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Stress Reduction Programming for Nurse Educators

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The Implementation of Mindfulness Based Stress Reduction Programming in Nurse

Educators in The East Texas Regional Area

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Abstract

This DNP project was created to implement mindfulness training and programming to nursing school educators within the East Texas regional area to increase their recognition and the importance of self-care through mindfulness. This DNP project entailed the crucial aspects of concern from the DNP student's perspective regarding the significant increase in nursing academic faculty stress levels, along with burnout, and the detrimental causes that would occur if left unexamined. This project utilized a convenience sampling style approach gathered via snowball procedures of nursing school educator participants within the East Texas regional area. Participants were provided with mindfulness education and training and the ability to implement this into their daily routines to alleviate levels and symptoms of stress. The DNP project followed a pre and post intervention quality improvement design investigating the influence of the integration of a mindfulness-based stress reduction program within the individual. Results showed that mindfulness-based stress reduction programming had a very influential effect on nurse educators while also expanding their knowledge and heightening the attentiveness and importance of self-care and personal wellness.

Keywords: stress, self-awareness, self-efficacy, nursing educators, mindfulness-based, programming, nursing, burnout

Copyright Declaration

Overview

A Quality Improvement Intervention of Implementation of Mindfulness Based Stress Reduction (MBSR) Education and Training in Nurse Educator Faculty

Problem: Nurse educator faculty members within the East Texas regional area are at an increased risk of higher-than-normal levels of stress and faculty burnout. Faculty face strenuous workloads and intense demands in the workplace. Educators specializing in academia have continually expressed their concerns and exasperations regarding increased symptoms of stress levels, which have gone unnoticed. A current literature review validated that the identification, assessment, and nurturing of the implementation of MBSR programming offered numerous. These elements led to the PICO question: In regional academic nursing educators, can the implementation of a mindfulness-based stress reduction program affect and decrease stress symptoms within an eight-week timeframe?

Purpose: To analyze and determine if a MBSR educational and training program will help to alleviate the symptoms and levels of stress within nurse educators. The project encouraged faculty to utilize acquired through the project study, stress reduction techniques grounded in the self-awareness and self- care to help decrease the levels and symptoms of stress and burnout resulting in overall more positive outcomes.

Goals: The paramount goal of the project study was to bring about a statistically consequential decrease in the symptoms of stress experienced by nurse educator faculty within the East Texas region. A secondary goal of the project study was to expand the nurse faculty's knowledge on the importance and benefits of mindfulness integrated into their daily lives.

Objectives*:* To achieve the goals above. Nurse faculty outputs were inclusive of a minimum of 20 nurse educators fulfilling pre and post surveys, at least 20 nurse educators engaging in practicing daily mindful techniques, and at least 10 nurse educators reporting continuing the implementation upon completion of the project study intervention.

Plan: Participants who expressed interest in the project study responded to an initial email. Informed consent was acquired to meet project study requirements and participants engaged in weekly educational mindful training. The Cohen PSS and the ProQOL assessments were designated to determine changes pre and post implementation. The study was submitted to the Regis IRB review committee and approved as a quality improvement initiative project investigating the integration of a MBSR program in nurse educators employed in nursing programs. Upon approval, pre-intervention surveys were opened to voluntary participants in November. The duration of the project study was 8 weeks long. Post implementation surveys were administered in January 2023. Data that was collected then analyzed in the Spring semester of 2023.

Outcomes and Results: The objectives of the project study were achieved; three goals were met. 30 nurse educator faculty members completed the project study, pre-surveys, 20 nurse educator faculty members completed the project study post-surveys.

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Problem Recognition and Definition

Introduction

The nursing profession embraces the foundation and embodiment of caring. While nurses become engrossed in the care of others, self-awareness and self- care promoting personal wellness are assigned to a lower priority. Literature supports the importance of reducing stress levels through the implementation of mindfulness programming. Being more cognizant with the body's response increases the ability to manage stress, enhance decision-making, support well-being, an improve self-efficacy (Berstein, 2019). Continued workplace stress can lead to physical illness, burnout, psychological stress, and inhibit job satisfaction. Mindfulness based stress reduction programming (MBSR) benefits individuals who have been faced with complex workplace demands and schedules inclusive of nursing educators involved in academics.

Purpose of the Project

The principal purpose of this DNP project was to alleviate the symptoms of stress and burnout levels encountered by nursing faculty by the implementation of mindfulness-based stress reduction education and programming within nurse educators in nursing programs residing in the East Texas regional area. The project encouraged nurse educators to utilize stress-reduction techniques grounded in the knowledge of self-awareness and self-care to help lessen levels of symptoms of stress which in return resulted in more positive outcomes.

Statement of the Problem

Nursing faculty experience stress related to the high demands of teaching, research, and service (Mullins and McQueen, 2017). Multiple workplace stressors have recently occurred within the East Texas region including restructuring leadership within local nursing school programs, the COVID-19 pandemic, and faculty attrition. Increased stress levels that go unmanaged

in nurse educators have been considered hazardous. Even though this has been acknowledged, no

one has instigated that nursing academic programs implement stress reduction education, train-

ing, or programming to be implemented within their faculty and their programs. Urgency is war-

ranted for these types of programs to help nurse educators to effectively learn how to manage

stressors within the workplace in hope that they will be able to lessen stressors in all realms of

their personal and professional lives. Academia educators specializing in nursing have expressed

concerns and frustrations in relation increased levels of stress symptoms and burnout.

Numerous studies and research that have examined and produced substantial amounts of

data that is supportive of mindfulness-based stress reduction programming and the correlation in

lessening and alleviating levels of symptoms of stress in healthcare workers. Unfortunately, there

have been minimal studies done within the United States that have been conducted solely on aca-

demic nurse educators employed within nursing programs.

Clinical Practice Question

The following population (P), intervention (I), comparison (C), outcome (O), and time

(T) (PICOT) question was developed: In East Texas regional academic nursing educators (P),

can the implementation of a mindfulness-based stress reduction program (I) as compared to the

current conditions with no current stress reduction programming (C) affect and alleviate stress

symptoms (O) within an eight-week time frame(T)?

Past research recognized nurse faculty are particularly vulnerable to burnout due to the

high job expectations that come with the additional requirements of teaching/scholarship/and ser-

vice, online learning formats, workloads that impact professional/personal life balance, pressure

to maintain competence, and faculty turnover, lower salaries, bullying, and increased student de-

mands and expectations (Thomas, et.al, 2019). The DNP project utilized a quantitative, pre and

post intervention quality improvement design to investigate the benefits of the integration of mindfulness education and training in nurse educators in the East Texas regional area. Without appropriate coping mechanisms being put in place, nurse educators will continue to endure and experience increased levels of stress. This ongoing occurrence requires that new ways are identified to help lessen the stress levels that are experienced by nursing educators.

Significance of the Project

Educators specializing in nursing academics have expressed concerns and frustrations in relation increased levels of stress symptoms and burnout. Healthcare professionals face demanding and challenging workplace schedules and intense pressures that cause increased levels of symptoms contributing to faculty burnout and turnover. Stress that continues to go unmanaged can have detrimental effects on all types of individuals, especially those who engage in healthcare, including nursing educators.

Identified stressors in academia are numerous and include cuts in funding and resources, job security, pressure to publish and obtain external funding, increased student/ staff ratios, increased workloads, working outside office hours, work-life conflicts, slow career advancement, lack of recognition, poor management practices, and lack of trust in institutions (Marais, et.al, 2020). Exposure to stressors affects both mental and physical health of the academics, (e.g., difficulties concentrating and making decisions, decreased self-esteem, depression, sleep disturbances, headaches, stomachaches, susceptibility to infections), and has organizational consequences (e.g., job dissatisfaction, decreased productivity, teaching below standard, decreased level of organizational commitment, seeking jobs elsewhere) (Marias et.al, 2020).

For clinical, social, and ethical reasons mindfulness training and education must be integrated into nursing programs to help individuals attain and remain self-aware. Decreasing

perceived stress is of vital importance for healthcare providers who are subject to highly stressful and demanding situations on a regular basis (Benzo et.al., 2018). The findings from this study could influence the implementation of mindfulness-based stress reduction in nursing programs locally and worldwide.

Nature, Scope, and Limitations of the Project

The aim of this project was to explore the effects of implementation of a mindfulness-based stress reduction program in academic nurse educators. The project utilized a quantitative quasi-experimental design. The project aimed to evaluate the transformation of practice, which is indicative of the experimental design. The project utilized a pre and post intervention design quality improvement initiative that investigated the influence of the integration of mindfulness-based stress reduction programming in nursing school educators.

Scope

Educators specializing in nursing academics have expressed concerns and frustrations in relation increased levels of stress symptoms and burnout. Healthcare professionals face demanding and challenging workplace schedules and pressures that cause increased levels of symptoms contributing to faculty burnout and turnover. The target population of the project was comprehensively made up of all faculty members including those who filled part-time, full-time, and adjunct instructor roles within nursing schools in the regional area. The target population was represented by participants who held distinct levels of nursing degrees ranging from an associate to those holding doctoral degrees. Inclusion criteria for participation in the study was employment at a nursing school within the regional area, the willingness to participate in the training and education throughout the duration of the study, and ability to devote time daily to implement the mindful training

and education into their daily routines. Data that was collected from individuals who did not complete the study in its entirety were excluded from the study.

Convenience sampling gathered via snowball procedures was utilized for the study. The sample size was estimated at forty nursing school educators within the East Texas regional area. While the ideal number of participants would have been "forty," variation occurred easily since the population covered a regional area. Convenience sampling was used throughout nursing programs at colleges within the regional area, a minimum sample size of 30 nurse educator participants showed interest. This type of sampling was efficient, cost-effective, and widely used in research. Convenient sampling allows the researcher to select the sample elements according to their convenient accessibility and proximity (Elfil & Negida, 2017). The sample size is central in quantitative research as the findings should be generalized to the broader population (Cathala & Moorley, 2018).

Activities within the quality improvement project included weekly educational training and readings for an eight-week period, describing the importance of mindfulness along with a variety of techniques that can be selected by the participants. The schedule provided the outline for the participants with educational information on one mindful technique, along with an explanation of the importance and how it can contribute to relieve symptoms of stress. According to *Appendix A*, participants integrated the techniques and education into their daily routines to see which one worked best for the individual participant.

Limitations

Various limitations existed within the project study originating with the project design. The quasi-experimental design used for the study utilized a pre and posttest survey that was delivered to the project participants electronically. Convenience sampling was used during the study

selective of willing participants. This type of sampling can present limitations to the project due to the lack of randomization therefore possibly resulting in threats to the validity of the project study. To reduce the limitation demographics were collected to help describe the size of the sample and the target population. Advertising methods could be reflective of bias as nurse educators may have felt that they were encouraged to participate due to the primary researcher being a regional nurse educator who participates in many professional organizations and committees.

Additional limitations were based on the willingness of the nurse educators to participate in the mindfulness training and education that was provided and the integration of that into the project individuals daily routine. Although the project study was completed through email the intervention education and training were solely dependent on the participant integrating the education and training techniques into their daily routines.

Review of Evidence

Summary of Literature Review

A review of current literature (2018-2022) was conducted utilizing Psych Net, CINAHL, PubMed, UpToDate, and EBSCOHOST using keywords resilience, mindfulness, faculty, educators, non-clinical, stress, and burnout. A total of 218 peer-reviewed articles resulted, meeting the general criteria. The search was narrowed, via a study of abstracts, to fifteen articles most closely aligned to the research question. Please refer to the sample review of the current literature review in *Appendix E*. Fifteen manuscripts were viewed in detail as they provided the most accurate information on MBSR programming within educational faculty and support staff members. The fifteen articles were graded, then prioritized based on their levels of evidence and relevance.

Interventions are beneficial in helping to reduce stress and burnout while improving compassion and job satisfaction. The evidence supports implementing the mindful-based intervention

programs into the nursing schools to potentially produce positive outcomes for the participants. Fifteen manuscripts were viewed in detail as they provided the most accurate information on MBSR programming within educational faculty and support staff members *(See Appendix F).*

Background of the Problem

Nursing educators face strenuous workloads and intense demands in the workplace as they are responsible for training "nurses of the future." Nurse educators specializing in academia express concerns and exasperations regarding increased symptoms of stress leading to burnout. Healthcare professionals face demanding and challenging work schedules and pressures that cause increased levels of stress which in return results in higher nursing faculty burnout and turnover rates. Regardless of the setting, burnout is characterized by feelings of emotional exhaustion, depersonalization, and a low sense of accomplishment resulting from conditions in the workplace (Sacco & Kelly, 2021). Faculty stress rises from experiencing workplace incivility, the demand to be field experts, and the expectation of role ambiguity. Academic nurse educators also are left with no choice but to acclimate to the ongoing academic changes and must work exceedingly harder to meet the requirements.

Theoretical Foundation

Logic Model

The logic model assisted in clarifying the relationship between the project focus, resources, activities, changes, and the intended outcomes. In addition, the logic model was specific to outcomes of the project and displayed the processes for to achieve those objectives.

Multiple assumptions were made as a part of this project. This included that nurse educators would open their minds to change versus tradition. Another assumption that was made was that nurse educators would accept mindful programming and participate in the training and education

that was provided. It was also assumed that the mindfulness training and education would help the participants to better respond to unique situations and that they would become more skillful in their communication. Influential factors that influenced the project were stress levels, demographics, high workloads, low self-care and awareness practices, time constraints, and demanding schedules.

The logic model was the foundation for this project with the illustration helping to guide the project processes. Logic models served as a timeline for the project. Models assisted in clarifying the relationship between the project focus, resources, activity, changes, and the intended outcomes. Components of the model are considered here with the comprehensive details located in the chart below. *(See Appendix B).*

The main strategy of this DNP project was the administration of pre and post implementation surveys to nurse educator participants within the East Texas region. Education was provided to the participants educating them on the benefits of the integration of mindful exercises and techniques into their daily routine. Individuals who volunteered to participate in this project were open to change versus tradition. Resources that were exercised for the project were inclusive of the Perceived Stress Scale and the Professional Quality of Life Scale these of which are well established and practical tools that measure stress symptoms and burnout within the workplace and environment. Educational handouts were provided to the participants from the ProQOL manual. Grounding techniques, visualization, stretching, progressive muscle relaxation, internal sensations and feelings, body scanning, journaling, and social media breaking are the techniques that will be integrated into the programming. Influential factors such as high stress factors and demographics were an integral part in the project. Desired results were accomplished resulting in a decrease of

stress symptoms and an increase in self-awareness and self-care in nurse educators in the East Texas regional area. The following theorists influenced the basis, need, and creation of this project.

Jean Watson's Theory of Caring

Caring is the foundation of nursing. Jean Watson's theory focuses on the actualization of oneself. A lack of self-care may result in consequences experienced that lead to burn-out, illness, substance abuse, depression, compassion fatigue, decreased job satisfaction, patient harm, conflict, stress, medical errors, and unhappiness (Townsend, 2020). Displayed in the diagram below, Jean Watson's theory, of caring has four segments: Nursing actions, person, health, and environment (International Journal of Allied medical sciences and clinical research, 2018). Mindfulness can have a direct impact on self-awareness and self-care while cultivating practice within oneself. According to Watson, (1997) the core of the theory of caring is that "humans cannot be treated as objects, and that humans cannot be separated from self, other, other, nature, and the larger workforce. Jean Watson contends that caring regenerates life energies and potentiates our capabilities (Redlands community hospital.org, 2022) *(See Appendix C).*

Lewin's Change Theory

Although change is hard, it is warranted in nursing and within nursing education. Lewin's theory addresses the change process through three steps. The steps in this theory are unfreeze, change, and refreeze. Initially, recognizing that an organizational change is needed will help to get the process going. Secondly, the realization of why the change is needed will need to be determined. Next with the proper adjustments and implementation, the improvements are seen throughout the entire organization. Lewin's theory assists in working toward a more supportive and conducive working environment. The three-stage model of change describes the present situation as the status-quo with a proposed process of change that evolves into a future desired state

through three necessary changes (Tran & Gandolfi, 2020). The proposed project is a pre/post in-tervention quality improvement project initiative investigating the influence of the integration of a mindfulness-based stress reduction program within nursing programs in the East Texas region. See below Lewin's three stage change process, practical steps (Cybermedian, 2016)*(See Appendix D)*.

Summarization of Literature Review by Theme

Being Present in the Moment

Work stress is associated with impaired professional performance, reduced well-being, quality of life, and elevated levels of anxiety, depression, and physical exhaustion (Cascales-Perez et al., 2020). MBSR programming helps individuals to become more self-aware and to be present in "the moment." Stress in the workplace is harmful to employee well-being and can lead to in-creased absenteeism, organizational dysfunction, and decreased productivity (Chin et al., 2018). MBSR programming helps to contribute to employee resilience, to increase attention, and foster healthy working relationships. Mindful based interventions (MBI's) have shown a significant cor-relation with positive improvements in the following areas: attention, cognition, behavior, and physiological processes which influences the functioning of the individual and their quality of life (Conversano et al., 2020). Interpersonal conflict levels were improved with the training and im-plementation of MBSR programming within the workplace. Mindfulness is seen to have wide-spread effects on human functioning and behavior with an impact on mental health, well-being, physical health, self-regulation, and interpersonal behavior (Micklitz et al., 2021). MBSR tech-niques are researched as a potential holistic intervention for reducing stress and burnout in nurses through cultivating present awareness, emotional regulation, and positive thinking (Green & Kin-chen, 2021). Compassion satisfaction is achieved upon implementation of MBSR training and

programming. Non-pharmacological interventions are shown to be effective in reducing stress in different populations and include mindfulness-based interventions (Ruiz-Fernandez et al., 2020). Nurse educators and support staff employees experience struggles in areas of professional development and inner well-being.

Personal Development

Mindful interventions vary in delivery mode (face-to-face and online) and target populations (clinical populations with major depression, anxiety disorders, borderline personality disorders, chronic pain, or eating disorders and non-clinical populations such as students and employees) seeking to enhance their subjective well-being (Janseen et al., 2018). When organizations can recognize the need for an implementation, both initiative-taking and preventative methods across the entire organization, mentally healthy workplaces can be established and fostered (Klatt et al., 2021). Burnout and workplace dissatisfaction are found to be highly representative of healthcare and medical professional environments. Teachers with well-developed emotion-regulation skills are better prepared to manage student behaviors effectively, de-escalate conflicts, and build more positive relationships with students and colleagues (Frank et al., 2018). Adverse working environments lead to burnout and an individual's self-efficacy. MBSR training assists educators and support staff to be more cognizant concerning self-awareness and while practicing more conscious reactions.

Positive Outcomes

Mindfulness is an attitude towards reality and human experiences within the workplace. Interests in the effectiveness of mindfulness-based approaches in the workplace has been growing given their potential to reduce current stress and protect against the effects of future stress (Hugh-Jones et al., 2017). MBSR training, education, and implementation promotes positive benefits for

individuals who participate within the workplace environment. The type of knowledge acquired from this type of training will benefit and assist the participant with the achieving work-life balance. Adults from non-clinical samples showed that mindfulness was positively associated with confidence, job satisfaction, performance, and interpersonal relations, and the interventions were beneficial to helping to reduce stress and burnout while improving compassion and job satisfaction (Zhang et al., 2021).

Effectiveness

Mindfulness features correlate with lower levels of stress, depression, and anxiety while mindfulness training leads to better mood perception, the implementation of coping strategies for stress, the ability to perceive a given situation more clearly, and responding to stimuli more effectively (Chmieleuski et al., 2021). To effectively educate nurses of the future, academic instructors must set priority to their overall mental health and well-being to be able to deliver effective healthcare instruction. The main sources of stress for nurses are workload, the emotional cost of caring, lack of reward, shift rotation, complex interpersonal relationships, and the increased need for knowledge of ever-changing technology (Lin et al., 2019).

Complete Transformation

Identified stressors in academia are numerous and include cuts in funding, limited resources, job insecurity, pressure to publish, and to obtain external funding, increased staff/ student ratios, increased workloads, working outside of office hours, work-life conflicts, slow career advancement, lack of recognition, poor management practices, and lack of trust in institutions (Marias et al., 2020). The items listed within this project contribute to occupational stressors that occur internally in nursing academia. The primary intention of MBSR curriculum is to create a structured pathway to relieve suffering and increase well-being for people facing a host of

challenges arising from a wide range of medical and physiological conditions, demands, and stressors inherent in the everyday lives of human beings (Meleo-Meyer, 2021). The integration of mindful training assisted nursing faculty and support staff into transforming their attitudes and actions creating meaningful outcomes.

Data collection and Procedures

SWOT Analysis

The strengths of the mindfulness intervention include the network of nurse educators along with the responsiveness of nurse educators within the regional area, the proven effectiveness of mindfulness-based interventions and programs in healthcare professionals, and the little to no cost associated with the intervention itself. Weakness could include but are not limited to resistance to change from personnel, time constraints due to increased workloads and demanding schedules (not having time to allot to the training), and non-receptiveness due to nurse educators already experiencing higher than normal stress levels and symptoms.

Opportunities in relation to mindfulness-based interventional programming is the decrease in burnout experienced by nurse educators, filling vacancies within nursing academia, decreasing retention rates of nursing educators, and increasing the popularity of working in nursing academia within the regional area. With all project's threats must be considered. The misinformation of information regarding mindful concepts and techniques, the demanding schedules of nurse educators who are already under stressful conditions, and the nursing shortage especially in nursing education all could have an effect on the project study.

Forces

Lewin believed that driving forces is what propelled the change forward, while restraining forces caused resistance. Driving forces associated with this project were expressed concerns

and exasperations, the shortage of nurse educator faculty within the region, lack of current stress

reduction programming, and the verbalized need for support. Restraining forces that could poten-

tially be experienced were a resistance of change, the fear of the unknown, faculty not being

willing to take risks, and time constraints linked to increased demands, challenging schedules,

and the lack of desire to acquire new knowledge on mindfulness.

Needs

Project needs for this project study were resources inclusive of a technology platform

Qualtrics that was provided for use through Regis University. Data was gathered from pre and

post surveys through having access to computer and email programming. Google was also avail-

able for use through local internet access. Also, of importance throughout this project study was

that I had support from colleagues who were the project participants. The participants were those

of which were onboard with an open mind to the introduction of mindful training and to acquir-

ing the new knowledge to help alleviate symptoms and levels of stress.

Variables

Dependent variables include tools that are well-established and practical in healthcare

settings. The dependent variables used within the project study were with PSS-10 scale and the

Professional Quality of Life Scale pre and post mindful programming and education. The inde-

pendent variable was the implementation of mindfulness-based reduction programming to nurs-

ing educators employed within nursing programs within the East Texas Regional area.

Feasibility, Risks, and Unintended Consequences

Multiple factors influenced the potential feasibility of this project, including the nurse ed-

ucator workload, demanding schedules, increased levels and symptoms of stress, and decreased

support that was expressed from the educators. Limited funds were available for this study,

therefore interventions that were provided through the duration of this project study were of no cost. Interventions within the project were also designed to provide the participants with benefits as they were already facing challenging work schedules and increased symptoms of stress. To acquire participants, the program and training needed to provide the nurse educator with promotion of self-care and awareness benefits. It was also necessary to ensure that the training and interventions did not consume the educators already limited time that they had available.

There were consequences and risks that were possibly associated with the project study. It was possible that the interventions would not provide participants with benefits to alleviating associated symptoms of stress. Another unintended consequence was that effected the project was the low significance result from the participants. The responses that were received were low which influenced the overall outcomes.

Stakeholders and Project Team

Stakeholders of the project included all nurse educator participants throughout 8 nursing programs within the East Texas regional area. Although not all educators chose to participate the project was open to all educators employed within the programs no matter their employment status. The responses from the 29 nurse educators helped to provide meaningful data in the importance of the project study. The project team was inclusive of myself the project manager, my DNP mentor Dr. Krystal Bridwell, and DNP project faculty chair Dr. Lora Claywell.

Risks, Costs, and Benefits Analysis

According to AACN, (2021), the vacant faculty positions for the 2021 annual survey, out of 935 schools there were 1965 vacancies for full-time nursing faculty/educators. This was an increase from 6.5% (2020) to 8% (2021). Average annual salary in Texas is $77,320 ($37.17/hour) for masters prepared nursing instructors (nursingprocess.org). According to the

TBON, the cost to replace nursing instructor due to burnout and turnover: $37.17 x 40 hours per week x minimum of 16 weeks (semester)= approximately $23,788.80 per nurse educator. Neglecting to intervene will result in sustained/increased turnover rate within the existing cultures and environments within the nursing schools. Avoidance of the issue could result in an increased cost in replacing nurse educator faculty within the region. The approximate cost to replace a nurse educator in the region is around $24,000.00 per occurrence. Risks were few to none. Participants will not incur any costs associated with involvement in the project. Although it is difficult to quantify stress in a person's life, the intervention will decrease stress symptoms within the individual which will result in a decrease of wages spent on training new employees due to burnout. A minimal risk that could arise is limited responses and participation due to the small-scale population of nursing educators and support faculty members within the nursing program. When using email and mail to collect data, it will be imperative that this investigator considers that our response rates could significantly be lower. Internal threats include history, maturation, the assessment of stress and compassion fatigue, the selection bias due to the study extending to all participants, the social interaction between the participants, and attrition. External threats include the study's generalization into varying environments, technology advancements, socio-cultural influences, and demographics.

Mission and Vision

The mission and vision of the DNP project was to help alleviate symptoms and levels of stress of nurse educators in the East Texas regional area through implementation of mindfulness-based stress reduction programming education and training. The focus of this project was to bring and increase awareness to the importance of mindfulness-based programming within nurse educators and the application and integration of mindful techniques into their daily lives and

routines. The importance of implementation and awareness through education and training assisted in the alleviation and lessening of stress levels and burnout symptoms of nurse educators while assisting the participants to achieve work-life balance. All of these are essential for nurse educators as they provide nursing students with quality education and instruction that they deserve.

Recruitment

The project took place in 8 nursing programs in the East Texas regional area. Recruitment took place through advertisement on campuses (visual flyers in shared areas) and through a secured encrypted email promoting individual participation and project details. Upon Institutional Review Board (IRB) approval from Regis University, recruitment of project participants began. The DNP project study was open to all nurse educators employed within nursing programs within the regional area. To ensure minimal selection bias, the project study was open to all nursing school educators with a minimum of holding an associate's degree in nursing, no matter their employment status, or length of employment. A recruitment flyer was emailed out to nursing administrators asking them to distribute the flyer to all subjects employed within their programs. *(See appendix G)* Participants emailed back upon receipt of the recruitment flyer of their interest in being a participant in the DNP study. Only those individuals who responded to the flyer were a part of the DNP project study. The recruitment flyer explained the purpose of the DNP project study and the specific requirement for participation with details. The recruitment flyer was created and upon approval, disbursed to the nursing programs informing nurse educators of the approaching project study. The recruitment flyer was posted in shared areas within the programs. The primary researcher emailed the informational email to all individuals who expressed initial interest in participation. For the DNP project all nurse educators employed were

included. It was requested that all parties respond promptly to the communication that was re-

layed from the primary researcher. The exclusion criteria for the project study were deemed as

nurse educators that elected to not to complete the informed consent and to participate in the pro-

ject study. Participants emailed back upon receipt of the recruitment flyer of their interest in be-

ing a participant in the DNP study. Only those individuals who responded to the flyer were a part

of the DNP project study. The informational email was sent to project study participants upon

receiving the initial interest email that was corresponded to the study project manager. The email

explained in detail the purpose of the project and the details for participation *(See Appendix H)*.

In addition to the informational email the interested parties also received an informational sheet

that explained more thoroughly the project study process and details *(See Appendix I)*.

Requirements

The sample population for this quality improvement project did not meet criteria to fall

into the vulnerable population's category. The population does not suffer from cognitive or phys-

ical disabilities and are not minors, so no further actions were warranted to provide safeguarding.

Participation in the project was voluntary with written consent obtained before the beginning of

the project. The project details will be explained and clearly defined by the project manager. The

parties understood that they could rescind their participation during any point of the project.

Budget

The cost for this DNP project study was $200 This all covered the cost of the advertise-

ment of the project. The additional resources were provided by the institution and other organiza-

tions that do not have a charge for the use for education and research. The cost to replicate this

project in other institutions would fluctuate dependent on the size of the institution and the num-

ber of faculty members and participants that were involved. *(See Appendix J)*.

Population Sample

At the beginning of the project study, the estimated number of participants for this project was 40 nursing school educators within the East Texas region. For this DNP project I received 45 initial responses to the informational email that was sent out to individuals who expressed interest in being a participant in the DNP project. The target population was nursing educators within the regional area. Nonprobability convenience sampling approach was used to gather data from the interested nurse educator participants. The convenience sample approach was beneficial to the project study as it utilized participants who were present and conveniently found within the population. Another perk to the project study was that this method was inexpensive.

Project Setting

The setting utilized for this study was nursing programs within the East Texas regional area. Nurse educators who were employed within accredited schools of nursing were eligible to participate. There was no emphasis on the employment status of the nurse educator. Educational degrees ranged from an associate's degree to participants who held a doctorate in nursing practice. A non-probability convenience sampling approach was used for the project study with an accessible population of 120 nurse educators from 8 nursing programs. The projected sample size was 40. The actual sample size was 29 for the project study.

Project Design

The DNP project study used a quantitative quasi experimental pre and posttest method to investigate the impact of the implementation of mindfulness-based stress reduction education and training on stress levels in nursing educators. The sample size is central in quantitative research as the findings should be generalized for the wider population (Cathala and Moorley, 2018). As trends within a profession are identified, quantitative research is appropriate. Among

previous studies, there have been correlations shown in literature reviews in relation to increased

levels of stress, quality of life, and burnout, thus prompting this project study.

The DNP project used a single group study design offering mindfulness-based stress re-

duction education and program training to all nurse educators who chose to engage. The project

study collected data measuring perceived stress levels using the 10 item PSS-10 question prior to

and upon conclusion of the study. The absence of random nurse educator assignments, along

with the pre and posttest method supports the quasi-experimental study design. The study project

was conducted for nurse educators within regional nursing programs and the intervention offered

benefits to the participants. By the way of collection pre and post intervention the project study

provided us with a more accurate measurement.

Sample and Setting

The target population for the DNP project study was recognized as nurse educators em-

ployed within nursing programs within the East Texas regional area. The target population of

this study was individuals employed within nursing programs within the East Texas regional

area. There were no stipulations of participation in relation to their employment status. The pro-

ject study was open to all employees no matter their employment status of full and part time and

adjunct statuses. A type of non-probability sample using the convenience style approach was

used for this project study. It is called convenient style sampling as the researcher selects the

sample elements according to their convenient accessibility and proximity (Elfil & Negida,

2017). This type of sampling provided efficient and minimal cost and was quick being used

widely in research. Due to the limitations of quasi-experimental design, there was need to be

more project studies conducted in similar nursing programs to evaluate generalizability. The

population that was accessible for the DNP project study was nursing programs within the re-

gional area. The accessible population was 270 nurse educators.

Recruitment/ Setting

Upon Institutional Review Board (IRB) approval from Regis University, recruitment of

project participants began. The DNP project study was open to all nurse educators employed

within nursing programs within the regional area. To ensure minimal selection bias, the project

study was open to all nursing school educators with a minimum of holding an associate's degree

in nursing, no matter their employment status, or length of employment. A recruitment flyer was

emailed out to nursing administrators asking them to distribute the flyer to all subjects employed

within their programs. Participants emailed back upon receipt of the recruitment flyer of their in-

terest in being a participant in the DNP study. Only those individuals who responded to the flyer

were a part of the DNP project study. The recruitment flyer explained the purpose of the DNP

project study and the specific requirement for participation with details. The recruitment flyer

was created and upon approval, disbursed to the nursing programs informing nurse educators of

the approaching project study. The recruitment flyer was posted in shared areas within the pro-

grams. The primary researcher emailed the informational email to all individuals who expressed

initial interest in participation. For the DNP project all nurse educators employed were included.

It was requested that all parties respond promptly to the communication that was relayed from

the primary researcher. The exclusion criteria for the project study were deemed as nurse educa-

tors that elected to not to complete the informed consent and to participate in the project study.

Resources/ Instrumentation

The resources used for this project include: The Professional Quality of Life (ProQOL)

scale (Stamm, 2010) and the Perceived Stress Scale (PSS-10) (Cohen, 1994). Permission was

granted to include these assessments for educational and research purposes from the authors. Permission to use the Perceived Stress Scale assessment was obtained (*See Appendix M)*. The instruments are well-established and practical tools that measure stress, burnout, compassion fatigue and workplace environment satisfaction. Educational handouts were provided to the participants from the ProQOL resource manual on grounding techniques following the weekly schedule that was inclusive of week one, visualization week two, stretching week three, progressive muscle relaxation week four, focusing on internal sensations and feelings (mindful eating, seeing, listening, sensations, gratitude, walking) week five, body scanning week six, mindful journaling week seven, social media break week eight.

The tools that were employed within the project study were the Perceived Stress Scale and The Professional Quality of life scale. The PSS assessment had 10 questions and the Professional Quality had 30 questions. The PSS assessment provides answers regarding feelings of stress experienced within the last month. The PSS tool utilizes a likert scale with the higher scores resulting in increased levels of stress. The Professional quality of life scale is a 30-question assessment that assesses the quality-of-life of the participant. The ProQOL assessment also uses a likert scale to assess compassion satisfaction and workplace fatigue. Likert scales were appropriate as the project was aimed to identify project participant's attitudes toward their perceived stress. Demographics were collected from the participants prior to the implementation assessing age, gender, ethnicity, years of nurse educator experience, current employment status, areas taught within nursing education programs, levels of education, and program levels taught in. Post survey questions were given at the conclusion of the mindful training and education. A likert scale was utilized with the Perceived Stress scale. Dispersed through secure platform Qualtrics with HIPAA compliance. The participants created unique four-digit PIN #. With the

creation of the PIN number this helped to keep responses confidential. The emails were sent

through a secure and encrypted network reaching only the participants. The ProQOL profes-

sional Quality of Life Scale and the PSS-10 Perceived Stress Scale were used to evaluate the pro-

ject study of the implementation of mindfulness-based stress reduction programming in nurse ed-

ucators within the East Texas regional area. These were sent in surveys to the participants pre

and post project study implementation.

The DNP project study was directed to evaluate the effectiveness of the implementation

of mindfulness-based intervention to alleviate stress symptoms within nursing educators. Sur-

veys were administered via Qualtrics, a secured online platform provided by Regis University.

Demographics of the participants was collected through the pre-survey form assessing, age, eth-

nicity, gender, years of nurse educator experience, employment status, levels taught within nurs-

ing education programs, highest level of education received, and content areas taught most fre-

quently.

The Professional Quality of Life Scale (ProQOL) (Stamm, 2010) and the perceived Stress

Scale (PSS-10) (Cohen, 1994) were the tools that were utilized to collect data from the project

participants. The instruments are well-established and practical tools that measure stress symp-

toms, burnout, and workplace/ environment satisfaction. The ProQOL and PSS tools are cited in

literature extensively as used by healthcare professionals and in educational settings for the Pro-

fessional Quality of Life Scale assessment that was used for the project study (see *Appendix K)*.

The Perceived Stress scale assessment that was used for the project study was illustrated in *Ap-

pendix L.*

The Perceived Stress Scale, Cohen 1994, consisted of 10 questions relating to statements

regarding stress levels, emotional responses, and perceived coping abilities of the individual. The

PSS scale uses a Likert scale to rank the participant responses. The higher the scores the higher

the levels of stress. As the project study was used to measure perceived stress levels, the Likert

scale was appropriate. This scale provided the researcher with the ability to assess the stress lev-

els of the nurse educators before the implementation of mindful training and educational pro-

gramming.

The Professional Quality of Life Scale, Stamm, 2010, consisted of questions relating to

the professional quality of their lives in relation to their professional working environment. This

scale measures compassion satisfaction, burnout, and compassion fatigue. Burnout is character-

ized by feeling emotionally depleted or drained and can result after a period of long-term, work-

related stress (Stamm, 2010).

Data Management Methods

The integrity of the management of data was imperative throughout the project study. As

the project manager, it was of importance to minimize errors that did not protect the confidential-

ity, privacy, and rights of the participants. The data that was collected throughout this study did

not involve any personal data being used to identify one individual. Unique identifiers were cre-

ated and used by the participant throughout the duration of the project study to collect individual

responses. The flash drive holding the data was kept secure throughout the duration of the project

study by the primary researcher. The primary researcher will continue to hold the data securely

for five years. Sole access was only given to the primary researcher.

Internal and External Validity

Internal and external validity was maintained throughout the duration of the project

study. The target population was reliant on the positive relationships between the variables

within research. External factors that were of concern were the small sample size, the

geographical area (rural), and volunteer bias. External factors can have a direct effect on the internal validity of the project study. (History, financial and marital problems, sickness, and other life stressors). There was also the potential that past experiences with mindfulness could be of an influence on the validity of the survey responses. Sensitization could have occurred with the participants being exposed to the assessments question both pre and post intervention implementation. Another threat with the project study would be that participants could have had the option to not complete the 8-week programming in its entirety. The possibility of bias was posed to the project as the project study was reliant upon volunteer participants.

Ethical Considerations

Participants fully understood the characteristics of the project study. Everyone had the opportunity after the initial interest email was received to make their decision autonomously on whether to participate. Informed consent was required from the participant due to the physical requirements of mindful techniques that the study participants were provided education on. The decision to integrate these techniques were based on the individual's sole discretion. Informed consent was also used since there was also a need to de-identify the participants and the data that was collected.

Protection of Human Rights

Responsibilities to ensure the protection of the participants of this project were portrayed throughout the duration of this study. Confidentiality was maintained throughout the project study as participants selected a unique identification number that was used to complete pre and post mindfulness surveys. The DNP student completed Collaborative Intuitional Training Initiative training (see Appendix H) and submitted project information and details to the Regis Institutional Review Board (IRB) board for review. This project held fast to ethical principles and

practices to protect the prestige, integrity, and security of project participants. Individuals who

voluntarily choose to participate in this project received communication via secured or encrypted

email with the project expectations explained and clearly defined by the DNP student. Benefits

of participation were explained to the individuals who agreed to participate with no penalties for

those who do not provide written consent. The parties fully understood that they could rescind

their participation from the project at any time, by simply closing their browser window. For this

project, the data that was collected remained confidential and was only identifiable by a four-

digit unique number established by the individual. There were not any direct identifiers associ-

ated with the collected data so there was not a connection made between the individual and data

during this project. The sample population for this exempt status research project did not meet

the criteria to fall into the vulnerable population's category.

Data Collection Methods

The MBSR training program covered an eight-week period and that encouraged and pro-

moted self-care and awareness in nurse educators within the East Texas region. Snowball sam-

pling was generated via email communication sent to East Texas regional nursing educator con-

tacts provided to the DNP student. The DNP student then requested distribution of the recruit-

ment flyer to all nursing school educators. The target for the project was approximately "forty"

nurse educators within various nursing programs in which initial contact was made. The DNP

student emailed nursing faculty who responded affirmatively to the flyer with the recruitment

email containing information to the pre-survey (demographics, PSS, and ProQOL assessments),

informed consent, and the first week of educational activities to be completed. Participants read

the email and if interested, proceeded to the Qualtrics survey site where they read the informed

consent and upon agreement continued to create their unique four-digit personal identifier, then

completing the surveys. If the participant is not in agreeance, they exited the survey by closing

their browser window. Upon agreement, the DNP project leader emailed the participant once

weekly for eight weeks with short educational readings and instruction on various mindfulness-

based techniques and exercises. Handouts were provided from the ProQOL manual that is widely

used to provide training to healthcare workers and educators experiencing increased levels of

stress. An introduction to mindfulness was provided upon the start of the program and a re-cap

was provided during the final week of the scheduling. The tentative schedule was as follows:

week one- overview of mindful techniques and importance, week two- mindful breathing, week

three- intentional avoidance and focus, week four- grounding techniques, week five- mindful vis-

ualization, week six- mindful stretching, week seven-mindful progressive muscle relaxation,

week eight-mindful eating and a re-cap of mindful programming along with steps to continue

programming in daily lives upon the completion of the project. According to *Appendix A,* below

for comprehensive schedule and activities that were dispersed throughout the duration of the pro-

ject. Upon completion of the eighth week, the participants were emailed a post-survey form to be

completed. Data was collected electronically from surveys, pre and post implementation of the

mindfulness-based stress reduction programming that was integrated within this project. The

DNP student will access anonymously the Qualtrics survey data and analyze utilized descriptive

and inferential analysis. Upon execution of the analyzation of the data the participants will be

emailed the aggregate study items. Commitment and voluntary consent will be obtained from the

participants prior to beginning the project. It was requested that parties responded promptly to

any communication from the DNP student. The study was open to all nursing school staff mem-

bers, no matter their employment status or length of employment, to ensure that there was mini-

mal selection bias.

Validity and Reliability

Validity and reliability factors assisted in the preciseness of the research and the project itself. The validity pertains to the assessment of how accurate the measure of the data or results are, while the reliability factor indicates the consistency of a measure of results or data (Ahmed & Ishtiaq, 2021). Pre and post testing surveys were used to evaluate the mindfulness-based stress reduction training and programming change. The Professional Quality of Life (ProQOL) (Stamm, 2010) and the Perceived Stress Scale (PSS-10) (Cohen, 1994) were deployed to examine participants initially and at the closure of the project to assess for change.

Data Analysis Methods

Data was collected from the participants from the demographic questionnaire and the pre and posttest assessments. To analyze the data for the project study, SPSS software was utilized. Continuous demographic variables were analyzed by using the mean, standard deviation, and range. Correlation analysis of the paired samples revealed a non-significant correlation between the pre and post intervention scores for the PSS. For the ProQOL assessment both pre and post intervention showed that a significant but weak correlation existed. The same conclusion was made in analyzing the data that the paired t test aggregate scores pre and post intervention that both assessments were not statistically significant. The accessible population was represented by nurse educators ranging from 18 to 74 years in age, with the highest percentage of 34.38% falling into the 35-44 age range group. The convenience sample was formed by volunteers within the accessible population thus creating a risk for volunteer bias.

Project Findings and Results

Population Characteristics

From the descriptive statistics, 93.1% of mindfulness-based stress reduction intervention participants identified as female, while 6.9% were male. Most participants (34.5%) were aged between 35 and 44 years, followed by 45 to 54 years at 27.6% and 55 to 64 years at 24.1%. 79.3% were white, while 20.75 identified as black. For educational attainment, 58.6% of participants had a master's degree, while 20.7% had a bachelor's, doctorate, or professional degree. 58.6% of participants taught the associate in nursing (AS) levels within nursing education programs, 10.3% bachelor's in nursing, 20.7% master's in nursing, and 10.3% DNP. The highest percentage of participants, 62.1%, reported having zero to ten years of nurse educator experience, followed by 11 to 20 years at 34.5% and 21 plus years at 3.4%. Most nurses were employed full-time and mainly taught medical or surgical content areas within nursing programs (see table 1).

T-Tests

The study conducted paired t-tests to evaluate differences in pre- and post-intervention aggregate sub-scale scores based on data from the Professional Quality of Life Assessment (PQLA) and the Perceived Stress Scale-10 (PSS). Correlation analysis of the paired samples revealed a non-significant correlation between the pre-and post-intervention scores for the PSS (pair 1), $r = 0.99$, $p = 0.217$, and a significant but weak correlation for the PQLA scores, $r = 0.251$, $p = <0.001$ (pair 2) (see table 2). The paired samples t-test indicated that the difference in pre- and post-intervention aggregate scores for the Perceived Stress Scale-10 were not statistically significant, $t(155) = 0.776$, $p = 0.439$. The same conclusion applies to the pre- and post-

intervention Professional Quality of Life Assessment scores, t (484) = 0.644, p = 0.520 (see table 3).

The paired sample test for the ten scales of the PSS revealed significant paired pre- and post-intervention differences for questions 4 (t (16) = 3.922, p < 0.01), 7 (t (15) = 2.423, p = 0.029), 9 (t (16) = 4.647, p < 0.01), and 10 (t (16) = 3.453, p = 0.003), at the 95% confidence level (see table 4). The paired sample test for the thirty scales of the PQLA revealed significant paired pre- and post-intervention differences for questions 2 (t (15) = 2.300, p < 0.036), and 7 (t (15) = 2.423, p = 0.029) (see table 5).

Findings from the PSS indicate that the mindfulness-based stress reduction training influenced nurses' perceptions of (1) individual confidence in the ability to handle personal problems, (2) the ability to control irritations in life, (3) getting angry because of things outside of one's control, and (4) feeling that difficulties have piled up and one cannot overcome them. The Professional Quality of Life Assessment indicated that training influenced nurses' perceptions of (1) preoccupation with helping more than one person and (2) difficulty separating one's personal life from life as a helper.

Post-Implementation Survey Findings

The post-implementation survey evaluated nurse perceptions following the training program. 94.1% reported that the education and training would present future benefits, reduce stress levels, and improve self-care and awareness. 76.5% of participants said they would continue using the information provided during the project daily. 68.8% indicated they planned to continue engaging in mindful practices for one year or longer. 94.1% reported a high likelihood of sharing or recommending mindfulness techniques with friends, colleagues, or family members (see table 6).

Correlation Analysis

A correlation analysis of the study variables and the pre-intervention aggregate PSS-10 and PQLA scores indicated that (1) pre-intervention aggregate PSS-10 scores shared a significant relationship with ethnicity at the 0.05 level, $r = -0.425$, $p = 0.30$ and (2) pre-intervention aggregate PQLA scores did not share a statistically significant relationship with any variable (see table 7).

Reliability of Findings

The study conducted a reliability analysis to evaluate the consistency of the Professional Quality of Life Assessment (PQLA) and the Perceived Stress Scale-10 (PSS) scales in measuring associated concepts. The reported Cronbach's alpha of 0.189 indicated that the PSS-10 scale had low internal consistency and reliability (see table 8). The PQLA scale had a Cronbach's alpha of 0.602, which means acceptable internal consistency (see table 8). The paired hypothesis tests were not statistically significant due to the selected sample limitations and the small sample size (N =29). Applying mindfulness-based stress reduction programming and training intervention within a larger population would demonstrate its effectiveness. The post-implementation survey results indicate that the intervention improved individual confidence in handling personal problems, controlling irritations, managing anger when things are outside of control, and overcoming difficulties. The training helped nurses overcome preoccupations with helping more than one person and difficulty separating one's personal life from life as a helper. The 30-question assessment on the professional quality of life includes negative and positive questions within the subscales. This characteristic implies that the tool may produce unreliable findings.

Outcomes

According to Kester and Wei (2018), disseminating formal and consistent resilience education empowers nurses to identify stressors, increase awareness of personal triggers, and participate in preferred self- care activities to help move the healthcare industry toward supporting a culture of wellness. Before the implementation of this program, the nursing schools did not have mindfulness- stress reduction programming in place. Nurse educators were also not receiving any training or education on being mindful within the workplace and their lives. The outcome of this project was to provide the nurse educators with the appropriate resources through the dissemination of knowledge, education, and training on the benefits of MBSR programming and techniques to help lessen their stress levels. The study showed that with the intervention and implementation of MBSR programming nursing educators reported to show benefits from not only decreased levels of stress and symptoms of wellness which in return increased resiliency and workplace satisfaction. This project "The Implementation of Mindfulness-Based Stress Reduction Programming in Nurse Educators in the East Texas Regional Area," tackling this identified problem.

Implications for Nursing Practice

Increased levels of stress represent an influential factor that leads to nurse faculty burnout and turnover. Stress can have a negative impact on nurse educators, so we must be able to identify appropriate coping techniques that help to alleviate levels of stress through self-care and self-awareness interventions. This will be obtained through the integration of mindfulness-based stress reduction education and training. Without appropriate coping measures and implementations being put into place the problem will continue to worsen and the negative effects will continue to take their toll on nurse educators. Self-care and self-awareness interventions can help

nurse educators in not only their professional careers, but in all aspects of their lives. Confirmation data and results show that mindfulness education and training is an efficient and effective way to alleviate higher than normal levels of stress within the nurse educator population.

Recommendations

Mindfulness based stress reduction education and training had a positive impact on nurse educator faculty members who participated in the project study. We have a duty as nurses and educators to promote the importance of self-care and self-awareness measures that are needed within such a high stress environment and profession. Just like we acquired patient skills in our associate degree programs, we must be open to and learn the need and the desire for self-promotion and self-care. Upon completion of this project study, I would recommend that nursing programs include mindfulness training and education within orientation periods for new nurse educators with the sole focus to decrease and alleviate symptoms of stress.

Contributions to the nursing profession

In conclusion, MBSR education programming, and training offer an effective intervention to alleviate stress in nurse educators. In nursing academia, we have the duty to teach self-awareness and self-care to not only our students but ourselves as well. MBSR programming and education provides the framework and foundation to alleviate symptoms of stress. Findings from the PSS assessment are indicative to have an influence on nurse's perception of individual confidence to manage personal problems, the ability to control irritations in life, getting more stressed and angry because of things that are outside of their control, and feelings that difficult things have piled up on them and that one cannot overcome them. The ProQOL assessment indicated that the training influenced nurse's perceptions of being preoccupied with helping more than one person and having difficulty separating one's personal life from the life of a helper through

caring for others. Although additional research is needed, MBSR programming and educational programs can be designed to implement self-care measures within schools of nursing for their faculty educators to help decrease and alleviate the levels of stress that they endure daily. The results from this project study can help to provide the foundation on the examination of implementing a MBSR programming in current and new schools of nursing throughout the United States and worldwide for larger samples that are more diverse.

Conclusion

Increased stress levels, burnout, and compassion fatigue are all phenomena that occur in nursing academia. This unique form of burnout and fatigue can impede nurse educators in caring for themselves, students, patients, colleagues, institutions, and healthcare agencies. MBSR training and programming help to decrease the likelihood that healthcare professionals will experience these physical, mental, and emotional experiences. This exempt status research project has the potential to effectively educate nurse educators within the East Texas regional nursing schools on the beneficial components of MBSR programming and techniques. The abundance of knowledge and habits gained through this DNP project can help to prevent burnout and decrease levels and symptoms of stress that nursing school educators and faculty staff members experience.

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Appendix

Appendix A: Weekly Activity/ Technique Schedule

- Week One- Overview of Mindful Techniques/Importance

- Week Two- Mindful Breathing

- Week Three-Mindful Intentional Avoidance and Focus

- Week Four-Mindful Grounding Techniques

- Week Five-Mindful Visualization

- Week Six-Mindful Stretching

- Week Seven-Mindful Progressive Muscle Relaxation

- Week Eight-Mindful Eating and Recap of Mindful Programming along with steps to continue programming in daily lives upon completion of the project

Appendix B: Logic Model

Logic Model
Mindfulness-Based Stress Reduction Programming

Strategies	Assumptions
Administer a pre-implementation survey to nursing faculty (ProQOL and CBI assessments) Education of nurse educators on the concept of mindfulness-based stress reduction programming and the benefits to one's mental health Administer customized needs assessment to nursing faculty Administer post-implementation follow-up survey to nursing faculty (ProQOL and CBI assessments)	Nursing school faculty will increase and expand their knowledge of mindfulness-based stress reduction programming (Open minds to change versus tradition) The faculty will accept mindful programming Faculty possesses the capacity to apply self-care and self-awareness Increased retention rate of nursing school faculty

Influential Factors	Problem or Issue	Desired Results (outputs, outcomes, and impact)
Demographics Stress Levels High Workloads Low Self-Care Practices Time Constraints Heavy Schedules	Increased burnout amongst faculty Increased compassion fatigue amongst faculty Increased stress levels amongst faculty Limited knowledge of the concept of mindfulness-based stress reduction programming in nursing educator faculty	Decreased stress levels Decreased compassion fatigue Decreased burnout among faculty Increased promotion of self-care and awareness in nursing faculty Improved cognitive and emotional function of nursing school staff

Appendix C: Jean Watson's Caring Theory

- Nursing actions

  Caring and curing

Nursing

- Recipient(s) of care

Person

Environment

Health

- Internal & External factors

A high level of social, physical, and mental functioning.
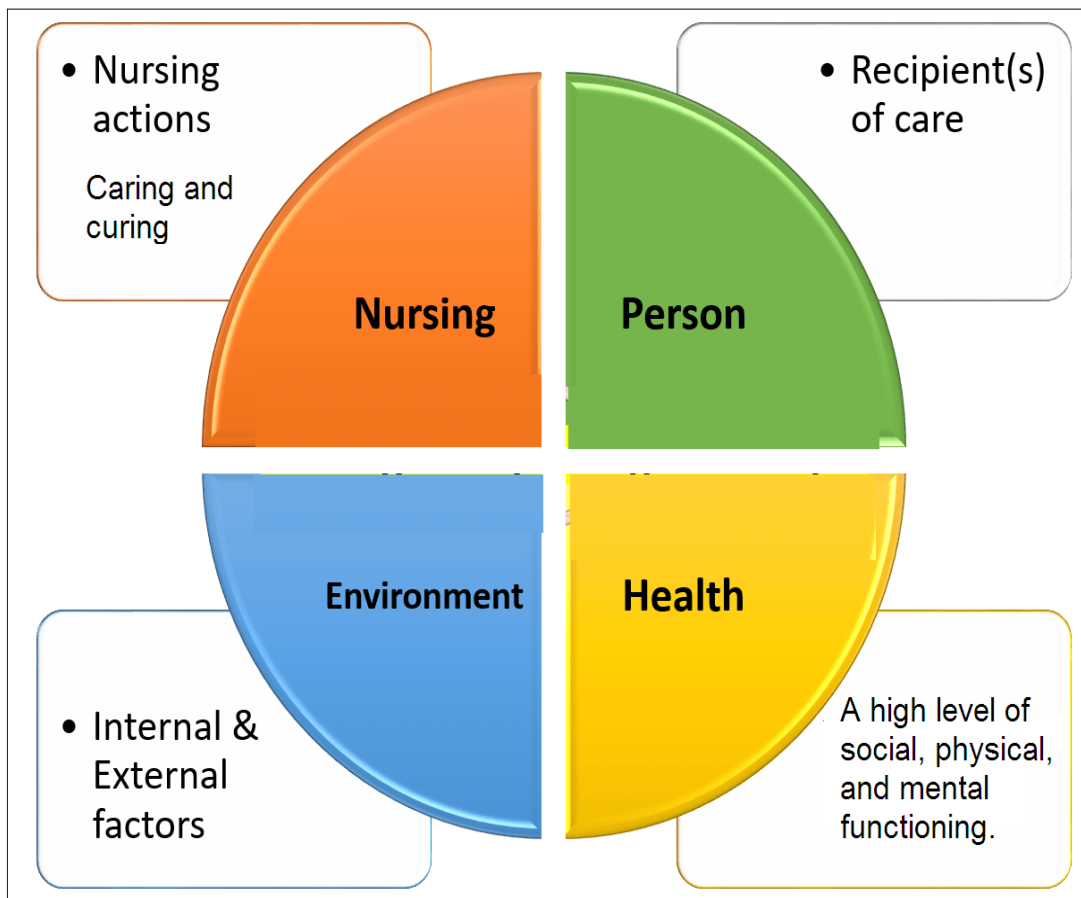
Appendix D: Lewin's Change Theory

LEWIN'S CHANGE MODEL

Lewin's Three Stage Change Process – Practical Steps

Unfreeze

- Determines what needs to change
- Ensure there is strong support from management
- Create the need for change
- Manage and understand the doubts and concerns

change

- Communicate often
- Dispel rumors
- Empower action
- Involve people in the process

refreeze

- Anchor the changes into the culture
- Develop ways to sustain the change
- Provide support and training
- Celebrate successes

Appendix E: Scope of Evidence

Systematic Methods Used to Search Evidence	
Key Search Terms/ Phrases	Resilience, mindfulness, faculty, educators, non-clinical, stress, burnout, compassion fatigue
Databases	Psych Net, CINAHL, PubMed, UpToDate, and EBSCOHOST
Inclusion Criteria (Date, limits, language, age, gender, study design, population, outcomes, etc.)	Date was limited to 2018-2022 Written in the English language No specifics on age or gender The population was nursing educators specifically, non-clinical
Exclusion Criteria (see above, irrelevant terms)	Clinical, bedside, before 2018, languages other than English
Number of Articles Reviewing/ Final Number of Resource Documents	218 original articles were returned, with focus on PICO question 32 articles were selected due to criteria, out of those 15 were selected as they provided accuracy in relation to MBSR programming within nursing educators and faculty

Appendix F: Levels of Evidence (SROL)

Levels of Evidence	Number of Articles
I. Systematic review and meta-analysis of RCT; clinical guidelines based on systematic reviews or meta-analysis (LEVEL ONE)	Six
II. One or more RCT (LEVEL TWO)	None
III. Case- control or Cohort Study (LEVEL THREE)	Three
IV. Systematic review of descriptive or qualitative study (LEVEL FOUR)	Two
VI. Single descriptive or qualitative study (LEVEL FIVE)	Two
VII. Expert Opinion/ Not Clearly defined (LEVEL SIX)	Two

Appendix G: Recruitment Flyer

Come join us for Mindfulness-Based Stress Reduction Programming and Training

- Eight-Week long program focused on mindful education and techniques to help De-Stress-Yourself and manage your stress symptoms
- Email participation interest to nrunnels@regis.edu
- Participation is at no cost to the participant. All information obtained will remain confidential

Appendix H: Informational E-mail

Dear Participant,

Thank you for expressing your interest participating in the mindfulness-based stress reduction programming project. This eight-week program will focus on providing East Texas Regional Nurse Educators with knowledge, educational resources, and mindful techniques to help decrease the symptoms of stress and to reduce burnout. Participation in this project will remain confidential with the project being open to all nurse educators in the East Texas Regional area. Employment status will not affect participation requirements. All educators no matter what their employment status are eligible to participate. Participants will be required to devote 10 minutes daily to integrate mindful practices and exercises into their routine for the 8-week duration of this project. Educational knowledge and resources will be provided by the project manager to the participants free of charge. A brief overview of mindfulness and the importance will be provided to the participant before and during the project. The participants will receive a pre and post survey assessment that they will need to complete for the project. The estimated time for participation in the project will be 5-10 minutes to read educational activities and information per week along with spending 5 minutes per day on practicing the mindful activity. Participants may rescind their participation at any point during the project by closing their browser window.

Appendix I: Informational Sheet

Study Title: Mindfulness-Based Stress Reduction in Nurse Educators
Principal Investigator: Nikki Runnels, MSN (DNP Student)

Introduction
You are invited to participate in a research study conducted by Nikki Runnels, a student in the DNP program at Regis University. This research aims to help alleviate or lessen stress symptoms and burnout through the implementation of a mindfulness-based stress reduction program for nurse educators, in the East Texas Regional area. Your participation is entirely voluntary.

This form includes detailed information on this research project to help you decide whether to participate. Please read it carefully and ask any questions you have before you agree to participate.

Procedures
Your participation includes completing two pre surveys (three to five minutes each), a weekly educational reading on the benefits of mindfulness integrated into one's daily life (about ten minutes per week), and a minimum of five minutes daily of mindfulness to spend on your chosen technique for a period of eight-weeks. At the end of the eighth week a link to a post-survey will be emailed. Thirty days later, you will receive a link to complete a second, identical post-survey for completion. Each post survey will take between three and five minutes to complete. Total time for participation in this study is estimated at 6 ½ to 7 hours spread out over the length of the study.

Potential Risks or Discomforts
Your participation in this study does not involve any physical or emotional risks to you beyond what is encountered in everyday life. We will take steps to maintain the confidentiality of the information we collect from you, as discussed in more detail below in the confidentiality section.

Possible benefits
Taking part in this research study may not benefit you personally. It is possible that the mindfulness activities could result in decreasing or alleviating symptoms of stress and burnout within an individual participant. In addition, we may learn new things about mindfulness practices that will help others in the future.

Confidentiality
Your participation in this study will remain completely confidential. I am not collecting any personal identifiable information, other than your email to send you the information and links to the anonymous surveys, and your survey responses cannot be linked directly to you. You will be asked to create a 4-digit code that is significant to you and easy for you to remember. You will use this code in the pre and post surveys to pair the data, and only you will know the code you choose to use. The researcher will not be able to link this code to you in any way.

The researcher will make every effort to ensure that the information you provide as part of this research remains confidential. Your identity will not be revealed in any publications, presentations, or reports resulting from this research study.

Your information will be collected through Qualtrics. This data will be securely stored in a cloud-based storage system. The data will be accessed by a password-protected laptop accessible only by the student researcher which is kept in a secure office. The raw data will be kept for three years after the study is completed and then destroyed.

It is unlikely but possible that others (Regis University or State or Federal officials) may require us to share the information you gave us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

Financial Information
Participation in this study will involve no cost to you. You will not be paid for participating in this study.

What are my rights as a research participant?
Participation in this study is voluntary. You do not have to answer any question you do not want to answer. You may choose not to participate or to withdraw from this research at any time without penalty. To stop participating,

Appendix J: Budget

Resource Item with Cost (Personnel, Time, and Equipment):	Provided By:	Anticipated Cost for DNP project for PI	Cost to replicate at Another site
Advertisement Flyers	DNP project manager	$200	Varies Depending on size of the institution
Qualtrics (Survey Platform)	Institution	None provided through Regis University	Varies Depending on size of the institution
Microsoft 365 Products	Institution	None provided through Regis University	Varies Depending on size of the institution
Perceived Stress Scale 10	American Sociological Association	None	Dependent on which version is used
ProQOL Assessment	Non-profit organiza-tion	None	Dependent on which version is used

Appendix K: Professional Quality of Life Scale (ProQOL)

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

Compassion Satisfaction and Fatigue
(ProQOL) Version 5 (2009)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the *last 30 days*.

1=Never	2=Rarely	3=Sometimes	4=Often	5=Very Often

_____ 1. I am happy.

_____ 2. I am preoccupied with more than one person I *[help]*.

_____ 3. I get satisfaction from being able to *[help]* people.

_____ 4. I feel connected to others.

_____ 5. I jump or am startled by unexpected sounds.

_____ 6. I feel invigorated after working with those I *[help]*.

_____ 7. I find it difficult to separate my personal life from my life as a *[helper]*.

_____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.

_____ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.

_____ 10. I feel trapped by my job as a *[helper]*.

_____ 11. Because of my *[helping]*, I have felt "on edge" about various things.

_____ 12. I like my work as a *[helper]*.

_____ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.

_____ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.

_____ 15. I have beliefs that sustain me.

_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.

_____ 17. I am the person I always wanted to be.

_____ 18. My work makes me feel satisfied.

_____ 19. I feel worn out because of my work as a *[helper]*.

_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.

_____ 21. I feel overwhelmed because my case [work] load seems endless.

_____ 22. I believe I can make a difference through my work.

_____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.

_____ 24. I am proud of what I can do to *[help]*.

_____ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.

_____ 26. I feel "bogged down" by the system.

_____ 27. I have thoughts that I am a "success" as a *[helper]*.

_____ 28. I can't recall important parts of my work with trauma victims.

_____ 29. I am a very caring person.

_____ 30. I am happy that I chose to do this work.

Appendix L: Perceived Stress Scale (PSS-10)

COHEN PERCEIVED STRESS

The following questions ask about your feelings and thoughts during <u>THE PAST MONTH</u>. In each question, you will be asked HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are small differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don t try to count up the exact number of times you felt a particular way, but tell me the answer that in general seems the best.

For each statement, please tell me if you have had these thoughts or feelings: never, almost never, sometimes, fairly often, or very often. (Read all answer choices each time)

	Never	Almost Never	Sometimes	Fairly Often	Very Often
B.1. In the past month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
B.2. In the past month, how often have you felt unable to control the important things in your life?	0	1	2	3	4
B.3. In the past month, how often have you felt nervous or stressed?	0	1	2	3	4
B.4. In the past month, how often have you felt confident about your ability to handle personal problems?	0	1	2	3	4
B.5. In the past month, how often have you felt that things were going your way?	0	1	2	3	4
B.6. In the past month, how often have you found that you could not cope with all the things you had to do?	0	1	2	3	4
B.7. In the past month, how often have you been able to control irritations in your life?	0	1	2	3	4

Appendix M: Permission to Use Perceived Stress Scale

February 2022

PERMISSION FOR USE OF THE PERCEIVED STRESS SCALE

I apologize for this automated reply. Thank you for your interest in our work. The American Sociological Association transferred the copyright for the PSS and the original article in which it was published (Cohen, Kamarck & Mermelstein, 1983) to the article's authors on January 31, 2022. Lifetime agreements made with ASA before that date will be recognized by the new copyright owners.

As described below, the PSS can be used without permission and without fee for use for nonprofit educational or research purposes, including use in student projects. However, we do charge for use of the scale in mobile, website or other applications when application users are charged a fee.
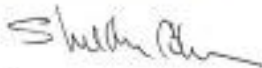
Free use for Teaching and research purposes. We allow use/reproduction of the PSS and/or the article "A global measure of perceived stress" published in the *Journal of Health and Social Behavior* (Cohen, Kamarck and Mermelstein, 1983) for teaching and research purposes **without permission and without fee**. This policy allows instructors and educational institutions to photocopy the article or the PSS scale for non-profit classroom or library reserve and for collecting data in empirical studies.

Although we hold the copyright to the article reporting the scale and the scale itself, the policy allows uses such as:

- *Article or scale reproduction for classroom use distributed without fee;*
- *Scale reproduction and use in research (this includes student projects, unpublished dissertations, and research conducted by nonprofit institutions) without fee to participants;*
- *Electronic use in this category must abide by the following conditions: Online use is limited to a secure or password protected server for a maximum of one year. Digital rights management should be utilized to prevent unauthorized reproduction.*

Applications when users are charged a fee. We do not charge for permission to use the PSS for research, but do for use in mobile, website or other (e.g., paper and pencil administration of the scale) applications when application users are charged a fee. We will approve your use of the PSS for such applications for $200/year. A lifetime approval is provided for $900.

Reprinting the scale or journal article in a publication. For reprinting the article ("A global measure of perceived stress"), parts of the article or the scale, the charge is $200. Appropriate citation to the original article is required.

January 31, 2022

Appendix N: CITI training certificate

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Reflect quiz completions at the time all requirements for the course were met. See list below details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course ele-

- Nikki Runnels (ID:
- **Institution Affilia-** Regis University (ID:
- **Institution** nrun-
- **Institution** Nurs-
- 903240274

- **Curriculum** Human Re-
- **Course Learner** Social Behavioral Research Investiga-
- Stage 1 - Basic

- **Record** 4732045
- **Completion** 09Fe-
- **Expiration** 08Fe-
- **Minimum Pass-** 8
- **Reported** 9

REQUIRED AND ELECTIVE MODULES	DATE COM-	SCOR
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID:	09Fe-	5/5)
Populations in Research Requiring Additional Considerations and/or Protections (ID:	09Fe-	5/5)
Conflicts of Interest in Human Subjects Research (ID:	09Fe-	5/5)
History and Ethical Principles - SBE (ID:	09Fe-	2/5)
The Federal Regulations - SBE (ID:	09Fe-	5/5)
Assessing Risk - SBE (ID:	09Fe-	5/5)
Informed Consent - SBE (ID:	09Fe-	5/5)
Privacy and Confidentiality - SBE (ID:	09Fe-	5/5)
Defining Research with Human Subjects - SBE (ID:	09Fe-	5/5)
Cultural Competence in Research (ID:	09Fe-	5/5)
Students in Research (ID:	09Fe-	5/5)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing insti-identified above or have been a paid Independent

Verify : www.citiprogram.org/verify/?kf0ad0caf-6358-4ca0-b53e-b2475436d4c9-

Collaborative Institutional Training Initiative (CITI Pro-
Email: support@citipro-
Phone: 888-529-
Web: https://www.citipro-g

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 2 OF 2
COURSEWORK TRANSCRIPT**

** NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Nikki Runnels (ID:
- **Institution Affilia-** Regis University (ID:
- **Institution** nrun-
- **Institution** Nurs@regis.edu
- **Unit:** 903240274
- **Phone:** 3

- **Curriculum** Human Re-
- **Course Learner** Social Behavioral Research Investiga-
- **Group:** Stage 1 - Basic
- **Stage:** Course

- **Record** 4732045
- **Report** 12-Oc-
- **Current** 9 2022
- **Score**:** 5

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Students in Research (ID:	09-Fe	5/5)
Defining Research with Human Subjects - SBE (ID:	09-Fe2022	5/5 100%)
The Federal Regulations - SBE (ID:	09-Fe2022	5/5 100%)
Assessing Risk - SBE (ID:	09-Fe2022	5/5 100%)
Informed Consent - SBE (ID:	09-Fe2022	5/5 100%)
Privacy and Confidentiality - SBE (ID:	09-Fe2022	5/5 100%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research (ID:	09-Fe2022	5/5 100%)
History and Ethical Principles - SBE (ID:	09-Fe2022	2/5 100%)
Populations in Research Requiring Additional Considerations and/or Protections (ID:	09-Fe2022	5/5 100%)
Conflicts of Interest in Human Subjects Research (ID:	09-Fe2022	5/5 100%)
Cultural Competence in Research (ID: 15166)	2022	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify : www.citiprogram.org/verify/?kf0ad0caf-6358-4ca0-b53e-b2745436d4c9-
at 4732045

Collaborative Institutional Training Initiative (CITI Pro-
Email: support@citipro-
Phone: 888-529-
Web: https://www.citipro-g ram.or

Table 1: Demographics frequency distribution

Frequency			Percent	Valid Percent	Cumulative Percent
Gender					
Valid	1	2	.3	6.9	6.9
	2	27	4.3	93.1	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Age					
Valid	1	3	.5	10.3	10.3
	2	10	1.6	34.5	44.8
	3	8	1.3	27.6	72.4
	4	7	1.1	24.1	96.6
	5	1	.2	3.4	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Ethnicity					
Valid	1	23	3.7	79.3	79.3
	2	6	1.0	20.7	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Degree					
Valid	1	6	1.0	20.7	20.7
	2	17	2.7	58.6	79.3
	3	6	1.0	20.7	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Content Areas					
Valid	1	12	1.9	41.4	41.4
	2	8	1.3	27.6	69.0
	3	2	.3	6.9	75.9
	4	3	.5	10.3	86.2
	8	1	.2	3.4	89.7
	9	2	.3	6.9	96.6
	10	1	.2	3.4	100.0
	Total	29	4.6	100.0	

Missing	System	601	95.4		
Total		630	100.0		
Employment Status					
Valid	1	5	.8	17.2	17.2
	2	2	.3	6.9	24.1
	3	22	3.5	75.9	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Years of Nurse Educator Experience					
Valid	1	18	2.9	62.1	62.1
	2	10	1.6	34.5	96.6
	3	1	.2	3.4	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
Total		630	100.0		
Levels Taught					
Valid	1	17	2.7	58.6	58.6
	2	3	.5	10.3	69.0
	4	6	1.0	20.7	89.7
	5	3	.5	10.3	100.0
	Total	29	4.6	100.0	
Missing	System	601	95.4		
1		630	100.0		

Table 2: Paired samples correlations

	N	Correlation	Significance	
			One-Sided p	Two-Sided p
Pair 1 prepss10agg & postpss10agg	156	.099	.109	.217
Pair 2 prequalagg & postqualagg	485	.251	<.001	<.001

Table 3: Paired samples test for aggregated scores

	Mean	Std. Deviation	t	df	One-sided p	Two-sided p
Pair 1 (prepss10agg - postpss10agg)	.109	1.755	.776	155	.220	.439
Pair 2 prequalagg - postqualagg	.047	1.621	.644	484	.260	.520

Table 4: Paired samples test for individual scores (Perceived Stress Scale-10)

	t	df	Significance One-Sided p	Two-Sided p
Pair 1 prepss10q1 - postpss10q1	2.167	16	.023	.046
Pair 2 prepss10q2 - postpss10q2	.637	16	.266	.533
Pair 3 prepss10q3 - postpss10q3	1.765	16	.048	.097
Pair 4 prequalq4 - postpss10q4	3.922	16	<.001	.001
Pair 5 prequalq5 - postqualp5	.545	15	.297	.594
Pair 6 prequalq6 - postqualq6	.180	15	.430	.860
Pair 7 prequalq7 - postqualq7	2.423	15	.014	.029
Pair 8 prequalq8 - postpss10q8	-2.748	16	.007	.014
Pair 9 prepss10q9 - postpss10q9	4.747	16	<.001	<.001
Pair 10 prepss10q10 - postpss10q10	3.453	16	.002	.003

Table 5: Paired samples test for individual scores (Professional Quality of Life Assessment)

		t	df	Significance	
				One-Sided p	Two-Sided p
Pair 1	prequala1 - postquala1	1.464	15	.082	.164
Pair 2	prequala2 - postquala2	2.300	15	.018	.036
Pair 3	prequala3 - postquala3	.775	15	.225	.451
Pair 4	prequala4 - postquala4	.613	15	.274	.549
Pair 5	prequala5 - postqualp5	.545	15	.297	.594
Pair 6	prequala6 - postquala6	.180	15	.430	.860
Pair 7	prequala7 - postquala7	2.423	15	.014	.029
Pair 8	prequala8 - postquala8	.000	15	.500	1.000
Pair 9	prequala9 - postquala9	.397	15	.348	.697
Pair 10	prequala10 - postquala10	.000	15	.500	1.000
Pair 11	prequala11 - postquala11	-.791	15	.221	.441
Pair 12	prequala12 - postquala12	.764	15	.228	.456
Pair 13	prequala13 - postquala13	.845	15	.206	.411
Pair 14	prequala14 - postquala14	.251	15	.403	.806
Pair 15	prequala15 - postquala15	-.676	15	.255	.509
Pair 16	prequala16 - postquala16	1.103	15	.144	.287
Pair 17	prequala17 - postquala17	-.565	15	.290	.580
Pair 18	prequala18 - postquala18	-.436	15	.335	.669
Pair 19	prequala19 - postquala19	.588	15	.283	.566
Pair 20	prequaal20 - postquala20	-.436	15	.335	.669
Pair 21	prequala21 - postquala21	-.397	15	.348	.697
Pair 22	prequala22 - postquala22	-.202	15	.421	.843
Pair 23	prequala23 - postquala23	1.499	15	.077	.155
Pair 24	prequala24 - postquala24	-.368	15	.359	.718
Pair 25	prequala25 - postquala25	.764	15	.228	.456
Pair 26	prequala26 - postquala26	-.771	15	.226	.453
Pair 27	prequala27 - postquala27	-.251	15	.403	.806
Pair 28	prequala28 - postquala28	.808	15	.216	.432
Pair 29	prequala29 - postquala29	.324	15	.375	.751
Pair 30	prequala30 - postquala30	.808	15	.216	.432

Table 6: Frequency distribution for the post-implementation survey

Question 1					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.2	5.9	5.9
	3	16	2.5	94.1	100.0
	Total	17	2.7	100.0	
Missing	System	613	97.3		
Total		630	100.0		
Question 2					
Valid	1	1	.2	5.9	5.9
	3	16	2.5	94.1	100.0
	Total	17	2.7	100.0	
Missing	System	613	97.3		
Total		630	100.0		
Question 3					
Valid	1	1	.2	5.9	5.9
	3	16	2.5	94.1	100.0
	Total	17	2.7	100.0	
Missing	System	613	97.3		
Total		630	100.0		
Question 5					
Valid	1	1	.2	5.9	5.9
	2	3	.5	17.6	23.5
	3	13	2.1	76.5	100.0
	Total	17	2.7	100.0	
Missing	System	613	97.3		
Total		630	100.0		
Question 6					
Valid	1	3	.5	18.8	18.8
	2	2	.3	12.5	31.3
	3	11	1.7	68.8	100.0
	Total	16	2.5	100.0	
Missing	System	614	97.5		
Total		630	100.0		
Question 7					
Valid	1	1	.2	5.9	5.9
	2	16	2.5	94.1	100.0
	Total	17	2.7	100.0	
Missing	System	613	97.3		
Total		630	100.0		

Table 7: Correlation analysis

		prepss10agg	prequalagg
Levels taught	Pearson Correlation	.077	-.226
	Sig. (2-tailed)	.710	.239
	N	26	29
yrseducator	Pearson Correlation	.160	.059
	Sig. (2-tailed)	.435	.762
	N	26	29
employstatus	Pearson Correlation	.299	.103
	Sig. (2-tailed)	.138	.593
	N	26	29
contentareas	Pearson Correlation	.139	.152
	Sig. (2-tailed)	.499	.432
	N	26	29
gender	Pearson Correlation	-.278	-.206
	Sig. (2-tailed)	.169	.284
	N	26	29
age	Pearson Correlation	-.220	.013
	Sig. (2-tailed)	.281	.947
	N	26	29
ethnicity	Pearson Correlation	-.425[*]	-.167
	Sig. (2-tailed)	.030	.386
	N	26	29
degree	Pearson Correlation	.324	-.087
	Sig. (2-tailed)	.107	.653
	N	26	29

Table 8: Reliability statistics

Cronbach's Alpha	N of Items
.189	10
.602	20