education on support services. Goal was met on the 3rd week with 38% ($n = 18$) and 6th week with 36% ($n = 21$) of nurses utilizing referral system for consultation to available resources.

Discussion

Several issues arose, which resulted in the delay of project implementation by approximately 8 weeks. The Resilience Room was not available to ICU and PCU staff until March 2021, and the protocol was not approved until February 2021. Barriers were caused by the

COVID-19 pandemic and a change in management personnel which delayed the final approval from upper management to move forward with Resilience Room design and protocol for the use of the room.

The education of nursing staff was initially scheduled to be completed by February 2021 but was not completed until April 2021. The delay of final approval from upper management for the Resilience Room design and protocol caused a chain reaction of delays. Another factor that contributed to the delay was the change in Education Department personnel. The final approval caused a delay in videotaping the educational sessions and creating a QR-code on the flyer, which served as a reminder to the nursing staff.

All objectives were met by the 6th week of the quality improvement project. The Resilience Room was built near ICU and PCU; guidelines and referral systems were created before using the Resilience Room and available resources. The Resilience Room was completed in 4 weeks due to shipment delays of furniture (tables and massage chair) and additional décor (e.g., waterfall). Educational sessions conducted by the Project led were held at the nurse's station with small groups of one to three nurses due to personnel change in the Education Department. A pivot to small group training of nurses worked well due so to accommodate the high patient number and acuity. The videotaping of educational sessions training video was completed after training started due to personal changes in the Education Department.

When nurses started utilizing the Resilience Room a sign-in form stored in the nurse manager's office was used. In the 5th week of the project, the ICU nurse manager retired, and the form was replaced by a sign-in form on the door of the Resilience Room. The sign-in form showed that the Resilience Room had only been used about three or four times a week for 6 weeks. Fortunately, a badge reader replaced the original keypad and room usage data was

tracked with assistance of the information technology (IT) department. The Resilience Room was used 80 times in 6 weeks which was not reflected on the sign-in sheet.

Although the literature supported the use of aromatherapy, it was not reflected in this project. The nurses who participated in the quality improvement project reported a lack of utilization of the aromatherapy due to the time needed for nurses to find the one scent they preferred out of eight aroma options.

Obstacles were reviewed that may have prevented ICU and PCU nurses from taking respite breaks. Nurses reported they would like to use the Resilience Room once during every shift, but it was difficult to use the Resilience Room on day shifts during the week. Nurses reported barriers which included families visiting during the day shift, other professional specialists such as case managers, doctors, social workers, and nutritionists visiting during weekday hours thereby requiring the nurses to be present. There is frequently more significant activity such as x-rays, dialysis, and post-surgical patient during the weekday hours, which hindered utilization of the Resilience Room.

Survey results showed that the Resilience Room made the nurses feel less stressed and relaxed, and that the massage chair and music therapy were most helpful. The finding also revealed that the nurses were open to utilizing the Resilience room and other services, which included pastoral care and social workers.

The support staff consults by social workers or pastoral services for ICU and PCU staff increased by 36% within 6th weeks after the availability of the support services as advertised, exceeding the goal of 25%. The data collected for pastoral services use in this section was only based on nurses reporting on the survey. Pastoral care services reported it was difficult to consistently use a referral system due to maintaining Health Insurance Portability and

Accountability Act (HIPAA) guidelines to protect nurse information. Pastoral care was available 24 hours a day, 7 day a week and preferred to see nurses when a request was made. Pastoral care had been talking to nurses on the unit and if a nurse would like to speak to the chaplain privately, they would move to a private area. Pastoral care has visited the ICU and PCU during day and night shifts and patient deaths on the unit. Pastoral care reported that they preferred an open-door policy versus having nurses utilize a referral system.

The quality improvement showed respite breaks for nurses had a positive outcome, and nurses verbally reported feeling rested, less stressed, and having the energy to finish a shift and drive home. Nursing leadership is taking action to create another area for respite to be available for all nurses in the facility, to promote a healthy work environment, improve nurse satisfaction, and potentially increase the retention rate.

Lessons Learned

Lessons learned include what worked and what could have been done differently during the quality improvement project. What worked was including several stakeholders to provide a consistent team of six during the entire project. Their input was invaluable in the development of the protocol. The challenges of COVID-19 and the transition of personnel caused an approximate 8-week delay but did not prevent the project from being completed.

Regarding aromatherapy in the Resilience Room being a minor item used, a nurse survey should have been completed to limit the aroma selections from eight to the highest three selected in the survey. With the use of a survey, data collected about aromatherapy used could have been higher.

Utilizing social workers and members from pastoral care who worked in the same units as nurses participating in the project made it easier for nurses to reach out for guidance when

experiencing occupational stress. The participation and availability of social workers and pastoral care was supported by upper management and stakeholders.

The COVID-19 pandemic and management reorganization created delays in the timeline due to completing the design of the Resilience Room. Furniture originally selected for the Resilience Room was changed due to shipping delays caused by COVID-19. Production and shipments of furniture were either canceled or delayed over six months. The delay caused a change in furniture selection to what items were in stock at the time. There should have been alternative items selected to prevent delays when starting the Resilience Room design process.

Another delay was caused when management was not available to approve the change in furniture selection, guidelines, and educational training. The input from management was needed to address the shift of patients from COVID-19 to high acuity patients.

Implications

The findings of the quality project were aligned with evidence found in a review of the literature. The evidence supporting the implementation of a Resilience Room and other resources to improve stress levels is vital. The Resilience Room did provide a safe, quiet place for nurses to respite as was reflected in the literature and supported by the high usage of the Resilience Room. The use of social workers and pastoral care on the unit available 24 hours a day provided the nurses the opportunity to debrief with them after a death or a particularly stressful event.

The data collected from the quality improvement project can help other facilities understand the importance of respite during working hours for nurses exposed to occupational stress. The data supported the significance of creating a policy to allow nurses to utilize a Resilience Room and the positive contribution of available resources to improve the work environment.

Strengths and Limitations

Strengths of the project included the evidence which supported the use of the room, massage chair, music therapy, and aromatherapy. An interprofessional team was involved with the project to give their expert advice and support to ICU and PCU nurses. With corporate and management buy-in, capital funds were made available to purchase items in the Resilience Room. Strengths of the project also included the use of onsite social workers and chaplains. Since social workers and pastoral care had a rapport with the ICU and PCU nurses, nurses stated that they felt comfortable talking with them when experiencing challenges. The rapport could have contributed to the successful attainment of the goal beyond expectations. The Project led provided educational sessions in small groups on the unit allowed for questions and no time away from the unit. Nurse educational training on the importance of respite using a Resilience Room and available resources showed support for nurses who are coping with occupational stress. Nurses learned that taking the time for respite during working hours was viewed as a responsible action rather than selfish behavior.

Limitations included the COVID-19 pandemic, which resulted in a change in the typical patients in the unit (e.g., higher acuity, increase in patient load, and an increase in patient deaths on the unit). There was also an increase in the nurse resignation rate resulting in a shift in the composition of the nursing staff (e.g., level of education and work experience). Studies have shown that novice nurses have more difficulty managing stress during patients experiencing adverse outcomes and high equity patients (Hoeve et al., 2020). Novice nurses having difficulty managing complex patients may have impacted more frequent use of the Resilience Room.

Another limitation included the delay in producing the video of the PowerPoint presentation and QR-Code. The QR-Code was to assist in educating nurses who were not able to

attend education training. The delay was caused by the restructuring of the Education Department at all hospitals associated with the clinical site. Restructuring caused training to be completed at unit nursing station with small groups of nurses.

Sustainability

Quality improvement project sustainability will be accomplished using continued stakeholder buy-in and cost-benefit analysis to support continued funding and involvement of other disciplinary groups to support the project. A Veterans Affairs sustainability study, showed the importance of local facility clinical champions to provide training, feedback, and support after implementing the project (Akgün et al., 2019). A champion may be selected from ICU and PCU to encourage continued use of the Resilience Room and support services and maintain education for new staff.

Since the quality improvement project was concluded, the hospital stakeholders have agreed to improve an outdoor space for nurses as an additional respite area. The outdoor space for nurses will allow nurses to socialize and maintain social distancing due to COVID19 guidelines. There is currently a proposal to redesign outside space for nurses to take breaks during working hours. The Resilience Room will also be opened to all employees within the facility at the beginning of July 2021.

DNP Essentials

The DNP Essentials are competencies that are required for all DNP graduates (AACN, 2019b). The competencies guided the advanced practice nurse to critically think, apply best evidence-based practice, and collaborate with interprofessional groups to improve health (AACN, 2019b). The competencies developed by AACN are used to complete the quality improvement project. After the completion of the microsystem assessment and needs assessment,

there was evidence to support a quality improvement project. The project was based on a need for health promotion of the ICU and PCU nurses in the occupational health setting. The interventions selected for the project are evidenced-based.

With a scientific foundation based on natural and social sciences evidence, the evidence was translated into research (Zaccagnini & Pechacek, 2021) to practice reflected in the project interventions. The plan focused on the target population (ICU and PCU nurses), assessing cost-effectiveness (cost of resilience room and available resources), and evaluating if the project is practical. With assistance from the CNO and other interprofessionals at the clinical site, the project lead created a healthy nurse environment was created (ANCC, 2018). The project lead collaborated with social workers, pastoral care, and the occupational health nurse to provide services for nurses during times of stress and develop evidence-based resources using the Resilience Room in collaboration with nursing leadership.

Several DNP Essentials were specifically enacted in the development and execution of this quality improvement project. Essential II: Organizational and Systems Leadership for Quality Improvement was addressed when the project lead led a system change and improved the nurse work environment by providing ICU and PCU nurses the opportunity to respite with a Resilience Room and provided additional resources for nurses to use when experiencing occupational stress. The project lead implemented an evidence-based practice in an acute care setting and implemented guidelines based on scientific studies and evidence. The project lead also developed and monitored a budget for money allotted for Resilience Room and quality improvement project.

The project lead also incorporated clinical scholarship and evidenced-based practice to demonstrate Essential III. The project lead educated nurses in an acute care setting about the

importance of respite using a Resilience Room in a safe and private space that included massage chair, music therapy, and aromatherapy. The education also included the importance of using a referral system to reach social workers and pastoral care when experiencing occupational stress. The project lead educated and evaluated the evidence-based project and recommended improvement processes for Resilience Room guidelines and available resources.

Regarding Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes the project lead effectively communicated with stakeholders and the interprofessional team to collaborate in completing educational training, guidelines, and policy for the Resilience Room. The project lead also led an interprofessional team in creating a referral system for nurses to gain access to social workers and pastoral care.

In addressing Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health the project lead completed an assessment and evaluated skills to prepare and implemented evidence-based practice and provided guidance to staff to use evidence to improve the workplace environment. The quality improvement project proposal was approved by nurse leadership of the facility and the University of the Incarnate Word: Ila Faye Miller School of Nursing and Health Professions was implemented in collaboration with stakeholders at the facility. Project lead presented completed quality improvement project and recommendations to stakeholders.

Conclusion

The improvement project successfully met the aims of providing a safe and quiet space for nurses to briefly find relief from their work demands and facilitate the use of support services. The key to the success of the quality improvement project was flexibility on the part of the project lead in the nursing education to either one-on-one or in small groups on the unit with

the minimal time necessary to train ICU and PCU nurses. Lastly, utilization of pastoral care and social workers exceeded initial goals, supporting the importance of further involvement of social workers and chaplains.

The project's success has implications for allowing all nurses in the facility to utilize the Resilience Room and available resources. The barriers encountered in this project are similar to barriers nurses commonly face within other healthcare systems. Fortunately, with stakeholder buy-in and nurse buy-in to utilize Resilience Room and available resources, results will continue to produce positive outcomes.

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Appendix A

Guidelines for Use of Resilience Room

GUIDELINES FOR USE OF RESILIENCE ROOM AND MASSAGE THERAPY CHAIR

Read and adhere to the following policy and procedures for the care, use, and longevity of the massage therapy equipment.

INSTRUCTIONS FOR ENTRY

- Each employee **MUST** choose a scheduled time and sign-up on the login sheet (Name, Date, and 3-4id) prior to swiping badge for entry.
- Each employee **MUST** then swipe badge to enter Resilience Room.
- Each employee has a 15-minute chair massage session.
- **Only one** employee is allowed to use Resilience Room at a time to maintain social distancing (CDC, 2020d).
- **NOTE:** *If the above steps are violated employee may lose temporary access to room.*

UP-KEEP AND CLEANING INSTRUCTIONS

- Each employee has **5 minutes** to wipe chair down prior to leaving (CDC, 2020b)
- There is a **10-minute cooling-down and drying process required** between each scheduled session:
 - Staff **MUST** use gray or purple wipes only to clean chair (Cleaning supplies will be made available for staff use).
 - **DO NOT** use bleach wipes on chair.
 - Staff is **REQUIRED** to use hand sanitizer before using Resilience Room equipment and when leaving the room (CDC, 2020c).
 - Food and drinks **NOT ALLOWED** at any time in massage room.

CHAIR OPERATION

- Chair controls are located on right side of chair.
 - Round button is the “Power Button.”
 - Other buttons are specific areas you may want to target.
 - Take **SHOES OFF** before placing feet in footrest.
 - **NOTE:** Please read all warning labels and posted instructions prior to use.

If you have any questions or issues, contact ICU Charge Nurse.

Appendix B**Survey**

1. Did you use the Resilience Room?
 - A. Yes
 - B. No
2. How often did you use the Resilience Room?
 - A. Once a day
 - B. Once a week
 - C. More than once a week
 - D. Not at all
3. If so, did you find Resilience Room resulted in reduced stress?
 - A. Yes
 - B. No
4. Were there any barriers that prevented you from using the Resilience Room?
 - A. Availability
 - B. Patient coverage
 - C. No barriers
 - D. Other: _____
5. What resources in the room did you find helpful?
 - A. Massage chair
 - B. Music therapy
 - C. Aromatherapy
 - D. Quiet space
6. Have you requested the support of other resource services?
 - A. Yes
 - B. No
7. If so, what services did you use?
 - A. Pastoral Care
 - C. Social Workers
 - D. Other

Appendix C

Kirkpatrick Evaluation Model

1. Project Objective: Create a Resilience Room available to ICU and PCU staff 1 month of receiving IRB approval.

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How stakeholders feel about Resilience Room	Ask stakeholders feel about contents in Resilience Room	1 to 2 weeks after completing resilience room	Project lead
	Learning	Measure knowledge about room	Interview stakeholders	1 to 2 weeks after completing resilience room	Project lead
	Behavior	Measure stakeholders buy-in of Resilience Room	Have stakeholders use room to document their understanding of room	1 to 2 weeks after completing resilience room	Project lead
	Results	Measure success of room	Survey	1 to 2 weeks after completing resilience room	Project lead

2. Project Objective: Educate 75% ICU and PCU nursing staff on the purpose of Resilience Room and Associated resources after two weeks of opening.

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How nurses felt about Resilience Room and associated resources	Ask nurses how they feel after utilizing room	Twice a week for 4 weeks	Project lead
	Learning	Measure knowledge about room and associated resources	Survey all nurses in ICU and PCU	6 – 12 weeks after training	Project lead
	Behavior	Measure how often nurses used Resilience Room and associated resources	Observe nurses, keypad entry, and review sign-up sheet	6 – 12 weeks after training	Project lead
	Results	Measure success of room and associated resources	Survey	6 – 12 weeks after training	Project lead

3. Project Objective: Resilience Room will be used by 50% of nursing staff within 3 months of opening.

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How nurses felt about Resilience Room and associated resources	Ask nurses how they feel after utilizing room	Twice a week for 4 weeks	Project lead
	Learning	Measure knowledge about room and associated resources	Survey all nurses in ICU and PCU	6 – 12 weeks after training	Project lead
	Behavior	Measure how often nurses used Resilience Room and associated resources	Observe nurses, keypad entry, and review sign-up sheet	6 – 12 weeks after training	Project lead
	Results	Measure success of room and associated resources	Survey	6 – 12 weeks after training	Project lead

4. Project Objective: Seventy-five percent of the nursing staff will complete a survey about Resilience Room.

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How nurses felt about Resilience Room	Ask nurses how they feel after utilizing room	Twice a week for 4 weeks	Project lead
	Learning	Measure knowledge about room	Survey all nurses in ICU and PCU	6 – 12 weeks after training	Project lead
	Behavior	Measure how often nurses used Resilience Room	Observe nurses, keypad entry, and review sign-up sheet	6 – 12 weeks after training	Project lead
	Results	Measure success of room	Survey (75% of nurses will submit survey)	6 – 12 weeks after training	Project lead

5. **Project Objective: Survey conducted at 6 weeks and 12 weeks, 75% of nursing staff of the ICU and PCU staff will reflect satisfaction with the Resilience Room and support resources provided.**

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How nurses felt about Resilience Room and associated resources	Survey by asking nurses how they feel after utilizing room and support resources	Twice a week for 4 weeks	Project lead
	Learning	Measure knowledge about room and associated resources	Survey all nurses in ICU and PCU	6 – 12 weeks after training	Project lead
	Behavior	Measure how often nurses used Resilience Room and associated resources	Observe nurses, keypad entry, review sign-up sheet and associated resources utilized	6 – 12 weeks after training	Project lead
	Results	Measure success of room and associated resources	Survey	6 – 12 weeks after training	Project lead

6. **Project Objective:** Support staff consultation by Social Workers or Pastoral Services for ICU and PCU staff will increase from 0% to 25% within 12 weeks after Resilience Room available.

Evaluation Model	Evaluation Component	What to evaluate	How to get information (What method, where will you find reliable and valid information that you need)	When/how often to do this	Who is responsible
Kirkpatrick	Reaction	How nurses felt about associated resources	Survey Ask nurses how they feel after utilizing room	Twice a week for 4 weeks	Project lead
	Learning	Measure knowledge about associated resources	Survey all nurses in ICU and PCU	6 – 12 weeks after training	Project lead
	Behavior	Measure how often nurses used associated resources	Observe nurses, keypad entry, and review sign-up sheet	6 – 12 weeks after training	Project lead
	Results	Measure success of associated resources	Survey	6 – 12 weeks after training	Project lead

Appendix D

Timeline Table

Projected Proposal Timeline

Activity	March Week #			April Week #				May Week #				June Week #			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Complete Resilience Room	X														
Face to Face Survey for best times to educate nurses.		X													
Stakeholder Pre-Opening Meeting and walk through of Resilience Room			X												
Advertisement for Training and Opening of Resilience Room		X	X												
Educate ICU and PCU nursing staff				X											
Resilience Room open to nursing staff				X	X	X	X	X	X	X	X	X	X	X	X
Data collection		X					X			X					
Data analysis								X			X				
Dissemination of findings												X			

Appendix E

Academic Institution IRB



2/24/2021

Project Lead: Marisella Perales

Project title: Respite for Acute Care Nurses with the Use of a Resilience Room

Marisella:

Your project titled Respite for Acute Care Nurses with the Use of a Resilience Room was deemed to be **Not Regulated Research**.

Your proposed project was reviewed and found to not meet federal regulatory requirements for human subject research and does not require approval via the IRB process. Please use the IRB number **NRR [21-007]** when inquiring about or referencing this determination.

No further review of the project as proposed is required. Should you determine at any point you wish to add additional elements to the project, please contact us before initiating those components, as this may impact the determination.

For information regarding the IRB or the review process, please contact me at (210) 805-5885.

Sincerely,

Ana Hagendorf, PhD, CPRA

Ana Hagendorf, PhD, CPRA
Director, Office of Research and Sponsored Projects Operations
Office of Research and Graduate Studies
University of the Incarnate Word
4301 Broadway, CPO 1216
San Antonio, Texas 78209
(210) 805-3036
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Appendix F

Clinical Site IRB

METHODIST HEALTHCARE

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INSTITUTIONAL REVIEW BOARD

FWA00000435

8109 Frederickburg Road, 3rd Floor, San Antonio, TX 78229

Telephone: (210) 575-4918

Fax: (210) 575-0587

MHS IRB web site: <https://sites.google.com/site/mhsirbats/>

March 8, 2021

Marisela G. Perales

[By Email]

Re: **Respite for Acute Care Nurses with the Use of a Resilience Room**

Dear Ms. Perales,

The above referenced project was reviewed and determined that it does not require IRB approval and/or oversight because it is:

- Not regulated research as defined by HHS regulations at 45 CFR 46 and FDA regulations at 21 CFR 36.
- Not funded by HHS as research.
- Not a systematic investigation designed to test a hypothesis and allow for conclusions to be drawn.
- Not designed to develop or contribute to generalizable knowledge, and,
- Not designed to investigate the safety or effectiveness of a drug, medical device or biologic.

If the goals and/or activities of the project change during the course of the project, or if new activities are proposed that would constitute human subject research, please contact Methodist Healthcare System IRB Office so that we can determine whether or not the revised plan involves human subject research activities.

Please note that our determination is only as it relates to whether or not your proposed project is Human Subject Research/Clinical Investigation, requiring IRB review and approval. Other facility clearance or approval may be required. Please contact the responsible facility leadership for any additional measures required in order for you to implement this project within the chosen Methodist Healthcare facility as applicable.

Additionally, if your proposed project involves release of Methodist Healthcare data to external entities or parties, the project may be subject to External Data Release (EDR) policy. Please coordinate with the Ms. Sheri Shade, MHS Director of Research, to ensure compliance with this policy as applicable.

Methodist Healthcare System IRB appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please feel free to contact me by calling (210) 575-8390.

Respectfully,

Philip Oilepo

Digitally signed by Philip Oilepo
Date: 2021.03.08 12:53:11 -0500

Division Director, IRB

Appendix G

Letter of Support



March 08, 2021

To Whom It May Concern:

As the Chief Nurse Officer of Methodist Hospital Specialty and Transplant I am in support of the Quality Improvement Project coordinated by Ms. Marisella Perales in partial fulfillment of her Doctor of Nursing Practice requirements at the University of the Incarnate Word (UIW). The project entitled, "Respite for Acute Care Nurses with the Use of a Resilience Room" has been reviewed by the Institutional Review Boards of both UIW and the Methodist Healthcare System and given a waiver as a QI project. This project will be conducted in the Acute and Progressive Care units at Methodist Hospital Specialty and Transplant.

Please let me know if you have any questions.

A handwritten signature in blue ink that reads "Dave Allen".

Dr. David "Dave" Allen, DNP, RN, CCNS-BC, CCRN
Chief Nursing Officer

Methodist Hospital Specialty and Transplant

8026 Floyd Curl Drive
San Antonio, TX 78229
P: 210.575.8519

Appendix H

Survey Results

Survey Results

Question	Week 3 N = 47	Week 6 N = 59
1. Did you use the Resilience Room?	42 (89%)	59 (100%)
2. How often did you use the Resilience Room?		
A) Once a day	A. 3 (6%)	A. 0 (0%)
B) Once a week	B. 30 (64%)	B. 45 (76%)
C) More than once a week	C. 9 (19%)	C. 14 (24%)
D) Not at all	D. 5 (11%)	D. 0 (0%)
3. If so, did you find Resilience Room result in reduced stress?	34 (72%)	42 (71%)
4. Were there any barriers that prevented you from using the Resilience Room?		
A. Availability	A. 8 (17%)	A. 17 (29%)
B. Patient Coverage	B. 14 (29%)	B. 16 (27%)
C. No Barriers	C. 15 (32%)	C. 19 (31%)
D. Other:	D. 5 (11%)	D. 8 (14%)
5. What resources in the room did you find helpful?		
A. Massage chair	A. 25 (53%)	A. 41 (69%)
B. Music therapy	B. 12 (26%)	B. 9 (15%)
C. Aromatherapy	C. 2 (4%)	C. 1 (2%)
D. Other:	D. 3 (6%)	D. 8 (14%)
6. Have you requested the support of Support of resource services?	18 (38%)	21 (36%)
7. If so, what services did you use?		
A. Pastoral Care	A. 13 (28%)	A. 17 (29%)
B. Social Workers	B. 5 (11%)	B. 4 (7%)
C. Other:	C. 0 (0%)	C. 0 (0%)

*Note: Question 4 Other responses included nurse had scheduled education training, patient death, no response
Question 5 Other responses included quiet time to be on phone, prayer, and meditation.*