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Impact of Resiliency and Self-Care Training on Student Nurses

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APPROVAL FOR SUCCESSFUL DEFENSE

Johanna V. Grimaldi has successfully defended and made the required modifications to the text of the DNP Final Scholarly Project for the Doctor of Nursing Practice during this Fall, 2023

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Dedication

I dedicate this work to my wonderful, loving parents, John and Mary Rhein, who have always supported me in all my endeavors, professionally and academically. Thank you for instilling in me the intense sense of determination which has led me to where I am today. Thank you for teaching me that every adverse moment in life is a lesson and to continue playing strong, no matter what.

To my incredible siblings, William, Jayne, Nicholas, and Molly, thank you all for being the strong individuals you all are. I have looked to each of you for guidance throughout my life, and all of you have helped me through some of the toughest yet important decisions. Thank you also to your spouses, Brianna, Joe, and Dana, I am also lucky enough to call my siblings. I would be remiss to not also thank my parents-in-law, Joseph and Bernadette Grimaldi, as well as my siblings-in-law, Joe and Jenna. You have all been supportive in my journey and thank you for encouraging me to never give up. I am thankful every day to call you all my friends and family.

Finally, to my husband, Matthew. Thank you for lovingly supporting me from day one. When I wanted to "take a break" with this program, you told me that was not an option. There is not a day that passes where you do not show how proud you are of me and my nursing career. Thank you for your service to this country. I have always and will continue to look to you for strength. Thank you for being the best partner I could ask for, and I look forward to the many more years and adventures we will have together.

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Abstract

The nursing workforce is currently facing a predicted shortage which has been further exacerbated by the impact of the novel coronavirus pandemic. Factors such as increased patient load and acuity, poor staffing conditions, violence in the healthcare system, burnout, and poor mental health among nurses contribute to the complex situation. There is immense need to prepare the next generation to prevent high turnover and low retention rates within the nursing profession.

The purpose of this project was to create and implement a training program to improve the knowledge and application of resiliency and self-care tactics among nursing students at a community college in Upstate New York. This Doctor of Nursing (DNP) project utilized information gathered from a vast literature review as well as personal reflections from current nurses to construct the ten-week resiliency and self-care training program. This topic was chosen because despite the evidence-based support of resiliency training programs for current nurses, there is minimal research regarding the execution of such programs among the nursing students.

The voluntary resiliency and self-care training program was offered to nursing students via virtual format over a ten-week timeframe. This quality initiative was completed by five nursing students from February 2023 to May 2023. Students participated in weekly, twenty-minute sessions which included topics such as an overview of stressors, burnout, mental exhaustion, journaling, personal goal setting, coping mechanisms, reflection, self-care methods, mindfulness, and mentoring. Activities included in the sessions included educational lectures, group discussions, meditation, interactive quizzes, videos, and activities such as case studies and personal reflection.

To measure outcomes, two evidence-based scales were used to assess levels of resiliency as well as stress utilizing the Connor-Davidson Resilience Scale (CD-RISC) and Perceived Stress Scale (PSS), respectively. The scales were administered at regular intervals pre- and post-intervention. The primary project outcomes were decreased levels of perceived stress and increased levels of resiliency. The clinical significance of this quality improvement initiative was a simple, low-cost intervention to improve the resiliency and perceived stress levels of nursing students to promote self-care and coping mechanisms to not only use while in school, but also to continue to implement throughout their nursing careers.

Background

As the largest component of the healthcare workforce in the United States, nurses are crucial to healthcare delivery and patient care (American Association of Colleges of Nursing, 2022). Nurses spend the greatest amount of time in delivering patient care and have "valuable insights and unique abilities to contribute as partners with other healthcare professionals in improving quality and safety of care" (Institute of Medicine, 2011). Most healthcare services involve some form of nursing care, and nurses are in high demand in all settings including both acute care and community clinics. However, the novel coronavirus pandemic posed many issues for practicing as well as student nurses which has resulted in record high turnover rates and the constant challenge of retention (Falatah, 2021).

Challenges in Nursing

Predicted Shortage

Even prior to the pandemic, an unprecedented shortage of up to one million registered nurses is predicted due to the aging workforce, ever increasing elderly population, and decrease in the number of younger nurses (Zhang, et al., 2018). This scarcity plays a "significant role in the future of the American health care landscape," as it is predicted the United States will experience a significant nursing shortage by the year 2030 (Zhang, et al., 2018, p. 231). Contributing factors for nursing shortage include increased number of patients, violence in the healthcare system, suboptimal working conditions, nursing faculty shortage, low retention rates especially among new graduate nurses, and small nursing programs (Perkins, 2021). Unfortunately, the United States healthcare delivery system is not prepared to meet the demand for essential nursing services.

Education and Practice Gap

Transitioning from "a nursing college student to a nurse is a tough process, with many factors to overcome and many factors of stress" (Lee & Sim, 2020, p. 449). The initial months of one's nursing career can be extremely problematic due to the immense gap between education and professional practice. Much of the current nursing curriculum highlights nursing theory and may be lacking in practical application. Thus, many new-to-practice nurses have a variety of transition issues which affect their performance as they experience an immense shock due to not feeling prepared to practice at a medical institution (Lee & Sim, 2020). New graduate nurses may also be lacking in coping skills which may then lead to symptoms of burnout and the ultimate decision to leave their respective jobs (Irwin, et al., 2021).

Impact of COVID-19

The coronavirus pandemic created a multitude of crises within the crisis. Nurses were placed under extreme stress which created negative effects on mental health (Turale & Nantsupawat, 2021). The previously predicted nationwide shortage of nurses, "is likely to be exacerbated by the increased demands of caring during COVID-19 as well as the usual care of non-COVID patients" (Turale & Nantsupawat, 2021, p. 12). Due to the severe negative impact on mental health, many nurses have chosen to leave the profession itself. There is additional concern on whether, "the profession will be able to attract sufficient numbers of nurses to care for populations into the future" (Turale & Nantsupawat, 2021, p. 12). Nursing leaders must strive to find ways to support clinicians to have the necessary means of self-care while continuing to do their job.

The pandemic also challenged nursing schools in unimaginable ways. Traditional education settings were changed to more hybrid settings which was a necessary immediate

solution but also, "limited the skills and development and clinical practice placement of students" (Agu, et al., 2021, p. 154). Like nurses, students also struggled to deal with stressors associated with these changes as well as a global health crisis. Other research has shown, "if adequate measures were put in place to mitigate the effects of the crisis even before it occurs, [it would then] expedite coping once the crisis strikes and decrease its undesirable consequences (Agu, et al., 2021, p. 156). There is a need for nursing education to expand content to include crisis management and mental health as well as other resources to alleviate burnout early in the students' nursing careers (Leaver, et al., 2022). Despite the call to address these issues, there has been minimal progress and investment in the mental health aspect in nursing.

Patient and Nurse Outcomes

Both the current nursing shortage and turnover rates have immensely impacted nurse staffing. Poor nurse to patient ratios have been, "associated with increased preventable deaths, readmission rates, and hospital-acquired infections and decreased quality of care" (Perkins, 2021, p. 52). Job satisfaction is also closely linked with quality care as, "healthy work environments promote decreased medical errors, increased patient satisfaction, and improved patient outcomes" (Perkins, 2021, p. 52). Many of the solutions posed aim at creating healthy work environments including transparency and openness with staff. It is now necessary more than ever to take care of those who care for others.

Potential Solutions

While improvement in workplace environments is crucial towards staff satisfaction, burnout, and turnover, it is also important to improve the role transition process (Lockhart, 2020) as well as emphasize the importance of self-care. Hospitals nationwide have implemented new graduate transition, mentorship, or resiliency programs to assist in this complex process.

Resiliency Programs & Self-Care

Resiliency is a quality which "allows nurses to overcome stressful situations and to adapt positively, resulting in the maintenance of their psychological well-being and mental health" (Kim & Chang, 2022, p. 1). Improving clinical experiences and building on self-care skills are crucial for fostering new to practice nurses. The variety of stressors related to transitioning from school to the bedside may have a major impact on nursing burnout and turnover. One hospital recognized this as an issue and decided to implement a program for new graduate nurses which included workshops, group support, and mentoring (Irwin, et al*.,* 2021). Findings included an increase in resilience measured by evidence-based scales, thus highlighting the potential importance of providing such programs to new graduate nurses (Irwin, et al*.,* 2021). A resilient nurse can adapt to the dynamic nature of healthcare through self-esteem, tolerance, and a positive attitude (Stephens, et al*.,* 2017).

While there are a multitude of studies highlighting the benefit of resiliency programs for both new graduates as well as currently practicing nurses, there is minimal research regarding the execution of such programs among the future generations of nurses. Elevated stress levels, common among nursing students and currently practicing nurses, are associated with lower levels of resilience (Rushton, et al*.,* 2015). Nurses who may be, "tired, stressed, unable to focus or lacking motivation to continue caring may not provide safe care" (Linton & Koonmen, 2020, p. 1694). Thus, it is imperative for both students and current nurses to, "adopt self-care practices that help to reduce their stress in order to protect their overall well-being so that they can provide high-quality care for others" (Linton & Koonmen, 2020, p. 1695). The American Nurses' Association Code of Ethics for Nurses explicitly states nurses should adopt self-care practices not only as a duty to self but also to their duty to provide care to patients (2015). Self-care can be

defined as activities the nurse or student engages in, "to nurture or restore their physical, mental, and spiritual well-being" (Linton & Koonmen, 2020, p. 1695). Examples of such activities may include exercise, meditation mindfulness training, different therapy modalities, scheduled breaks, spending time with family and friends, and sleep hygiene (Williams, et al., 2022). If students were given the tools for self-care and resiliency while in nursing school, they may be better skilled to handle the transition from education to practice which may then in turn affect turnover and retention.

Description of the Project

Nurses form the largest healthcare profession in the United States, and they are crucial to healthcare delivery and patient care. For years, there has been a predicted, unprecedented shortage of nurses which has been further exacerbated by the COVID-19 crisis. Nursing turnover rates are at record highs since the pandemic, and retention is a challenge among nursing leaders. Resiliency training programs have been shown to benefit nurses in the acute care setting, but there is minimal research regarding the execution of such programs among the future generations of nurses. The purpose of this project was to create and provide the implementation of a resiliency training program to improve students' knowledge and application of resiliency and self-care tactics.

The recipients of the project were associate degree nursing students at a community college located in Upstate New York. Students were invited to participate in the ten-week program which was offered on a virtual platform to promote attendance. Topics covered during training sessions included an overview of stressors, burnout, mental exhaustion, journaling, personal goal setting, coping mechanisms, reflection, self-care methods, mindfulness, and mentoring. Interventions involved in training sessions included educational lectures, group

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discussions, meditation, interactive quizzes, videos, and activities such as case studies and personal reflection.

Surveys were sent to nursing students prior to implementation, assessing levels of resiliency as well as perceived stress utilizing the Connor-Davidson Resilience Scale (CD-RISC) and Perceived Stress Scale (PSS), respectively. The researcher contacted the authors prior to gain permission to utilize the PSS and CD-RISC. Surveys were sent out half-way through the program and at the end of the semester upon completion of the training program. Surveys were also re-sent three months post-training. Upon completion of the resiliency training, it was expected there will be a decrease in the signs and reports of perceived stress among nursing students defined by the PSS. It is also expected students will exhibit an increase in levels of resilience as measured by the CD-RISC after implementation of training as well as maintained three months post.

To ensure success in program implementation, the DNP student gained support from the community college nursing program faculty as well as college administration. A pre-implementation survey was sent to nursing students to assess current stress levels. Another survey was sent to current nurses detailing their opinions regarding current stressors faced by the nursing profession. The survey was administered to the DNP candidate's current and prior nursing colleagues and co-workers. Both surveys' results were shared with students to inform them regarding the shared sense of stress among their fellow colleagues as well as what challenges may be faced when entering the profession. The transparent sharing of such information was done in hopes of gaining participation as well as compliance with the program. A more thorough literature review based on the compilation of survey data was used to create an outline for the resiliency and self-care training. As mentioned previously, there was limited

evidence supporting the utilization of such programs among student nurses, but a variety of evidence existed in favor of resiliency programs for current healthcare works including nurses.

Ten PowerPoints were created using the evidence obtained (see Appendix A). The first week addressed the "Why" behind the training as well as gave an overview of what to expect of the ten weeks. Prior to the session, students completed an initial, anonymous PSS and CD-RISC via Qualtrics. The next two weeks looked at both nursing school and professional nurse stressors. The fourth week detailed common stressors associated with becoming a new nurse as well as various coping styles and strategies. The next anonymous PSS and CD-RISC scales were collected prior to the fifth training session. This training session discussed the physiologic, mental, and emotional tolls of stress. The topic of burnout and mental exhaustion was split between two weeks. The first week defined both terms and how to identify signs and symptoms, and the subsequent week involved self-awareness and when to ask for help if experiencing burnout and/or mental exhaustion. The eighth week detailed stress-relieving and self-care activities available to student nurses for free or reduced costs. The next week was titled mindfulness, and a group meditation was completed guided by the DNP student followed by group reflection. Students completed a third anonymous PSS and CD-RISC scales prior to the tenth week of training. This final session was titled "Finding Balance," and it tied in all the resiliency and self-care tactics discussed throughout the semester.

Significance of the Project for Nursing

Contributing factors for the predicted nursing shortage include increased number of patients, violence in the healthcare system, suboptimal working conditions, nursing faculty shortage, low retention rates especially among new graduate nurses, and small nursing programs (Perkins, 2021). The novel COVID-19 pandemic further exacerbated this complex issue, and

there is an increased need to find ways to not only support current but also future clinicians (Turale & Nantsupawat, 2021).

The pandemic also challenged nursing schools in unimaginable ways. It is well known nursing programs are extensive and stress-provoking There is a need for nursing education to expand content to include crisis management and mental health as well as other resources to alleviate burnout and staff shortage (Leaver, et al., 2022). There is a great need for further research to address, "mental health, stress, and coping strategies of students … to equip future nursing students with the tools needs to be successful in the field of nursing" (Hamadi, et al., 2021, p. 637). Current nursing educators should strive to create a proactive resilience-focused curriculum to not only assist their students through this stressful time but also increase general awareness of the need to enhance one's own protective factors (Stephens, 2013). In doing so, students will be better prepared to enter the nursing workforce with the confidence to succeed despite adversities and challenges.

Theoretical Framework

The theoretical framework utilized for this project is the Stephens Model of Nursing Student Resilience (2013). Resilience is a common topic across a variety of disciplines including nursing, and it has also been proposed, "as a concept that could prove useful in helping nursing students confidently face challenges and successfully move forward" (Stephens, 2013, p. 125). Nursing educators are in key positions to assist students in the development of self-care and resiliency skills in better coping with both current and future adversities. This model of student resilience, "depicts the concept as a process that combines perceived adversities with the use of individual protective factors to effectively cope and/or adapt" (Stephens, 2013, p. 130). These protective factors can be enhanced through continued education as well as through specific

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"resilience-enhancing interventions," and when these learned skills are employed, students are successful both academically and clinically. The combination of these results in increased coping mechanisms, adaptive abilities, and overall well-being.

Nursing educators are crucial to this process as they may be able to assist the students in critical assessment and reflection upon "challenges, stressors, and perceived adversities" as well as identification of protective factors (Stephens, 2013, p. 131). Upon completion of such a review, students are encouraged to determine which methods are effective or what can be changed to produce a positive future result. There are a variety of benefits for increasing resilience among nursing students. Not only does it help them to succeed in their designated college programs, but they will also be able to take such skills beyond nursing school and into the workplace. These learned abilities and self-identified protective factors will help students to cope with and work through potential challenges. By instilling a culture which encourages the "development and nurturance of resilience," there is potential to increase student satisfaction as well as ensure future successes as professional nurses (Stephens, 2013, p. 131).

Literature Review

The high prevalence of stress in the healthcare workplace has been well documented even prior to the COVID-19 pandemic. This can be attributed to extensive work hours, ever-increasing requirements for documentation, and challenging aspects of caring for patients (Werneburg, et al., 2018). Elevated stress levels are also associated with poor health status, job dissatisfaction, and burnout. One academic medical center created a twelve-week resiliency and wellness training program for healthcare employees (Werneburg, et al., 2018). Organized worksite programs aimed at improving resiliency are effective not only with regards to resiliency but also with quality of life and healthy behaviors. Given the high prevalence of stress and burnout

among healthcare workers, more studies are necessary to clearly demonstrate the impact of such training programs.

Due to elevated stress levels common among physicians, one single-blind trial utilized a single session Stress Management and Resiliency Training (SMART) program to determine its efficacy to decrease stress and anxiety while improving resiliency and quality of life among providers (Sood, et al., 2014). The program included a ninety-minute group session with subsequent follow-up phone calls. Multiple evidence-based scales were used to measure stress, resiliency, and quality of life. The single session proved to decrease stress among the physicians, but further evidence is necessary to determine full clinical meaningful improvement.

Mindfulness training has been shown to not only decrease stress and work-related burnout, but also to improve quality of life through enhancing social support (Mistretta, et al., 2018). One study utilized both in-person and smartphone-based delivery of mindfulness-based resilience training (MBRT) to assess whether overall well-being, burnout, and stress levels improved among healthcare employees. Both the in-person and smartphone groups displayed improvements in overall well-being. Findings suggest a combination of these low-cost, tailored interventions can enhance psychological outcomes among healthcare workers (Mistretta, et al., 2018).

A new graduate nurse is described as a nurse with less than two years of experience (Irwin, et al., 2021). The 2022 NSI National Healthcare Retention report reveals an all-time high turnover rate for new graduate nurses of over thirty percent (American Hospital Association, 2023). The cost of replacing a newly graduated nurse is at least 1.3 times the nurse's salary (Irwin, et al., 2021). Factors which may affect turnover intention include both job stress as well as sleep disturbance (An, et al., 2022). New graduate nurse stress is further, "evidenced by

absenteeism, mental and physical symptoms of burnout, and turnover" (Irwin, et al., 2021, p. 35). The utilization of a resiliency program can alleviate these common issues faced by graduate nurses (Irwin, et al., 2021). Training includes mentoring, teaching coping mechanism and adaptive skills, and group meetings which leads "to a significant increase in resilience among participants" as measured by the Connor-Davidson Resiliency Scale (CD-RISC) (Irwin, et al., 2021, p. 38). It is truly important for nursing leadership and educators to consider strategies to retain newly graduate nurses in the profession.

The first few months of transitioning from student to registered nurse are the most stressful and challenging for new nursing graduates (Meyer & Shatto, 2018). Identification of factors which affect a positive or negative transition to practice are crucial to decreasing new nurse turnover rates. Resiliency is a positive factor, "that can facilitate successful transition" (Meyer & Shatto, 2018, p. 276). Given there are so many definitions of this term, it is important to recognize, "resilience in the healthcare environment is defined as the psychological train, aptitude and fortification of a nurse to withdraw, overcome, and grow stronger from adversity" (Meyer & Shatto, 2018, p. 276). Increased communication and a sense of community may be possible streams to increasing resiliency and warrant further study given the current difficulties of nurse recruitment and retention.

The period of transition from student to nurse can be associated with negative feelings such as cognitive dissonance and reality shock (Stephens, et al., 2017). There is an immense need to develop healthy coping strategies to further promote resilience among new nurses. One institution created a supplemental onboarding program which incorporated self-reflection and resiliency skills to, "assist new nurses in confidently facing challenges encountered during orientation" (Stephens, et al., 2017, p. 276). The enhancement of such skills allowed the new

graduates the skills to move forward as a professional nurse but also fostered a positive working environment which is essential to any truly successful organization (Stephens, et al., 2017).

Project Methodology

Approval Process

Implementation of this program began with a thorough discussion and academic approval from the Director of the Doctor of Nursing Practice Program at a large university in northern New Jersey. The initial steps and plan were presented to the director in Fall 2022. The ten-week resiliency program was offered to associate degree nursing students at a community college located in Upstate New York through which the DNP candidate worked as an Adjunct Clinical Instructor. The proposed plan would start in February 2023 and continue until May 2023. The Director of the DNP Program supported the initiative due to the immense need for resiliency tactics to ensure nursing students' future success. Institutional Review Board (IRB) approval was deemed exempt by the IRB of a large university in northern New Jersey (see Appendix B).

In Fall 2022, initial plans for the program were presented to the Dean of Nursing at the community college. The Dean also gave her full support of the initiative but was in the process of retiring, and therefore, communication would also be necessary with the Interim Dean of Nursing starting December 2022. The Interim Dean was also in favor of the program, and she made herself accessible via email and in-person for further assistance. She also obtained permission from Human Resources at the college and remained as a resource throughout the planning stages.

Risk and Benefit Analysis

There are a few risks to consider prior to program implementation. Nursing curriculum alone is rigorous and labor intensive, but "building resiliency in nursing students may improve

program completion" (Boardman, 2016). Therefore, the engagement of stakeholders including both students and nursing faculty was necessary. Nursing students were overwhelmed at baseline due to the stressful nature of their field of study. Lack of participation was a major potential risk of program success as participation may be viewed as another requirement. Small sample size was also a risk to consider. Finally, students may not be willing to change or utilize the program's techniques.

While there were a variety of risks, there were many more benefits associated with successful implementation of the resiliency and self-care program. The program may promote cohesiveness and a sense of community among students. Resiliency and self-care training was an opportunity for students to recognize shared experiences as well as bring faculty awareness of stressors and experiences with being new to the nursing profession. Student turnover including withdrawal as well as failure from the program is an issue for academic nursing institutions nationwide. While some aspects may be unavoidable, this ten-week resiliency and self-care training program may help students to learn appropriate coping skills they can master now and then translate into their nursing careers. The early recognition and development of such skills is instrumental for entering the nursing workforce but can also be applied during the stressful time of nursing school. This program should be viewed as a resource to ensure success and retention in the nursing program. At the end of the ten-week program, the students may have an increased level of resiliency and decreased stress levels as measured by the CD-RISC and PSS, respectively.

Project Phases

Phase I – Needs Assessment

In Fall 2022, an environmental analysis was conducted by shadowing and assisting with first-semester nursing clinicals at designated college to determine gaps in education as well as resources provided to students for self-care. The author noted students exhibit signs and symptoms of heightened stress which can be explained by, "perceived lack of knowledge and skills" (Onieva-Zafra, et al., 2020, p. 2). Students expressed frustration with workload as well as gap in what is taught in lecture versus current practice. Upon further analysis of resources available to nursing students, there were no current programs for students regarding resiliency and stress management. Most research regarding resiliency and self-care training was conducted among current nurses, and implementation of such programs was both feasible and acceptable (Mealer, et al., 2014).

The DNP student next completed a Strengths, Weakness, Opportunities, and Threats (SWOT) Analysis, to identify the strengths and weaknesses to consider when developing an action plan.

Strengths and weaknesses

One of the most important internal strengths included the support of the current Dean of Nursing and other faculty which allowed for facilitation of training. This was a quality improvement program with low to no associated costs for the college. External opportunities included promotion of sense of community among nursing students as well as faculty.

Internal weaknesses included the retirement of the Dean. While faculty was on-board, nursing curriculum is generally extensive, and therefore, time was an issue to include the training in an already full schedule. Students were overwhelmed in general, and therefore, they may also

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be reluctant to add to their course-load by participating in the training. Other concerns included technical difficulties, lack of monetary incentive, and poor sample size.

The risks identified in the SWOT analysis were further analyzed and prioritized utilizing a risk management matrix. The DNP student noted there needed to be advertisement as well as engagement of stakeholders to ensure program success. It was also unclear if students recognized their levels of stress as maladaptive. Two surveys were sent out in January 2023 to further assess needs. Upon faculty approval of the training program, an anonymous, pre-implementation survey was sent to students at the college to assess current struggles and stress levels (see Appendix C). Qualtrics was used to create the survey, and the link was posted on the college of Nursing Blackboard. A total of forty-one students responded. The survey results confirmed the students struggle with self-care, stress management, sleeping, and workload. A second anonymous survey was sent to current practicing nurses to assess what they believed to be current issues for nursing as well as advice they would give new-graduate nurses (see Appendix D). The survey was again created via Qualtrics and disseminated among personal and professional nursing colleagues. A total of twenty-eight nurses responded. Most responses involved topics such as the importance of self-care and resiliency as well as the issue of burnout. The information attained from both surveys was used to further tailor the topics according to both patient and nurse-identified needs.

Phase II – Obtaining Support from Stakeholders

A marketing plan was constructed to gain support as well as increase enrollment in the program. While the students were the main beneficiaries of the self-care and resiliency training, nursing faculty and college administration were also identified as key stakeholders. Therefore, it was required to gain support for the Dean of Nursing. The DNP candidate met with the Dean of Nursing as well as Interim Dean of Nursing on various occasions to gain initial approval and

discuss progress. The training program was introduced by the Interim Dean to nursing faculty to encourage student participation. The faculty was in support of the training as there is not a current program to support students in this manner.

The DNP candidate shared the results of the anonymous student and nursing surveys with prospective student participants by introducing the training program via Blackboard as well as in-person when shadowing clinicals. This ensured all students received the notification and had access to responding. The author introduced herself as well as her role within the college and as a DNP candidate. Early introduction of the training program as well as highlighting how the program applies to students were essential to gaining stakeholders. The program was posed as not an assignment or coursework, but rather, a program to help them with their current and future stressors. Expectations for the training sessions were also clearly outlined. Students were encouraged to fill out another survey to express interest in the program, desired dates and times, and preference regarding remote or in-person learning.

After reviewing the interest survey, the program plan details were further defined. Most students preferred the flexibility of a remote session, but it was difficult to decide on a time which worked for all interested students. Students attended clinicals on the proposed weekday, and therefore, there was not an agreed set time for the program to occur on a weekly basis. Students also had other responsibilities including work and family life. Each weekly training was proposed to be between twenty and thirty minutes each week, which allowed for multiple sessions per day. Therefore, to include as many students as possible, the program was offered at three different times on Tuesdays to accommodate the different schedules. A few students sent follow-up emails to the surveys expressing their excitement for the program as well as recognition for the need of self-care and positive coping mechanisms.

Phase III – Initial Implementation Steps

Proposed budget

      A proposed budget was created prior to implementation as this can be identified as the "financial proposal that reflects the work proposed" (Obelleiro, 2019). There are a variety of ways to present a budget, and the following will be presented, "as a categorical list of anticipated project costs representing the researcher's best estimate of finds needed to support the proposed work" (Obelleiro, 2019). As stated previously, the sample population was nursing students enrolled at a community college in Upstate New York. For the proposed project to be continued, it must align with the organization's goals, and therefore, these must also be considered when constructing a budget. Expected outcomes should also be shared with the organization to show the benefits of associated costs.

      The entire project planning and implementation process was completed by the DNP student on a voluntary basis. Therefore, there were no additional expenses for the organization. Tools utilized by the researcher included free online Resiliency training programs, a personal laptop and desktop, and a variety of search engines. The researcher had previous access to the American Association of Critical Care Nurses library which would require an additional fee if one did not have a membership. The marketing portion of the project was partially completed both through in-person and virtual meetings with various stakeholders on campus. Students were also considered to be stakeholders, and therefore, they were also engaged virtually via the Blackboard Learning Management System (LMS). This platform was provided by the college at no additional cost.

      A variety of surveys were utilized to assess students pre-, during, and post-project implementation. Surveys consisted of narrative questions as well as standardized tools known as

the Perceived Stress Scale (PSS) and Connor-Davidson Resiliency Scale (CD-RISC). The DNP

student contacted the scales' authors prior to utilization for permission. The PSS was free of

charge, and the CD-RISC required a student rate of thirty-three dollars. The Qualtrics Survey

platform was utilized to disseminate the scales and surveys as it was offered at no cost through

the DNP student's university.

Logic model and implementation

Prior to implementation, a thorough plan was created utilizing the Kellogg's Logic Model

(WK Kellogg Foundation, 2004) (see Appendix E). The training program was first outlined

based on the results of previous surveys as well as literature review, and PowerPoint

presentations were derived from outlines. PowerPoints were visually appealing as well as

included a variety of media such as videos, images, and minimal text to engage participants.

PowerPoints were completed and approved by the Director of the DNP Program as well as the

Interim Dean of Nursing. Upon final approval, the program was started at the end of February

after a long weekend which allowed students to ease into their semester and continue over the

next ten weeks. An email was sent to prospective participants entailing how the program would

be conducted remotely via Microsoft Teams which was available through the college. A set

schedule as well as links to weekly meetings were sent to students in advance with emphasis on

participation and what to expect. Ten students initially signed up for the program.

Seven students attended the first session and completed the initial PSS and CD-RISC at

the start of the program. The first session of the training started with an alarming statement:

"About 17.5% of new nurses leave their first job within 1 year of starting their jobs" (Kovner, et

al., 2014, p. 64). A variety of other facts were shared with students highlighting the global

nursing workforce shortage. The concept of burnout was defined as high workloads, lack of

support, intense situations, moral distress, and low job dissatisfaction (Cochran, et al., 2020). The course introduction also included a review of stress and turnover among nursing students and new graduate nurses. Newly licensed nurses are particularly vulnerable to psychological distress and turnover. To help mitigate this negative cycle as well as improve both the physical and mental health of all nurses, "early education and adoption of interventions geared toward prevention and reduction of distress symptoms are especially important" (Cochran, et al., 2020, p. 105). The results of the student and nursing surveys were shared with prospective participants as well. Expectations for the training sessions were also clearly outlined. Topics discussed throughout the ten weeks included current stressors for students and nurses, self-care techniques and resources, mindfulness, and burnout. These topics would be addressed with group breakout sessions, discussions, and interactive videos. Students would be assessed at regular intervals utilizing short, evidence-based surveys to assess stress and resiliency levels. Finally, it was emphasized that the program was not graded, an additional stressor, or extra work. Students appeared engaged as well as appreciative of the opportunity presented.

Phase IV – Ongoing Implementation Process

Sessions continued as scheduled over the following weeks. The DNP candidate reflected after each week to determine if changes were necessary to improve the program. For example, for the first two weeks, a few students had a difficult time accessing the meeting due to errors with Microsoft Teams links. Therefore, the DNP student ensured links were sent twenty-four hours in advance. This also helped to remind students of the upcoming session. After Week 4, which was the week after Spring break, only five students remained in the program. A few students stopped attending while others had removed themselves from the training due to personal commitments. Therefore, some of the proposed group breakout activities had to be

modified to overall group discussions. While this was not part of the initial plan, it proved to make the students more comfortable in their individual groups as well as increased engagement.

All five students continued with the program, and the second PSS and CD-RISC were completed at the start of Week 5. Due to the decrease in group size, the program was only offered twice a week instead of three as most of the students attending preferred those times. Students particularly enjoyed the session titled the "Physical, Mental, & Emotional Toll of Stress" as it detailed not only how stress impacts the body but also how to recognize these signs and symptoms. At the start of Week 6, students appeared more engaged and shared experiences openly. They recognized that they may already be experiencing signs of burnout and mental exhaustion. Many of them also emailed the DNP candidate to express their appreciation for the program as it not only served as "self-care" but also a time to engage with their fellow colleagues. The final weeks emphasized the importance of self-care activities, mindfulness, and finding balance. The program ended the week before finals, and therefore, students personally attested this was the perfect timing for completion as it served as a "stress-reliever." All five students completed the final Week 10 PSS and CD-RISC survey, and they were reminded of a final survey which would be sent out three months post completion.

Phase V – Project Evaluation Process

To measure outcomes, two evidence-based scales were utilized assessing levels of resiliency as well as stress utilizing the CD-RISC and PSS, respectively. Surveys were to be completed on Weeks 1, 5, and 10. Students were given time at the beginning of sessions to complete surveys to ensure compliance. Data from all four surveys was extracted from Qualtrics and compiled into Excel spreadsheets for easy comparison. Both the CD-RISC and PSS came with scoring manuals to ensure standardization of results.

Measuring outcomes

Scoring the CD-RISC. The Connor Davidson Resilience Scale (CD-RISC) is a twenty-five-item scale in which the participant is directed to answer each statement in reference to the previous month (Davidson, 2023). The scale is scored on the sum of the total items with is scored from 0 to 4 according to a Likert scale. The full CD-RISC was used for this project, and therefore, the maximum score was 100. The mean score for the United States general population is 80.7. Lower scores indicate less resilience while higher scores indicate greater levels of resilience. The CD-RISC-25 score can reflect change over time or improvement from a specific intervention (Connor & Davidson, 2020). This scale consists of statements which can be used to measure different aspects of resilience. These include hardiness, adaptability/flexibility, meaningfulness/purpose, optimism, regulation of emotion and cognition, and self-efficacy (Connor & Davidson, 2020).

Scoring the PSS. The Perceived Stress Scale (PSS) is a ten-item scale in which the participant is also asked to answer the prompt based on their thoughts and feelings over the past month (Cohen, 1994). Each question is scored from 0 to 4 according to a Likert scale. However, for questions 4, 5, 7, and 8, the scores are reversed. Then, the scores are added for a total. Individual PSS scores can range from 0 to 40. Higher scores indicate a higher level of perceived stress (Cohen, 1994). The average score for respondents in the United States is 12.9 (Cohen, 1994). Scores ranging from 27-40 are high perceived stress. Scores ranging from 14-26 are moderate stress. Finally, scores ranging from 0-13 are low stress levels (Cohen, 1994).

Expected outcomes.

The first expected outcome was a decrease in the signs and reports of perceived stress among nursing students measured by the PSS upon completion of program as well as sustained

three-months post training. This scale measured the "degree to which situations in one's life are appraised as successful," and it was easy to understand due to the simple language and answer choices (Cohen, et al., 1983, p. 387). It is the most widely utilized instrument for assessing the perception of stress. The next expected outcome was an increase in levels of resilience as measured by the CD-RISC upon nursing students' completion of program and maintained three months post. This scale demonstrated "that resilience is modifiable and can improve with treatment" (Connor & Davidson, 2003, p. 81). Therefore, both short and long-term outcomes were measured with this tool.

Results

CD-RISC Survey Results

The first week's average score for the ten respondents was 68.2 out of 100 possible points. The next survey took place in week five, and the average score for the five respondents was 77. The following survey occurred in week ten, and the average score for the five respondents was 84.6. Finally, at three months post, the average score for the five participants was 80.9.

CD-RISC characteristics

As mentioned previously, the CD-RISC can be further broken down into characteristics which define resilience. Therefore, these aspects were also able to be tracked throughout the ten weeks as well as three months post intervention. The highest score for each is 4 and the lowest is 0. The characteristics and their trends are summarized below.

PSS Survey Results

The first average score for the ten participants was 22.6 out of 40 possible points. The five-week survey included five respondents with an average score of 16.4. The next survey at

week ten included five respondents with a mean score of 11.2. Finally, at three months post

intervention, the average score for the five participants was 17.

Table 1

Survey Average Scores

Survey Title	Week 1	Week 5	Week 10	3 Months Post
CD-RISC	68.2	77	84.6	80.9
PSS	22.6	16.4	11.2	17

Table 2

CD-RISC Characteristics Average Scores Throughout Time

Characteristic	Week 1	Week 5	Week 10	3 Months Post
Hardiness	2.8	3.2	3.4	3.3
Coping	2.6	3	3.3	3.2
Adaptability/Flexibility	2.8	3.1	3.3	3.3
Meaningfulness/purpose	2.6	3.1	3.4	3.3
Optimism	2.6	2.9	3.1	2.7
Regulation of emotion and cognition	2.6	2.8	3.3	3.1
Self-efficacy	2.8	3.3	3.7	3.3

Summary of Results

The purpose of this project was to create and implement a resiliency and self-care

program to decrease perceived stress levels as well as increased levels of resilience among

nursing students. Over a ten-week period, as measured by the CD-RISC, students' levels of

resiliency increased from an initial score of 68.2 to a score of 84.6. At the three months post

intervention mark, the scores decreased slightly to 80.9 but remained higher than the pre-

intervention scores. Similarly, all seven characteristics of resilience increased throughout the ten

weeks with a slight decrease again at the three months post-intervention measurement. Students'

levels of perceived stress decreased from an initial score of 22.6 to 11.2 as measured at ten weeks by the PSS. At three months post intervention, the average score slightly increased to 17 which is still lower than baseline measurements. The outcomes demonstrated that the program was effective in increasing resiliency and decreasing perceived stress levels among nursing students.

Discussion

Resiliency is a quality which allows both student and current nurses to, "cope and adjust to challenges that may be daunting and overwhelming" (Irwin, et al., 2021, p. 35). It can also be defined to measure the ability cope with stress, and therefore, it is an important target in the treatment of stress reactions (Connor & Davidson, 2003). Increased resilience helps students to face a variety of challenges which can include their first experiences with clinical or altering learning styles (Aryuwat, et al., 2023). There is also a close tie with self-care as, "resilience can help nursing students maintain their holistic health and well-being and cope with stress during their nursing education" (Aryuwat, et al., 2023, p. 2814). Students who exhibit high levels of resilience are more likely to recover from negative experiences in the classroom or clinical setting which may otherwise affect their mental, social, and physical well-being.

Through a variety of learning methods conducted virtually in this project, students learn about different modalities of self-care as well as address current and/or future stressors as nurses. During the ten-week course, the CD-RISC is used to monitor levels of resilience. The CD-RISC demonstrates how resilience can modify and change with certain treatment (Connor & Davidson, 2003). Levels of resilience did, in fact, increase over the ten-week program by almost twenty percent. At three months post intervention, the average CD-RISC slightly decreased but remained higher than the baseline scores.

Stress can be viewed in both positive and negative lights. The term "eustress" has been

utilized to define the beneficial side of stress in that it guides us towards achievements (Alzayyat

& Al-Gamal, 2014). However, stress can also have a negative impact on one's physical, mental,

and emotional well-being. Throughout the past decade, there has been increased attention on

nursing students and stress. Stressors associated with nursing school include caring for patients

and their families, academic demands, and relations in the clinical environment (Alzayyat & Al-

Gamal, 2014). It has also been reported that the current nursing curriculum does not prepare

students to adequately handle clinical experiences, and therefore, there is a need to address these

stressors in better preparation for their future professional experiences as nurses.

The PSS, "measures the degree to which situations in one's life are appraised as stressful"

(Cohen, et al., 1994, p. 4). This tool is used in the project to quantify stress levels as well as

monitor changes overtime with implementation of a resiliency and self-care training program.

Students are instructed on stress's impact on the body as well as ways to monitor and manage

current and future stresses associated with being a new graduate nurse. The course also focuses

on coping mechanisms and direct self-care tools. Throughout the ten-week program, PSS scores

decreased by over fifty percent, meaning that students' perceived levels of stress were lower

compared to pre-intervention. While the post-intervention PSS scores were slightly higher than

weeks five and ten scores, it remained lower than the baseline PSS scores. It should also be noted

some of the students were enrolled in summer courses which may also contribute to the

increased level of stress.

Stress can be considered as beneficial, "in minimal amounts as it increases excitement

and motivation" (Labrague, et al., 2017, p. 428). When stress is unmanaged or faced chronically,

it can also be harmful to the health and overall well-being of an individual (Labrague, et al.,

2017). Nursing students are exposed to moderate to high levels of stress throughout their education which mostly stem from two major sources: academic and clinical stressors (Labrague, et al., 2017). Stress may also cause a student to leave a nursing program. Furthermore, "unmanaged stress may also cause the nursing student to experience negative emotional states such as sadness, apprehension, anxiety, worry, anger, lack of self-esteem, guilt, grief, nervous breakdown, depression, feeling of loneliness, listlessness, or sleeplessness" (Labrague, et al., 2017, p. 472). Learning to cope and manage stress are useful skills not only in the future as professionals but also as current nursing students (Kumar, 2011). Nursing itself has been well-documented as one of the most stressful and emotionally demanding fields (Labrague, et al., 2017). Nursing programs do not traditionally include resiliency or self-care education due to the complex and lengthy nature of curriculum. However, plummeting retention and sky-rocketing turnover rates among a previously predicted nursing shortage calls for a change in action to include this type of teaching in nursing education. The implementation of a ten-week program with each session shorter than twenty minutes not only decreased students' perceived levels of stress but also increased their levels of resiliency as measured by two evidence-based scales. At the three months post-intervention mark, both the PSS and CD-RISC scores remained improved as compared to the baseline scores. Reasons for the PSS increasing and the CD-RISC decreasing after three months could be due to demands of summer courses, cessation of the training program, or other stressors associated with life while being a nursing student.

Recommendations for Future Nursing Curriculum

When reflecting on the current nursing shortage as well as recent global pandemic, it calls to question who is taking care of and preparing the next generation of nurses? Stress within the profession as well as during nursing education, "has deleterious effects on the nursing

workforce as this may contribute to a shortage of nurses entering into the nursing profession" (Labrague, et al., 2017, p. 478).

Nurse educators are in a prime position to provide, "nursing students with a supportive clinical learning environment and [teach] them effective coping strategies to deal with stressors positively while enhancing their actual learning" (Labrague, et al., 2017, p. 478). Nursing faculty can work towards building a supportive learning environment while also assisting students with building coping and self-efficacy skills. The implementation of a self-care and resiliency training program which occurred over a ten-week time frame not only decreased students' perceived stress but also increased resiliency. Each session is no more than twenty minutes which could be easily included into nursing curriculum over a semester timeframe. The inclusion of such training would allow the instructor to, "assist the nursing student with the appropriate interventions that may allow for positive outcomes of stressful situations in addition to promoting a process in which to utilize for future events not only in all aspects of their nursing education and as a graduate nurse, but in their future" (Labrague, et al., 2017, p. 478).

Another way to include the training, if not possible to fit in with the extensive pre-existing curriculum, is to create a time outside of classes to complete the training. Other research has shown the benefit of the "institutionalization of structured student orientation … [programs and then] implementation of well-planned mentoring [programs]" (Labrague et al., 2018, p. 279). The self-care and resiliency program can be modified depending on the year-level for the student. For example, it could be offered as a basic introduction to first-year nursing students as a resource beyond the usual orientation process. It could also be tailored to final-semester students so that they are better prepared to enter the nursing workforce.

To ensure the implementation of such a program is successful, nursing faculty should be formally educated regarding the program as well as its benefits. Educators should be provided with, "regular training sessions and workshops … which aim to enhance their communication, social and interpersonal skills … [to] assist in dealing with students" (Labrague, et al., 2018, p. 289). Stress does not dissipate upon graduating from nursing school, and therefore, self-care and resiliency skills are important throughout the nurse's personal life and career. Other key stakeholders include prospective employers and hospital administrators who, "may benefit with the continued process from nursing education to entry and beyond for the nurse" (Labrague, et al., 2018, p. 289). It is also important to recognize that future healthcare patients can also be long-term beneficiaries of such training programs as nurses who demonstrate proper resiliency skills and adaptations will be able to deliver optimal patient care. This program could also be tailored to a current new graduate or practicing nurse and offered within a hospital organization to help nurses to cope and work through stress to become the best versions of themselves as the heart of healthcare.

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Appendix A.

IRB Approval Exemption Letter

SETON HALL UNIVERSITY
1 8 5 6

September 11, 2023

Johanna V. Grimaldi
Seton Hall University

Dear Johanna,

The Proposal entitled "Impact of Resiliency and Self-Care Training on Student Nurses at a Local Community College" has been reviewed by the Research Ethics Committee of the Seton Hall University Institutional Review Board and based on the information provided we found the same to be exempt from IRB approval. As per CFR **§46.104 Exempt research** (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Thank you for your cooperation.

Sincerely,

Mara C. Podvey, PhD, OTR
Associate Professor
Co-Chair, Institutional Review Board

Phyllis Hansell, EdD, RN, DNAP, FAAN
Professor
Co-Chair, Institutional Review Board

Appendix B.

Student Pre-Implementation Survey

What semester of the ASN program are you in? (Fill in the blank) _____

For the next series of questions, reflect on your experience this past semester. Please describe

using the following scale:

0 Never   1 Sometimes (1-2x per week)   3 Often (3-4x per week)   4 Always (6-7x per week)

Sleep

1. It is hard for me to fall asleep at night.

2. When I do fall sleep, I wake up and cannot go back to sleep, or wake up before my alarm goes off.

3. When I wake up in the morning, I do not feel well-rested.

Clinical

4. I am nervous when preparing for clinical including workload and clinical assignments.

5. I am nervous when it comes to being evaluated at clinical.

6. I doubt my current professional knowledge and skills when at clinical.

7. I am nervous when it comes to taking care of patients.

Time management

8. I worry I will not have enough time to complete all assignments.

9. I give up social activities due to the increased workload associated with school.

10. I stay up later than I would like to finish school assignments.

11. It is hard for me to focus on schoolwork.

12. I can never seem to stay on top of the things I have to do for school.

Stress

13. I do not enjoy activities outside of school as much as I used to.

14. All I can think about is schoolwork and succeeding in my program.

15. I am stressed and cannot think about anything besides my schoolwork.

16. I have had "breakdowns."

17. I am worried about failing out of the program.

18. I have thought about leaving the program.

For the next set of questions, please select "agree" or "disagree" based on your responses to the following questions.

19. I believe I have strong coping mechanisms to help me during times of stress.

20. Self-care is important during nursing school.

21. I believe I have a strong support system outside of school.

22. My fellow nursing students are a part of my support system.

23. I am interested in learning more about ways to take care of myself and manage stressful situations inside and outside school.

Appendix C.

Current Nurses Pre-Implementation Survey

Hello,

My name is Johanna Rhein, and I am currently enrolled in the DNP Program at Seton Hall University. Each of us has been impacted in a variety of ways over the past few years in healthcare, and we all had to learn how to cope and survive through unprecedented times. The main emphasis for my DNP project is resiliency among the next generation of nurses: nursing students. We were all there once, and it is my goal to one day be a part of transforming nursing education to best prepare future nurses for the challenges we face in healthcare. To do this, I am creating a resiliency and self-care training program to be completed with student nurses. I am asking for your help, as seasoned nurses, to reflect on your years of experience and how school could have better prepared you regarding stress and coping. Your information will help me in guiding the specific topics to address with students. I truly appreciate any feedback as well as suggestions you may have. Please feel free to share with other nurses you may know.

Please select all that apply.

1. *What topics do you think could be beneficial for nursing students to learn about prior to entering the workforce? (Select all that apply).*

   a. Coping methods

   b. Common stressors associated with becoming a new nurse

   c. Burnout and emotional exhaustion

   d. Self-care habits and balance

   e. Mindfulness

   f. Current challenges in nursing

2. *What have been healthy useful ways for you to cope with difficult days at work or even*

   day-to-day life?

   a. Exercise

   b. Meditation

   c. Journaling

   d. Therapy

   e. Talking to a loved one

   f. Socialization (ie. Hanging out with family, friends, co-workers)

   g. (Fill in the blank)

3. *What is one thing you wish you could share with your younger, new-Graduate-self*

   regarding the topics of self-care and resiliency? (Fill in the blank)

4. *What is one thing you wish Nursing school could better prepare nursing students for*

   regarding the topics of self-care and resiliency? (Fill in the blank)

5. *What do you think the biggest challenges are for nurses today? (Fill in the blank)*
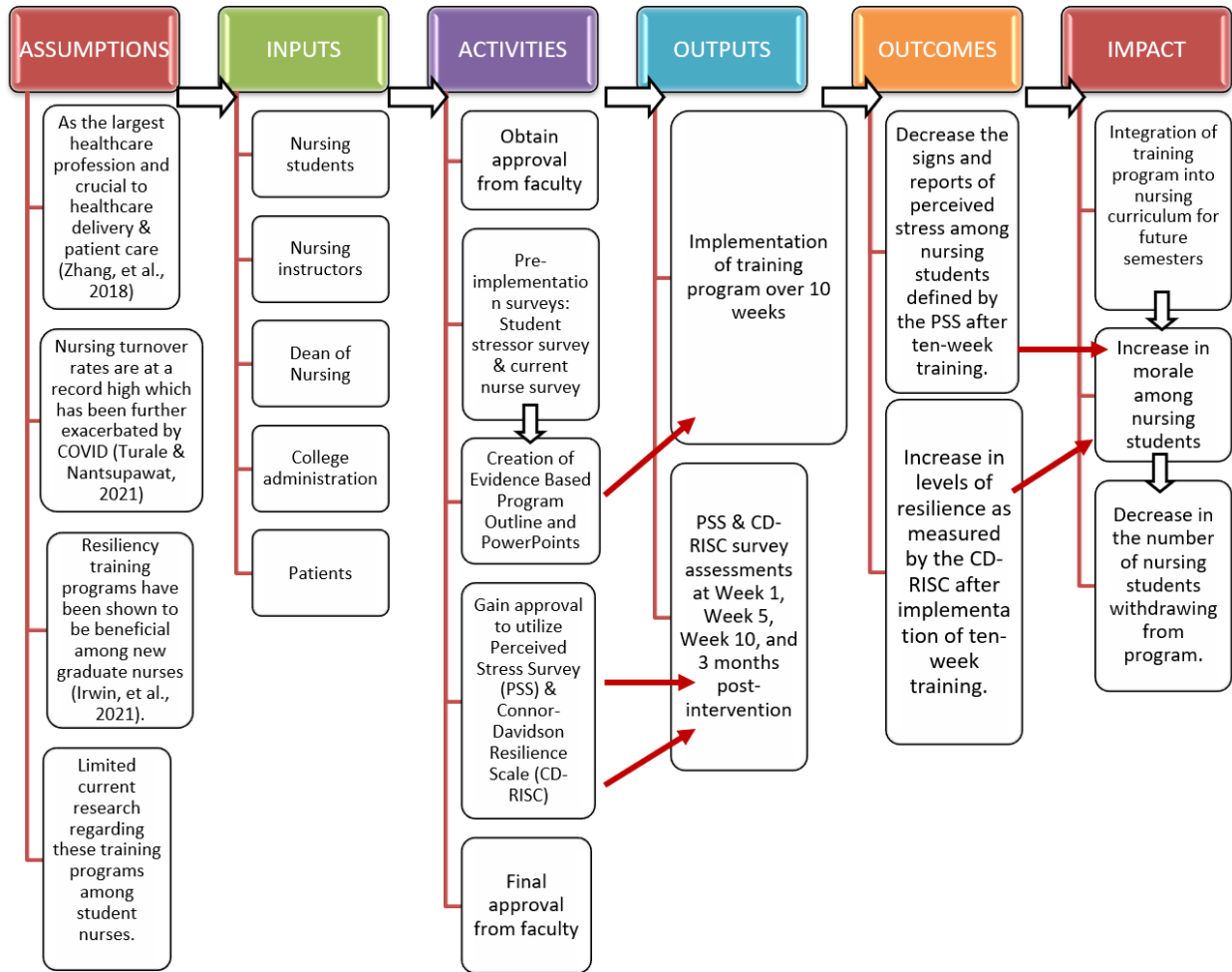
Appendix D.

Theory Logic Model

ASSUMPTIONS	INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	IMPACT

ASSUMPTIONS
- As the largest healthcare profession and crucial to healthcare delivery & patient care (Zhang, et al., 2018)
- Nursing turnover rates are at a record high which has been further exacerbated by COVID (Turale & Nantsupawat, 2021)
- Resiliency training programs have been shown to be beneficial among new graduate nurses (Irwin, et al., 2021).
- Limited current research regarding these training programs among student nurses.

INPUTS
- Nursing students
- Nursing instructors
- Dean of Nursing
- College administration
- Patients

ACTIVITIES
- Obtain approval from faculty
- Pre-implementation surveys: Student stressor survey & current nurse survey
- Creation of Evidence Based Program Outline and PowerPoints
- Gain approval to utilize Perceived Stress Survey (PSS) & Connor-Davidson Resilience Scale (CD-RISC)
- Final approval from faculty

OUTPUTS
- Implementation of training program over 10 weeks
- PSS & CD-RISC survey assessments at Week 1, Week 5, Week 10, and 3 months post-intervention

OUTCOMES
- Decrease the signs and reports of perceived stress among nursing students defined by the PSS after ten-week training.
- Increase in levels of resilience as measured by the CD-RISC after implementation of ten-week training.

IMPACT
- Integration of training program into nursing curriculum for future semesters
- Increase in morale among nursing students
- Decrease in the number of nursing students withdrawing from program.

Appendix E.

Ten-Week Training Topics

1. Week 1: Introduction to the Program

   - Completion of Week 1 CD-RISC and PSS

2. Week 2: Nursing School Stressors

3. Week 3: Nursing Stressors Inside the Workplace

4. Week 4: Common Stressors Associated with Becoming a New Nurse & Coping Styles

5. Week 5: Physical, Mental, and Emotional Toll of Stress

   - Completion of Week 1 CD-RISC and PSS

6. Week 6: Burnout and Mental Exhaustion Part I: What is it?

7. Week 7: Burnout and Mental Exhaustion: Self-awareness and when to ask for help

8. Week 8: Stress Relieving and Self-Care Activities

9. Week 9: Mindfulness and Meditation

10. Week 10: Conclusion: Finding balance

    - Completion of Week 10 CD-RISC and PSS