Preventing Burnout and Reducing Stress by Utilizing an Evidence-Based Protocol for Newly Graduated Registered Nurse Practitioners.

Nasr Basir Balla

Touro University Nevada School of Nursing

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DNP Project Team: Dr. Heidi Johnston, DNP, RN, CNE

Dr. Sharon Edwards DNP, APRN, PMHNP-BC

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Abstract

Practice Problem: Nurse burnout is currently considered a significant problem in healthcare systems, raising concerns about sustaining the future nursing workforce. Burnout is proven to negatively affect the overall well-being of nurses as well as their ability to deliver quality care. Nurse burnout has also been acknowledged to adversely impact patient outcomes and organizational productivity because of its strong relation with increased job dissatisfaction, reduced work efficacy, and increased turnover among nurses.

Purpose: The purpose of this quality improvement project was to address burnout experienced by newly graduated psychiatric mental health nurse practitioners PMHNPs with less than one year of practice experience by employing a four-week Mindfulness-based Stress Reduction (MBSR) program that supports mental well-being and alleviates workplace stressors.

Evidence/Methods: A literature review supported the implementation of evidence-based practices for burnout prevention and stress management among new graduate nurses. Project implementation was guided by the awareness, desire, knowledge, ability, and reinforcement (ADKAR) model of change management.

Intervention: Three key MBSR techniques were implemented, including a 5-10 minute "Breath Awareness Practice" in the morning, a 20-30 minute "Love Kindness Meditation" during shift intervals, and a 15-minute Mindful Yoga during lunch breaks.

Results: Analysis revealed a statistically significant reduction in burnout levels following the MBSR interventions program, $z = –2.692$, $n = 11$, $p < .001$, with a large effect size ($r = 0.60$). The median score on the burnout levels decreased from pre-intervention (Md =2.67) to post-intervention (Md =2.25).

Conclusion: The implementation of MBSR techniques can help in alleviating stress among nurses and preventing burnout, eventually improving organizational productivity through improved retention as well as safety and quality outcomes.

Keywords: *burnout prevention, new graduate nurses, nurse practitioners occupational stress, occupational stress management, mindfulness-based stress reduction, MBSR practices.*

Preventing Burnout and Reducing Stress by Utilizing an Evidence-Based Protocol for Newly Graduated Registered Nurse Practitioners.

Nurses are the largest healthcare providers group in the United States consisting of more than half of all healthcare workers. They are the most significant part of healthcare with different responsibilities including assessing and educating patients about preventative care, preparing patients for treatment, administering medication, and monitoring patients' progress (Boamah et al., 2016). A recent study from the American Association of Nursing Practitioners indicates that the number of nurse practitioners has increased highly with more clinicians choosing that career path (De Hert, 2020). However, concerns have been raised about sustaining the future nursing workforce due to the reported high levels of stress and burnout, particularly among newly graduated nurse practitioners. According to Tununu & Martin (2020), among the nurse practitioners who reported leaving their jobs in 2017, 66% reported having work stress and burnout. This indicates a need to examine evidence-based strategies that protect newly graduated nurse practitioners from burnout which can be associated with poor patient outcomes.

Burnout is defined as a psychological condition that causes a depletion of physical, emotional, and mental energy (Boamah et al., 2016). It is commonly associated with chronic unresolved work-related stress and a lack of effective coping strategies. Although burnout is common in all healthcare professions, it is more prevalent in nurse practitioners due to their close interpersonal relationships with patients (Tununu & Martin, 2020). Nurse practitioners in psychiatric mental health have a significant burden of taking care of people with compound emotional demands and challenging mental health conditions. Most of the time they have to take care of violent patients and manage their difficult behaviors. This results in emotional and physical exhaustion, especially for new graduate nurses who lack enough experience and

resilience to cope with such situations (Boamah et al., 2016). Violence toward nurses and other patients sometimes presents serious threats making this field more challenging and demanding and may result in burnout.

Burnout has dire consequences among the newly graduated nurse practitioners, patients as well as the organizations they are employed in. It is highly associated with job dissatisfaction, a decrease in work efficacy, and increased turnover (Tununu & Martin, 2020). Burnout is also linked with the inability to provide therapeutic interventions as nurses tend to spend less time with patients which leads to poor quality of care and reduced outcomes (Boamah et al., 2016). Studies reveal that burnout among newly graduated nurse practitioners affects their well-being and results in negative behaviors such as consumption of alcohol and substance abuse which is associated with impairment of the immunological system, work absenteeism, depressive disorders exhaustion, tiredness, and fatigue (De Hert, 2020).

Given the importance of nurses in the healthcare system, it is essential to implement intervention strategies to promote psychological well-being and prevent burnout. This DNP project will address burnout experienced by newly graduated psychiatric mental health nurse practitioners by implementing an evidence-based protocol to promote mental health and mitigate workplace stressors.

Background

American psychologist Herbert Freudenberg coined the term burnout in the 1970s to describe the consequences of chronic stress among helping professionals (Tununu & Martin, 2020). While the term consists of three components, cynicism and emotional exhaustion are considered the key elements of burnout. Similar to nurses in other fields, the prevalence of

burnout is particularly high in psychiatric mental health nurse practitioners due to the physical demands and high emotions associated with their job (Tununu & Martin, 2020). Although several studies link burnout with turnover Kelly et al. (2021) argue that the relationship is often weak since many practitioners opt to remain in their jobs. However, this results in negative consequences for themselves and their organizations. Mindfulness-Based Stress Reduction (MBSR) has however been associated with lowering the level of emotional exhaustion in nurse practitioners (Fendel et al., 2019). The study suggests that MBSR intervention brings awareness and alternativeness that helps nurses learn effective strategies that help reduce burnout.

There have been troubling findings on burnout cases among newly graduated nurse practitioners recently. A study by Boamah et al., (2016) found that about 66% of new graduate mental health nurses experienced chronic burnout related to negative workplace conditions. A similar study found that the increased burnout in new graduate nurse practitioners is significantly related to heavy workloads, lack of supervisor support, lack of coping skills, low organizational commitment, depression, and turnover intentions (De Hert, 2020). These studies found psychiatric mental health nurses particularly new graduates at high risk of burnout and that MBSR was a significant intervention to protect the population from emotional exhaustion. They also demonstrate the alarming consequences of the problem and suggest that every effort should be made to prevent new graduate burnout. Reducing burnout among this population not only protects their well-being but also improves the quality of care (Ramachandran, 2022). Given the significant role new mental health nurse practitioners play in ensuring the future of the nursing workforce, it is important to identify and implement an effective evidence-based protocol that will help save the future of nursing.

Some of the common strategies to prevent burnout include flexibility in the workplace, mental health support for nurses, acknowledging nurses' hard work, creating a healthy working environment, and prioritizing nurses' wellness (Kelly et al., 2021). However, evidence-based protocols such as MBSR have significantly contributed to lowering burnout. According to Fendel et al. (2019), MBSR is a tried practice that reduces psychological distress among nurses. It provides secular, rigorous, and mindfulness training to help those suffering from tension, pain, worry, and despair. The program combines mindfulness and meditation, body awareness, yoga, and investigation of behavioral patterns, cognition, emotion, and behaviors (American Psychological Association, 2019). It helps the user reduce stress, depression, and anxiety through the implementation of healthier strategies for responding to problems.

On the other hand, Spence Laschinger & Fida, (2014) suggests that both personal and organizational interventions play an important role in protecting nurse practitioners from burnout. The study examines authentic leadership as an organizational resource and psychological capital as a personal resource in reducing burnout. According to the study, authentic leadership provides nurse practitioners with a good work environment that helps reduce work-related stressors (Spence Laschinger & Fida, 2014). In addition, psychological capital help nurses respond positively to challenges they encounter at work (Spence Laschinger & Fida, 2014). Leaders shape the quality of the immediate work environment and when they fail to ensure the conditions that support employees' ability to perform their duties, employees struggle to accomplish their goals which leads to exhaustion and poor performance (American Psychological Association, 2019). Therefore, leaders should emphasize self-awareness, behavioral integrity, honesty, and transparency in their work. They should also focus on the strengths of nurses and not on their weaknesses in order to influence performance that would

help reduce burnout (Spence Laschinger & Fida, 2014). Psychological capital on the other hand is defined as the positive human strengths and psychological capacities that can be developed and managed. This includes resilience and flexibility that allows nurse practitioners to move beyond a setback and respond effectively to challenges (Ramachandran, 2022).

Problem Identification

According to Tununu & Martin (2020), several factors contribute to burnout including workload, lack of control, community, value mismatch, fairness, and lack of appreciation. My project site is known as Insight Physicians. It is an organization that provides inpatient psychiatric services to local hospitals and long-term care facilities. The project is centered on newly graduated psychiatric mental health nurse practitioners. The site is experiencing a high turnover rate and newly hired full-time nurse practitioners. Most of the new practitioners proclaim burnout as one of the main factors contributing to their decision to resign. They argue that the nature of work is demanding coupled with the expectation that they maintain a high patient volume has decreased their overall job satisfaction. They feel they should have a lower caseload, and assistance with administrative tasks that will allow them to collaborate and learn from other professionals. Some also report a lack of support from the organization. They state that the company's focus is placed on growing patient volumes, and meeting productivity metrics, but not on other activities such training the new practitioners on how to navigate basic human resource duties, or helping with setting up reoccurring patient schedules in the electronic health record, or provide mentorship that would assist new nurse practitioners adapt to their new roles. This contributes to burnout and dissatisfaction with their new duties resulting in high turnover or changes in employment status.

The organization provides psychological, pharmacological, and mental health counseling services to patients in skilled nursing homes and assisted living communities. There is no central office and therefore practitioners do not have medical assistants and are expected to set their patient's schedules. Most of them find this challenging due to their busy schedules and lack of experience. In the first three months, the new nurses are expected to visit one facility and see about five to eight patients a day. However, the number of patients increases to 15-18 patients a day or 275 patient encounters per month after 90 days. The most challenging part about the site is that patients are spread in different facilities often miles apart which presents a challenge especially when expected to visit one facility twice in one week. The practitioners state they are unaware of many basic human resource needs, as many reports not knowing how to request a day off, or who to request it off. They are unaware of how to be reimbursed for mileage, or who to collaborate with on difficult patient cases. Tununu & Martin (2020) state that the working environment is the primary factor that contributes to stress and burnout in healthcare. The new graduate practitioners find the environment on this site challenging since they have to adapt on their own without much support from experienced nurses.

According to Kelly et al (2021), there is a significant relationship between job turnover and burnout among nurse practitioners. Kelly et al. (2021) indicate that newly graduated nurse practitioners are 1.5 times more likely to turn over when they experience high burnout. The study also found that about one-third of nurse practitioners leave their positions in the first one to two years of employment which is about 18% of the turnover rates. Given the numbers of turnover among the nurse practitioners in the United States, Ramachandran (2022) suggest a need to help this population develop resilience as a method to prevent burnout. Resilience is an important skill in the nursing profession as it helps mitigate burnout and have a positive response to the

organizational culture and work-related challenges (Kelly et al., 2021). MBSR is one of the strategies that can help nurses build more personal resilience to cope with challenges. Leaders should also focus on other strategies such as improving schedules, resilient training programs, mental health services, teamwork, and providing support to the new nurses to reduce and prevent burnout.

PICOT Question

Among the newly graduated mental health nurse practitioners **(P**), does the implementation of mindfulness-based stress reduction and authentic leadership (**I**), compared to no stress management program **(C**), reduce burnout and turnover rates (**O**) in four weeks (**T**)?

Literature Review

The practice-centered question this project study aims to answer is, does the implementation of MBSR program, compared to no stress management program, reduce burnout and turnover rates among the newly graduated mental health nurse practitioners? There is significant literature suggesting a practice gap between best practices and current practice at the project site, which hinder evidence-base strategies that can be implemented to reduce occupational stress and prevent burnout among the newly graduated mental health nurses. The literature also offers strategies for support to ensure the retention of nurses while assuring positive health outcomes and patient satisfaction.

Search Strategy

The search strategies for this literature review was to utilize a variety of medical and nursing databases to search for literature concerning the project title and practice-focused question. These databases and resources included ProQuest, Cumulated Index to Nursing and Allied Health Literature (CINHAL), PubMed, PsychINFO, and the Cochrane Library. The searches performed on these databases included keywords such as burnout prevention, new graduate nurses, nurse practitioners occupational stress, stress management/coping mechanisms, and professional nursing/psychiatric practices, which were combined using the Boolean operators AND, and OR to ensure the searches did not omit or overlook anything potentially relevant to the overall DNP project.

Fifty-five citations were selected and further narrowed down based on the inclusion criteria to only include professional and peer-reviewed scholarly sources focusing on evidence-based practices for burnout prevention and stress management among new nurses or allied health

practitioners. The exclusion criteria included studies that were not peer-reviewed or published in English and journals that failed to adequately focus on clinical practice as well as those that were not available in full text. Among the fifty-five relevant sources found in the initial search, 23 duplicates were removed and the remaining 32 were examined for relevance by previewing their titles and abstracts as well as based on the inclusion criteria. After the overall critical evaluation, ten articles were left for inclusion in the literature review, in addition to three national practice guidelines obtained from the Joint Commission, the National Library of Medicine, and the American Association of Nurse Practitioners.

Review of Study Methods

Among the final thirteen sources/articles, three were systematic literature reviews, one integrative literature review and three professional journals/expert opinions. The other six articles were quantitative studies that included one cross-section survey, one quasi-experimental pre/post-study, one randomized control trial study, one correlational study, and one pilot-level feasibility study based on a non-randomized design. Hence, the evidence gathered comprised both qualitative and quantitative studies with study methods that are valid and relevant to this DNP project since they produce similar outcomes of decreased burnout incidents, as well as reduced job stress levels and turnover, while increasing patient safety and satisfaction.

Review Synthesis

This literature review was performed by identifying similar themes in the selected research sources to discover critical aspects of burnout and occupational (job-related) stress of newly graduated nurse practitioners in different clinical settings. Also, the review includes recommended

practices extracted from the various types of literature based on the usefulness, validity, and applicability of the insights extracted from the selected evidence.

This literature review has identified and acknowledged a high prevalence of burnout and job-related stress among clinical practitioners such as physicians, nurses, and other health care providers (Ghannam et al., 2020; De Oliveira et al., 2019; Cocchiara et al., 2019; Aryankhesa et al., 2019; Mason, 2019). According to various studies, these work-related issues such as burnout and occupational stress are evidently associated with poor job performance, and adverse health effects on both the patients and providers (Ghannam et al., 2020; De Oliveira et al., 2019; Cocchiara et al., 2019; Aryankhesa et al., 2019). Burnout syndrome has negative repercussions related not only to the personal health of the newly graduated nurse but to the outcomes of the patients they care for. Several themes regarding the burnout phenomenon in healthcare providers have been acknowledged.

Theme Development

Burnout, Occupational Stress, and Compassionate Fatigue

Burnout

Burnout refers to a state of physical, mental, and emotional exhaustion as a result of continuous exposure to stress, which makes an individual lose self-motivation, experience a feeling of helplessness and hopelessness, and disengage from activities (Ghannam et al., 2020). Additionally, burnout is connected to psychological and physical reactions such as headaches, fatigue, irritability, reduced concentration, medical errors, insomnia, change in appetite, and gastrointestinal distress (Ghannam et al., 2020). According to Spence Laschinger & Fida (2014), burnout is a well-detailed psychological response to chronic stressors that are job-related. Spence

Laschinger & Fida (2014) claims that burnout is made up of three elements, emotional exhaustion, personal efficacy, and cynicism. However, cynicism and emotional exhaustion are regarded as the main elements of burnout. The prevalence of burnout in nursing practices is significantly influenced by the high emotional and physical demands of this occupation (Laschinger & Fida, 2014; Mason, 2019). Elevated levels of burnout in nursing are correlated with inadequate staffing levels, heavy workloads, job dissatisfaction, absenteeism, and turnover (Mason, 2019; Aryankhesal et al., 2019; De Oliveira et al., 2019).

Occupational Stress

Research suggests that burnout is largely influenced by occupational stress (Nowrouzi et al., 2015). This type of stress is caused by work situations that place high demands on workers'/nurses' incapability to meet work demands, which can lead to psychological distress or illness (Nowrouzi et al., 2015; Mason, 2019; Cocchiara et al., 2019). According to Nowrouzi et al. (2015), work-related stress is a major health concern for workers and organizations, which can bring about illness, burnout, absenteeism, and labor turnover. Furthermore, occupational stress can be a hindrance to recruiting and retaining employees (Nowrouzi et al., 2015).

In a literature review focusing on studies that highlight work intervention strategies for stress management and burnout prevention, Nowrouzi et al. (2015) emphasize the significance of implementing health promotion programs such as mindfulness-based stress reduction (MBSR) interventions and Psychosocial Intervention Training (PSI) in the workplace to enhance nurses' quality of work-life (QWL) and job satisfaction. Hence, burnout intervention and stress management strategies are vital elements in creating and nurturing healthy work environments that enhance nurses' job satisfaction while enabling healthcare organizations to recruit and retain clinical practitioners that are vital to the sustainability of health systems (Nowrouzi et al., 2015;

Cocchiara et al., 2018; Mason et al., 2019). Additionally, in another systematic literature review, Aryankhesal et al. (2019) specifies that burnout plays a significant role in reducing performance quality among clinical practitioners, thus proper interventions to reduce burnout among nurses can enhance the quality of services provided at hospitals (Aryankhesal et al., 2019**).**

Compassionate Fatigue

A professional opinion journal by Braunschneider (2013) asserts that burnout and compassionate fatigue can have damaging impacts on the well-being of nurses and can eventually change their capability to care for patients. Compassion fatigue is considered a mix of emotional, physical, and mental exhaustion that is connected with providing care to patients in considerable emotional pain and physical distress (Braunschneider, 2013). According to Braunschneider (2013), nurses develop compassion fatigue when they experience constant job-related stress that results from caring for acutely sick patients. The nurses become very exhausted to a point where they are unable to care for themselves or patients. As a result, the massive level of stress starts to negatively impact their health and job performance, causing the nurses to make care mistakes such as medication errors and wrong care procedures that can eventually injure patients (Braunschneider, 2013; Aryankhesal et al., 2019; Mason, 2019).

Braunschneider (2013) claims that compassion fatigue can only be distinguished from burnout in the sense that burnout is more gradual in the beginning in comparison to compassion fatigue, and is linked more to workplace issues rather than being too attached to caring for patients. According to Braunschneider (2013), burnout results from an individual's incapability to relieve the mental and physical symptoms related to persistent stress and is usually indicated by poor job performance, lack of motivation, and a temper/irritation with patients. Consequently, nurses start to lose interest in providing care and may no longer enjoy going to work, which results

in bad patient outcomes (Braunschneider, 2013; Mason, 2019). Braunschneider (2013) emphasizes that burnout can be largely attributed to longer working hours (shifts) taking into consideration that evidence from previous studies suggests that nurses working shifts longer than 10 hours are 2.5 times more likely to experience burnout and job dissatisfaction than their counterparts working shorter shifts due to immense workloads and compassionate fatigue (Braunschneider, 2013).

Impact of Burnout

Burnout syndrome is linked to reduced organizational productivity and the delivery of low quality of care in diverse clinical settings (Gina et al., 2015). Hence, there is a need to provide effective interventions for preventing burnout and lessening stress among nurses and allied medical practitioners based on reliable practice evidence (Aryankhesal et al., 2019). According to Gina et al. (2015), previous explorations regarding the impacts of burnout has presented substantial evidence of the various negative implications, ranging from job dissatisfaction and concern to patient discontent with lower quality of nursing care, and significant risk of negative patient outcomes (Gina et al., 2015; Aryankhesal et al., 2019; Cocchiara et al., 2019; Ghannam et al., 2020; Nowrouzi et al., 2015). Also, these explorations have provided evidence of the link between nurse burnout and healthcare-related infections, medication errors, falls, and other adverse patient incidents (Gina et al., 2015; Nowrouzi et al., 2015; Aryankhesal et al., 2019; Cocchiara et al., 2019). Findings of ground-breaking studies have shown that working environments for nurses such as shift hours, nurse-patient ratio, and role strain/overload are crucial aspects of burnout that must be mitigated to effectively prevent burnout and occupational stress (Nowrouzi et al., 2015; Rosaria et al., 2019; Ghannam et al., 2020; Joint Commission. 2019). According to Aryankhesal et al. (2019), burnout is influenced by factors potent of acting as facilitators or obstacles to burnout alleviation interventions such as long working hours, inadequate wages, high demands/huge

workloads, poor organizational leadership, and under-appreciation caused by the perceived conflict between effort and reward (Aryankhesal et al., 2019). Therefore, interventions should be strategically or combined to treat burnout since it is a complicated syndrome (Aryankhesal et al., 2019).

Psychiatric Care Settings

In another quasi-experimental pre/post-study, Masa'Deh et al. (2020) contend that psychiatric nurses suffer higher occupational stress and compassionate fatigue than nurses working in other settings because they provide care services to patients with psychological and behavioral problems. According to Masa'Deh et al. (2020), nurses working in psychiatric settings encounter numerous challenges due to the nature of their work environment and patient behavior, which leads to increased levels of perceived stress from critically traumatized patients and a high risk of violence from angry patients. Mason (2019) supports these arguments by acknowledging that Nurses suffer burnout resulting from occupational stress since their caring role involves a huge amount of emotional labor. For instance, nurses frequently see events related to severe mental/physical illness, critical accidents, and even death than other regular people (Mason, 2019). More particularly, nurses working in a psychiatric unit may occasionally encounter aggressive patients, which can be both upsetting and exhausting (Mason, 2019).

Impact of Leadership

Furthermore, the findings of burnout research investigating the influence of authentic leadership and psychological capital on new nurses' burnout and workplace wellbeing revealed that positive leadership styles play a crucial role in promoting conducive work environments that discourage the development of burnout while optimizing employee performance and workplace

well-being (Spence Laschinger & Fida, 2014). Spence Laschinger & Fida (2014) asserts that authentic leadership is a vital organizational resource for preventing the development of burnout, apart from intrapersonal resources that help in reducing workplace stressors such as self-care and Mindfulness-Based Stress Reduction (MBSR) strategies. Also, Aryankhesal et al. (2019) acknowledge that poor organizational leadership and job dissatisfaction caused by perceived under-appreciation amongst employees are among the main obstacles that hinder burnout management interventions, which must be improved to prevent or reduce burnout incidents among nursing practitioners (Aryankhesal et al., 2019). Furthermore, the Joint Commission. (2019) advocates that healthcare organizations should design and implement leadership empowering behaviors (LEBs) that concurrently decrease and eliminate obstacles to nursing workflows such as workplace-related issues and staffing problems in order to effectively address burnout (Joint Commission. 2019). However, Aryankhesal et al. (2019) advocate for further research to verify these findings such as utilizing larger sample sizes, allocating longer intervention periods, more active control groups, and incorporating other interventions while comparing their effectiveness, which can increase the reliability of the research results (Aryankhesal et al., 2019).

Currently Understood

Best Practices

The endorsement of self-care and burnout prevention strategies among nurses to improve their well-being is a public health concern, which is stirred by the high prevalence of burnout, and its negative impact on nurses, the health care systems, and healthcare organizations (Alexander et al., 2015; Ghannam et al., 2020; Masa'Deh et al., 2020; Nowrouzi et al., 2015). According to Alexander et al. (2015), although yoga has been proven to enhance mental and physical health outcomes, limited studies have assessed the effect of yoga on nurse-specific outcomes. To evaluate

the effectiveness of yoga in enhancing self-care and reducing burnout among nurses, the author conducted a pilot-level randomized control trial. The study was informed by the increasing perception regarding the stress and burnout experienced by nurses in different clinical settings evident around the globe (Alexander et al., 2015).

The study conducted by Alexander et al. (2015) implemented an experimental study design to attain its purpose, including a randomized controlled trial comprised of eight weeks of supervised yoga instruction for the intervention group and normal care for the control group (Alexander et al., 2015). Both groups were comprised of 20 participants (n=20), who were all nurses recruited within the partner hospital. The intervention group received yoga instructions from an experienced yoga instructor, that included the basics of deep breathing, postural alignment, and monitoring the mind with simple meditations (Alexander et al., 2015). The purpose of the yoga intervention was to avail participants with self-care tools to cope and reduce stress. Improved self-awareness was one of the tools that provided support for persons to become more aware of the simple, unconscious, daily activities, and functions that have a growing influence on health and well-being (Alexander et al., 2015). Even though the control group did not show any change throughout the study, participants of the intervention group demonstrated a substantial improvement in self-care and reduced levels of emotional exhaustion and depersonalization after completing the eight-week yoga intervention (Alexander et al., 2015).

Other studies performed to explore the use of yoga and mindfulness-based strategies demonstrate that these interventions can be effective in reducing and preventing burnout complications while ensuring better quality of care, patient safety and patient satisfaction (Mason, 2019; Aryankhesal et al., 2019; Cocchiara et al., 2019; De Oliveira et al., 2019). De Oliveira et al. (2019) performed a systematic literature review to identify various types of interventions for

preventing or combating burnout syndrome among nurses. Several interventions were extracted from the 30 articles reviewed, cognitive coping strategies, yoga, meditation, systematic nursing supervision, compassion fatigue programs, as well as the Psychological Empowerment Program (De Oliveira et al., 2019). These interventions were based on individual, group, or organizational measures, but group strategies were significantly prevalent. However, although most of the intervention strategies are effective at different success levels, systematic nursing supervision, basic nursing care, and psycho-oncological training program did not attain satisfactory improvement in burnout (De Oliveira et al., 2019). The evaluations of this study review were validated by several variables such as work environment, sample size, and working hours (De Oliveira et al., 2019).

A systematic review performed by Cocchiara et al. (2019) concerning the application of yoga to manage and prevent stress and burnout in clinical practitioners indicates that yoga can be effective in the management of stress among healthcare professionals (Cocchiara et al., 2019). Cocchiara et al. (2019) confirm that fostering the use of yoga and meditation can valuably help medical practitioners attain stable psycho-physical well-being that improves their usefulness within their work environment (Cocchiara et al., 2019). However, the authors recommend that it is crucial to apply systematically relevant studies to accredit the significance of such evidence.

To comprehensively identify interventions for burnout reduction among hospital physicians and nurses, Aryankhesal et al. (2019) also performed a systematic literature review on studies focusing on burnout prevention or management. The study findings demonstrated that the most applicable interventions to alleviate burnout include participatory programs, enhancing/training communication skills, and psychological interventions such as mindfulness, yoga, and meditation (Aryankhesal et al., 2019). Aryankhesal et al. (2019) assert that the influence of these interventions

can improve mental health in the long term; however, the authors insist that the interventions should be combined to treat burnout since it is a complicated syndrome (Aryankhesal et al., 2019).

Occupational stress is caused by the interaction between the environment and the personalities of an individual. Therefore, interventions to reduce stress in the workplace can be directed towards eradicating or reducing the sources of stress, or more essentially equipping the person to manage stress appropriately and effectively (Light & Bincy, 2012; De Oliveira et al., 2019). According to Light & Bincy (2012), stress intervention programs essentially enable people to manage stress effectively by providing them with stress coping mechanisms such as job stress awareness, time management, learning assertiveness training, and progressive muscle relaxation combined with deep breathing (Light & Bincy, 2012). De Oliveira et al. (2019) also proposes such interventions can be utilized to prevent or combat occupational stress/burnout, such as compassion fatigue programs, systematic nursing supervision, cognitive coping strategies and the Psychological Empowerment Program (De Oliveira et al., 2019). However, De Oliveira et al. (2019) indicates that some of these intervention strategies such as systematic nursing supervision, basic nursing care, and psycho-oncological training program do not achieve satisfactory improvement in burnout (De Oliveira et al., 2019).

Light & Bincy (2012) suggests that stress coping techniques should be imparted to all nurses and even integrated into their normal training curriculum. As a result, these strategies will help in improving the nurses' health and well-being, and reducing attrition rate, absenteeism, errors in patient care, infection rates, and injury claims. (Light & Bincy, 2012; De Oliveira et al., 2019; Aryankhesal et al., 2019). Light & Bincy (2012) performed a pre-experimental study among 30 nurses working in the critical care unit of a Medical College Hospital to examine the influence of stress management interventions such as assertiveness training, job stress awareness, time

management and progressive muscle relaxation. Assertiveness training involved interpersonal relationships with supervisors and co-workers, job stress awareness focused on overall job requirements, while progressive muscle relaxation and time management concentrated on workload elements (Light & Bincy, 2012). The study findings demonstrated that the main sources of stress for the nurses were general job requirements, caring for patients, and workload. Furthermore, the level of acute stress was lessened by 40 percent, that is, from 60 to 20 percent (Light & Bincy, 2012). Hence, the coping mechanisms were evidently effective in decreasing the stress of the critical care unit nurses.

Frögéli et al. (2018) claim that new registered nurses are particularly at a higher risk of developing stress-related conditions such as burnout and compassionate fatigue during their first years in the profession. De Oliveira et al. (2019) also suggests that the onset of burnout among health care professionals begins even during training since medical students and newly employed practitioners must cope with heavy workloads and high-stress levels in a competitive environment (De Oliveira et al., 2019). According to Frögéli et al. (2018), new registered nurses who experience symptoms of such conditions have lesser job satisfaction and are more likely to abandon their current job than their counterparts. This is because transitioning into a new practitioner position is a stressful experience with effects on physical and mental health, job satisfaction, organizational commitment, and turnover (Frögéli et al., 2018; De Oliveira et al., 2019). De Oliveira et al. (2019) assert that the stressful experience continues to be equivalently complex in the work setting where practitioners must cope with a demanding job, in addition to the stress of shiftwork and different responsibilities resulting from their chosen line of practice (De Oliveira et al., 2019).

To evaluate the consequences of an intervention designed to prevent stress-related ill health among new registered nurses, Frögéli et al. (2018) conducted a pilot-level feasibility study based on a non-randomized design with one condition focused on a behavior change intervention to help new nurses prevent burnout and cope with occupational stress by supporting their engagement in proactive behaviors such as increased mastery of occupational tasks, role clarity, and social acceptance (Frögéli et al., 2018). The experimental study comprised a sample of 65 new nurses who had been employed for six months or less. The findings of the feasibility objectives were confirmed, including recruitment, randomization, data collection and analysis, participation, acceptability, and deliverability (Frögéli et al., 2018). The study's conclusion suggests the behavior change intervention can be incorporated as part of a transition-to-practice for new nurses, enabling them to transition efficiently into the new profession by engaging in proactive behaviors.

National Guidelines

The Joint Commission

The Joint Commission acknowledges the increasing prevalence of burnout among nursing professionals which negatively affects the nurses' health and their ability to perform their job properly. Also, these negative effects contribute to the rising costs of health care (Joint Commission. 2019). A 2019 "Quick Safety" report published by the Joint Commission on its website emphasizes the adverse impacts of burnout on patient outcomes, including patient satisfaction, patient safety, and even mortality. Citing a 2017 literature review on preventing nursing burnout that evaluated six studies, denoting 3,248 nurses globally, the report reveals that the most widespread factors associated with burnout include the need for greater autonomy, segregation from decision-making processes, staffing issues, and security risks (Joint Commission. 2019).

The “Quick Safety” report provides several practice recommendations related to nursing burnout prevention and occupational stress management. The report indicates that implementing burnout interventions such as mindfulness and resilience training can help health care organizations to boost employee retention, diminish staff turnover, eliminate performance obstacles, and enhance patient satisfaction (Joint Commission, 2019). According to the Joint Commission, mindfulness is the practice of learning to concentrate one’s thoughts and awareness on the moment-by-moment experience with a mindset of openness, curiosity, and acceptance (Joint Commission. 2019).

The Joint Commission also suggests that resilience training involves more than preventing burnout; it entails developing and promoting resources to tackle workplace challenges that increase work-related stress such as organization-related stressors, difficult clinical situations, challenging patients, or workplace changes requiring better education or further professional development (Joint Commission. 2019; AANP. 2022). The American Association of Nurse Practitioners (AANP) show their appreciation to the enactment of the law supporting and protecting health care practitioners from behavioral and mental issues such as suicide, coming from high levels of burnout during the COVID-19 pandemic (AANP. 2022). The legislation establishes grants and institutes other activities to enhance mental and behavioral health among healthcare providers.

Additionally, the “Quick Safety” report recommends that apart from implementing mindfulness and resilience training, to effectively address burnout, healthcare organizations must develop and practice leadership empowering behaviors (LEBs) that simultaneously reduce and eradicate hindrances to nursing workflows such as staffing issues and concerns pertaining to workplace settings (Nowrouzi et al., 2015; Aryankhesal et al., 2019; AANP. 2022). These LEBs

are considered to enhance the value of nursing practice, facilitate the achievement of organizational goals, impart confidence in high performance, cultivate opportunities to participate in decision-making and provide freedom and autonomy from organizational restrictions (Joint Commission. 2019). According to the Joint Commission, healthcare organizations and facilities can establish and implement the LEBs in various ways.

First, healthcare organizations can create a secure and positive work environment by engaging with employees to understand their apparent environmental threats and forming action plans to address concerns (Joint Commission. 2019). Secondly, the organizations can empower workers to partake in decisions related to their work by encouraging idea sharing and collaboration with leaders to develop optimal staffing plans. Thirdly, the organizations can instill confidence in staff's capability to perform at a high level and assist them to achieve goals by supporting nurses to identify and eliminating behaviors caused by burnout and compassion fatigue (Joint Commission. 2019). Lastly, healthcare establishments can ensure nursing leaders engage in discussions and have a physical presence in their respective units by providing them with a conducive environment to cultivate best practices, formulate effective solutions for departmental issues and impart leadership skills through mentoring sessions (Joint Commission. 2019; Nowrouzi et al., 2015; Aryankhesal et al., 2019; AANP. 2022).

Project Aim

In the healthcare industry, nurses encounter higher levels of occupational burnout than other healthcare providers, which leads to greater absenteeism and turnover (Javadi-Pashaki & Darvishpour, 2019). Nurses play an essential role in a functional and effective healthcare system, and these professionals can be adversely influenced by job burnout, affecting their mental and physical health as well as their ability to deliver quality care (McMeekin et al., 2017). Burnout is

associated with a group of symptoms such as emotional exhaustion coupled with a deficiency of energy, and bad attitudes to patients, one's self, coworkers, and organizations (Javadi-Pashaki & Darvishpour, 2019).

Considering the implications of job burnout in nurses, the overarching aim of this DNP project is to reduce the incidence of nurse burnout, improve retention of nurses in the nursing profession, and reduce turnover rates of newly graduated nurses at the project site. Addressing this issue will improve the quality of care delivered to psychiatric patients. To achieve the goals of this DNP Project, the project lead will implement an evidence-based protocol that will manage burnout experienced by novice psychiatric nurses.

Project Objectives

These objectives will be completed in the timeframe of the DNP program.

1. This project will implement an MBSR program.

2. Educate participants in the new MBSR protocol.

3. Reduce turnover rates among the newly graduated psychiatric nurses by the measure of intent to stay before and after project implementation. This will be accomplished by conducting an evidence-based survey.

Theoretical Framework

This DNP project will apply a change theory called the awareness, desire, knowledge, ability, and reinforcement (ADKAR) model of change management to guide its implementation. This model was selected because it is a change-driven approach that is based on a bottom-up style to achieve or manage change among employees (Karambelkar & Bhattacharya, 2017). It equips individuals and stakeholders with the appropriate information, tools, and strategies, as well as motivation and the ability to effectively navigate through changes in the organization (Hiatt, n.d.).

The overall project focuses on the application of MBSR strategies to alleviate nurse burnout, which is anticipated to eventually enhance the quality of patient care and decrease nurse turnover. Hence, the use of an employee-driven intervention will be justified to obtain relevant change among the employees.

Historical Development

Jeff Hiatt developed the ADKAR model about two decades ago after researching the change patterns of more than 700 organizations (Hiatt, n.d.). Currently, the model is applied by numerous change leaders around the globe. This model is founded on the perception that organizational change can only occur when concerned individuals change (Hiatt, n.d.). It focuses on the effective implementation of a particular change by addressing any barriers affecting the implementation process. Moreover, the model equips leaders and individuals with the right information, and appropriate tools and strategies, as well as motivation with the capability to successfully navigate through changes in the organization (Hiatt, n.d.).

Major Tenets and their Application

The major tenets of the ADKAR Change Model are awareness, desire, knowledge, ability, and reinforcement, which will guide the project lead through the implementation phase of this DNP project.

Awareness

In the implementation of the ADKAR change model, the awareness phase will be used to create awareness of the practice problem and the needed change (Von Matern, 2020). The project lead will communicate crucial perspectives regarding the intended change to include detailed insights regarding the MBSR protocol and its anticipated benefits in reducing nurse burnout incidents, improving nurses' retention, and declining turnover rates of new nurses. This will ensure

nurses and related stakeholders understand why the planned change is essential to improve the practice and the quality of patient care (Karambelkar & Bhattacharya, 2017). This will be introduced as the project lead evaluates the project site and participants for readiness to learn.

Desire

In the desire phase, nurses and pertinent stakeholders will be empowered and engaged in the change process (Von Matern, 2020). Consistent, reliable communication and engagement with participants are necessary to escalate the desire for change (Von Matern, 2020). This strategy will also reduce the frustration caused by resistance. As the project lead develops the MBSR program, the project lead will introduce the concepts of change, make participants aware and elicit feedback from the participants regarding program design.

Knowledge

The participants will increase their knowledge in regard to burnout, the consequences of burnout, and the organizational ramifications of burnout through social learning strategies (Von Matern, 2020). Knowledge will be shared with the participants in a group setting environment. The project lead will create this environment where participants can share experiences and learn from each other as well as the project lead (Von Matern, 2020).

Ability

The project lead must recognize the barriers to change that challenge the success of the DNP project. Utilizing active listening skills, professional communications with participants, and monitoring the project site workflow can provide important insights into potential barriers (Von Matern, 2020). Moreover, applying leadership skills in proving credit to the participants for their efforts, no matter if they succeed is crucial. Hence, the project lead will also discuss weaknesses

and/or mistakes and acknowledge that learning new things is a process, which will help encourage the participants to believe in their abilities to change (Von Matern, 2020).

Reinforcement

The last step in the ADKAR change model will involve providing reinforcement through follow-ups and built-in reminders for the nurses to continue implementing the MBSR strategies within their work routines. Reinforcement is all about fusing the change into the participants' routine practice (Von Matern, 2020).

Population of Interest

The population of interest in this QI project includes new graduate NPs, NP supervisors, and one physician manager. The direct population of interest in this project includes 11 newly graduated mental health nurse practitioners working at the project site within the past 7 months, who will be educated on mindfulness-based stress reduction (MBSR) strategies. The new graduates are all psychiatric mental health nurse practitioners (PMHNPs), three with a DNP degree. Two NP supervisors and one physician manager will be assisting with project implementation.

My indirect population includes the organizations' administration, as well as patients and client facilities that outsource mental health care services. The administration will benefit from retaining staff and reducing turnover, which will enhance the organization's productivity and capability to offer quality psychiatric care services. Patients at the client facilities will benefit from access to psychiatric care, while the client facilities will have adequate NPs to serve the patients.

All the newly graduated nurse practitioners working at the project site, including full-time, and part-time practitioners will be included in the project. Physicians, and other nurse practitioners with over one year of experience, or working in other sections of the organization will be excluded

from the project. The senior management physician (medical director) will help in directing and approving overall project activities. The operations manager will help acquire all relevant resources for project implementation, while the administrative practice manager will help in coordinating project activities among the participants (the new graduates).

Project Setting

The project setting is a private practice organization in an urban area of Richmond Virginia that provides Mental Health consultations for twelve acute care inpatient psychiatric facilities. The nurse practitioners handle an average caseload of 15-18 patients. Providers may travel up to 45 miles to see 3-5 patients at each of the varying client facilities. Nurse practitioners set their own schedule for patient visits based on the organization's pre-established visit schedules (every 3 weeks and monthly bases) and on the patient volume with mental health needs.

The organization has a total of 15 nurse practitioners and 8 physicians, including one medical director, one operations manager, and one administrative practice manager. The project site does not have a Human Resources Management (HRM) department; direct managers are responsible for handling the onboarding of new NPs and physicians and directing the new NPs during the orientation process.

Stakeholders

The key stakeholders that will be involved in the project implementation include the 11 newly graduated PMHNPs, the administration (senior manager and direct supervisors), patients, and client facilities. The new graduates will benefit from the MBSR interventions by helping them cope with job-related stress and prevent burnout. This may also enhance job satisfaction as well as physical and mental well-being. The administration will benefit from retaining providers and reducing turnover, which will improve the organization's overall productivity. Patients will benefit

from increased access to psychiatric care, while the client facilities will have adequate NPs to serve the patients. Permission to use the organization as the project setting was given by the Administrative Practice Manager, while an affiliation agreement was unnecessary since no patient data will be utilized (Appendix A).

Interventions

The interventions of this project will involve the participants completing an MBSR program that will be offered and directed by the project lead. This will include a mindfulness meditation practice before their shift or during shift intervals, and a 15-minute yoga practice during lunch breaks. The implementation of these interventions will be guided by the ADKAR change management model. First, a commencement meeting will be held to help create awareness regarding the impact of burnout and the anticipated benefits of the MBSR intervention program to the participants and pertinent stakeholders by providing them with essential information. This will involve meeting the direct population of interest (the new graduates) and obtaining their verbal consent to participate in the MBSR program. Participants who consent to participate in the program will complete a pre-survey questionnaire containing a pre-BAT (Burnout Assessment) survey and qualitative questions for assessing their Intent to Stay (ITS) (Appendix E). The participants will also sign up for a 30-minute group Zoom meeting, which will occur two times every week as directed by the MBSR expert. Consistent communication with the participants will be maintained through emails and Zoom meetings.

The second step will involve providing the newly graduated NPs with necessary MBSR knowledge and tools that include meditation and yoga practice guides that will enable them to perform the intervention practices. During this phase, the project lead will educate the participants on the new MBSR protocol by introducing different key MBSR practices such as “Breath

Awareness Practice", and "Love Kindness Meditation", and guiding how to properly perform the practices along with their intended benefits in reducing perceived stress, preventing burnout, and improving one's overall well-being. Additionally, the participants will be taught by the project lead and the MBSR expert about the MBSR interventions through group Zoom meetings, which they will implement during the project timeframe.

The third step will involve the actual implementation of the MBSR interventions. Participants will start applying the MBSR interventions and activities illustrated during the Zoom sessions to reduce stress and prevent burnout. Moreover, the new graduates will be reinforced and encouraged to continue applying the intervention practices within their work routines through follow-ups and built-in reminders. The last step will entail concluding the project and collecting post-survey data. The project lead will conclude the project with a closing meeting and the participants will complete the post-survey questionnaire containing the post-BAT survey and qualitative questions for assessing their Intent to Stay (ITS) post the MBSR interventions to identify whether the interventions achieved a positive difference for the new graduates (Appendix E).

Planning Project Team

The project team will constitute the project lead, an MBSR expert, and the project site's Administration. These individuals will provide indispensable support in implementing the project interventions. The project lead and the MBSR expert will guide the MBSR interventions among the new graduates, while the Administration will help in obtaining necessary resources and coordinating the intervention activities amongst the participants.

Resources

The resources needed for project implementation include a fast internet connection, a practice space for participants to perform the MBSR interventions, and an MBSR expert to help guide some of the MBSR interventions. Internet connection and practice space will be provided by the practicum organization. The MBSR expert will be hired and reimbursed by the project lead using personal funds throughout the project timeframe.

Timeline

The project will be executed over a four-week timeframe (Appendix D). Week one will involve meeting the population of interest and obtaining verbal consent, completing the pre-BAT survey, and signing up for Zoom meetings. In week two, key practices will be taught that include "Breath Awareness Practice", "Love Kindness Meditation", Mindful Yoga, and continued zoom meetings. In week three, the participants will apply the MBSR interventions and activities illustrated during the Zoom sessions. By the end of week four, the project will be concluded with a closing meeting and the participants will complete the post-survey questionnaires.

Tools

MBSR Protocol

The MBSR protocol will include the MBSR intervention guides and educational materials for directing mindfulness meditations and yoga practices (Appendix B and C). This tool will encompass an MBSR program developed by the project lead based on evidence-based practice and will be validated by seeking expert consultation through the project team. It includes key MBSR practices such as "Breath Awareness Practice", "Love Kindness Meditation" and Mindful Yoga, which will be taught through zoom meetings. These practices were adapted from the basic structure and format of the original 8-week MBSR program developed by Jon Kabat-Zinn in the

University of Massachusetts Center for Mindfulness in Medicine, Health Care, and Society (Ahern, 2009; Levine, 2010; Santorelli et al., 2017).

Burnout Assessment Tool (BAT)

The second tool will be the pre-post survey questionnaires including a demographic section, a shorter version of the Burnout Assessment Tool (BAT), and qualitative questions for assessing the nurse practitioners' Intent to Stay (ITS) (Appendix E). The ITS assessment questions will be developed by the project lead and will be validated by seeking expert consultation through the project team. The BAT is an established tool for assessing burnout levels that is free to use and has been validated by a previous study investigating the development, validity, and reliability of the BAT through its psychometric properties (Schaufeli et al., 2020). The study demonstrated the tool has four core dimensions that form its basis, including exhaustion, mental distance, and impaired emotional, and cognitive impairment. Focusing on a typical sample of 1500 Flemish employees, the study results established that the BAT and its subscales have adequate reliability in terms of internal consistency with a Cronbach's alpha of 0.95 for the total items, and ranging from 0.90 to 0.92 for the subscales (Schaufeli et al., 2020).

The findings also showed that the BAT has convergent validity and discriminant validity with other burnout measures such as the Maslach Burnout Inventory (MBI) and the Oldenburg Burnout Inventory (OLBI). The internal consistency of the BAT in the study was considered exceptionally significant, and slightly better than the coefficients for the OLBI (0.78 to 0.85) and the MBI (0.84 to 0.92) (Schaufeli et al., 2020). The shorter version of the BAT with 12 items has been proven to uphold the breadth of item content of the original BAT23 version, comprising sound psychometric properties that are recommended for employee surveys (Hadžibajramović et al., 2022).

Data Collection Plan

In this DNP project, pre-BAT (Burnout Assessment) survey and qualitative questions will be utilized as the main approach for data collection before and after the MBSR interventions to help determine whether the interventions successfully achieved the anticipated project outcomes, including reduced incidences of nurse burnout, improved retention of nurses in the nursing profession, and reduced turnover rates of newly graduated nurses at the project site. The first section of the survey will collect the participants' demographic data, including gender, age, number of children, marital status, and work history with the practicum organization. The second section of the survey will collect data on the participants' burnout levels based on the BAT_{12} self-report questionnaire, consisting of a 12-item scale with four subscales; exhaustion, mental distance, cognitive impairment, and emotional impairment. These items will be answered based on a five-point Likert scale ranging from 1 (Never) to 5 (Always). The last part of the survey will collect qualitative data regarding the participants' retention intention through six open-ended questions determining their intent to stay/leave the organization through Yes or No responses.

The pre/post questionnaires will be sent to the participants via organizational email, whereby they will provide the most applicable responses to the questions. The questionnaires will be provided through a Survey Monkey platform, with each identified by a unique serial code made up of alphabets and numbers to distinguish participants' responses. The survey questionnaire will be sent before the intervention and the same copy sent after the intervention. The project lead will evaluate the implementation of the MBSR interventions by conducting 30-minute Zoom meetings twice every week to assess the progress of each participant. During the Zoom meetings, participants will share their current experiences with MBSR practices, and describe any challenges they may be encountering during practice to provide room for improvement.

Participant Privacy

This DNP project will implement several strategies and precautions to safeguard the privacy of participants. The first strategy in ensuring the participants' privacy will involve the use of a verbal approach to secure their informed consent. This approach will protect the participants' privacy by eliminating any paper or electronic trail that can be used to trace the participants. In the second approach, the project lead will minimize the number of identifiers in the questionnaires to lower the risk of participants being identified through the information gathered. The questionnaires will only be identified by a unique serial code made up of alphabets and numbers to distinguish participants' responses. Moreover, all direct identifiers will be removed following the final data analysis and will not be part of the information that is stored. Lastly, the project lead will implement strategies to limit access to the participants' data by password securing the computer that will handle the information during the collection, analysis, and storage of the data. The data will also be encrypted during transmission and storage.

Data Storage

Data storage will happen in two scenarios during this project, whereby utmost data security and confidentiality will be maintained. Data storage will occur when it is gathered from the pre and post-questionnaires for the latter analysis, and once the analysis is completed and stored as evidence and supporting documents to the DNP project and its findings. During the two storage phases, similar strategies will be used and they will involve the use of encryption and strong computer passwords. All tools will be stored on a work computer and only the DNP project lead will have access.

Ethics/Human Subjects Protection

Human Subjects Protection

To comply with the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research guidelines and maintain a high ethical standard, this DNP project will implement several measures. The recruitment process will begin by obtaining informed consent from the target population of interest. This will be done verbally and will involve a concise and focused presentation of all relevant information that the prospective participants need to understand regarding the project. The consent process will also involve informing the potential participants about what the project expects from them and the potential benefits and risks associated with participating in the project. There will be no monetary incentives provided to the participants.

Ethics/IRB Process

To maintain compliance with Touro University of Nevada's policy, the Institutional Review Board (IRB) determination form was submitted for review and was determined by the project team to be a quality improvement project. Since the project utilizes a QI educational design based on published best practices and does not involve direct patient care or human subjects, it was determined that the project will not require IRB oversight. Also, the project site will not require IRB or QI committee oversight. Per the Respect for Persons principle, the project lead will clarify to the participants that participation is voluntary, and if they chose to participate, they are free to end participation at any time without the need for a reason, explanation, or fear of consequences.

Data Analysis Plan

The data collected from the pre and post-questionnaires will be analyzed using two statistical tests: descriptive statistics and the Wilcoxon signed rank test. Descriptive statistics will be utilized to summarize the participants' demographic data. Descriptive statistics will also be used to describe the turnover rates of nurses by indicating the percentage of retention rates before and

after project implementation. According to Pallant (2020), descriptive statistics are typically used to illustrate phenomenon from a sample of a population by summarizing, describing, and organizing basic qualities of a given data set. The Wilcoxon signed rank test will help compare the participants' burnout levels before and after the MBSR interventions, demonstrating whether the interventions effectively reduced the incidences of nurse burnout, decreased the turnover rates of the new graduate NPs, and increased the retention of nurses in the nursing profession. Furthermore, the qualitative Yes/No responses about the participants' intention to stay will be addressed and compared using descriptive statics.

Based on the project topic and anticipated project outcomes, the MBSR activities are the independent variables in this project, and the dependent variable is burnout, which can be considered a skewed variable of interest that lacks the assumption of normality. This is one of the assumptions of the Wilcoxon signed rank test (Pallant, 2020). Since the Wilcoxon signed-rank test is non-parametric, it will help compare the burnout levels of the participants. Burnout is an ordinal variable that can only be assessed using a Likert scale, which is recommended to be tested using non-parametric tests, such as the Wilcoxon signed rank test (Sliva & Terharr, 2018). The total burnout score will be calculated as an average of all the 12 items in the BAT scale, and a high score will indicate high levels of burnout (range 1-5). A score lesser than 2.53 will indicate no burnout, a score greater than 2.54 and lesser than 2.96 indicating risk of burning out, and a score greater than or equal to 2.96 indicating burnout is most likely (Hadžibajramović et al., 2022). SPSS software will be used to analyze the collected data.

Results

The primary outcome assessed in this DNP project is the level of nurse burnout before and after project interventions. Other outcomes assessed in the project include the retention intentions

of nurse practitioners and turnover rates among the new graduate NPs before and after the project implementation. Recruitment of participants for this DNP project was open to all newly graduated psychiatric mental health nurse practitioners (PMHNPs) working at the project site within the past seven months. The only exclusion was new graduate PMHNPs with over one year of experience or working in other sections of the organization. The project was implemented over a four-week timeframe, whereby key MBSR practices were taught and practiced, including the 5-10 minutes "Breath Awareness Practice" in the morning, the 20-30 minutes "Love Kindness Meditation" during shift intervals, and the 15-minute Mindful Yoga during lunch breaks (Appendix D). The project kicked off with the project lead holding a commencement meeting, introducing project team members, and providing crucial insights about the project interventions and their intended benefits.

Eleven participants consented to participate in the MBSR program and were given pre-survey questionnaires to establish their pre-intervention burnout levels. The questionnaires also collected the participants' demographic data and qualitative data on the retention intentions of the new graduate NPs before the MBSR interventions. The same questionnaires were sent to participants via organizational email during the project conclusion to collect the post-intervention data from participants. Two participants did not complete participation in the MBSR program due to personal reasons. No participants left employment at the site during the project implementation timeframe, hence nurse turnover rates were not evaluated as one of the crucial project outcomes. The project lead analyzed the data obtained from the survey questionnaires using SPSS software.

One of the Wilcoxon signed rank test's assumptions is the dependent variable should lack the assumption of normality to help compare two separate observations between two similar samples (Pallant, 2020). Burnout is the dependent variable in this project that is considered skewed

and lacks the assumption of normality. A Wilcoxon signed rank test was also suitable for evaluating burnout levels pre and post-interventions based on the assumption that burnout is an ordinal variable that can only be assessed using a Likert scale and tested using non-parametric tests, such as the Wilcoxon signed rank test (Sliva & Terharr, 2018). Hence, the Wilcoxon signed-rank test was utilized to compare the burnout levels of the participants before and after the MBSR interventions, indicating whether the interventions effectively reduced the incidences of nurse burnout. The main assumption of descriptive statistics is that it should be typically used to summarize data collected from a sample population (Pallant, 2020). In this DNP project, descriptive statistics were utilized to summarize the participants' demographic data as well as address and compare Yes/No responses to the open-ended questions regarding the participants' intent to stay.

Among the nine participants who completed participation in the MBSR program, three were males aged between 28-43, and six were females aged between 30-47. After running a Wilcoxon Signed Rank Test on the dataset collected, the results showed key differences between the participants' burnout levels before the MBSR interventions (Time 1) and after the interventions (Time 2). At Time 1, there were a total of eleven participants with a mean burnout level of 2.683. At Time 2, the total number of participants was nine with a mean burnout level of 2.222 (Appendix F). This shows a reduction in the average burnout level by 0.461 points after the MBSR interventions. The highest burnout score recorded at Time 1 was 2.92, while the highest score recorded at Time 2 was 2.50, indicating a reduction in the highest burnout levels by 0.42 points. The interpreted output of the Wilcoxon Signed Rank test revealed a statistically significant reduction in burnout levels following the MBSR interventions program, $z = –2.692$, $n = 11$, $p <$

.001, with a large effect size (r= 0.60). The median score on the burnout levels decreased by 0.42 points from 2.67 pre-intervention to 2.25 post-intervention (Appendix F).

The open-ended questions assessing the participants' retention intentions revealed crucial differences in the participants' intent to stay pre and post-the-MBSR interventions (Appendix G). The first question asked participants whether they were generally satisfied with their current jobs with a Yes or No response. The Yes responses for the first question increased by 72.7 percent from 27. 3 percent before interventions to 100 percent after project interventions. The second question queried participants whether they felt like nursing is the right career for them. The Yes responses for this query remained at 100 percent in both pre and post-interventions. The third question required participants to answer whether they have been looking for other job opportunities that would help better their careers. The No responses for this question rose by 30.3 percent from 36.4 percent at Time 1 to 66.7 percent post the project interventions. The results of the first three questions suggest an improvement in the participants' overall job satisfaction.

The fourth question asked participants whether they were happy as a member of the practicum organization. The Yes responses for this query increased by 53.5 percent from 36.4 percent at pre-intervention to 88.9 percent post-intervention, signifying a general increase in the participants' organizational commitment. The fifth question asked whether participants have ever thought of leaving their current employer. The No responses for this query increased by 13.1 points from 9.1 percent at Time 1 to 22.2 percent at time 2. The last question enquired participants whether they have any intentions to leave their current organization. The No responses for this question rose by 36.4 points from 63.6 percent at pre-intervention to 100 percent after project implementation, suggesting an improvement in the participants' intent to stay. Statistical assumptions for each test are addressed and any applicable statistical violations are resolved.

Summary

Before project implementation, pre-intervention data indicated that two participants had low levels of burnout (<2.53), four had moderate levels of burnout (2.58-2.66), and the remaining three had moderately high burnout levels (2.75-2.91). After project implementation, participants with low levels of burnout reported even lower burnout levels (2.0-2.08), while those with moderate and high burnout levels also reported lower levels of burnout (2.16-2.5). The overall results of the retention intentions data indicated a significant improvement in the participants' intent to stay. Therefore, it can be considered that the MBSR interventions effectively reduced the incidences of nurse burnout, reduced turnover rates of newly graduated NPs at the project site, and increased the retention of nurses in the nursing profession. The project provided the new graduate NPs with relevant techniques or tools to manage occupational stress and fatigue, and prevent the risk of burnout as recommended by previous literature review. Also, all participants who completed participation had consistently improved burnout levels and increased retention intentions.

Interpretation

The results of the project implementation demonstrated that the use of MBSR interventions reduced burnout in the participants, and improved the participants' overall job satisfaction, organizational commitment, and intent to stay. This DNP project provided the participants with training in stress management and burnout prevention strategies that involve three MBSR techniques including "Breath Awareness Practice", "Love Kindness Meditation", and Mindful Yoga. MBSR techniques are proven effective in lowering the level of emotional exhaustion in nurse practitioners by providing awareness and alternativeness that helps them reduce job-related stress and prevent burnout (De Hert, 2020). The MBSR practices are also considered to enhance

the physical and mental well-being of healthcare providers as well as their overall job satisfaction, which in turn reduces turnover and improves patient outcomes, health outcomes, and organizational productivity (Fendel et al., 2019). The DNP project results can be replicated on an organization-wide level, potentially creating a significant impact that could reduce burnout. Reducing burnout can in turn reduce turnover and enhance patient outcomes, and the overall impact on the organization could be substantial. The administration of the organization would be able to retain medical personnel and reduce turnover, eventually improving the overall productivity of this organization.

The MBSR intervention program involved a financial investment, but there are resulting opportunity costs that include increased employee retention, reduced staff turnover, and enhanced organizational productivity, which made the investment worthwhile. The cost of implementing the MBSR program totaled $1,300, which is an insignificant expenditure strategically traded off the cost of turnover, reduced quality of care, and poor patient outcomes. The intervention reduced occupational stress, alleviated nurse burnout, increased the retention of nurses, and decreased the turnover of new graduate NPs at the project site. According to Nowrouzi et al. (2015), occupational stress is a significant health concern for staff and organizations since it can cause illness, burnout, absenteeism, and labor turnover. Work-related stress can also be an obstacle to recruiting and retaining workers (Nowrouzi et al., 2015). Furthermore, the Joint Commission Health (2019) advocates that healthcare organizations that implement burnout interventions such as resilience training and mindfulness can experience improved employee retention, decreased staff turnover and performance issues, as well as increased patient satisfaction.

Limitations

Limitations in the project included time constraints, sample size and addressing long term outcomes. The length and duration of the MBSR education sessions were one hour and a one-time session. Longer education sessions were necessary to ensure every participant had adequate time to learn how to properly practice the MBSR techniques and incorporate them into their daily routines. This limitation was minimized by the project lead collaborating with the MBSR expert to conduct Zoom meetings and send check-in mails twice every week to provide participants with relevant advice on how to overcome practice challenges and perform the MBSR practices more efficiently. Secondly, the project sample size and composition may limit its generalizability since the sample size started with 11 PMHNPs and only nine PHMNPs completed participation. The sample population also comprised of newly graduated NPs working in a private practice organization that provides Mental Health consultations for twelve acute care inpatient psychiatric facilities. Lastly, only short/mid-term outcomes were assessed since the post-intervention survey was completed immediately after the conclusion of the final project sessions. More time would be required to assess long-term outcomes such as actual nurse turnover rates, and the role of authentic leadership in combating burnout at the workplace. This limitation will be minimized by the project lead evaluating nurse turnover rates at the project site on a long-term basis.

Conclusion

Previous studies on the impacts of burnout have provided sufficient evidence of its various adverse effects, including job dissatisfaction and performance issues, reduced patient satisfaction due to lower quality of nursing care, and considerable risk of negative patient outcomes in diverse clinical settings. These impacts are also linked to reduced organizational productivity (Aryankhesal et al., 2019; De Oliveira et al., 2019; De Hert, 2020; Ghannam et al., 2020). This quality improvement project provides effective evidence-based interventions for preventing

burnout and alleviating stress among nurses and allied medical practitioners. The long-term goal of this DNP project is to systematize the application of these MBSR techniques within the organization to help reduce the overall level of burnout among nurses and allied medical practitioners. Reducing burnout would eventually improve organizational productivity through improved retention as well as safety and quality outcomes.

The outcome measures of this project will be shared with the organization's senior administration, medical staff, and relevant stakeholders to ensure the sustainability of this project by demonstrating the benefits of MBSR techniques in combating burnout and making the MBSR program a regular practice for all healthcare providers. To ensure project sustainability, nurse turnover rates at the project site will be evaluated on a longer-term basis as one of the crucial project outcomes that support the usefulness of MBSR techniques in reducing burnout and staff turnover. This DNP project can be an important tool for helping healthcare organizations and healthcare professionals combat burnout by incorporating MBSR practices in workflows and regular routines, which would in turn establish a safe and healthy work environment while enhancing employee well-being.

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Appendix A

From: NASR BASIR <nasrballa@yahoo.com>
Date: March 30, 2022 at 12:46:29 PM EDT
To: Rich Shelton <rshelton@insightphysicianspc.com>
Subject: Re:

I appreciate it. Thank you so much Rich.

Sent from my iPhone

On Mar 30, 2022, at 11:05 AM, Rich Shelton <rshelton@insightphysicianspc.com> wrote:

You have approval to use Insight Physicians LLC as the project environment.

Rich Shelton
Administrative Practice Manager
Insight Physicians P.C. an Anodyne Pain and Wellness Solutions Company
2006 Bremo Road
Suite 101
Richmond, VA 23226

Cell 703-966-0317

www.insightphysicianspc.com

Appendix B

Coping with Stress and Preventing the Risk of Burnout

- Stress is a natural feeling of not being able to cope with certain demands and events, which causes emotional, psychological, or physical strain.
- Stress involves imbalances of cortisol and other stress-related hormones that weakens your health over time, and its repercussions are not immediately noticed (Magtibay et al., 2017).
- Apart from endangering your physical and mental health, perceived stress reduces your energy and work efficiency/performance, hindering your ability to provide proper nursing care, which ultimately has a negative impact on patient outcomes (Hilcove et al., 2021).

Mindfulness-based stress reduction (MBSR) techniques

1) In the practice of MBSR techniques like mindfulness meditation, one can nurture the sense of oneself as a present moment awareness that perceives the thoughts that develops in the mind and interprets them as something to be noted, or responded to, but not to be identified with as 'me' (Santorelli et al., 2017).
1) The ability to quiet our own mind, and the awareness of our thoughts in relation to ourselves can be cultivated more deeply which can result in more clarity about who we really are (Ahern, 2009).

Insight Physicians

IMPLEMENTATION OF AN MBSR PROGRAM

IMPLEMENTATION OF AN MBSR PROGRAM

among Newly Graduated NPs

Importance of stress management techniques

Practicing stress management techniques such as MBSR (mindfulness-based stress reduction) can help alleviate the impacts of stress on your overall well-being and prevent the risk of burning out.

Mindfulness is the awareness that arises from focusing on purpose, in the present moment, non-judgmentally, to things as they are (Santorelli et al., 2017).

It enables one to approach situations with openness and take the present moment as it is rather than as we would like it to be.

Awareness of Breath

Practicing the mindfulness of breathing is the gateway to awareness. It involves observing, watching, and feeling the breath with a sense of interest and in a relaxed approach.

With practice, mindfulness of breathing helps you to become more aware of your breathing, which in turn enables you to direct your awareness to various aspects of your life that needs attention or help with relieving stress, pain, or anger (Ahern, 2009).

Mindful Yoga

Yoga is a form of meditation that consists of postures done mindfully and with awareness of breathing.

Routine practice of yoga enhances your musculoskeletal flexibility, strength, and balance, and also enables you to enter states of deep relaxation and awareness (Hilcove et al., 2021).

Practice yoga in a similar manner to mindfulness meditation, including moment to moment awareness, allowing yourself to relax, not striving to get somewhere and letting go of any judging of yourself (Santorelli et al., 2017).

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Appendix C

MBSR Interventions Guides

Script for Breath Awareness Practice

Sit in a comfortable posture with your spine erect through not rigid. Let your shoulders relax. Gently close your eyes if that feels comfortable. If not let your gaze fall unfocused on the floor four or five feet in front of you. Bring your attention to the sensations of contact, the weight and pressure your body makes with the chair and the contact your feet makes with the floor.

Bring your focus to your breath. Be aware of how your breath is, is it deep or shallow? There is no need to change or control your breathing in any way. There is nothing to be fixed and no particular state to achieve. Notice the breath as it travels through your nostrils, into your lungs and out through your mouth. Allow yourself for a minute or two to just be with it as it is. Now gradually bring your attention to your navel.

As you inhale feel your tummy rising and as you exhale feel your tummy falling...rising and falling. Allow your attention to settle on the full length of the breath. It may help to notice it by saying "in" or "rising" as you inhale and "out" or "falling" as you exhale. As best you can stay in touch with the changing physical sensations for the full duration of the in-breath and the full duration of the out-breath perhaps noticing the slight pauses between an in-breath and the following out-breath, and between an out-breath and the following in-breath.

Practice breath awareness on your own for 5-10 minutes every morning.

Adapted from the Ahern (2009) Mindfulness Based Stress Reduction Handbook.

A Guided Loving Kindness Meditation

Sitting comfortably, focus your attention to your breath and let the attention grow gradually as your breath comes and goes all by itself deep within your body. Take a few moments to allow the attention to gather within the harmonized rhythm of your breath.

Gently, turn within yourself and begin to direct care for your own wellbeing and toward yourself, and repeat the mantra: "May I be healthy, and strong. May I be happy and at peace." Just feel your breath coming and going into your body as you relate to yourself with kindness and care.

Now, as you inhale, turn your attention to the patients you care for and as you exhale repeat the mantra: “May my patients be healthy, and strong. May my patients be at peace and free from suffering.” Just feel your breath coming and going into your body as you envision them with improved well-being and peace.

As you inhale, focus your thoughts to your fellow caregivers and all the patients in the healthcare facility, and as you exhale proffer feelings of kindness and interconnectedness to all of them.

Practice “Love Kindness Meditation” for 20-30 minutes during shift intervals, prior to your shifts, or at the end of your shifts.

Adapted from the Stephen Levine Guided Meditations

Appendix C (continued)

Mindful Yoga Poses

Perform these yoga poses for 10-15 minutes during lunch breaks.

Appendix D

Project Implementation Timeline

Project Activities	Phase 1-WK 1	Phase 2-WK 2	Phase 3-WK 3	Phase 4-WK 4
Hold the commencement meeting with stakeholders to create awareness regarding the MBSR program	☒ Day 1 Week 1	N/A	N/A	N/A
Distribute the MBSR program pamphlets and educational materials through email	☒ Day 1 Week 1	N/A	N/A	N/A
Meet the direct population of interest (the newly graduated NPs) to obtain their consent for participating in the program	☒ Day 2 Week 1	N/A	N/A	N/A
Give out a pre-BAT (Burnout Assessment) survey and request participants to sign up for a group Zoom meeting	☒ Day 2 Week 1	N/A	N/A	N/A
Begin to teach MBSR interventions through Zoom meetings	☒ Day 3, 4,5 Week 1	N/A	N/A	N/A
Implement the interventions-participants apply the MBSR interventions and activities learned from Zoom sessions	N/A	☒ Day 1-6 Week 2	☒ Day 1-6 Week 3	☒ Day 1-5 Week 4
Send email reminders and request check-in forms	N/A	☒ Day 3 and 6 Week 2	☒ Day 3 and 6 Week 3	☒ Day 2 and 4 Week 2
Participants complete the post-survey questionnaires to be used in assessing the effectiveness of the MBSR interventions.	N/A	N/A	N/A	☒ Day 5 Week 4
Hold closure meeting to end project participation and collect post-survey questionnaires	N/A	N/A	N/A	☒ Day 6 Week 4

Appendix E

Serial No: _____

Pre-Post Questionnaires: Pre-BAT (Part I & II), Post Survey (Part I, II, & III)

Part I: Demographic Information

Please provide the most applicable answer to the following questions.

1	Gender	☐Male		☐Female	
2	Age	_____			
3	Do you have children?	☐ Yes		☐ No	
4	Number of children living at home?	_____			
5	Marital status	☐ Single	☐ Married	☐ Divorced	☐ Windowed
6	How long have you worked at Insight Physicians?	_____			

Part II: BAT

The following statements are related to your work situation and how you experience this situation. Please state how often each statement applies to you.

7	At work, I feel mentally exhausted.	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
8	After a day at work, I find it hard to recover my energy.	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
9	At work, I feel physically exhausted.	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
10	I struggle to find any enthusiasm for my work	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
11	I feel a strong aversion towards my job	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
12	I'm cynical about what my work means to others	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
13	At work, I have trouble staying focused	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
14	When I'm working, I have trouble concentrating	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
15	I make mistakes in my work because I have my mind on other things	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
16	At work, I feel unable to control my emotions	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always
17	I do not recognize myself in the way I react emotionally at work	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always

18	At work I may overreact unintentionally	☐Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Always

Part III: ITS

Please provide an honest response to the following questions by stating either Yes or No.

19	Are you generally satisfied with your current job?	☐Yes	☐No
20	Do you feel like nursing is the right career for you?	☐Yes	☐No
21	Have you been looking for other job opportunities that will help better your career?	☐Yes	☐No
22	Are you happy for being a member of this organization?	☐Yes	☐No
23	Have you ever thought about leaving your current employer?	☐Yes	☐No
24	Do you have any intentions to leave your current organization?	☐Yes	☐No

Appendix F

Figure 1

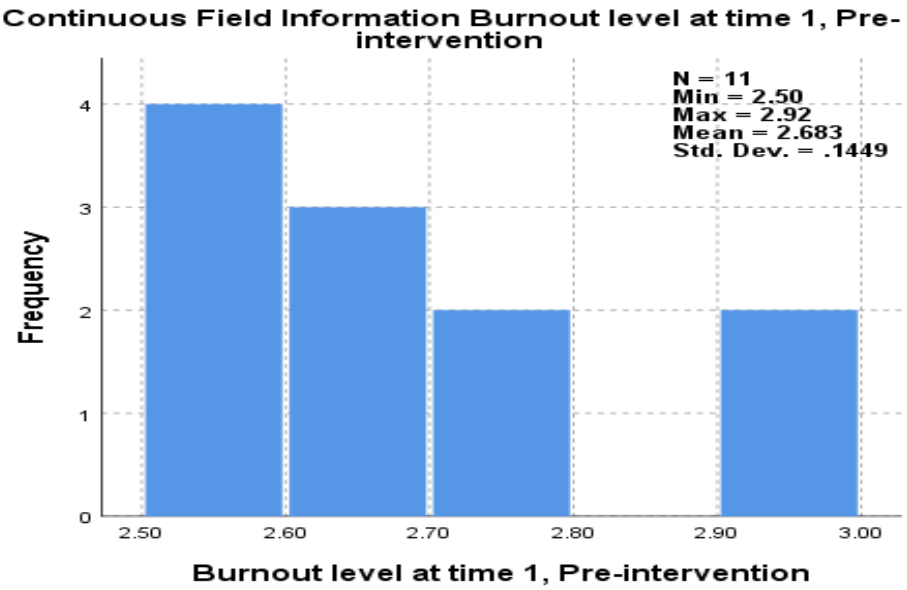
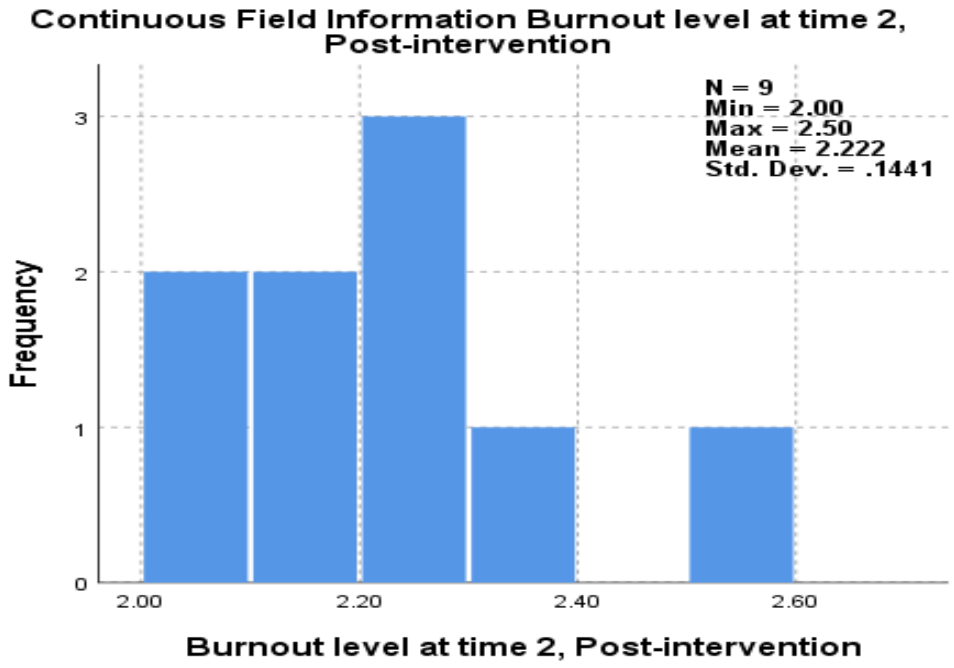


Figure 2



Appendix F (continued)

Figure 3

Statistics

		Burnout level at time 1, Pre-intervention	Burnout level at time 2, Post-intervention
N	Valid	11	9
	Missing	0	2
Percentiles	25	2.5800	2.1250
	50	2.6700	2.2500
	75	2.7500	2.2900

Interpretation of the Output

A Wilcoxon Signed Rank reveals a statistically significant reduction in burnout levels following the interventions program, $z = –2.692$, $n = 11$, $p < .001$, with a large effect size ($r = 0.60$). The median score on the burnout levels decreased from pre-intervention ($Md = 2.67$) to post-intervention ($Md = 2.25$).

Appendix G

Intent to Stay at Pre-intervention

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	3	27.3	27.3	27.3
	Female	8	72.7	72.7	100.0
	Total	11	100.0	100.0	

Do you feel like nursing is the right career for you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	100.0	100.0	100.0

Have you been looking for other job opportunities that will help better your career?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7	63.6	63.6	63.6
	No	4	36.4	36.4	100.0
	Total	11	100.0	100.0	

Are you happy for being a member of this organization?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	36.4	36.4	36.4
	No	7	63.6	63.6	100.0
	Total	11	100.0	100.0	

Have you ever thought about leaving your current employer?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	90.9	90.9	90.9
	No	1	9.1	9.1	100.0
	Total	11	100.0	100.0	

Do you have any intentions to leave your current organization?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	36.4	36.4	36.

Appendix G (continued)

Intent to Stay at Post-Intervention

Gender

		Frequency	Percent	Valid Percent	Cumulative Per
Valid	Male	3	33.3	33.3	
	Female	6	66.7	66.7	
	Total	9	100.0	100.0	

Are you generally satisfied with your current job?

		Frequency	Percent	Valid Percent	Cumulative Perce
Valid	Yes	9	100.0	100.0	

Do you feel like nursing is the right career for you?

		Frequency	Percent	Valid Percent	Cumulative Percen
Valid	Yes	9	100.0	100.0	1(

Have you been looking for other job opportunities that will help better your career?

		Frequency	Percent	Valid Percent	Cumulative Perce
Valid	Yes	3	33.3	33.3	
	No	6	66.7	66.7	
	Total	9	100.0	100.0	

Are you happy for being a member of this organization?

		Frequency	Percent	Valid Percent	Cumulative Perc
Valid	Yes	8	88.9	88.9	
	No	1	11.1	11.1	
	Total	9	100.0	100.0	

Have you ever thought about leaving your current employer?

		Frequency	Percent	Valid Percent	Cumulative Perce
Valid	Yes	7	77.8	77.8	
	No	2	22.2	22.2	1
	Total	9	100.0	100.0	

Do you have any intentions to leave your current organization?

		Frequency	Percent	Valid Percent	Cumulative Pe
Valid	No	9	100.0	100.0	