

A SELF-CARE ACTIVITY TO SUPPORT STRESS MANAGEMENT AND RESILIENCE IN
NEW GRADUATE NURSES: A QUALITY INITIATIVE TO REDUCE TURNOVER

A Doctor of Nursing Practice Project Report

by

KIRA CORTEZ

BSN, Texas Tech University Health Science Center School of Nursing, 2011
MSN, Texas Tech University Health Science Center School of Nursing, 2017

Submitted in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF NURSING PRACTICE

Texas A&M University-Corpus Christi
Corpus Christi, Texas

August 2022

© Kira Lynn Cortez

All Rights Reserved

August 2022

A SELF-CARE ACTIVITY TO SUPPORT STRESS MANAGEMENT AND RESILIENCE IN
NEW GRADUATE NURSES: A QUALITY INITIATIVE TO REDUCE TURNOVER

A Doctor of Nursing Practice Project Report

by

KIRA CORTEZ MSN, RN, CNE

This Doctor of Nursing Practice Project Report meets the standards for scope and quality of Texas A&M University-Corpus Christi College of Nursing and Health Sciences and is hereby approved.

Heather DeGrande, PhD, CCRN-K
Chair

Pamela Greene PhD, RN, NEC-BC
Advisor

Claudia Rueda, PhD
Graduate Faculty Representative

August 2022

DEDICATION

I would like to dedicate this work to my family who have provided unending support. To my loving husband Rocky, thank you for always reminding me I can do anything. To my wonderful children Colin, Bella, and Olive, thank you for your understanding and continuous love. To the rest of my family, thank you for always being proud of me. I am truly grateful to have all of you in my life and love each of you dearly.

ACKNOWLEDGEMENTS

I would like to acknowledge my project committee, the TAMU-CC DNP faculty team, and the healthcare institution for the continued support. A special acknowledgement to my project chair, Dr. Heather DeGrande who provided constant guidance and support for me and the project.

TABLE OF CONTENTS

CONTENTS	PAGE
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vi
LIST OF FIGURES	viii
LIST OF TABLES.....	ix
ABSTRACT.....	1
INTRODUCTION	2
Background.....	3
Review of Literature	4
Problem Description in the Setting.....	5
Project Purpose and Aims	6
Guiding Frameworks	8
METHODS	11
Ethical Considerations	11
Project Design.....	11
Intervention.....	13
Data Collection	13
Measurement Tools.....	15

Data Analysis	16
RESULTS	16
Outcomes	17
DISCUSSION	23
Limitations	26
Interpretation.....	27
Conclusion	29
REFERENCES	31
LIST OF APPENDICES	37

LIST OF FIGURES

FIGURES	PAGE
Figure 1: Theoretical Framework	9
Figure 2: Conceptual Framework	10
Figure 3: Risk Assessment Table.....	12
Figure 4: Project Timeline	14
Figure 5: Means of Perceived Stress Scale Scores Between Pre-Test Scores and Post-Test Scores	19
Figure 6: Means of Connor Davidson Resilience Scale Scores Between Pre-Test Scores & Post- Test Scores	20
Figure 7: Completion Data.....	21

LIST OF TABLES

TABLES	PAGE
Table 1: Participants' Demographics Pre-Post Intervention.....	18
Table 2: Means and Standard Deviations of Scores on the PSS by Ethnicity	21
Table 3: Means and Standard Deviations of Scores on the PSS by Age	22
Table 4: Means and Standard Deviations of Scores on the CDR Scale by Ethnicity	23
Table 5: Means and Standard Deviations of Scores on the CDR Scale by Age	23

ABSTRACT

The transition to practice is challenging and stressful for new graduate nurses which leads to turnover within the first year. New graduate nurse turnover negatively impacts patient outcomes. Self-care programs emerged in the literature as supportive of stress and to build resilience. The purpose of this project was to implement an evidence-based self-care activity to support stress, build resilience and subsequently reduce turnover during the transition to practice and beyond for new graduate nurses. The project conducted a pre and post intervention design with the use of intentional self-care activities. Participants were recruited after successful completion from a healthcare affiliated associate degree registered nursing program. The Perceived Stress Scale and the Connor-Davidson Resilience Scale were used to measure the project specific aims to support stress and build resilience. The intervention consisted of an initial educational session including transition to practice, stress, resilience, self-care, and included active participation of self-care practices. Participants were then assigned a self-care webinar package designed by the American Nurses Association to complete over a 12-week timeframe while actively transitioning to practice. There was a statistically significant reduction in perceived stress scores with little to no change in resilience scores. Barriers to participant engagement in the intervention included lack of time, and confounding variables including the COVID-19 pandemic, preceptor variations, and shift type. Implications from this project suggest self-care as a key component to the orientation phase for new graduate nurses upon hire.

Keywords: new graduate nurses, turnover, stress, resilience, transition to practice, self-care

A Self-Care Activity to Support Stress and Resilience in New Graduate Nurses: A Quality Initiative to Reduce Turnover

INTRODUCTION

Nationally, new graduate nurse turnover is reported to be up to 30% within the first year of practice and as high as 57% during the second year of practice (Health, 2017). In the State of Texas, the Hospital Nurse Staffing Study reported turnover at 40.2% in the first year of hire (Texas Department of State Health Services [DSHS], 2019). Nurse turnover can lead to inadequate nurse staffing. Griffiths et al. (2018) found risk for patient mortality increased by 3% each day RN staffing was inadequate. Further, new graduate nurse turnover has been directly related to negative patient outcomes such as increased rates of medication errors (National Council of State Boards of Nursing [NCSBN], n.d). Nurse turnover is costly. According to Nursing Solutions Incorporated (NSI) (2019), the cost of turnover is approximately \$44,375 per bedside nurse. New graduate nurse turnover is a result of high stress levels associated with transition to practice in new graduates (American Association of Colleges of Nursing [AACN], 2020). Additionally, high turnover rates for new graduate nurses have been linked to stressful work environments and inadequate support during the transition from student to professional practice (Sandler, 2020). New graduate nurses face transition to practice stress along with increased stress related to the COVID-19 pandemic. Managing stress with self-care builds resilience and reduces the likelihood of turnover for new graduate nurses (Wei et al., 2019). Through the use of self-care activities, new graduate nurses can manage transition to practice stress resulting in support of stress management, building of resilience, and subsequently reduce turnover.

Background

New graduate nurses experience a desire to leave their job within the first year of practice attributed to lack of support, increased stress related to the environment, and inability to time manage (Sandler, 2020). Promoting a culture of foundational support to new graduate nurses that offers purposeful training is crucial to retention (Africa & Shinnars, 2019). New graduate nurses in a south Texas healthcare system are transitioning to practice with a precepted orientation phase that last six to twelve weeks. The precepted orientation period is dependent upon the level of care provided on the hospital unit and the unit's current staffing needs. Self-care activities support stress management and build resilience in new graduate nurses transitioning from student to professional nurse. Resilience is the ability to adapt to stress (Wei et al, 2021) and the ability to adjust to stressful situations (Connor & Davidson, 2020). Transitioning to professional nurse with self-care practices will support the adaptation to the role change during a challenging environment thereby building resilience for new graduate nurses (Weston et al. 2012).

A lack of self-care increases the risk of unhealthy lifestyles related to coping with stress and can lead to practice errors or leaving the nursing profession entirely (Kelback, 2021). Melnyk et al. (2021) conducted a study to assess the link between medical errors and mental health in critical care nurses. The study consisted of 771 critical care nurses and concluded with 51% of the population reporting suboptimal mental and physical health self-ratings. Their research also found the nurses who reported worse physical and mental health were 31- 62% more likely to create a medical error as opposed to the population participants who reported good physical and mental health (Melnik, 2021). Supporting the transition with self-care activities can support stress management and build resilience. Laschinger et al. (2019) found healthy work environments, that promoted self-care and resilience, were key to support occupational coping

and reduced turnover for new graduate nurses. Self-care practices are essential during the transition to practice for new graduate nurses.

Review of Literature

A practice gap was identified in the lack of self-care coaching offered during the transition to practice for new graduate nurses. DeGrande et al. (2018) used a hermeneutic phenomenology research design to study the experiences of 11 new graduate nurses in the adult intensive care unit setting and offered findings to nursing leaders to enhance supportive work environments to new nurses. The supportive work environment described by DeGrande et al. (2018) is one that encompasses team building, resilience, and mental health support for new graduate nurses to sustain retention.

Self-care activities lead to safer patient outcomes. Investing in self-care activities promotes the ability to strengthen an institution's resources, processes, and access to health for the system and the population it serves (World Health Organization (WHO), 2021). Kulka et al. (2018) directed a quality improvement project to implement a stress reduction program and measured the effects on stress to improve patient outcomes with 40 newly graduated nurses. Their work revealed reduced stress in newly graduated nurses and improved communication, teamwork, and patient safety in a rural hospital in North Carolina (Kulka et al., 2018). Bong (2019) reviewed current research to examine factors of moral distress leading to turnover of newly licensed registered pediatric nurses and supportive facility interventions to reduce moral distress. The research revealed interventions aimed to support stress reduced turnover for the newly licensed pediatric nurse population (Bong, 2019). Kramer (1974) began studying new graduate nurse stress and the reality shock of the transition to practice. Kramer et al. (2011) relayed, in a multi-site cohort study, the importance to decrease the reality shock with the use of

healthy work environments. Their research included 468 new graduate nurses hired to 17 Magnet hospitals and supported the notion to ease the transition to practice for sustainability of employment for the participants.

Problem Description in the Setting

This project took place at a healthcare system located in south Texas. For this quality initiative project, turnover is defined as leaving the initially hired unit within the first year of practice at the specified healthcare system. New nurse turnover within this healthcare system was reported at 36% for the year of 2019 prior to the COVID-19 pandemic. The rate of new nurse turnover in this facility for the year of 2020 is 43%. The increase in new graduate nurse turnover within the first year of hire at this healthcare system was exacerbated by the COVID-19 pandemic. The project affiliated healthcare system currently provides new graduate nurses with a precepted orientation process when hired. The healthcare system provides new graduate nurses with a two-day hospital orientation training to review facility policies and procedures upon hire and then a unit precepted orientation phase. The precepted orientation phase is a pairing of an experienced nurse preceptor with a new graduate nurse until unit competencies are met. Unit competencies are based on patient acuity and the length of orientation timeframe as determined by the specific unit staffing needs. The orientation phase consists of a minimum of six weeks and maximum of twelve weeks. The healthcare facility does not include a self-care activity component to the orientation phase to support the stressful transition to practice. Self-care is an essential component for supporting stress and building resilience, and subsequently retention, therefore the implementation of a self-care activity during the transition to practice is important. The affiliated healthcare system's goal is to reduce turnover of new graduate nurses and improve the transition to practice to support stress management and build resilience as evident in current

research. This goal aligns with the project purpose. The current orientation phase for new graduate nurses at the affiliated healthcare system supports the need for self-care. System stakeholders are committed to resolving the project's defined problem. Success of this intervention is based on the system's mission to retain new graduate nurses and enhance patient outcomes.

A self-care activity can support transition to practice stress for new graduate nurses, build resilience, and ultimately reduce turnover for this south Texas healthcare system. This healthcare system is determined to reduce new graduate nurse turnover rates. New graduate turnover rates are assessed annually within the healthcare system. The project team responsible for implementation consisted of the project director, who is a certified nurse educator and faculty member for the participating Associate Degree of Nursing program, the Director of Clinical Marketing, and the Chief Nurse Executive. The project team members are salaried employees within this healthcare system with responsibilities to this population to include successful transition to nursing practice. This team will discuss self-care activities, new graduate nurse retention, and project updates bi-annually and implement changes in subsequent quality improvement cycles. Availability of self-care resources will continue to be addressed annually for validity and sustainability by the project team.

Project Purpose and Aims

The purpose of this project is to support stress management and build resilience in new graduate nurses by providing a self-care activity program for new graduate nurses during their transition to practice. The clinical question guiding this quality improvement project is: In new graduate nurses, will participation in intentional self-care activities support stress management and build resilience compared to baseline stress and resilience scores over 12 weeks? DNP

Essential II involves planning a quality improvement project based on the organization's needs and system's desire to improve outcomes of the population affected (Zaccagnini & White, 2017). Implementing a self-care activity during the transition to practice is essential to the selected healthcare system based on the system's lack of self-care support during the current orientation phase for new graduate nurses. The purpose of this quality initiative project encompasses the American Organization for Nursing Leadership (AONL) nurse executive competency II: Knowledge of the Healthcare Environment. Specific to the AONL competency II, this project addresses essentials for the population, practice outcomes, and fulfillment of the nursing profession (AONL, 2015).

The first project aim was to support stress management in new graduate nurses. This aim was measured with the Perceived Stress Scale (PSS) developed by Cohen et al. (1983). The PSS by Cohen et al. (1983) measures an individual's current stress level at a given point in time. This scale is an outcomes measurement tool used before and after project implementation with the goal of 25% reduction in perceived stress scores of the participant group mean after completion of the self-care activities.

The second project aim was to build resilience in new graduate nurses during the transition to practice. The Connor-Davidson Resilience (CDR) scale was used to measure this project aim. This scale is an outcomes measurement tool used before and after project implementation with the goal of resilience score improvement of 25% of the group participant mean after completion of the self-care activities.

The final project aim was completion of the entire self-care activity series. The goal for completion was 100% of participants will complete 80% of the self-care activity package while

actively transitioning to practice over a 12-week timeframe. A supplemental completion goal for this quality initiative was 70% of participants will complete 80% of the webinar series.

Guiding Frameworks

This DNP project used the Jean Watson Theory of Human Caring relating the framework's significance to a nurse's self-care and stress level by encompassing four major concepts: health, the human being, the environment/society, and the nursing profession (Watson, 2006). Watson's Theory of Human Caring consists of caring for the mind, body, and soul of the person. The focus of the theory supports the unity of the nurse's mind, body, and soul to care for another's mind, body, and soul. For the patient/nurse interaction to be effective, the nurse must care for their own soul to care for others (Watson, 2006, as cited in Zaccagnini & White, 2017).

Watson's Theory of Human Caring four major concepts relate to this project's purpose with the use of self-care with new graduate nurses. Self-care, in this project consists of mindfulness, words of affirmation, reflection, and deep breathing techniques. The concept of health encompasses the aspects of self-care to provide mental, physical, emotional, and spiritual health of an individual. The concept of human being relates to caring for oneself before one can effectively care for others. The environment reflects a formulation of a safe and supportive work environment for new graduate nurses during the transition to practice. The nursing profession concept focuses on supporting the transition to practice intentionally to reduce new nurse turnover within the first year of practice. The theoretical framework in relation to the project purpose is illustrated in Figure 1.

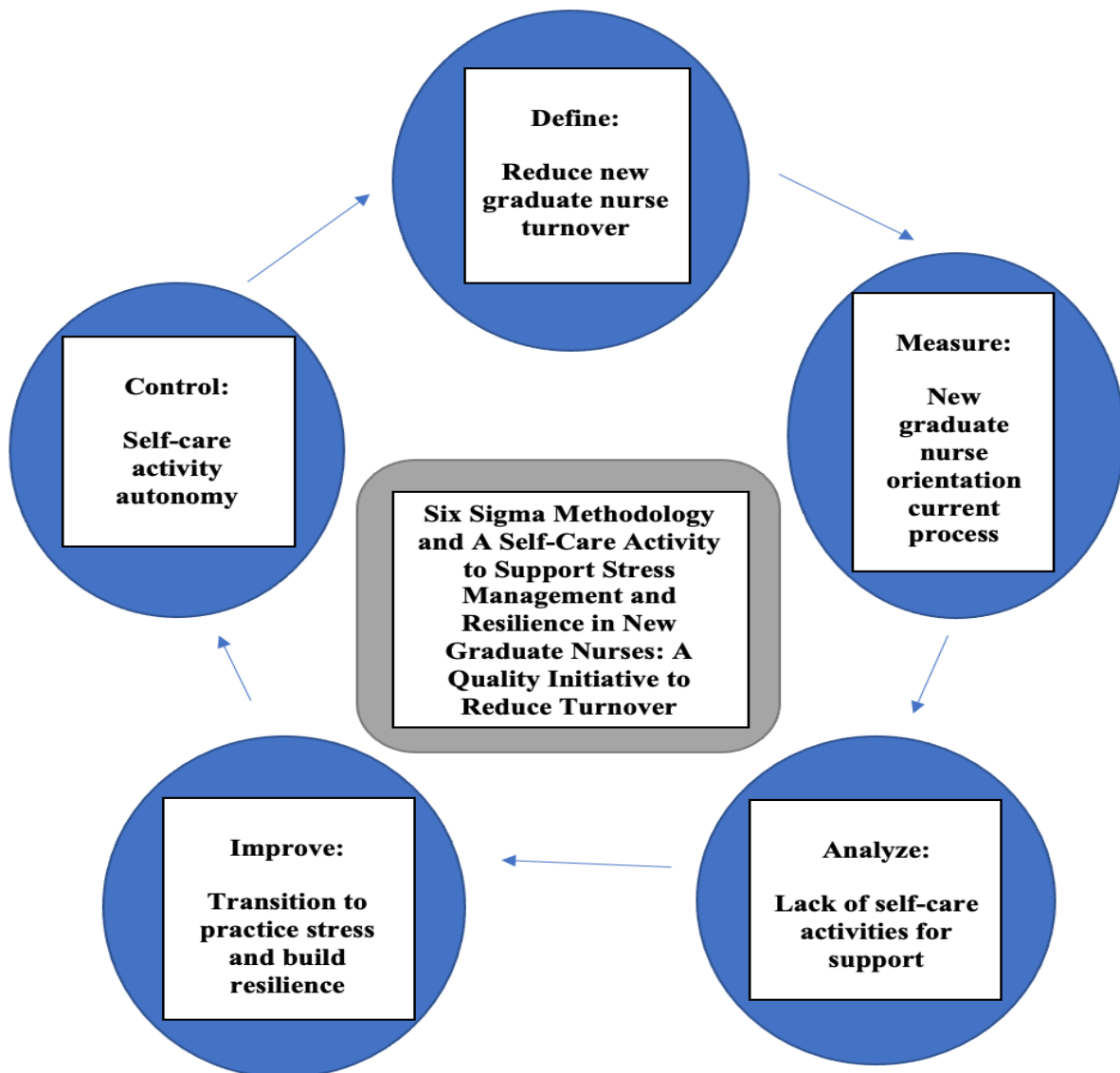
Figure 1: Theoretical Framework



This quality initiative of self-care for new graduate nurses was systemically designed using the Six Sigma framework. The Six Sigma method uses the following five steps to guide an improvement project; Define, Measure, Analyze, Improve, and Control (Spath & Kelly, 2017). The problem was identified as new graduate nurse turnover within the supporting facility data. The data was assessed and analyzed which revealed a lack of self-care component. The analysis determined the need to implement self-care activities following nursing school graduation and continuing through the initial twelve weeks of transitioning to practice during new nurse

orientation. The initiative works towards addressing transition to practice stress and building resilience for the population. Project delivery will allow for autonomy and control of participation for a busy and overwhelmed population of new nurses. A next cycle of the Six Sigma methodology will address the project limitations. The conceptual framework in relation to the project purpose is illustrated in Figure 2.

Figure 2: Conceptual Framework



METHODS

Ethical Considerations

This project plan was reviewed by the Texas A&M University-Corpus Christi (TAMU-CC) Institutional Review Board (IRB) and received a determination of “Exempt” under Category 2. Permission to proceed with this project was granted. The TAMU-CC IRB Letter of Determination is available in Appendix A. The healthcare facility involved with this project agreed to support this quality improvement initiative. A facility letter of support is included in Appendix B. Participants were assigned random numbers for the confidentiality of responses and received an informed consent sheet prior to agreeing to participate in the project.

A convenience sample was recruited from the healthcare system’s affiliated Associate Degree Registered Nursing program from the most recent graduating cohort. Recruitment of participants took place in the classroom setting on the final day of the final semester at program completion. Participants were included if they successfully completed the nationally accredited nursing program and were interested in participating. A total of 63 new graduate nurses chose to participate in this project. Inclusion criteria for project implementation consisted of new graduate nurses within one year of graduation from an accredited professional nursing program and recently hired as staff nurse at the project site. Exclusion criteria consisted of new graduate nurses from other area programs not affiliated with the participating healthcare system.

Project Design

This quality initiative, consisting of pre and post activity survey design, used free self-care webinars designed by the American Nurses Association to support stress management and build resilience and were assigned to the new graduate nurses during their transition to practice. The PSS and CDR Scale were deployed to participants by QR code linking to a Qualtrics survey.

Qualtrics survey software is an online tool used to input, collect, and evaluate survey data for ease of measuring participant feedback (Qualtrics, 2021).

A potential barrier that proposed a risk to this project's success was the COVID-19 pandemic. The COVID-19 pandemic has created a demanding work environment and increased stress levels for new nurses as they transition to practice. García-Martín et al. (2021) conducted a study with new graduate nurses transitioning to the professional nursing role in an Emergency Department and relate common challenges of transition to challenges while transitioning during the COVID-19 pandemic. Their work depicts new concerns of increased stress levels during the transition to practice during the COVID-19 pandemic for this population (García-Martín et al., 2021). Ineffective time management skills is another barrier for new nurses. Murry et al. (2019) discuss a transition to practice shock for new graduate nurses which increases stress related to time constraints and lack of time management skills. A Risk Assessment Table discusses these barriers and pertinent solutions and is included in Figure 3.

Figure 3: Risk Assessment Table

Risk	Impact	Countermeasure	Resources	Barriers
1. COVID-19 Pandemic	Stressed healthcare system increases the stress of the environment	Self-care is necessary during stressful times.	Incentives for full completion of the webinar series	Financial barriers related to funding of incentive.
2. Time Management	New to juggling of professional - personal life balance.	Set realistic goals for each webinar completion at the initial project session.	Free online calendar planning reference	New graduate nurses involved in more responsibilities due to the nursing shortage.

Intervention

Immediately after completion from the affiliated Associate Degree Nursing program, new graduate nurses attended a live educational presentation structured around the importance of self-care practices in nursing. Before the presentation, participants were given the PSS, the CDR Scale, and a survey to collect demographic data. This initial meeting also discussed time management resources and guidance for a successful transition to practice. During this initial meeting all new graduate nurses completed the American Nurses Association webinar titled, *“Effective Tools for Practicing Self-Compassion and Self Care in the Time of COVID-19.”* This webinar required active participation and return demonstration of self-care techniques. After this initial education, participants were assigned the American Nurses Association webinar series titled, *“ANAs COVID-19 Self-Care Package for Nurses”* consisting of five, one-hour webinars for on demand access without requiring American Nurses Association membership. Participants were provided a handout with instructions on how to access the webinar series and timeframe of 12 weeks for completion. Participants were instructed they would be contacted after the 12 weeks for final data collection. The final data collection consisted of a meeting with the project director to retrieve webinar package proof of completion forms and complete the PSS and CDR scales for post intervention measurement.

Data Collection

Data was collected at the initial meeting and after the completion of the intervention timeframe. Pre- and Post-intervention data were collected using Qualtrics. Data collected included demographics, perceived stress scores, and resilience scores. Participants had 12 weeks to complete the webinar series and were provided an additional three weeks for completion of the PSS and CDR. At the end of the 12th week and extending into week 15, participants received

notifications for final data collection, including proof of webinar completion forms. These forms and Qualtrics data were saved on a password protected computer. The complete project timeline is portrayed in Figure 4.

Figure 4: Project Timeline

Project Phase	Milestone	Estimated Month of Completion						
		Oct.	Nov.	Dec.	Jan.	Feb.	March	April
Initiation	<i>Project Approval</i>							
Planning	<i>Project Planning Meeting</i>							
	<i>Project Proposal</i>							
	<i>Final Project Meeting</i>							
	<i>IRB Approval</i>							
Pre-intervention Data Collection	<i>Pre intervention survey data</i>							
Implementation	<i>Initial Meeting Complete</i>							
Monitoring	<i>Week 3: Email Reminder</i>							
	<i>Week 6: Email Reminder</i>							
	<i>Week 9: Email Reminder</i>							
	<i>Week 12: Final Data Collection</i>							
Post-intervention Data Collection	<i>Post intervention survey data</i>							
Closing	<i>Final Data Collection</i>							

Measurement Tools

Two instruments were used to measure the projects independent variables: stress and resilience. Participant's perceived stress was measured before and after project implementation using the PSS. Participants' resilience was measured before and after project implementation using the CDR Scale.

The PSS by Cohen et al. (1983) is a 10-item instrument that assesses an individual's current stress level. The instrument uses a 5-point Likert scale ranging from 0 (never) to 4 (very often) to assess stress over the previous month and how often an individual felt stressed. Scores are summed across all 10-items with higher scores indicating greater psychological stress. Siqueira Reis et al. (2010) studied the validity and reliability of the PSS for 793 adult teachers in Brazil and conclude with a valid support data of Cronbach alpha coefficient of 0.77 – 0.83, a test-retest reliability score from 0.68 – 0.86, and perceived stress and health correlation range from -0.22 to -0.35. Participants accessed the PSS online via Qualtrics. The PSS reliability was assessed pre-intervention and post-intervention. The instrument had a high level of internal consistency pre-intervention, Cronbach's alpha = 0.862, and post-intervention, Cronbach's alpha = 0.893.

The CDR scale is a 10-item instrument that assesses individuals' current level of resilience (Connor & Davidson, 2020). The instrument uses a 5-point Likert-scale ranging from 0 (Not True At All) to 4 (Trul Nearly All the Time). Zakeri et al. (2021) used the CDR scale to determine the connection between satisfaction with current life and resilience with frontline nurses in Iran and relay validity and reliability of the CDR scale with a test-retest reliability and revealed a correlation coefficient of 0.87 and Cronbach's alpha of 0.93. Kwan et al. (2019) provide evidence of validity and reliability for the CDR Scale 10 item score in a healthcare study

conducted with 108 patients diagnosed with spondylarthritis and conclude with valid internal consistency displayed by Cronbach alpha of 0.94 and reliable test-retest results with a confidence interval of 0.94-0.98. The CDR scale reliability was assessed pre-intervention and post-intervention. The instrument had a high level of internal consistency pre-intervention, Cronbach's alpha = 0.888, and post-intervention, Cronbach's alpha = 0.915.

Data Analysis

Statistical Package for Social Sciences (SPSS) Version 27.0 was used for all descriptive calculations and group means comparisons. Descriptive statistics were used to analyze the demographic data. Independent t-tests were used to compare aggregate group means across pre-test and post-test groups. Percent changes were then calculated for each instrument using the relative change formula, which quantifies the percent change (increase or decrease) between two time points (i.e., pre-post measurements) for aim one and two.

$$\text{Percentage Change} = \frac{\Delta V}{|V_1|} \times 100$$

RESULTS

During the implementation phase of the project, participants were actively transitioning to practice and studying for the NCLEX-RN examination for Registered Nurse licensure. While transitioning to practice and preparing for the licensure exam, participants were completing the precepted orientation phase as a newly hired nurse during the COVID-19 pandemic. The intervention was not part of the existing orientation phase which required participants to complete the intervention outside of work during their personal time. The implementation timeframe of 12 weeks was not long enough to complete the webinar package for some participants. These factors led to decreased participant engagement from pre to post intervention.

Participants received reminders about the intervention. Reminders were sent to the participant personal email at week 3, 6, 9 and 12. At week 12, several participants requested more time to finish the webinar package, as a result, final data collection was extended to week 15. A total of 67% of participants ($n = 42$) were not responsive to the final data collection reminders and the timeline extension. As a result, of the 63 new graduate nurses that participated in the initial assessment, 21 participated in the final data collection.

Outcomes

Of the post-test sample of 21 participants, 20 were female and one was male. Participants identified as Latino ($n = 13$), followed by Caucasian ($n = 6$), two or more races ($n = 1$), African American ($n = 1$), and 0% of participants identified as Asian. There were 11 participants less than 30 years of age, nine from 30-45, and one greater than 45 years of age. Most participants worked in the affiliated healthcare system ($n = 15$). A demographics table depicts the pre and post intervention sample data and is referenced in Table 1.

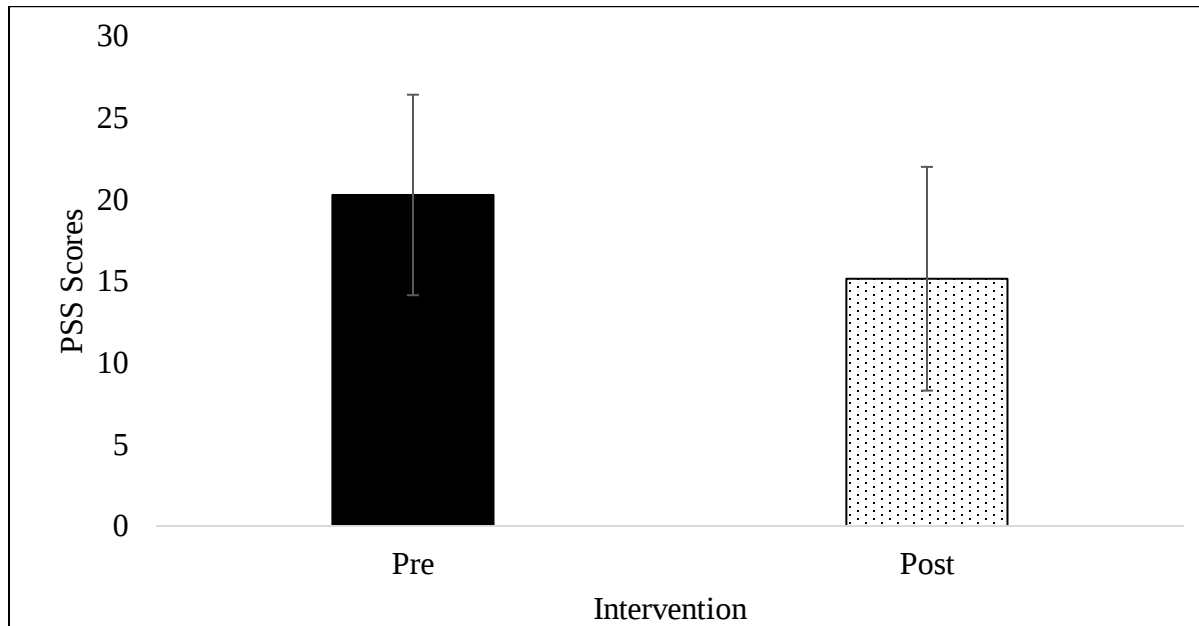
Table 1: Participants' Demographics Pre-Post Intervention

Pre-Intervention			Post-Intervention		
Place of Employment	<i>n</i>	%	Place of Employment	<i>n</i>	%
Affiliated Health System	42	66.7	Affiliated Health System	15	71.4
Other	20	31.7	Other	6	28.6
Total	62	98.4			
Missing	1	1.6			
Total	63	100	Total	21	100
Gender	<i>n</i>	%	Gender	<i>n</i>	%
Male	8	12.7	Male	1	4.8
Female	55	87.3	Female	20	95.2
Total	63	100	Total	21	100
Age Group	<i>n</i>	%	Age Group	<i>n</i>	%
Less than 30 years old	44	69.8	Less than 30 years old	11	52.4
30-45 years old	16	25.4	30-45 years old	9	42.9
45+ years old	3	4.8	45+ years old	1	4.8
Total	63	100	Total	21	100
Ethnicity	<i>n</i>	%	Ethnicity	<i>n</i>	%
Caucasian	17	27	Caucasian	6	28.6
African-American	3	4.8	African-American	1	4.8
Latino or Hispanic	36	57.1	Latino or Hispanic	13	61.9
Asian	2	3.2			
Two or More	4	6.3	Two or More	1	4.8
Prefer not to say	1	1.6			
Total	63	100	Total	21	100

The first project aim was to find a decrease in overall perceived stress by 25% as measured by the PSS. Results showed a difference in the average scores of perceived stress levels before the intervention ($m = 20.27$ $sd = 6.11$) and after the intervention ($m = 15.14$, $sd =$

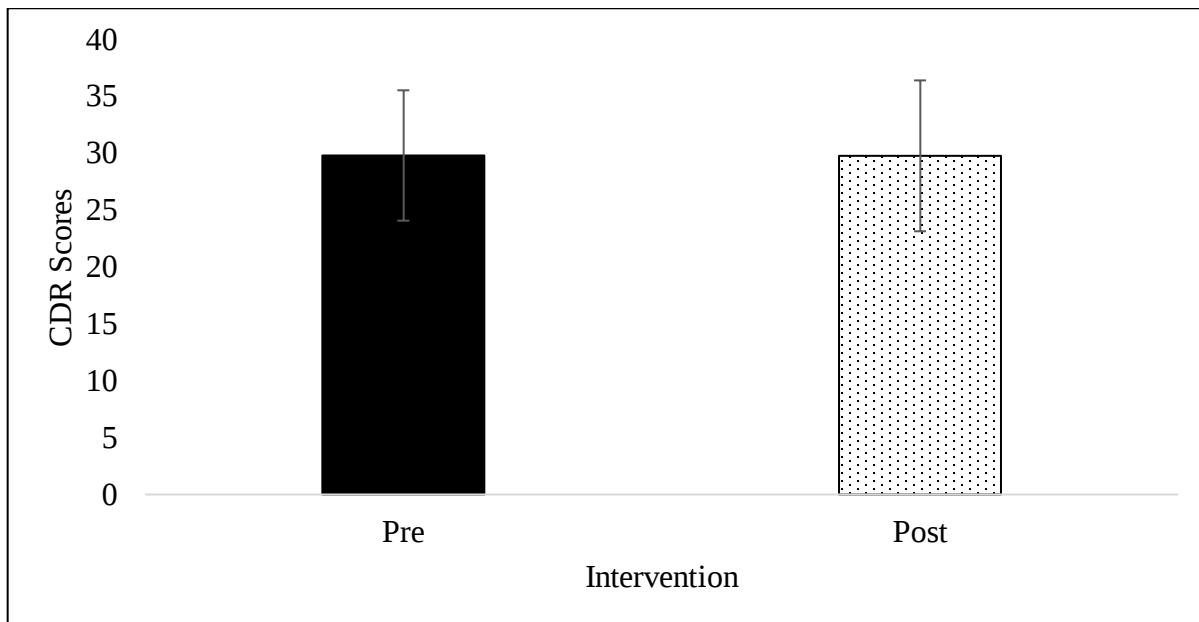
6.85). The overall PSS group average decreased by 25.29% and is displayed in Figure 5. The difference between the two means is statistically significant at the 0.01 level ($t = 3.22$, $df = 82$) with a large effect size (*Hedges' g* = .80).

Figure 5: Means of Perceived Stress Scale Scores Between Pre-Test Scores and Post-Test Scores



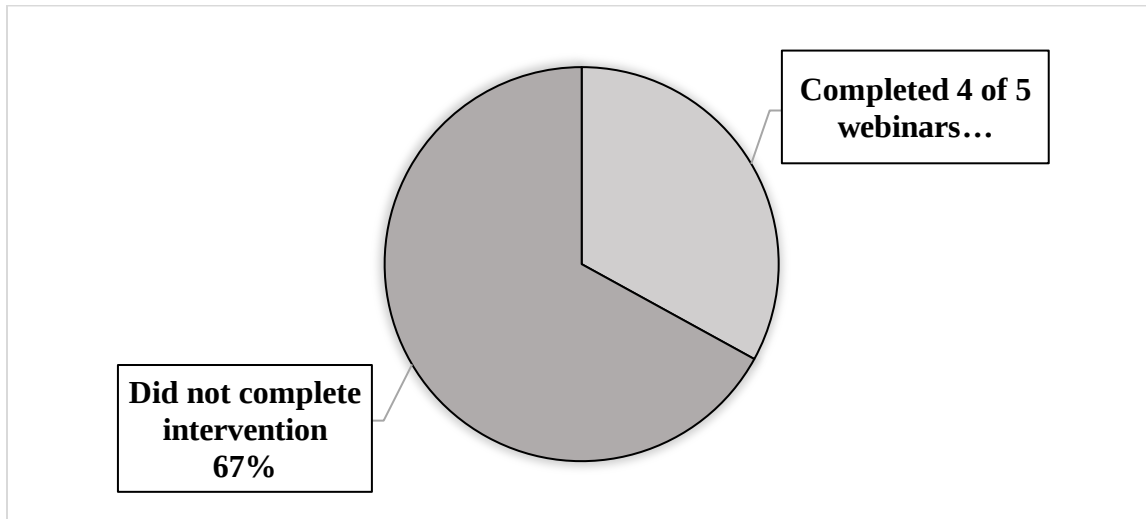
The second project aim was to find an increase in overall resilience by 25% as measured by the CDR Scale. There was little to no difference in average scores of resilience before the intervention ($m = 29.79$, $sd = 5.73$) to after the intervention ($m = 29.76$, $sd = 6.63$) displayed in Figure 6.

Figure 6: Means of Connor Davidson Resilience Scale Scores Between Pre-Test Scores & Post-Test Scores



The final project aim was to have 100% of participants complete 80% of the webinar series. Results showed that of the 63 participants who completed the initial pre-test assessments, only 21 participants completed the post-test assessments, which represents one third (33%) of participants completing the webinar series. A pie chart depicts completion data in Figure 7.

Figure 7: Completion Data



Additionally, participant pre and post intervention stress and resilience scores were disaggregated by demographics. Participants whose ethnicity is composed of two or more ethnicities reported the largest change in average perceived stress ($m_{pre} = 19$, $m_{post} = 10$): resulting in a 47% decrease. Caucasian participants reported the smallest change in average perceived stress ($m_{pre} = 19$, $m_{post} = 15$): a 21% decrease. The perceived stress scores by ethnicity are portrayed in Table 2.

Table 2: Means and Standard Deviations of Scores on the PSS by Ethnicity

	Pre-Test		Post-Test		%Δ
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Caucasian	19	5.51	15	5.97	21
African-American	24.67	3.21	16	.	35
Latino or Hispanic	21.19	6.06	15.54	7.81	27
Two or More	19	7.44	10	.	47

Note: Only participants who completed the Perceived Stress Scale before and after the intervention are included in this table.

Participants less than 30 years old had the largest change in average perceived stress ($m_{pre} = 20.68$, $m_{post} = 15$): resulting in a 27% decrease. Participants between the ages of 30 to 45 years old had the smallest change in average perceived stress ($m_{pre} = 19.31$, $m_{post} = 15.3$): resulting in a 21% decrease. The perceived stress scores by age are portrayed in Table 3.

Table 3: Means and Standard Deviations of Scores on the PSS by Age

Age Group	Pre-Test		Post-Test		%Δ
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Less than 30 years	20.68	5.92	15	6.59	27
30-45 years old	19.31	6.86	15.33	7.94	21
45+ years old	19.33	7.23	15	.	22

Note: Only participants who completed the Perceived Stress Scale before and after the intervention are included in this table.

Participants whose ethnicity is composed of two or more ethnicities reported the largest change in average resiliency ($m_{pre} = 29$, $m_{post} = 37$): resulting in a 28% increase. Caucasian participants reported the smallest change in average resiliency ($m_{pre} = 29.03$, $m_{post} = 27.77$): resulting in a 10% increase. Alternatively, African American and Latino nurses reported slight decreases in average resiliency. The resilience scores by ethnicity are portrayed in Table 4.

Table 4: Means and Standard Deviations of Scores on the CDR Scale by Ethnicity

	Pre-Test		Post-Test		%Δ
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Caucasian	30.12	5.81	33	3.46	10
African-American	31	8.19	29	.	6
Latino or Hispanic	29.03	5.3	27.77	7.37	4
Two or More	29	6.73	37	.	28

Note: Only participants who completed the Connor Davidson Resilience Scale before and after the intervention are included in this table.

Participants aged 45+ years reported the largest change in average resiliency ($m_{pre} = 25.33$, $m_{post} = 31$): resulting in a 22% increase. Alternatively, participants less than 30 years old and participants between the age 30 to 45 years old reported minimal decreases in average resiliency; resulting in a 2% increase. The resilience scores by age are portrayed in Table 5.

Table 5: Means and Standard Deviations of Scores on the CDR Scale by Age

Age Group	Pre-Test		Post-Test		%Δ
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Less than 30 years old	29.41	5.72	28.82	5.25	2
30-45 years old	31.69	5.3	30.78	8.54	3
45+ years old	25.33	6.43	31	.	22

Note: Only participants who completed the Perceived Stress Scale before and after the intervention are included in this table.

DISCUSSION

The project intervention supported stress management, as measured with perceived stress scores, for the new graduate nurses who chose to participate. However, the intervention did not

build new nurse resilience at the goal of 25% increase of group means after the self-care intervention. The project also had a large attrition rate which may be related to barriers addressed in the Risk Assessment Table (Figure 3). One key success was the statistically significant reduction of stress scores from pre-intervention data to post-intervention data. Education regarding transition to practice stress at the pre-project meeting was essential to describe the importance of participant engagement in the project's self-care activity. Although most participants did not participate in the intervention fully, the initiation of supporting stress management, importance of resilience building, and self-care tools were provided to all participants. The transition to practice prepares new nurses for their new professional role and self-care activities relieve the stress of the transition and build resilience to challenging environments (Stacey et al., 2020).

This project has provided information to the affiliated healthcare system to improve the orientation phase to support stress management and build resilience during the transition to practice for new graduate nurses upon hire. The affiliated healthcare system has opted for the development of a modified nurse residency program, with inclusion of self-care modules for required completion from new graduate nurses hired on medical-surgical and telemetry units. This development will be deployed within the next six months and then reevaluated by the project team.

This project is linked to transition to practice program goals of supporting stress management and building resilience to ultimately reduce turnover for the vulnerable population of new graduate nurses. Chesak et al. (2019) measured stress and resiliency with the use of a mindfulness training program for 27 new nurses transitioning to practice and found a reduction of stress levels after completion of the program. This project also found an increase in resilience

levels for the participants after completing the intervention (Chesak et al., 2019). Schock (2020) utilized monthly resiliency training sessions for 20 new graduate nurses actively transitioning to practice and found resilience building activities improves the transition. Silvestre et al. (2022) conducted a randomized controlled study with 1,032 new nurses from over 70 hospitals to determine the effect of transition to practice support verses no support. Their work found 81.2% of new nurses involved in a transition support program were still employed at the end of the first year of nursing as opposed to 73.7% retained and employed after their first year of nursing without a transition support program (Silvestre et al., 2022). This project supports new graduate nurses while improving patient safety by ultimately reducing turnover of this vulnerable population.

The results of this project are linked to stress and demographic data. Espinoza et al. (2018) researched ethnicity and perceived stress with 1603 participants and link lower perceived stress in ethnic groups who have higher ethnic identity and describe ethnic identity to be a high self-esteem related to ethnic understanding and feeling connected to others within their same ethnicity. Additionally, Albuja et al. (2019) determined greater perceived stress levels are linked to poor ethnic identity. Participants in this study, who identified as two or more ethnicities, received the most reduced stress scores after the intervention and may benefit from additional self-care activities to support stress management.

The project findings link the current research to support stress management, which in turn builds resilience in new graduate nurses. Lorente et al. (2021) described the psychological distress in nurses working during the COVID-19 pandemic to be supported with coping mechanisms aimed at targeting stress levels which lead to an increase of resilience. Peñacoba et al. (2021) studied stress in 308 ICU nurses during the COVID-19 pandemic and link stress and

quality of life to resiliency. The more resiliency an individual has enhances the ability to cope with stressful situations (Peñacoba et al., 2021). Participants in this study with the largest reduction of perceived stress scores also indicated the greatest improved resilience scores.

Limitations

The data collected had three major limitations. The first limitation is analyses were descriptive in nature and cannot be generalized to the broader population. Data was aggregated to compare group means and standard deviations pre-intervention and post-intervention on each instrument. Inferential statistics included independent t-tests to assess differences in means before and after the intervention. The second limitation is the difference in sample sizes between pre-intervention ($n = 63$) and post-intervention ($n = 21$). Due to attrition, 67% of post-test scores were not collected. Outliers and normality plots (Q-Q Plots) were used to ensure that distributions of scores in pre-intervention did not differ to distributions of scores post-intervention for accuracy in comparisons. The last limitation is the difference in the demographics of the sample of nurse's post-intervention compared to the demographics of the sample of nurse's pre-intervention. Demographics of the sample of nurse's post-intervention differed by gender (95% of nurses identified as female), ethnicity (0% of nurses identified as Asian), and age (43% of nurses were between 30 to 45 years old). These differences in demographic composition could have affected the group averages across both instruments post-intervention. Differences in sample sizes and characteristics could limit inferences related to the findings. Confounding variables included the COVID-19 pandemic, having the same or different preceptors for the entire transition to practice period, and if the new graduate nurse was hired on the day or night shift.

Interpretation

New graduate nurses are at increased risk of turnover within the first year of practice as they adapt to the professional role of the nurse (Sandler, 2020). The environment at the project site is challenging, and the orientation period lacks self-care to support stress management and build resilience. To complicate the challenges, because the affiliated healthcare system has limited numbers of preceptors, the new graduate nurse may be transitioning to practice under the guidance of multiple mentors or preceptors. In order to reduce turnover and support transition to practice, the affiliated healthcare system must invest in some sort of self-care initiative as a part of their new graduate orientation processes.

The results showed little to no change in resilience. Given the global pandemic and increased stress on the frontline, this is not surprising. New graduate nurses need extended time to apply learned self-care techniques for stress management to build resilience. Resilience is built with learned strategies to accept one's own capability to adapt to stress and is learned through practicing resilience-building techniques (Wei et al, 2021). Further, the COVID-19 pandemic created strain on healthcare system's finances, negatively affected staffing ratios related to rising turnover rates of frontline nurses, and increased stress on frontline workers (French et al., 2020). Because of this, the facility was unable to support the self-component as a part of the orientation and the precepted portion of orientation in this phase. Thus, the attrition in this phase of the project was high (67% attrition).

The integration of self-care activities into the existing orientation need not be costly as evidenced by this project. However, the new graduate nurses need to be allocated the time, fiscally, to participate and engage in the self-care activities. The Jean Watson Theory of Human Caring (2006) continues to reinforce the importance of self-care practices and quality nursing

care. Watson's theory suggests quality nursing care is cultivated from the environmental factors and the overall focus of care of oneself is essential (Watson, 2006). Supporting mind, body, and soul health improves care of the individual new graduate nurse, supports the transition to practice, and promotes a supportive work environment which addresses the Watson Theory of Human Caring four major concepts. The Six Sigma method initial cycle proved to define the problem with a lack of self-care components to new graduate nurse orientation and supported the unfolding events of this project. The next phase includes improving the interventional delivery of self-care to be introduced within the affiliated healthcare system during the new graduate nurse orientation phase as opposed to immediately after graduation from the nursing program.

Introducing the self-care component upon hire and as a component of orientation will improve completion rates, which was a limitation in this project's initial cycle. The new graduate nurse population within this affiliated healthcare system should be allocated the time to complete and practice the self-care activities. In the next phase, the self-care activity will be conducted during orientation and beyond for new graduate nurses on specified units to sustain this project's mission while embracing the current challenges within the healthcare system. As such, we will continue to use the existing measures to evaluate program outcomes. The outcome data will be analyzed and compared to the initial project implementation cycle data to inform change from a data driven standpoint. The Jean Watson Theory of Human Caring and the Six Sigma methodology continues to guide this project's goal of supporting self-care for new graduate nurses at this healthcare system. A sustainability plan will track the second phase of project implementation at this healthcare system. The plan will provide an outline for subsequent cycles to continually support stress management and build resilience for new graduate nurses at this organization.

Conclusion

The DNP project was designed to support stress management and build resilience in new graduate nurses with the use of intentional self-care activities while new graduates actively transition to practice. During the project, 63 new graduate nurses, who recently graduated from the healthcare system's affiliated registered nursing program, were provided a self-care webinar series from the American Nurses Association. Before the intervention, the project director and DNP student led a teaching session to participants regarding stress, resilience, and self-care for new nurses transitioning to the nursing practice. The intervention resulted in decreased scores on the PSS, with little to no change in resilience scores. While attrition was high, the reduction in stress scores is significant. It is important for facilities hiring new graduate nurses to support stress, which does not need to be costly, but should consider the new graduate's time, fiscally speaking. Given the high costs of turn over and medication error associated with stress, the payoff for facilities hiring new graduate nurses could be high. An abundance of literature shows self-care to support stress management and build resilience, which in turn reduces turnover of new graduate nurses transitioning to practice.

This project offered valuable learning experiences. New graduate nurses understand the importance of self-care and will agree to engage in activities to support stress. However, the transition to practice may impair their ability to time manage appropriately to complete self-care activities outside of work. Ultimately, self-care activities provided as an extracurricular option will more than likely not get completed. Offering self-care activities as a required component to the orientation phase of new graduate nurses transitioning to professional nurse will improve completion rates and improve data collection. Additionally, this will lead to better support stress management, improved resilience, and decrease turnover for the new graduate nurse population.

The affiliated healthcare system will use these findings to implement self-care in the orientation phase for new graduate nurses hired on two specified units within one hospital facility within the system. If completion and project aims improve substantially, the plan will be implemented to all units within the designated facility. Furthermore, the implementation of self-care will spread to all facilities within the large healthcare system.

Further research is necessary in three main topic areas to further assess confounding variables. The effect the working shift options has on a successful transition to practice for new graduate nurses. Self-care activities offered for new graduate nurses transitioning to the day or the night shift should be further evaluated for differences in stress and resilience scores. Also, a differentiation of stress and resilience scores when self-care activities are offered to new graduate nurses who transition to practice with the same preceptor during the orientation phase or with different preceptors. Additionally, a determination in the rate of practice errors between new graduate nurses who received self-care activities as a component to their orientation phase in the transition to practice period and those who do not. Quality improvement projects are essential to determine the cumulative effect of self-care activities on stress management, resilience building, and ultimately turnover for new graduate nurses working in varied settings.

REFERENCES

- Albuja, A. F., Gaither, S. E., Sanchez, D. T., Straka, B., & Cipollina, R. (2019). Psychophysiological stress responses to bicultural and biracial identity denial. *Journal of Social Issues*, 75(4), 1165-1191. <https://doi.org/10.1111/josi.12347>
- Africa, L. & Shinnars, J.S. (2019). Tracking medical errors and near misses in the new graduate registered nurse. *Nursing Forum*, 55 (2), 174-176. <https://doi.org/10.1111/nuf.12412>
- American Association of Colleges of Nursing (AACN). (2020). *Nursing Shortage*. <https://www.aacnnursing.org/news-information/fact-sheets/nursing-shortage>
- American Organization for Nursing Leadership. (AONL). (2015). Nurse executive competencies: system CNE. <https://www.aonl.org/system/files/media/file/2019/06/nec-system-cne.pdf>
- Bong, H. E. (2019). Understanding moral distress: How to decrease turnover rates of new graduate pediatric nurses. *Pediatric Nursing*, 45 (3), 109. <https://link.gale.com/apps/doc/A592139555/HRCA?u=txshracd2566&sid=summon&xid=b9cdcf7b>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396. <https://doi.org/10.2307/2136404>
- Connor, K.M. & Davidson, J.R.T. (2020). Scoring and interpretation of the Connor-Davidson Resilience Scale (CD-RISC). *Scoring the CD-RISC-10*. <http://www.connordavidson-resiliencescale.com/>
- DeGrande, H., Liu, F., Greene, P., & Stankus, J. (2018). The experiences of new graduate nurses hired and retained in adult intensive care units. *Intensive and Critical Care Nursing*, 49, 72-78. <https://doi.org/10.1016/j.iccn.2018.08.005>

- Espinosa, A., Tikhonov, A., Ellman, L. M., Kern, D. M., Lui, F., & Anglin, D. (2018). Ethnic Identity and Perceived Stress Among Ethnically Diverse Immigrants. *Journal of immigrant and minority health*, 20(1), 155–163. <https://doi.org/10.1007/s10903-016-0494-z>
- French G, Hulse M, Nguyen D, Sobotka, K., Webster, K., Corman, J., Aboagye-Nyame, B., Dion, M., Johnson, M., Zalinger, B., & Ewing, M. (2021). Impact of Hospital Strain on Excess Deaths During the COVID-19 Pandemic — United States, July 2020–July 2021. *Morbidity and Mortality Weekly Report*. doi: <http://dx.doi.org/10.15585/mmwr.mm7046a5external icon>
- García-Martín, M., Roman, P., Rodriguez-Arrastia, M., Diaz-Cortes, M. d. M., Soriano-Martin, P. J., & Ropero-Padilla, C. (2021). Novice nurse's transitioning to emergency nurse during COVID-19 pandemic: A qualitative study. *Journal of Nursing Management*, 29(2), 258-267. doi: 10.1111/jonm.13148
- Griffiths, P., Maruotti, A., Alejandra, R. S., Redfern, O. C., Ball, J. E., Briggs, J., Dall’Ora, Schmidt, P. E., & Smith, G. B. (2018). Nurse staffing, nursing assistants and hospital mortality: Retrospective longitudinal cohort study. *BMJ Quality & Safety*, 28 (8), 609. <http://dx.doi.org/10.1136/bmjqs-2018-008043>
- Health. (2017). *Recruiting and retaining new nurse grads: Expert Insights*. <https://www.wolterskluwer.com/en/expert-insights/recruiting-retaining-new-nurse-grads#:~:text=New%20nurse%20grad%20turnover%20rates,negatively%20impact%20patient%2Dcare%20quality>.
- Kelback, J. (2021). *The ultimate guide to self-care for nurses*. <https://www.registerednursing.org/articles/ultimate-guide-self-care-nurses/>

- Kramer, M. (1974). *Reality shock; why nurses leave nursing*. C. V. Mosby Co.
- Kramer, M., Brewer, B.B. & Maguire, P. (2011). Impact of healthy work environments of new graduate nurses' environmental reality shock. *Western Journal of Nursing Research*, 35 (3), 348-383. doi: 10.1177/0193945911403939
- Kulka, J.M., De Gagne, J.C., Mullen, C.K., & Robeano, K. (2018). Mindfulness-based stress reduction for newly graduated registered nurses. *Creative Nursing*, 24 (4), 243-250. doi: 10.1891/1078-4535.24.4.243
- Kwan, Y. H., Ng, A., Lim, K. K., Fong, W., Phang, J. K., Chew, E. H., Lui, N. L., Tan, C. S., Thumboo, J., Østbye, T., & Leung, Y. Y. (2019). Validity and reliability of the ten-item Connor–Davidson resilience scale (CD-RISC10) instrument in patients with axial spondyloarthritis (axSpA) in singapore. *Rheumatology International*, 39 (1), 105-110. <https://doi.org/10.1007/s00296-018-4217-8>
- Laschinger, H.K., Wong, C., Read, E., Cummings, G., Leiter, M., Macphee, M., Regan, S., Rheume-Bruning, A., Ritchie, J., Burkoski, V., Grinspun, D., Gurnham, M.E., Huckstep, S., Jeffs, L., Macdonald-Rencz, S., Ruffolo, M., Shamian, J., Wolff, A., Young-Ritchie, C., & Wood, K. (2019). Predictors of new graduate nurses' health over the first 4 years of practice. *Nursing Open*, 6 (2), 245-259. doi: 10.1002/nop2.231
- Lorente, L., Vera, M., & Peiró, T. (2021). Nurses' stressors and psychological distress during the COVID-19 pandemic: The mediating role of coping and resilience. *Journal of Advanced Nursing*, 77(3), 1335-1344. <https://doi.org/10.1111/jan.14695>
- Melnyk, B.M., Tan, A., Hsieh, A.P., Gawlik, K., Arslanian-Engoren, C., Braun, L.T., Dunbar, S., Dunbar-Jacob, J., Lewis, L.M., Millian, A., Orsolini, L., Robbins, L.B., Russell, C.L., Tucker, S., & Wilbur, J. (2021). Critical care nurses' physical and mental health, worksite

- wellness support, and medical errors. *American Journal of Critical Care*, 30 (3), 176-184. <https://doi.org/10.4037/ajcc2021301>
- Murry, M., Sundin, D., & Cope, V. (2019). New graduate nurses' understanding and attitudes about patient safety upon transition to practice. *Journal of Clinical Nursing*, 28 (13-14). 2543-2552. doi: 10.1111/jocn.14839
- National Council of State Boards of Nursing (NCSBN) (n.d.). *Transition to Practice Program*. <https://www.ncsbn.org/transition-to-practice.htm>
- Nursing Solutions Incorporated (NSI). (2019). *2020 NSI National health care retention & RN staffing report*. https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf
- Peñacoba, C., Catala, P., Velasco, L., Carmona-Monge, F. J., Garcia-Hedra, F. J., & Gil-Almagro, F. (2021). Stress and quality of life of intensive care nurses during the COVID-19 pandemic: Self-efficacy and resilience as resources. *Nursing in Critical Care*, 26(6), 493-500. <https://doi.org/10.1111/nicc.12690>
- Qualtrics. (2021). *What is survey software?* <https://www.qualtrics.com/core-xm/survey-software/>
- Sandler, M. (2020). Why are new graduate nurses leaving the profession in their first year of practice and how does this impact on ED nurse staffing? A rapid review of current literature and recommended reading. *Canadian Journal of Emergency Nursing*, 41(1), 23-24. <https://doi.org/10.29173/cjen66>
- Siqueira Reis, R., Ferreira Hino, A. A., & Romélio Rodriguez Añez, C. (2010). Perceived stress scale: Reliability and validity study in brazil. *Journal of Health Psychology*, 15 (1), 107-114. <https://doi.org/10.1177/1359105309346343>

- Spath, P.L. & Kelly, D.L. (2017). *Applying Quality Management in Healthcare: A Systems Approach*. Chicago: Health Administration Press
- Texas Department of State Health Services [DSHS]. (2019). *2019 hospital nurse staffing study - staffing - Texas*. <https://dshs.texas.gov/chs/cnws/HNSS/2019/2019-HNSS-Staffing.pdf>
- Watson, J. (2006). Jean Watson's theory of human caring. In M.E. Parker (Ed.), *Nursing theories and nursing practice* (2nd ed., pp. 295-302). Philadelphia, PA: F.A. Davis.
- Wei, H., Roberts, P., Strickler, J., & Corbett, R. W. (2019). Nurse leaders' strategies to foster nurse resilience. *Journal of Nursing Management*, 27 (4), 681-687. <https://doi.org/10.1111/jonm.12736>
- Wei, H., Hardin, S. R., & Watson, J. (2021). A unitary caring science resilience-building model: Unifying the human caring theory and research-informed psychology and neuroscience evidence. *International Journal of Nursing Sciences*, 8(1), 130-135. <https://doi.org/10.1016/j.ijnss.2020.11.003>
- Weston, M.J., Brewer, K.C., Peterson, C.A. (2012). ANA Principles: The framework for nurse staffing to positively impact outcomes. *Nursing Economics*, 30 (5), 247-252.
- World Health Organization. (WHO) (2021). *What do we mean by self-care?* <https://www.who.int/reproductivehealth/self-care-interventions/definitions/en/>
- Zaccagnini, M. E., & White, K. W. (2017). *The Doctor of Nursing practice essentials. A new model for advanced practice nursing (3rd ed.)*. Burlington, MA: Jones & Bartlett Learning
- Zakeri, M. A., Hossini Rafsanjanipoor, S. M., Zakeri, M., & Dehghan, M. (2021). The relationship between frontline nurses' psychosocial status, satisfaction with life and

resilience during the prevalence of COVID-19 disease. *Nursing Open*, 8(4), 1829-1839. <https://doi.org/10.1002/nop2.832>

LIST OF APPENDICES

APPENDIX	PAGE
APPENDIX A: TAMU-CC IRB Letter of Determination.....	38
APPENDIX B: Letter of Support	40

APPENDIX A: TAMU-CC IRB Letter of Determination



Date: December 15, 2021
To: Heather Degrande
CC: Heather Degrande, Kira Cortez, Tammy McGarity, DNP
From: Office of Research Compliance
Subject: Exempt Determination

Dear Heather Degrande,

On, the Texas A&M University IRB - Corpus Christi Institutional Review Board reviewed the followingsubmission:

Type of Review: Review Board Response Review Submission form
Title of Study: A Self-Care activity to Support Stress and Resilience in New Graduate Nurses: A Quality Initiative to Reduce Turnover
Principal Investigator: Heather Degrande
IRB Number: TAMU-CC-IRB-2021-0314
Sponsor: **Award Number:**

Texas A&M University IRB - Corpus Christi Institutional Review Board has reviewed the above-referenced submission and has determined the project is exempt. This submission was approved by the review process inaccordance with the policies and procedures of the Human Research Protection Program. **Therefore, this project has been determined to be exempt from IRB review under the following category:**

Exempt Category: Category 2: Research that only includes interactions involving educational tests(cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked

to the subjects, and an IRB conducts a limited IRB review to make the determination required by .111(a)(7).

You may proceed with this project.

This approval corresponds with the versions of the application and attachments in the electronic system most recently approved as of the date of this letter.

A Reminder of Investigator Responsibilities: As principal investigator, you must ensure:

1. **Informed Consent:** Ensure informed consent processes are followed and information presented enables individuals to voluntarily decide whether to participate in research.
2. **Amendments:** This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. **Any planned changes require an amendment** to be submitted to the IRB to ensure that the research continues to meet the criteria for exemption. The Amendment must be approved before being implemented.
3. **Completion Report:** Upon completion of the research project (including data analysis and final written papers), a Completion Report must be submitted.
4. **Records Retention:** All research-related records must be retained for three (3) years beyond the completion date of the study in a secure location. At a minimum, these documents include the research protocol, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to participants, all correspondence to or from the IRB or, and any other pertinent documents.
5. **Adverse Events:** Adverse events must be reported to the IRB immediately.
6. **Post-approval monitoring:** Requested materials for post-approval monitoring must be provided by the dates requested.

If you have any questions or concerns please contact us at irb@tamucc.edu.

Sincerely,

Rebecca Ballard, JD
Office of Research Compliance

APPENDIX B: Letter of Support

**BAPTIST
HEALTH SYSTEM**
Passionate people. Compassionate care.

*September 3,
2021*

Dr. Tammy McGarity
DNP Program
Coordinator
College of Nursing and Health Sciences
Texas A&M University- Corpus Christi
6300 Ocean Drive
Corpus Christi, TX

78412

Dear Dr. McGarity,

The purpose of this letter is to provide Kira Cortez, a Doctor of Nursing Practice student at Texas A&M University College of Nursing and Health Sciences, support in conducting a quality improvement project at Baptist Health System. The project, A Self-Care Intervention for Stress and Resilience to Reduce Turnover in New Graduate Nurses, entails focusing on self-care for new graduate nurses during the transition to practice.

The purpose of this project is to reduce stress and build resilience in new graduate nurses. Baptist Health System was selected for this project because new graduate nurses are not currently provided a self-care intervention during their current orientation, lack resilience, and are at risk to turnover within the first year of transitioning to practice. Kira Cortez is employed at this institution and has an interest in improving care at this facility.

I, Lori A, Czekaj MSN, APRN, CNS-CC, NPD-BC, Market Director of Clinical Education at Baptist Health System, do hereby fully support Kira Cortez in the conduct of this quality improvement project, A Self-Care Intervention for Stress and Resilience to Reduce Turnover in New Graduate Nurses at Baptist Health System.

Sincerely,