

Reducing Clinical Staff Burnout and Improving Clinical Staff Resilience
in the Primary Care Setting

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Notes from the Author

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I dedicate this DNP dissertation in memoriam of Jerry Street, Joshua Pettiford, George Bumphus, Cora Bumphus, and other loved ones that I have lost along the way and miss dearly. I strive to work hard and make you all proud.

Abstract

Healthcare staff in the United States are facing high rates of burnout due to the different stress that they face daily. Burnout can lead to a breakdown in staff well-being, have an adverse impact on patient care, and increase costs within the organization. The purpose this evidence-based project was to examine the effectiveness of implementing a resilience program on improving clinical staff resilience and reducing burnout in the primary care setting. The resilience program was implemented in a primary care clinic. The resilience program consisted of five modules that lasted between 1-1.5 hours every two weeks via the Learning Management System (LMS). The participants in the resilience program were clinical staff including Registered Nurses (RN), Licensed Practical Nurses (LPN), and Certified Medical Assistants (CMA). Participation in the resilience program was voluntary and confidential. The Culture Pulse Survey questions used in this project measured staffs' perception of well-being. These questions were administered prior to the intervention, during the intervention, and after the intervention to determine the resilience program helped with reducing burnout among the participants. Project limitations included COVID-19, small number of participants, time constraints, and the confidential and voluntary participation. Project findings showed implementation of a resilience program helped to reduce burnout among the clinical staff participants and helped to improve resilience.

Keywords: burnout; resilience; nurse burnout; clinical staff burnout; resilience program

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Section I. Introduction

Burnout among healthcare staff throughout the United States is becoming a rising concern because of the different stressors that healthcare workers face daily. It is estimated that 50% of physicians and 37% of nurses experience burnout in the United States (National Taskforce for Humanity in Healthcare, 2018; Reith, 2018). In addition to burnout, healthcare staff also experience depression, post-traumatic stress disorder symptoms, and higher chance of suicide (Krisberg, 2018). It is found that nurses and physicians have a higher risk for suicide compared to the overall population in the United States (Davidson et al., 2020; Krisberg, 2018). It is estimated that 400 physicians commit suicide each year and that the suicide rate of female physicians is 130% greater than the overall population in the United States, while the suicide rate of male physicians is 40% greater (Krisberg, 2018). Between 2005 and 2016, the suicide rate for female nurses was 10 per 100,000 people and the suicide rate for male nurses was 33 per 100,000 people (Davidson et al., 2020). Staff burnout not only has a negative effect on the healthcare staff but also on patients that are receiving care. Burnout can cause decreased quality of patient care, high turnover, decreased productivity, higher patient mortality, and increase risk of suicide (Edwards et al., 2018; Krisberg, 2018; Kurnat-Thomas et al., 2017; Mudallal et al., 2017; Reith, 2018; Sikka et al., 2015). Burnout in the healthcare field is an issue that needs to be addressed in order to help improve staff's overall well-being and enhance patient care.

Background

Burnout is a common psychological occurrence amongst healthcare professionals and can cause symptoms including reduction in physical energy, insomnia, headache, depression, detachment from providing care, and negative feelings towards ones' self (Mudallal et al., 2017). Clinical staff burnout not only has an impact on employees, but also can influence patient care

and the organization. High levels of burnout can cause increased staff absenteeism, high turnover, negative outcomes on patient care, a negative impact on the staff's health and wellbeing, higher rates of patient mortality, increase in occurrence of hospital-transmitted infections, negatively affect patients' quality of care, and decreased productivity among staff (Edwards et al., 2018; Kurnat-Thomas et al., 2017; Mudallal et al., 2017; Reith, 2018; Sikka et al., 2015). Burnout amongst healthcare professionals have financial consequences. It is estimated that burnout related turnover costs for physicians throughout of the United States is \$17 billion and national costs associated with nurse burnout related turnover in the United States is \$14 billion (National Taskforce for Humanity in Healthcare, 2018). High turnover can cost a healthcare organization up to \$88,000 per nurse (Kurnat-Thomas et al., 2017).

There are many different factors that can lead to clinical staff burnout. The main factors of clinical staff burnout that are observed at an organizational level are the job demands and job resources. Job demands include excessive workload, insufficient staffing, moral distress, and problems with workflow. The job resources involve lack of job flexibility, independence, work-life balance, work culture, and finding a sense of value in one's work (National Academy of Sciences, Engineering, and Medicine et al., 2019).

Organizational Needs Statement

Clinical staff burnout is a serious issue within the target organization. The targeted organization's turnover benchmark for providers and nurses are 13% and 18.4% for Certified Medical Assistants. In 2019, the providers' turnover rate was 4.0% which was better than the organization's turnover benchmark. The clinical staff's turnover rate in 2019 was higher than the organization's benchmark. In 2019, the Licensed Practical Nurses' turnover rate was 43.2%, the Registered Nurses' turnover rate was 17.0%, and the Certified Medical Assistants' turnover rate

was 21.8%. The targeted organization administers a yearly comprehensive survey that evaluates different aspects of work including work culture, employee well-being, and burnout. There are five statements that employees are to rate in this survey that relates to burnout and employee well-being. Four of the five statements derive from the Maslach Burnout Inventory (Maslach & Jackson, 1981). Those five statements are: “I feel fatigued when I get up in the morning and have to face another day on the job”; “Events in my work unit department affect my life in an emotionally unhealthy way”; “I feel burned out from my work”; “I feel frustrated by my job”; and “I feel I am working too hard on my job” (Maslach & Jackson, 1981). The survey results indicated that all these statements were areas that needed improvement in the targeted organization.

Clinical staff burnout was an issue within the project organization because it is having a negative impact on employees and leading to high turnover. As evidenced by the turnover rates and the negative responses by the employees in the survey, clinical staff burnout is an issue that needs refinement. This project relates to the Quadruple Aim because the four arms of the Quadruple Aim is enriching patient experience, improving population health, decreasing healthcare costs, and enhancing the work experience of providing care (Freeley, 2017; Sikka et al., 2015). By improving clinical staff resilience in efforts to reduce clinical staff burnout, it can potentially help to improve the work environment and work experiences, improve patient satisfaction, reduce costs in healthcare for patient care and the organization, and improve patients’ health outcomes (Edwards et al., 2018; Freeley, 2017; Sikka et al., 2015).

Problem Statement

Clinical staff burnout has been identified by the targeted project organization leadership team as an issue that is having a harmful impact on employees' health and well-being and is causing high turnover within the organization.

Purpose Statement

The purpose of the proposed evidence-based project was to examine the effectiveness of implementing a resilience program on improving clinical staff resilience and reducing clinical staff burnout in the primary care setting.

Section II. Evidence

Literature Review

Search strategy. To complete the literature review on clinical staff burnout and resilience, four different literature searches were performed using the PubMed database. The MESH terms used in the four literature searches were clinical staff burnout, nurse burnout, and turnover; nurse burnout, clinical staff burnout, and primary care; clinical staff and resilience; and randomized controlled trial for nurse burnout. The MESH terms were combined using the Boolean Operator "AND" to confine the search in efforts to find relevant evidence-based literature. The filters applied to for searches one, two, and three were English language and published within the past five years. The filters applied for the fourth search were English language, published within the past five years, and randomized controlled trial. The exclusion criteria for the searches were: studies were done outside of the United States, if the article pertained to pediatric nursing, if the level of evidence was level five or higher according to the Hierarchy of Evidence, if the article did not relate to the clinical problem or support the project. Articles were discarded if it was a duplicate article found from previous searches.

The literature that was obtained for the project was classified and evaluated using Hierarchy of Evidence, which includes seven levels of evidence. With the Hierarchy of Evidence, the lower the level of evidence, the better the quality of data. The highest in levels of evidence is level one, which has the best quality of research and includes findings from meta-analysis and systematic reviews of randomized controlled trials and clinical guidelines created from findings in systematic reviews and meta-analysis. The lowest level in the Hierarchy of Evidence is level seven and its findings are from expert opinions (Melnyk & Fineout-Overholt, 2015).

Data evaluation. The first literature search yielded 114 articles for review. The second literature search yielded 64 articles. The third literature search generated 320 articles. The fourth literature search produced 100 results. Once filters were applied to each of the searches it resulted in the following: first search having 49 articles that needed reviewing, the second search with 34 articles to review, the third search with 223 articles to review, and the fourth search with 24 articles that needed to be reviewed. Each of the articles' abstracts were read to determine if the articles were appropriate and applicable to the project. Once exclusion criteria were applied and articles were discarded it resulted in a total of six articles being saved. The articles saved were one article rated level one, two articles rated level two, one article rated level three, and two articles rated level four according to the Hierarchy of Evidence. These articles are presented in a Literature Matrix (see Appendix A).

Current State of Knowledge

The current state of knowledge is that burnout has been widespread among healthcare staff for many years in various healthcare settings (Alexander et al., 2015; Edwards et al., 2018; Hersch et al., 2016; Magtibay et al., 2017; Perzynski et al., 2018). There are different stressors

that can increase healthcare staff's chances of burnout. These stressors include increased workload, the physical, emotional, and mental demands of the job, staff shortage, challenges regarding the scope of practice, the work environment, organizational financial restrictions, the changes in technology, and the complex health changes in the patients (Alexander et al., 2015; Botha et al., 2015; Edwards et al., 2018; Hersch et al., 2016; Magtibay et al., 2017; Perzynski et al., 2018). Burnout can have many negative consequences on staff and patients. Burnout can impact staff because it can lead to increased absenteeism, high turnover, job dissatisfaction, employees reducing their work hours, and a decline in mental health and overall well-being (Alexander et al., 2015; Botha et al., 2015; Edwards et al., 2018; Hersch et al., 2016; Magtibay et al., 2017; Perzynski et al., 2018). Staff burnout can have negative consequences for patients including lower patient satisfaction, receiving subpar quality of care, decline in patient safety, negative patient experience, increase risk of medication errors, and increase in patient adverse events (Alexander et al., 2015; Botha et al., 2015; Edwards et al., 2018; Magtibay et al., 2017; Perzynski et al., 2018).

Even though there is burnout through different health care settings, there is not a lot research that has been done for staff burnout in the primary care setting. There are no current guidelines or standard practices that can be followed for organizations to use when trying to address healthcare staff burnout. One strategy that is supported through literature, in various settings, that can help to reduce burnout is by improving resilience, self-care, and stress management (Alexander et al., 2015; Botha et al., 2015; Hersch et al., 2016; Magtibay et al., 2017). These are current approaches and interventions found in literature that can help to reduce healthcare staff burnout.

Current Approaches to Solving Population Problem

There are several approaches found in literature that are appropriate to use to address clinical staff burnout and improve resilience. The first approach is a yoga program that would help to encourage self-care among staff, improve stress management, enhance self-discovery, increase resiliency, and reduce burnout (Alexander et al., 2015). The yoga program consisted of 8-weeks of sessions which allows the participants to become aware of their breathing, improve their conscious awareness, and were provided handouts that gave instructions to participants to be able to practice yoga at home (Alexander et al., 2015).

The second approach to addressing clinical staff burnout and improve resilience is through mindful programs, resilience training, or stress management training. There are different types of trainings and programs that help with addressing burnout and improving resilience. These programs are taught using different platforms. One way to provide staff with education is through an online stress management program (Hersch et al., 2016). The BREATHE: Stress Management for Nurses program provides nurses with different tools and education that can help them to manage their stress, learn about the ways stress effects that body, promoting effective communication, changing the participants' views and responses to stressors, and learning about depression and anxiety (Hersch et al., 2016). With this intervention there are seven different modules that nurses would do and eight modules for nurse managers and participants would have three months to access the modules (Hersch et al., 2016).

Another way to provide resources and training to address burnout is blended learning through the Stress Management and Resiliency Training (SMART) program (Magtibay et al., 2017). The SMART program's goal in this approach was to decrease stress and burnout that nurse participants experienced. The SMART program would provide in-person and online learning by having independent readings, 12 online modules, and four facilitated discussions

over the span of 20 weeks. The goal of the SMART program was to enhance peace, improve happiness, increase resilience, improve staff well-being, and lessen stress (Magtibay et al., 2017).

Mindfulness programs such as the Mindfulness Based Stress Reduction (MBSR) program is an 8-week program that emphasizes the practice of mindfulness while providing education and different tools to help reduce stress among staff, improve well-being, and enhance self-compassion. This program involves participants meeting weekly during the program for two and a half hours and a six-hour retreat. The MBSR program integrates different mindfulness techniques including meditation, body awareness, and yoga (Botha et al., 2015).

The best approach to address the issue of clinical staff burnout and improve resilience at the partnering organization would be to choose an intervention that provides education, resources, and tools to help with stress management, resiliency, and mindfulness. When choosing this approach, there are several factors that need to be considered. The first factor is the size of the partnering organization. It is a large organization that has many primary care clinics under it. As a result, there are many staff members, different work schedules, and different clinic dynamics that must be considered. The second factor is the approach that leadership wants to take when addressing this clinical problem. Leadership wants to take the approach of providing training, education, and tools that staff can use to help deal with the different stressors that they face daily while being able to improve resilience and well-being.

Evidence to Support the Intervention

The best intervention for the clinical staff in the primary care setting of the targeted organization was to create a resilience program that provided clinical staff with knowledge and resources that they can use to help them be able to deal with different stressors encountered within their environments while improving resilience. The targeted intervention was a blended

program of several concepts used from the interventions found during the literature search to create a resilience program. In collaboration with the organization's department of healthcare safety and quality, educational modules for the resilience program were created to provide staff with knowledge in addition to different resilience tools to help reduce burnout, enhance employee well-being, and improve resilience. The resilience program provided different tools such as a self-compassion tool, a sleep tool, and reflective writing that the clinical staff can use to help reduce stress, decrease anxiety and depression, enhance nurses' ability to concentrate and be aware of the present, have coping skills to handle stressful circumstances, change their perspective on different stressors, lessen burnout, improve staff satisfaction, increase resilience, improve happiness, and enhance mindfulness (Botha et al., 2015; Hersch et al., 2016; Magtibay et al., 2017). The resilience program equipped staff with the necessary knowledge and tools that help staff to be aware of the present and engaged, which can help improve clinical staff and patient communication, reduce medication errors, improve employee retention, increase work satisfaction, reduce turnover, and increase patient satisfaction (Botha et al., 2015; Hersch et al., 2016; Magtibay et al., 2017).

Evidence-based Practice Framework

The framework selected to guide the process of implementation and evaluation of the quality improvement project to reduce clinical staff burnout and improve resilience is the Institute of Health and Improvement [IHI] (n.d.) plan, do, study, act (PDSA) model. The PDSA model sets goals, creates measures, and chooses the applicable change that can result in improvement (IHI, n.d.). The PDSA model helps to test the changes that are implemented during the process while allowing additional modifications to be made and multiple cycles of PDSA to

be performed in efforts to improve the process and make it more efficient (Agency for Healthcare Research and Quality [ARHQ], n.d.; IHI, n.d.).

There are four phases of the IHI PDSA model, which are plan, do, study, and act. Planning is the first stage and involves collecting data, defining the objective of the test, making hypothesis regarding the end results, and creating a plan to test the change. The second phase is do, which occurs when the plan is implemented on a small group. During this time, any problems or unforeseen outcomes are noted, and data is examined. The third phase is study and it involves complete data analysis, comparing data to the initial prediction, and evaluating the outcome. The final phase of PDSA is act. In the act phase, modifications are made based off information learned during the second phase. After these changes, the PDSA cycle restarts and the new modifications will be applied (IHI, n.d.).

Ethical Consideration & Protection of Human subjects

In order to be prepared for the ethical considerations of the project, the Collaborative Institutional Training Initiative (CITI) online module two training for social and behavioral research investigators and key personnel was completed. The CITI program is used in different entities such as universities, healthcare organizations, and other organizations involved in research to ensure that participants receive the training needed to successfully follow the federal regulations and ethical principles when doing research-related activities. Completing the module adequately prepared the project with the knowledge about the different ethical principles, its history, information about the federal regulations, informed consent, guidelines about different types of research, and research with different populations. The project lead used this knowledge when working collaboratively with others during this evidence-based project. Completing the

CITI module training was not only a requirement for East Carolina University (ECU), but also was a requirement for the organization where the project was completed.

The Institutional Review Board (IRB) process for the project site involved contacting the Director of Nursing Research and EBP and completing the organization's feasibility form, a quality improvement summary, providing specific details about the resilience program, the survey questions that would be asked to the staff, and information about data collection. The organizational approval letter was obtained on November 23, 2020 (see Appendix B). Upon receiving that sites approval letter, the document was forwarded to the ECU IRB committee for review and approval. It is vital to get IRB approval from the project site and ECU because it ensures that the project meets the ethical standards and to be able to implement the project at the site. ECU approval was received on November 23, 2020 (see Appendix C).

Given that the project was a Quality Improvement project, consent was not needed. This project had no anticipated risks involved for the participants. Participant confidentiality was maintained by protecting personal information and not disclosing any identifiable information. Any documents or data collected from the project was stored on a password protected computer. The intervention was equal and equitable to everyone in the target population. There was no one in the target population taken advantage of during the project implementation.

Section III. Project Design

Implementing the evidence-based project began in January 2021. The resilience program was created to help improve resilience and decrease burnout among clinical staff at the project site. This section discusses the implementation plan of the resilience program, which was the identified EBP to improve resilience and reduce burnout.

Project Site

The project site was a primary care clinic located in a populous city in the central of North Carolina. The clinic has affiliations with a large healthcare organization within North Carolina. The project site provides medical care for children, adolescents, and adults. The clinic provides patients with annual physicals, check-ups, health screenings, preventative care and diagnostics, diabetes and nutrition educations, sick visits, managing chronic illnesses, women's health care, well-child checkups, immunizations, hearing, vision, and developmental screenings, labs, and x-rays. One facilitator of the evidence-based project was that the organization's acceptance of the project idea because it supported their goal in reducing burnout and improving resilience among clinical staff. One major barrier of the project was COVID-19. COVID-19 had a negative financial impact on the organization, lead to restrictions for the method of project implementation as well as meetings, and had an impact on overall mental health for frontline workers. Additional barriers of the project include time constraints for staff and budget constrictions for management. Since the clinic is busy there was a barrier of staff being able to find the time to be able to complete the modules. Budget was a barrier because there was not much money set aside for continuing education or educational opportunities for clinical staff.

Population

The project participants were clinical staff. The clinical staff included Registered Nurses (RN), Licensed Practical Nurses (LPN), and Certified Medical Assistants (CMA). Doctor of Medicine (MD), Nurse Practitioners (NP), and Physician Assistants (PA) were excluded from participation. Front office staff including medical office administrative assistants, and receptionists, and financial care counselors were also excluded from participation. Clinical staff workload and time management were barriers for implementation because clinical staff have

tasks that need to be completed during their shift and needed to find time to complete the modules for the resilience program.

Project Team

The project team for this project consisted of the project lead, the site champion, the Director of Nursing Research & EBP, the Assistant Director of Research, and clinic leadership. The site champion was the Director of Nursing and Patient Care Services and collaborated with the project lead to identify and discuss the problem of clinical staff burnout in the primary care setting. The project lead and the site champion discussed the best intervention and implementation plan that would help clinical staff with reducing burnout and improving resilience. The site champion worked along with the organization's leadership team to choose the clinic that the intervention would be performed at and helped with support and buy-in for the intervention to take place.

The Director of Nursing Research & EBP provided guidance and assistance during the IRB process. In addition, they assisted the project lead with the Qualtrics survey software for the survey questions that would be administered to participants throughout the project. The Director of Nursing Research & EBP also provided feedback regarding the project proposal, project feasibility, and survey questions.

The Assistant Director of Research collaborated with the project lead to create modules to administer to the clinical staff from the selected clinic for the resiliency program. The project lead used information, content, and different resources from the Assistant Director of Research's department to create modules for the resilience program. The project lead discussed with Assistant Director of Research the intervention plan and received feedback from regarding the implementation of the intervention.

Clinic leadership's role was to help provide support and buy-in from their clinical staff before, during, and after the intervention implementation. They provided their expertise in providing leadership in that specific clinic. They were aware of the workflow of the clinic and their staff. The project lead discussed with clinic leadership the intervention and received feedback needed to make any changes to help improve the implementation process.

Project Goals and Outcome Measures

The defined project outcome was to reduce burnout and improve resilience among clinical staff in the primary care setting. The Culture Pulse Survey questions used in this project measure staffs' perception of well-being. These questions are important to ask because participants about their emotional well-being, feeling burnout, fatigue, and frustration related to their job. These questions support the need of the resilience program because the responses of these questions help to identify this as an area of concern within the organization. By using these questions, the project lead and the team were able to observe the clinical staffs' well-being before, during, and after the intervention to determine the program's effectiveness and help to determine the next steps for potentially rolling-out the resilience program throughout the organization.

Description of the Methods and Measurement

Given the number of participants in the project, the Director of Nursing Research and EBP recommended that the demographic survey be administered separately from the resilience program's survey questions to prevent the identification of the staff. As a result, the project leader administered a separate demographic survey to participants at the clinic's staff meeting. The responses for the demographic survey remained anonymous and voluntary.

The first survey administered to the participants prior to the intervention consisted of the Culture Pulse Survey questions on burnout and employee well-being (see Appendix D). There were also additional questions about the program tools that were asked for internal organizational purposes. The Culture Pulse Survey questions responses were reported as a mean score and an aggregate composite score.

The mid-point intervention survey was administered at week five and consisted of the Culture Pulse Survey questions on burnout and employee well-being. The Culture Pulse Survey questions responses were reported as a mean score and an aggregate composite score.

The final survey was administered at week nine, which was the final week of the intervention. The survey questions at the final week consisted of the Culture Pulse Survey questions on burnout and employee well-being and additional questions at the end of the intervention to support the sustainability of the resilience program within the organization. The Culture Pulse Survey questions responses were reported as a mean score and an aggregate composite score.

Discussion of the Data Collection Process

Data was collected using the Qualtrics Survey software. The link to the survey questions used in the Qualtrics survey was embedded into the Learning Management System (LMS) modules prior to the intervention at week one, at the mid-point of the intervention at week five, and at the end of the intervention at week nine. Participants had to click on the Qualtrics survey link and answer the questions to move on to the remainder of the LMS modules. Participants had two weeks to complete each module and the survey questions embedded in them. Participants had between January 11, 2021 and January 25, 2021 to complete week one's module and Qualtrics Survey questions. Week five's module and Qualtrics Survey questions completion time

was between February 8, 2021 and February 22, 2021. Week nine's module and Qualtrics survey questions completion time was between March 8, 2021 and March 22, 2021. Since the Qualtrics survey questions were embedded into the resilience program's modules, the participants would not be reminded to complete the Qualtrics Survey questions. The project lead would send reminder emails to participants to encourage participation in the modules and improve returns the day that the module was released and four days prior to the module's closing.

Implementation Plan

Data from the 2019 Culture Pulse Survey and the turnover rates from that same year in the primary care clinics of the healthcare organization was used to justify the need for the project aimed to improve resilience and reduce burnout among clinical staff. Evidence-based literature supported mindfulness and resilience programs to help reduce burnout and improve resilience among healthcare staff. The project lead met up with the site champion to discuss the implementation of a resilience program to help address the burnout among clinical staff. The project lead collaborated with the Assistant Director of Research to find content, recordings, and resources from the Assistant Director's department that could be used by the project lead to create nine weekly modules for the resilience program to administer to the clinical staff from the selected clinic. The weekly modules would be delivered through the LMS online learning software. Next, the project lead collaborated with the clinic's management team to discuss the resilience program. After talking with the clinic's management team, it was determined that there would need to be changes in the resilience program's length of time to address budget, time, and potential participants' engagement barriers. In order to address those barriers, the

resilience program was changed to have five modules that would be delivered via LMS every two weeks to clinical staff participants.

The resilience program consisted of five modules that lasted between an hour to an hour and a half every two weeks via LMS (see Appendix E). The participants would be registered to each module once it was released. Participants would be able to log into LMS for the modules and view them. Prior to the first module, participants answered survey questions that were asked via Qualtrics Survey embedded in the LMS module. After participants viewed module three during week five, they answered survey questions from a Qualtrics Survey embedded in the LMS module. If there were improvements in the responses of the burnout and employee well-being questions compared to the initial responses prior to the intervention, there would be no changes in the intervention. If there were worse results compared to the pre-intervention responses, then there would be changes made to the resilience program through the PDSA cycle. After the end of week nine's module, participants would then answer survey questions via Qualtrics Survey embedded into module pertaining to burnout, employee well-being, the resilience program, and additional questions asked to support the sustainability of the program within the organization.

Timeline

In September 2020, the project lead collaborated with the Assistant Director of Research to find content, recordings, and resources to use within the Assistant Director's department for the resilience program and worked with the Director of Nursing Research and EBP to work on the IRB process. The project lead continued to work with the Assistant Director of Research and Director of Research Nursing throughout the intervention implementation. From September 2020 until November 2020, the project lead continued to review on the resilience program and setting

it up on the determined platform of delivery. During October 2020, the project lead spoke with the site champion to discuss the clinic that was selected for the implementation of the intervention and met with the clinic's management team to discuss the intervention and the implementation process. The clinic was chosen by the site champion and leadership management based on the clinic's high turnover and the clinic's management team volunteering. The project lead continued to work with the clinic's management team through the entirety of the project. In December 2020, the project lead started creating the modules that were used for the resilience program. From December 2020 until February 2021, the project lead sent the completed resilience program modules to the Nurse Informatics Specialist to upload to LMS. The first three modules were sent to the Nurse Informatics Specialist in December 2020. Once the project lead reviewed the modules and made any changes, the modules were uploaded to LMS in January 2021. Modules four and five were completed and sent to the Nurse Informatics Specialist to upload on LMS in February 2021. The modules were then released for viewing on the specific dates. Implementation of the resilience program began January 11, 2021 and ended March 22, 2021. The pre-implementation survey questions were administered to participants for completion between January 11, 2021 and January 25, 2021, the mid-implementation survey questions were available for completion between February 8, 2021 and February 22, 2021, and the post-implementation survey questions were to be completed by participants between March 8, 2021 and March 22, 2021. The analysis of results of the survey questions took place from January 2021 until March 2021. The results were presented to the organization's leadership team April 2021 (see Appendix F).

Section IV. Results and Findings

Demographic Results

There were 12 participants that filled out the demographic survey at the clinic's staff meeting. The questions asked to clinical staff were about age, experience, position, and employee status. Of the participants, 16.67% (n=2) were between the age of 18 and 24 years old, 33.33% (n=4) were 25 to 34 years old, 8.33% (n=1) of the participants were 35 to 44 years old, 16.67% (n=2) of the participants were between the ages of 45 and 54, 16.67% (n=2) of the participants were 55 to 64 years old, and 8.33% (n=1) of the participants were 65 years or older. Regarding work experience, 33.33% (n=4) of the participants had less than six months of experience working at the clinic, 25% (n=3) of the participants had worked at the clinic for six-12 months, 25% (n=3) worked from one to three years at the clinic, 8.33% (n=1) had been employed at the clinic for four to six years, and 8.33% (n=1) had been working at the clinic for seven years or more. Participants job class noted, 8.33% (n=1) were RNs, 25% (n=3) were LPNs, and 66.67% (n=8) were CMAs. All the participants were employed at the clinic full time.

Outcomes Data

In the pre-intervention Culture Pulse Survey (see Appendix D), there were nine participants that completed it. There were 10 participants that completed the mid-intervention Culture Pulse Survey. The post-intervention survey had nine participants that completed it. Table 1 below shows the mean scores for the responses for the five Culture Pulse Survey questions for the pre, mid, and post intervention as well as the composite scores. The responses were measured with 5-point Likert scale questions with a range from 1=strongly agree to 5=strongly disagree, including a middle neutral option.

Table 1*Culture Pulse Survey Data*

Question	Pre- Intervention Mean (n=9)	Mid-Intervention Mean (n=10)	Post- Intervention Mean (n=9)
“I feel fatigued when I get up in the morning and have to face another day on the job”	2.56	3.1	2.78
“Events in my work unit department affect my life in an emotionally unhealthy way”	3.22	3.4	3.56
“I feel burned out from my work”	2.78	2.9	3.22
“I feel frustrated by my job”	3.11	3.5	3.44
“I feel I am working too hard on my job”	2.78	3.4	3.33
Overall Composite Score	2.89	3.26	3.27

Note. The table represents the means and composite scores for the pre, mid, and post intervention Culture Pulse Survey question responses.

Discussion of Major Findings

The data collected during the DNP project suggests that the implementation of the resilience program helped to reduce burnout among the clinical staff participants and helped to improve resilience. There were slight decreases the mean scores for several survey questions when comparing the mid-intervention means and the post-intervention. The questions that had marginally higher means in the mid-intervention survey results compared to the post-intervention survey results were “I feel fatigued when I get up in the morning and have to face another day on the job” (3.1 and 2.78), “I feel frustrated by my job” (3.5 and 3.44), “I feel I am working too hard

on my job” (3.4 and 3.33). There were no identifiable reasons for the post-intervention mean scores of those questions being slightly lower than the mid-intervention mean scores. It is difficult to determine if the scores from each of the surveys were from the same participants, due to the surveys and participation for clinical staff being anonymous. When comparing the mid and post intervention mean scores and composite scores to the pre intervention mean and composite scores, the numbers increased indicating a reduction in burnout among participants. By providing different modules to the participants, it allowed the participants to identify their burnout and learn about the various tools that can be utilized to improve resilience and reduce burnout. The resilience program helped to provide clinical staff with tools and resources that they can explore and use to determine which ones worked best to individually reduce each participant’s level of burnout while improving resilience.

Section V. Interpretation and Implications

Cost Benefit Analysis

Costs associated with the implementation of the resilience program were the salary cost of each of the clinical staff participants. All the participants completed the modules during work hours. Each module took one to one and a half hours. There were five modules. As a result, participants could be paid up to seven and a half hours if they participated in all five modules and completed the surveys. Given that the participants remained anonymous throughout the Resilience Program, the project leader was unable to identify the exact salary costs. The salary costs varied based on the job title of the clinical staff (see Table 2).

Table 2

Hour Payrate for Clinical Staff

Job title	Hourly rate (minimum)	Hourly rate (maximum)	Cost to participate in resilience program
Ambulatory Care Nurse I & II	\$19.47	\$38.95	\$146.03-\$292.13
Ambulatory Care Nurse III, IV, Lead RN	\$23.28	\$46.56	\$174.60-\$349.20
LPN	\$16.30	\$32.60	\$122.25-\$244.50
Certified Medical Assistant	\$15.30	\$27.53	\$114.75-\$206.48

Note. The table represents the hourly rate range for clinical staff and the estimated cost to participate in the resilience program if staff participated in all five modules.

For future implementation of the Resilience Program to other clinics and healthcare providers, additional salary costs would need to be calculated. The project was led by a doctoral student, which did not result in additional costs. The instructions for the project were provided to clinical staff via email. There were no costs related to materials incurred. For future sustainability of the project, the costs for the employee’s salary for participation at the different clinics and the employees who will lead the projects roll out to different clinics will need to be considered.

Given that the project was implemented over the span of nine weeks, long term benefits of the program have not been identified. The Resilience Program would potentially provide long term benefits for the organization, employees, and patients. The results for the Resilience Program for the clinical staff at the project site, showed promise for reducing burnout and

improving resilience. The organization would need to continue to monitor the benefits of the Resilience Program implementation for the project site and while implementing it to different clinics. Reduction of clinical staff burnout and improvement of resilience can help improve clinical staff and patient communication, reduce medication errors, improve employee retention, increase work satisfaction, reduce turnover, and increase patient satisfaction (Botha et al., 2015; Hersch et al., 2016; Magtibay et al., 2017). The project can also provide additional benefits by enhancing the work environment and work experiences, decreasing the costs in healthcare for patient care and the organization, and improving patients' health outcomes (Edwards et al., 2018; Freeley, 2017; Sikka et al., 2015).

Resource Management

The organization provided non-financial resources that helped with the success of the DNP project. One major resource was the department of healthcare safety and quality within the organization. This department had a lot of information, research, and content that was used to create modules for the Resilience Program. The project leader was able to collaborate with the Assistant Director of Research in the department of healthcare safety and quality throughout the project. Another resource was the nurse informatics specialist that worked with LMS. The nurse informatics specialist was an asset during the project because through collaboration the project leader was able to send the modules and get them uploaded to LMS for participants.

The project leader worked with the clinical leadership to determine resource allocation and ensure that the resilience program was adjusted to allow participants enough time to participant. The project leader used the PDSA operational method during the implementation phase to review project flow, test out the resilience program on one clinic, and obtain the findings from the implementation. The tracking tool used was the Gantt chart because it helped

to track the progress of the project including planning and organizing to ensure that the project had all the resources needed. It allows the project leader to have a visual timeline of the tasks, keep up with the progress of the tasks, and keep track with deadlines.

Implications of the Findings

The findings of the project showed a potential in the long-term implications for patients, nursing practice, and the healthcare system. Based on the findings from the project, the means scores and composite scores in the post-intervention survey suggests that there was a decrease in clinical staff burnout at the project site. The implications of the findings can help to enhancing clinical practice by reducing burnout and improving resilience while improving patient outcomes (American Association of Colleges of Nursing [AACN], 2021).

Implications for Patients

The project's goal was to reduce burnout and improve resilience among clinical staff in the healthcare setting. When the clinical staff can have a reduction in burnout and improve their resilience, they are able to provide better care for the patients. By decreasing clinical staff burnout and improving resilience, it can potentially enhance patient satisfaction, improve communication between clinical staff and patients, decrease medication errors, and improve patients' health outcomes (Botha et al., 2015; Edwards et al., 2018; Hersch et al., 2016; Magtibay et al., 2017).

Implications for Nursing Practice

The project findings showed a decrease in burnout among clinical staff. The additional questions asked during the post intervention survey for internal organizational purposes showed that clinical staff found the modules to be helpful and useful to reduce burnout and improve resilience. The implications for nursing practice could support further implementation of the

resilience program to nurses to help provide them with tools and resources to decrease burnout, improve resilience, and enhance employee well-being. The resilience program would need to be monitored continuously to determine the long-term implications for nursing practice. This program could lead to lessen stress, decrease anxiety and depression, enhance nurses' ability to concentrate and be aware of the present, have coping skills to handle stressful circumstances, alter their perspective on stressors, progress staff satisfaction, and enhance mindfulness (Botha et al., 2015; Hersch et al., 2016; Magtibay et al., 2017). By improving the well-being of the nurse and providing resources to help enhance coping skills as well as the ability to concentrate, this could result in advancing nursing practice.

Impact for Healthcare System(s)

Reducing burnout and improving resilience can have a positive impact on the healthcare systems. Given that estimated burnout costs in the United States for physicians is around \$17 billion and for nurses is around \$14 billion, burnout can have a negative impact on healthcare systems including financial costs, it is important to provide a program that can help to address this problem (National Taskforce for Humanity in Healthcare, 2018). The impact of the resilience program on healthcare systems would need to be evaluated long-term. A resilience program can help to reduce burnout, which can lower the costs of burnout for healthcare systems. Another positive impact for the healthcare systems is the potential reduction in turnover (Magtibay et al., 2017). Reducing turnover can help to lower costs throughout the healthcare systems. Reducing burnout and enhancing resilience can reduce the costs in healthcare for patient care and the organization, increase patient satisfaction, and lead to positive health outcomes for patients (Edwards et al., 2018; Freeley, 2017; Magtibay et al., 2017; Sikka et al., 2015). By having positive patient outcomes, it can reduce the additional costs. Increasing patient

satisfaction can lead to patients recommending others to receive care within the healthcare system.

Sustainability

The organization leaders support the sustainability of the resilience program because of the major issue with high burnout and high turnover within the organization. The findings of the resilience program show potential benefits of organization wide implementation for clinics that have high burnout and turnover rates. The modules have already been created and are uploaded to the organization's LMS. Any changes that need to be made to the resilience program can be done with the collaboration of the organization's department of healthcare safety and quality. To ensure overall sustainability it is important to have staff engagement and that can vary among different clinics.

Dissemination Plan

The findings from the project need to be disseminated to help provide insight on clinical staff burnout and the potential impact that the resilience program can having on addressing it. The project leader will disseminate the findings of the resilience program to leaders in the organization by creating a PowerPoint presentation with information about the intervention and the findings. Given that there are still COVID-19 restrictions, the PowerPoint presentation will be recorded and emailed to the leaders. The project leader's contact information will be given so that leaders can contact the project leader if they have any questions, comments, or concerns. A poster presentation will be given at East Carolina University. The poster will provide the background, questions, results, and additional information for the DNP project. Given the COVID-19 restrictions, the presentation will happen live online.

The project leader will continue to stay in contact with the site champion to share work, different findings, and provide additional insight on the continuing implementation of the resilience program throughout the primary care setting. The project leader will conduct monthly check-ins with the site champion until the information is disseminated. After the findings are disseminated, the project leader will potentially stay in contact with the site champion to provide updates, review the resilience program for further implementation, and aid if needed.

Section VI. Conclusion

Limitations

There were several limitations to the project. One major limitation was COVID-19. COVID-19 caused additional stress among frontline workers in healthcare and led to workflow changes in the project site to accommodate patient care and patient testing for COVID-19. It also caused the project leader to have to make changes to the way the resilience program would be given to the participants. COVID-19 also was a barrier because it had a negative impact on the healthcare organization where the project was implemented.

Another limitation was that participation was confidential and voluntary. This limited the ability to track the clinical staff that participated in the program. The project leader was not able to determine if participants participated in all the modules or the degree to which they participated in using the tools. As a result, the project leader could only base the findings on the survey results.

There was a small number of participants. Nine to ten clinical staff members participated in the resilience program. This was a limitation because there would need to be a larger number of participants to determine the overall effectiveness of the resilience program on reducing burnout and improving resilience.

The time constraint of the resilience program was a limitation. Due to the DNP project timeline, the project was implemented within a timeframe. As a result, participants had to participate in the resilience program by specific times. This could have led some of the staff not being able to participate due to lack of time. The time constraint also did not allow for long-term evaluation of the resilience program or long-term assessment of the benefits of the resilience program.

Recommendations for Others

There are several recommendations that would allow others to implement the resilience program into clinical setting. One suggestion would be to find more participants to implement the resilience program. By increasing the sample size, it can help to provide a better determination of the effectiveness of the resilience program for reducing burnout and improving resilience (Hersch et al., 2016). One way to have increase participation is to participants from different clinics to use the resilience program. This can be completed by using the PDSA model to implement the resilience program into different clinics (AHRQ, 2020; IHI, n.d.). Another recommendation is to administer the post-intervention survey several weeks after the final module. By administering the post-intervention survey after a longer period, it will allow the project leader to give participants more time to utilize the tools from the resilience program and to determine the long-term effectiveness of the resilience program among clinical staff (Hersch et al., 2016).

Recommendations Further Study

The resilience program will need additional investigation. One recommendation would be to provide the resilience program throughout different clinics within the healthcare organization. The organization should continue using the PDSA model to roll it out over several clinics, collect

data, and make any necessary changes prior to continuing the rollout to other clinics (IHI, n.d.). This will help future studies to be able to determine the effectiveness of the resilience program among clinical staff on a wide scale.

Another suggestion would be to increase participation of the resilience program to include clinical staff at different locations (Magtibay et al., 2017). Increasing participation can lead to more accurate results for the effectiveness of the resilience program and expand the variation of the participants (Hersch et al., 2016; Magtibay et al., 2017). Increased participation can be done by including more clinical staff throughout the healthcare setting. This can be achieved by rolling out the resilience program to additional locations.

Final Conclusion

Burnout among healthcare staff is a major issue that has negative consequences for staff, patients, and organizations. Healthcare staff burnout needs to be addressed to help improve the staff's resilience and well-being, which in turn can improve patient care and outcome, and help to reduce organizational costs. The resilience program is an intervention that can help reduce clinical staff burnout and improve resilience within the primary care setting. The data collected from the DNP project showed an improvement in reducing burnout and an increase in resilience among the participants from the practice site. However, more participants would be needed to determine the overall effectiveness of the resilience program. By successfully implementing a resilience program within an organization and monitoring the program, the long-term implications for patients, nursing practice, and the healthcare system and the program's benefits can be determined.

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Appendix A

Literature Matrix

Authors	Purpose and take home message	Design/Analysis/Level of Evidence	Comments/critique of the article/methods GAPS
Alexander, G. K., Rollins, K., Walker, D., Wong, L., & Pennings, J.	Determine the effectiveness of yoga to improve self-care and reduce burnout in nurses.	Level II	Results: The experimental group experienced higher self-care, less emotional exhaustion, and less depersonalization after finishing the 8-week yoga program. The experimental group also had an improvement in scores in self-care and mindfulness. Limitations: small group, lack of active control group, having to rely on self-reported measures. Comment: More research is needed to determine if this is an intervention that can help a larger amount of people improve self-care and reduce burnout.
Botha, E., Gwin, T., Purpora, C.	To determine the effectiveness of mindfulness based programs to decrease stress that nurses deal with in the adult hospital units	Level I	The systematic review found mindfulness based interventions help to decrease stress, anxiety, and depression for clinical and non-clinical staff. Seven studies were reviewed, and the participants from the studies that received mindfulness based interventions noticed reduced stress compared to the control group. Limitations: Small number of studies that showed the effectiveness of mindfulness based interventions for nurses. Usefulness: Mindfulness based interventions can help to decrease stress and improve resilience in nurses and other clinical staff. It can help to improve self-compassion among clinical staff. Comments: This systematic review supports that use of mindfulness based programs to help clinical staff reduce burnout and be able to handle the different stressors that they experience. Even though the systematic review was focusing on the effectiveness to help reduce stress of nurses in the adult hospital settings, this intervention can be used different clinical settings.

<p>Edwards, S. T., Marino, M., Balasubramanian, B. A., Solberg, L. I., Valenzuela, S., Springer, R., Stange, K. C., Miller, W. L., Kottke, T. E., Perry, C. K., Ono, S. & Cohen, D. J.</p>	<p>To determine the connection between providers and staff burnout and different characteristics of a primary care office.</p>	<p>Level IV</p>	<p>The results were that 20.4% of the participants experienced burnout and out of that amount 25.1% were physicians and 17.2% were office manager. Burnout was lower in independently owned practices. Clinical staff had higher burnout rates than non-clinical staff. Staff that worked more than 40 hours a week and were employed at current practice for more than 3 years experienced more burnout. GAPS: There needs to be more interventions implemented to reduce burnout in staff employed in primary care settings. There has been a lot of focus with burnout among providers in primary care setting. However, there has not been a lot of studies that discuss burnout among different types of staff in the primary care setting. Limitations: The study cannot determine causation. The study only used the Maslach Burnout Inventory and did not incorporate other tools to measure other aspects of burnout. There were some participants that did not have the information needed to complete questions in the survey. Comments: This study supports the importance to further examine the need to address burnout in the primary care setting.</p>
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<p>Hersch, Rebekah, Cook, Royer, Deitz, Diane, Kaplan, Seth, Hughes, Daniel, Friesen, Mary Ann, & Vezina Maria</p>	<p>To determine the effectiveness of the web-based stress management intervention called BREATHE: Stress Management for Nurses program for reducing nurses' stress.</p>	<p>Level II</p>	<p>The authors found that the experimental group that took the program had a significant improvement in the outcome of the nurses' stress than the participants in the control group. The experimental group had substantial improvement in six out of the seven subscales of the Nursing Stress Scale including stress related to conflict with physicians, inadequate preparation, conflict with other nurses, workload, uncertainty concerning treatment and death and dying when compared to the control group's results. Limitations: small sample size, degree of program utilization, and short-term benefits of using the program was assessed during this study. Usefulness: The evidence reinforces the use of the web-based stress management program to help nurses understand stress, learn coping skills to handle stress, and reduce stress. Comments: The program provided nurses with different modules that helped them to learn about the different aspects of stress as well as ways to handle stress. Nurse Managers were able to complete an additional module that provided them with education to be able to identify stressors in the workplace and ways to deal with those issues through positive management practices. These modules could be used on different units to see its effectiveness in helping nurses reduce their stress and have better coping skills.</p>
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<p>Magtibay, Donna, Chesak, Sherry, Coughlin, Kevin, & Sood, Amit</p>	<p>To evaluate the effectiveness of blended learning to reduce stress and burnout that nurses' experiences by using the Stress Management and Resiliency Training (SMART) program.</p>	<p>Level III</p>	<p>The authors found that at week 24, the final surveys showed a substantial improvement in all the categories. There was a reduction in the following categories: anxiety at 45.2%, stress at 29.8%, personal burnout at 33.6%, work-related burnout at 32.6%, and client-related burnout at 38.5%. When compared to classroom taught programs, blending learning help to meet the needs of nurses will busy work schedules and provided them with flexibility to complete the course. Limitations: No control group, small sample size, results may have influenced by participants' motivation to be a part of the study, no reimbursement of continuing education credits, and 16 participants did not complete all the surveys. Usefulness: This intervention may help to reduce burnout, anxiety, and other work-related stress in nurses. The benefit of having the blended learning SMART training can help to meet the nurses' learning needs and allow flexibility to be able to complete the course. Comments: While this study has significant findings, there needs to be nurses from different backgrounds, a control group, larger sample size, and more evidence that will support the use of the blending learning for SMART training to help reduce stress and burnout in nurses.</p>
<p>Perzynski, A. T., Caron, A., Margolius, D., & Sudano, J. J.</p>	<p>Examines the impact of workplace social capital on patient and staff experience in primary care settings</p>	<p>Level IV</p>	<p>Results: The higher the workplace social capital-the higher the job satisfaction and lower burnout rate. Practices that had high staff satisfaction and lower staff burnout had higher patient quality rating. Limitations: Employees were anonymous and participants characteristics such as gender, race, and years of experience were not obtained. The response rate data was not accessible for the patients' survey. Comments: This study shows the impact that burnout and employee satisfaction have on patients' perception on quality of care. Improving the workplace social capital can help to boost staff satisfaction, decrease burnout, improve patients' perception on quality of care, and help primary care setting to achieve the Quadruple Aim.</p>

Appendix B

Organizational Approval Letter



INSTITUTIONAL REVIEW BOARD DECLARATION OF EXEMPTION FROM IRB REVIEW

The [redacted] IRB has determined that the following protocol meets the criteria for a declaration of exemption from further IRB review as described in 45 CFR 46.101(b), 45 CFR 46.102 (f), or 45 CFR 46.102 (d), satisfies the Privacy Rule as described in 45 CFR 164.512(i), and satisfies Food and Drug Administration regulations as described in 21 CFR 56.104, where applicable.

Protocol ID: Pro00107311
Reference ID: Pro00107311-INIT-1.0
Protocol Title: Reducing Clinical Staff Burnout and Improving Clinical Staff Resilience in the Primary Care Setting
Principal Investigator: [redacted]
Review Date: November 21, 2020
Expiration Date: *Does not expire
Exempt Category:

Category 1: Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Category 2: Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: i. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; ii. Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or iii. The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by .111(a)(7).

*This Declaration of Exemption from further IRB Review is in effect from November 21, 2020 and does not expire. However, changes to the proposed research will require an amendment requesting re-review for exemption. Reportable serious adverse events and unanticipated problems related to the research that place subjects or others at risk of physical, psychological, economic, or social harm must be promptly reported to the IRB and will result in reconsideration of the activity's exempt status.



Appendix C
ECU QI Self-Certification



Click "download PDF" to save a copy of this page for your records. Note: The IRB Office does not maintain copies of your responses.

Below is a summary of your
responses

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Quality Improvement/Program Evaluation Self-Certification Tool

Purpose:

Projects that do not meet the federal definition of human research pursuant to 45 CFR 46 do not require IRB review. This tool was developed to assist in the determination of when a project falls outside of the IRB's purview.

Instructions:

Please complete the requested project information, as this document may be used for documentation that IRB review is not required. Select the appropriate answers to each question in the order they appear below. Additional questions may appear based on your answers. If you do not receive a STOP HERE message, the form may be printed as certification that the project is "not research" and does not require IRB review. The IRB will not review your responses as part of the self-certification process. For projects being done at Vidant Health, site support will be required. Please email crg.quality@vidanthealth.com to obtain site support from Vidant Health.

Name of Project Leader:

Whitney Camarillo

Project Title:

Reducing Clinical Staff Burnout and Improving Clinical Staff Resilience in the Primary Care Setting

Brief description of Project/Goals:

The DNP project will teach and provide clinical staff (RN, LPN, and CMA) in the primary care setting with education, tools and strategies to help reduce burnout and improve resilience through a Resilience Program.

Will the project involve testing an experimental drug, device (including medical software or assays), or biologic?

- Yes
 No
-

Has the project received funding (e.g. federal, industry) to be conducted as a human subject research study?

- Yes
 No
-

Is this a multi-site project (e.g. there is a coordinating or lead center, more than one site participating, and/or a study-wide protocol)?

- Yes
 No
-

Is this a systematic investigation designed with the intent to contribute to generalizable knowledge (e.g. testing a hypothesis; randomization of subjects; comparison of case vs. control; observational research; comparative effectiveness research; or comparable criteria in alternative research paradigms)?

-
- Yes
- No
-

Will the results of the project be published, presented or disseminated outside of the institution or program conducting it?

-
- Yes
- No
-

Would the project occur regardless of whether individuals conducting it may benefit professionally from it?

-
- Yes
- No
-

Does the project involve "no more than minimal risk" procedures (meaning the probability and magnitude of harm or discomfort anticipated are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests)?

-
- Yes
- No
-

Is the project intended to improve or evaluate the practice or process within a particular institution or a specific program, and falls under well-accepted care practices/guidelines?

-
- Yes
- No
-

Based on your responses, the project appears to constitute QI and/or Program Evaluation and IRB review is not required because, in accordance with federal regulations, your project does not constitute research as defined under 45 CFR 46.102(d). If the project results are disseminated, they should be

characterized as QI and/or Program Evaluation findings. Finally, if the project changes in any way that might affect the intent or design, please complete this self-certification again to ensure that IRB review is still not required. Click the button below to view a printable version of this form to save with your files, as it serves as documentation that IRB review is not required for this project. 11/23/2020

Appendix D

Survey Questions for Pre, Mid, and Post Implementation

Please read the following questions below and choose the response that best fits.

- 1) "I feel fatigued when I get up in the morning and have to face another day on the job"
 - a. Strongly disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Strongly agree

- 2) "Events in my work unit department affect my life in an emotionally unhealthy way"
 - a. Strongly disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Strongly agree

- 3) "I feel burned out from my work"
 - a. Strongly disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Strongly agree

- 4) "I feel frustrated by my job"
 - a. Strongly disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Strongly agree

- 5) "I feel I am working too hard on my job"
 - a. Strongly disagree
 - b. Slightly disagree
 - c. Neutral
 - d. Slightly agree
 - e. Strongly agree

Appendix E

Resilience Program Module Content

Module 1 (Week 1)- Introduction & “Prevalence & Severity of Burnout Workforce Resilience as Quality Care”

- This module included a brief introduction to the resilience program, discussed the reason behind the resilience program, objectives of the resilience program, and had pre-intervention survey questions for participants to answer. The module educated participants on the prevalence & severity of burnout workforce resilience and provided a tool that participants could use to help improve resilience.

Module 2 (Week 3)- “The Science and Practice of Gratitude”

- This module educated participants about the science and practice of gratitude. Participants received a tool that they can utilize to help improve gratitude.

Module 3 (Week 5)- “Mindfulness”

- The module provided participants with education on mindfulness and provided a tool that can be used to improve mindfulness. Participants also answered the mid-intervention survey questions.

Module 4 (Week 7)- “Self-Compassion”

- Participants were educated on self-compassion and given a tool that can help to cultivate a kinder internal voice.

Module 5 (Week 9)- Conclusion & “Practicing Safe Stress and The Science of Sleep.”

- The module educated participants on practicing safe stress and the science of sleep. The participants received a tool that can help to improve rest and answered the post-intervention survey questions.

