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# IMPROVING BURNOUT AND STRESS AMONG ADVANCED PRACTICE NURSES USING MINDFULNESS-BASED STRESS REDUCTION TECHNIQUES

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# IMPROVING BURNOUT AND STRESS AMONG ADVANCED PRACTICE NURSES USING MINDFULNESS-BASED STRESS REDUCTION TECHNIQUES

by

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A Doctoral Project
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Dr. Lakenya Forthner

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# ABSTRACT

Stress and burnout in the nursing profession have negative effects on the nurses' personal and professional lives, as well as those whom they are responsible for providing care. The incidence of stress among advanced practice nurses can result in outcomes such as burnout, turnover intention, lower job satisfaction, and adverse clinical care.

Nursing burnout and stress are public health issues because of the consequences of these two factors, which include diminished provider focus and negative patient outcomes. Against such a background, the doctoral aimed at using mindfulness-based stress reduction (MBSR) intervention to reduce burnout and stress and examine the efficacy of a 4-week mindfulness intervention to reduce symptoms related to burnout and perceived stress. The study was quantitative and quasi-experimental and involved a convenience sample of advanced practice nurses working at a large healthcare facility in central Mississippi. The 30 participants involved in the doctoral project implemented MBSR for four weeks, and their burnout and stress levels were measured using a Perceived Stress Scale (PSS) and the Copenhagen Burnout Inventory (CBI). Participants were provided weekly educational videos with instructions on MSBR with examples of techniques. Notably, the findings suggest that four-week mindfulness interventions may be an effective means of improving well-being for advanced practice nurses. The Perceived Stress Scale and the Copenhagen Burnout Inventory revealed a significant reduction in stress levels after the interventional period. The findings are relevant from a clinical standpoint as they reviewed brief mindfulness as a valuable intervention that could help relieve stress and burnout outcomes among advanced practice nurses.

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We cannot express enough thanks to our committee for unwavering support and encouragement: Dr. Anita Greer and Dr. Lakenya Forthner. We offer our sincere appreciation for the learning opportunities provided.

# DEDICATION

First and foremost, we would like to thank our Heavenly Father. His grace and mercy placed the right people in our path – at the right time. We want to thank the entire committee for their guidance, encouragement, and assistance throughout the program. Last but certainly not least, we want to thank our families for enduring our sleepless nights and constant discussion of the doctoral project. They are the true champions.

We dedicate the doctoral project and our DNP degrees to our families. To our children, we hope to be an inspiration and reminder that you can achieve absolutely anything with hard work and determination. To the advanced practice nurses who agreed to participate in the doctoral project, thank you. We are praying that what you learned during this short time has a lasting impact.

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| | |
|---|---|
| *APRNs* | Advanced Practice Nurses |
| *CBI* | Copenhagen Burnout Inventory |
| *MBIs* | Mindfulness-Based Interventions |
| *MBI* | Maslach Burnout Inventory |
| *MBSR* | Mindfulness-Based Stress Reduction |
| *PSS* | Perceived Stress Scale |
| *USM* | The University of Southern Mississippi |
| *WHO* | World Health Organization |

# CHAPTER I - INTRODUCTION

Nurse anesthetists, nurse midwives, and nurse practitioners coordinate patient care and, in some instances, provide primary and specialty health care (Buerhaus, 2018). Guided by a 2021 database of 3,130,600 registered nurses identified, nurses constitute the largest workforce in the healthcare industry (Bureau of Labor Statistics [BLS], 2022; Institute of Medicine [IOM], 2010) and the advanced practice registered nurses (APRNs) constitute 300,000 of the identified statistics. One must frequently prioritize the needs of others over their own in order to fulfill the crucial duty of the provider. According to Koinis et al., nursing is one of the most demanding professions due to the high levels of emotional and physical demands (2015). High levels of emotional and physical demands are placed on caregivers, and as highlighted by Koinis et al. (2015), frequent close human contact and the requirement for quick decisions increase the stress that comes with being a nurse professional. Such regularity and need could have detrimental effects like burnout (Day et al., 2017).

As documented among healthcare professionals, high levels of stress and burnout result in high levels of job turnover (Klein et al., 2020). The degree of the well-being of the nursing staff is highly connected with many types of professional stress, including emotional stress, coping mechanisms, and self-efficacy (Chana et al., 2015). Reduced well-being is a serious issue for nursing and health care because it has been linked to issues including low job satisfaction, poor work relationships, and teamwork, disengagement, a decline in caring behaviors, absenteeism, a desire to leave the field, and an increase in errors (Chana et al., 2015; Hall et al., 2016).

## Background

Burnout, when referring to helping professions, is indicative of prolonged exposure to physical and psychological stress. Such exposure results in the deterioration of the individual's emotional function and difficulty adapting to their professional commitments (Wiederhold et al., 2018). Burnout has three distinct characteristics: a high level of emotional weariness, a high level of depersonalization, and a low sense of personal accomplishment (Portoghese et al., 2014). Work overload, lack of job control, inadequate reward or recognition, poor work collegiality, unfairness in decision-making, and conflict between employee and corporate ideals are six risk factors that Maslach and Leiter (2016) expand upon further. The modern healthcare system presents a number of occupational stressors, including a heavy workload, long hours, deadline pressure, and ambiguity about patient care. Such stressors could lead to health care professionals experiencing severe distress and burnout (Portoghese et al., 2014). This doctoral project highlighted the problem of burnout and stress among advanced practice nurses and encouraged mindfulness practice to improve overall well-being.

## Significance

According to international research findings from studies in the US, Canada, and the UK, between 33% and 54% of hospital nurses showed signs of burnout (i.e., emotional exhaustion as measured by the Maslach Burnout Inventory [MBI]) that were higher than the previously accepted norm for medical staff (Chana et al., 2015). According to the Pulse on the Nation's Nurses Survey Series results presented by the American Nurses Foundation in 2021, 33% to 54% of hospital nurses show symptoms of emotional stress and poor well-being. The symptoms were linked to a detrimental effect

on nurses' well-being, work output, patient care outcomes, and healthcare expenditures. In an earlier version of the survey, August 2021, the question evaluating current emotional health was added. Thirty-four percent of the nurse reported either not or not at all emotionally healthy (American Nurses Foundation [ANF], 2021).

An estimated 35% to 60% of nurses leave their first nursing job during the first year of work, according to Van Camp and Chappy (2017). The local organization's turnover rate for nurses has risen over time to reach its present level of 14%. Nurses have expressed feelings emotionally and physically fatigued in leaving interviews (i.e., burned out). Also, according to the Safety Attitudes Questionnaire, nurses' well-being (i.e., emotional weariness) scores dropped from 45% in 2015 to 41% in 2018. (Sexton et al., 2006). These outcomes fall 17 points short of the 58% industry average. Given these facts, the situation was one that nursing, and the local organization needed to solve. The American Nurses Foundation (2021) presented the finding of the Pulse on the Nation’s Nurses Survey Series to report an estimated 33% to 54% of hospital nurses exhibit signs of emotional stress and decreased well-being. The symptoms were linked to a detrimental effect on nurses' well-being, work output, patient care outcomes, and healthcare expenditures. In an earlier version of the survey, August 2021, the question evaluating current emotional health was added. Thirty-four percent of the nurse reported either not or not at all emotionally healthy (ANF, 2021).

The effects of burnout on healthcare workers' well-being are not the only ones; numerous research has shown that burnout among providers has negative effects on patient care. Burnout has a variety of effects on the quality and safety of medical services. Depersonalization results from providers' withdrawal of emotional energy from

their jobs when they grow weary. Because of the need to conserve resources, doctors may see patients less frequently and may adopt a directive rather than a collaborative and patient-centered approach.

## Problem Description and PICOT

According to a nursing engagement survey completed nationally in 2019, 15.6% of nurses reported feelings of burnout (The Joint Commission, 2019). Burnout is a long-term stress reaction of individuals in different occupational settings leaving one exhausted emotionally, detached, and with feelings of decreased personal accomplishment (Ezenwaji et al., 2019). Another nursing survey completed in 2019 revealed findings that burnout is amid patient safety and quality concerns among organizations, consisting of primarily hospitals and health systems, with only 5% of respondents saying their organization was highly effective at assisting staff in addressing burnout (The Joint Commission, 2019). In addition to its link to the neglect of self-care, burnout has also been linked to patient safety concerns (Couser et al., 2020). Research reflects an association between higher levels of burnout among nurses, leading to a decrease in teamwork, and an increase in professional exhaustion, which negatively affects patient safety (Garcia et al., 2019). Neglecting to address burnout can also cause physical and emotional consequences like decreased job satisfaction and anxiety (Alexander et al., 2015).

As a part of a family and/or community, burnout can affect those well outside the walls of a health care environment, such as a consumer cared for by a nurse or the family member of a burnout nurse. Dyrbye et al. (2017) suggest a correlation between higher levels of burnout and depression in nurses. One study of U.S. inpatient nurses reported

that 1,171 respondents (18%) reported having depression higher than the national average of 9% (Dyrbye et al., 2017).

Nursing burnout also has identifiable consequences for patients and the quality of care provided. Patient falls, medication errors, higher rates of infection (Dyrbye et al., 2017), and reporting of poor quality of care have all been associated with nursing burnout (Nanstupawat et al., 2016). Besides personal and professional consequences for the nurse and potential harm to the patient, there are also financial costs. The financial costs are felt by nurses, patients, and healthcare organizations when errors are made due to nursing burnout (Dyrbye et al., 2017). Lost wages related to a reduction in work hours or loss of employment due to nurses leaving the profession, litigation, and lack of reimbursement for healthcare organizations related to malpractice suits, medical error, and healthcare-associated infections continue the cascade effect that nursing burnout has on all those involved (Dyrbye et al., 2017). One example of the effects of burnout is the $16,736 cost a hospital spends per nurse per year on burnout-related turnover (Muir et al., 2021).

There is an abundance of research on nursing burnout with focuses ranging from causation and consequences to intervention and management. The consensus from the available knowledge for the cause of nursing burnout depicts a systems problem rather than an individual problem. Problems within the healthcare system that have been identified in the available knowledge regarding nursing burnout include high workload and staffing ratios, experienced unfairness, and lack of support (Ahola et al., 2017). Research suggests organizational issues such as inadequate staffing and high expectations lead to higher stress levels for nurses with burnout being an outcome (Badu et al., 2020). Furthermore, perceived injustice and being unsupported, such as when nurses feel their

direct voices are not heard in organizational decision-making, is associated with burnout among nurses (Badu et al., 2020).

The quality improvement doctoral project focused on identifying and implementing the use of a self-care strategy of mindfulness by nurses to decrease the effects of nursing burnout and reduce stress. Although bigger healthcare system problems exist, focusing on short-term changes is a starting point that allows individuals to have some control over how they manage burnout and stress in a complex and challenging healthcare system.

Nursing burnout and ways to combat it continue to interest researchers; therefore, there is a breadth of knowledge available regarding this topic as illustrated by the studies identified in this review. In this literature review, the synthesized research studies focused on defining nursing burnout, measurements of burnout, and brief mindfulness-based practices. The article selection process for this literature review began with a database search in PubMed and CINAHL based on the PICO question (P) In advanced practice nurses working directly with patients, (I) how does practicing and participating in mindfulness-based activities, (O) decrease the effects of nursing burnout and stress (T) for one month?

## Available Knowledge

The literature search utilized MEDLINE Complete, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and SocINDEX with full text, with keywords including burnout, stress, mindfulness, job satisfaction, well-being, advanced practice nurse, and MBSR. Boolean search methods included: burnout AND stress AND mindfulness resulting in 955 articles for the 2004 to 2022 publication date. When

narrowing down from 2018 to 2022, the results yielded 636 articles. MBSR OR mindfulness AND nursing resulted in 1210 results from MEDLINE Complete, 586 from CINAHL, and 26 from SocINDEX with full text; MBSR AND health care professionals AND advanced practice nurses yielded zero from all search engines and mindfulness AND well-being AND advanced practice nursing with zero results from PubMed, two from CINAHL and two from SocINDEX. Articles had to be in English, discuss MBSR or mindfulness-based interventions, and be published within the previous five years to meet the inclusion requirements. By removing articles that did not discuss research on the efficacy of mindfulness-based therapies, the number of findings was decreased.

## Defining Burnout

The literature used in this doctoral project showed some variations in defining burnout. According to Guo et al. (2018) and Garcia et al. (2019), burnout is characterized as a psychological syndrome consisting of emotional exhaustion, cynicism, and reduced professional accomplishment in response to chronic job stress. Burnout syndrome as defined by DeOleveria et al. (2019) is exposure to continuous work stress and poor conditions leading to decreased pleasure and work performance. While some project leaders consider burnout a syndrome, others define it under the umbrella of well-being; the latter is defined as having positive emotions, an absence of negative emotions, being fulfilled, functioning positively, and being satisfied with life (Grabbe et al., 2020).

## Measuring Burnout

In the literature reviewed, there was some variation in measuring tools evaluating levels of burnout with the most widely used being the Maslach Burnout Inventory (Chana et al., 2015; Deldar et al., 2018; Dev et al., 2018; Garcia et al., 2018; Guo et al., 2018;

Guo et al., 2019; Kemper & Khirallah, 2015; Nowrouzi et al., 2015; Zhang et al., 2020). The Maslach Burnout Inventory is a measure of burnout consisting of 22 items across three subscales including personal accomplishment, emotional exhaustion, and depersonalization with high scores for depersonalization and emotional exhaustion and low scores for personal accomplishment equating to higher levels of burnout (Chana et al., 2015). Another frequently used scale was the Copenhagen Burnout Inventory consisting of a seven-item burnout subscale (Deldar et al., 2018; Grabbe et al., 2020; Magtibay et al., 2017). The Copenhagen Burnout Inventory utilizes a five-point scale which is then recorded from 0-100 with higher scores indicating greater burnout (Badu et al., 2020).

## Mindfulness-Based Activities

More specifically, much of the reviewed literature reflects upon specific interventions which revealed a decrease in burnout. Mindfulness education interventions (Muir et al., 2021), mindfulness meditation (Van der Reit, 2018), mindfulness-based stress reduction interventions (Nowrouzi et al., 2015), and mind-body skills training (Kemper & Khirallah, 2015) support the use of practicing mindfulness as a resilience-building activity to combat burnout with pre-test/post-test data analysis supporting its efficacy. Other studies of interventions such as Transcendental Meditation (Bonamer & Aquino-Russell, 2019), Community Resilience Model Training (Grabbe et al., 2020), and Stress Management and Resiliency Training (Magtibay et al., 2017) teach participants how to practice mindfulness, sensory awareness techniques, and self-reflection with findings pre-test and post-test reflective of an inverse relationship between an increase in resilience and a decrease in burnout levels.

Although the literature review supports mindfulness-based activities to decrease burnout it is important to acknowledge that the literature reviewed also supports that mindfulness is not the only solution to addressing burnout, areas such as improving organizational workflow, teamwork, and management support require increased focus to decrease burnout (Garcia et al., 2019). Historically, interventions and measures to reduce burnout in nurses focus on managerial and organizational factors, with individual factors to face workplace difficulties intended to foster the process of decreasing burnout, not the primary solution (Deldar et al., 2018). Further research identified external factors that decrease burnout such as authentic supportive managers and healthcare organizations who provide resources for their staff and identify elements of the work environment that enable nurses to enhance their adaptive mechanisms using models such as the Six Areas of Work Life Model which include: workload, control, reward, community, fairness, and values (Manomenidis et al., 2019).

## Social Determinants of Health

Burnout can have a negative impact on the care provided to the patient and when burnout is experienced, the individual feels disconnected from their work and is less productive (Heath, 2019). The possible connection between clinician burnout and the ability to address the social needs of the patient is of concern, and mindfulness can be one of the measures to help improve tackling the burnout problem.

## Conceptual Framework

### *The Knowledge to Action Model.*

An approach for applying theory to implementation efforts is provided by the Knowledge to Action (KTA) model, which is a conceptual framework (Field et al., 2014;

Graham et al., 2006). The knowledge cycle and the action cycle are the two main components of the KTA paradigm. The three stages of knowledge creation—knowledge inquiry, synthesis, and tools/products—are symbolized by a funnel. This funnel is surrounded by the action cycle, which consists of seven stages, including identifying the gaps between knowledge and action, adapting knowledge, assessing barriers, choosing, customizing, and putting interventions in place, monitoring knowledge use, evaluating outcomes, and sustaining knowledge. The action cycle depicts the procedure and all the steps required to put knowledge into practice. The Graham et al. (2016) paradigm for illustrating how the action cycle and knowledge generation work may be found in Figure 1.

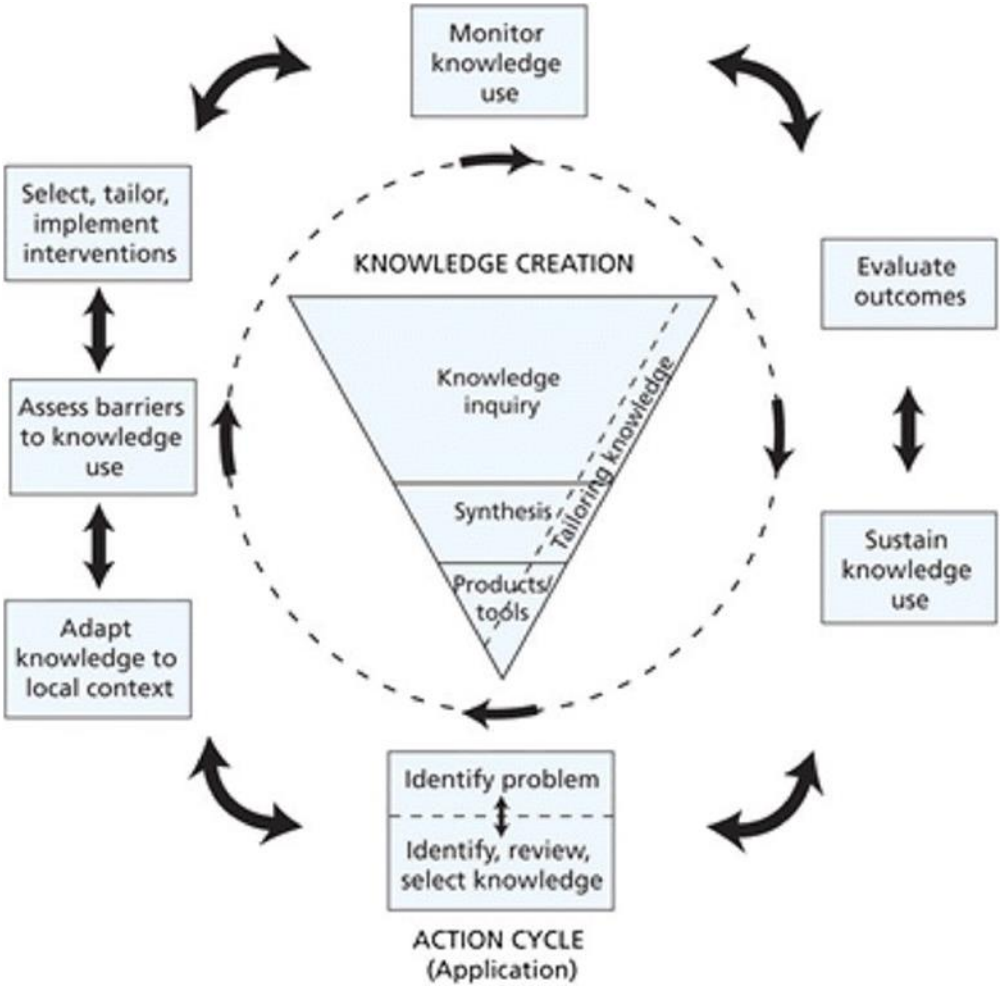



*Figure 1. Knowledge to Action Framework.*

Framework demonstrating knowledge creation and the action cycle. Reprinted from Graham et al. (2006, p. 19).

The Action Cycle is a system made up of a number of interconnected processes that can be carried out either sequentially or concurrently. The seven action cycle stages are dynamic since they can happen one after another or simultaneously, and the knowledge creation phases affect them as well. Exercises are needed in the Action Cycle to put what has been learned into practice (Field et al., 2014). The following Action Cycle processes list the steps involved in this doctorate project's application phase in detail:

1. Identifying an opportunity and selecting knowledge: The problem is identified as increased perceived stress and burnout, and a lack of joy in nursing leaders.
2. Adapting knowledge to setting: Apply the knowledge gained from literature to the context of nursing leaders.
3. Assessing difficulties to knowledge utilization: It is important to consider involving nurse educators when identifying and assessing challenges to utilizing knowledge.
4. Selecting, customizing, and implementing interventions: MBSR is the planned intervention. The participants practiced independently, with weekly participation surveys serving as a reminder and reinforcement.
5. Observing knowledge utilization: Monitored the population throughout the intervention and determined if any adjustments or educational needs arose.
6. Assessing outcomes: Evaluation of the intervention is necessary to determine if MBSR reduced perceived stress and burnout while improving joy in work.
7. Supporting knowledge utilization: Sustaining knowledge is vital, and follow-up is essential (Field et al., 2014, pp. 10-11).

## Specific Aims

The aims of this quality improvement doctoral project were as follows:

- Addressing nursing burnout and stress as an area of focus is necessary for any healthcare setting.
- Identify mindfulness-based interventions as an approach to combat burnout and stress.

- Implement a mindfulness-based resilience-building intervention for advanced practice nurses in various settings with direct patient care.
- Evaluate the effectiveness of the intervention.

## Doctor of Nursing Practice Essentials

The concept of a practice doctorate guides this doctoral project, and three essentials can be applied: Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice and Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health (American Association of Colleges of Nursing [AACN], 2006). The accountability of quality care and patient safety, Essential III, can be enhanced by addressing some of the possible factors which impact patient care like stress and burnout. If advanced practice nurse experience stress or burnout, they could experience impaired attention, a decrease in executive function, and difficulty paying attention to certain details. Even the smallest of these experiences can lead to safety concerns for the clinicians and the patients – and can contribute to a higher risk of errors. The use of stress-reducing techniques can enhance the DNP practice in evaluating and expanding such practices to address psychosocial dimensions which support the foundation in health promotion and risk reduction which guide the foundation for nursing practice. DNP Essential I describes the scientific underpinnings for practice (AACN, 2006). This DNP Essential can explore the relationship between stress, burnout, and MSBR techniques and evaluate the results. With the use of MSBR techniques, new approaches to decreasing stress and relieving burnout can be instituted into practice to improve the advanced practice nurses' mindfulness.

## Summary

In Chapter I of this doctoral project, there was an introduction to the importance of increasing nurse well-being using mindfulness-based stress reduction interventions along with the negative consequences of poor nurse well-being and its impact on the nurse, organization, patient outcomes, and patient care. Current knowledge briefly identified the gap in knowledge that this doctoral project will address nurses' lack of knowledge and skills needed to effectively manage work-related stress in order to improve well-being. In Chapter II, the methods for the doctoral project were shared.

# CHAPTER II - METHODS

Nurses working in a direct patient care capacity were invited to participate. Participants were recruited through email invitations. Education regarding doctoral project participation was provided via weekly emails with instructions. Participants were informed that their participation was voluntary, with no compensation for participation, they were able to withdraw from participation at any time, their information was kept confidential and informed consent was obtained for participation. Inclusion criteria consisted of advanced practice nurses working in direct patient care being able to participate in mindfulness techniques at least three days a week and completing a tracking sheet with exclusion criteria consisting of those nurses who have been working in direct patient care for less than one year.

## Intervention

The advanced practice nurse was initially recruited through the approved facility. Permission to use pre-and post-intervention scales was attained for use of the Copenhagen Burnout Inventory (Appendix F) to measure burnout among nurses and the Perceived Stress Scale (PSS) (Appendix D) to measure stress perception.

Following completion of the consent form, CBI, and PSS, participants took part in a four-week mindfulness-based intervention program, during which they were taught mindfulness skills. The implementation of the mindfulness-based activities was conducted electronically over 4 weeks. The target population was advanced practice nurses working in direct patient care with a minimum of one year of experience. Once contacted by the individual, an email invitation consisting of an introduction and description of the program will be emailed to those who volunteer. The initial email

communication included education on the concept of mindfulness, time frames, and instructions, instructions for the week, and an introduction video for the week's topic. The Copenhagen Burnout Inventory and Perceived Stress Scale will be completed in Week 1 and Week 4 (pre- and post-intervention).

During week one the projected timeline for participation in the doctoral project was reviewed including plans for weekly follow-up emails providing participants an opportunity to share their experience and monitor progress. A review of mindfulness as a resilience-building activity will be highlighted. At the end of each week, an email was sent regarding the introduction to upload the previous week's tracking and upcoming week's activities.

## Measures

### *Copenhagen Burnout Inventory*

Burnout among doctoral project participants will be assessed using the Copenhagen Burnout Inventory (CBI). The CBI, created by Krinstensen et al. (2007), was validated during the 1997 PUMA study, a longitudinal study of burnout in employees within the human services field (Sestilli et al., 2018). This tool was chosen over the Maslach Burnout Inventory (MBI) due to cost and criticism of the MBI regarding the reliability of the questionnaire as critics have suggested the measurement of depersonalization and the reduction of personal accomplishment is more of a consequence than a measure of burnout and therefore should not be included in the assessment (Sestilli et al., 2018). To be a valid and reliable Patient-Reported Outcome Measure, a tool must exhibit robust psychometric properties, and the CBI has exhibited validity measured using the GRADE approach and criterion validity, structural validity,

internal consistency, and reliability using the Consensus-based Standards for the selection of health Measurement Instruments with CBI meeting prerequisites (Shoman, 2021).

The CBI is a 19-item survey with items framed positively and negatively covering three areas including personal, work, and client-related burnout (National Academy of Medicine [NAM], 2021). Each subscale has multiple questions in the form of either of the following: always, often, sometimes, seldom, and never/almost never or to a very high degree, high degree, somewhat, to a low degree, and a very low degree (NAM, 2021). Responses to each subscale are coded and range from 0 – 100 in increments of 25, subscales are averaged with higher scores indicating a higher level of burnout (NAM, 2021).

*Perceived Stress Scale*

Cohen developed the PSS-10 in 1983 to gauge how stressful one considers their life and circumstances to be (Cohen, 1994; Cohen et al., 1983). Cohen et al. (1983) included concurrent and predictive validity in their initial study. The results showed that the PSS and life-event scales had contemporaneous validity, but they did not show any predictive validity at this time. Finally, Cohen et al. (1983) found that the internal and test-retest reliability was satisfactory.

## Analysis

Surveys were employed in this doctoral project to assess the goals for the process and results. For this project, subjective stress was measured using the PSS survey, while burnout was measured using the CBI. A weekly participation survey was also conducted. The Research Electronic Data Capture (REDCap) technology, which is hosted by the organization, was used to administer these surveys.

This doctoral project initiated the CBI and PSS tools for data instruments. The CBI consisted of a 19-question survey that evaluated participants' assessments of their capacity to routinely handle stressful situations as well as burnout syndrome (Sestili et al., 2018). The ratings are 100, 75, 50, 25, and 0 for the responses. Higher results indicate a more severe case of burnout syndrome (Kristensen et al., 2005). The CBI is further broken down into three subdimensions, including personal burnout (M = 32.7, Cronbach's alpha =.80, SD = 15.7), work-related burnout (M = 31.7, Cronbach's alpha =.78, DS = 14.8), and client-related burnout (M = 36.6, Cronbach's alpha =.83, SD = 18.3). (Kristensen et al., 2015). As a continuous variable, each dimension is viewed separately.

During this intervention, perceived stress was measured using the PSS. The PSS is acknowledged as a genuine and trustworthy tool (Lee, 2012). According to several investigations, the PSS showed concurrent validity with a reliability coefficient ranging from.84 to.86 (Crowder & Sears, 2017). The PSS is the most popular tool for assessing stress perception (Cohen, 1994; Jones et al., 2018). When utilized for nonprofit academic research or nonprofit educational purposes, no permission is required to use the scale. For permission to use the tool, see Appendix E. The PSS asked 10 questions about the respondent's stress levels during the previous month. Using a five-point Likert scale, the replies were ranked (0: never; 4: very often) (Cohen, 1994).

## Ethical Considerations

The project leader received approval from the Institutional review board (IRB Protocol # 22-1646) for the selected VAMC and The University of Southern Mississippi

(Appendix C). After receiving IRB approval from the university and the selected organization, the invitation to participate was distributed (Appendix A). The leader of the project used the Health Insurance Portability and Accountability (HIPPA) laws. There was no identifying information collected during the study and no expected or predicted risks to the participants. Data was captured with the use of Research Electronic Data Capture (REDCap). REDCap is a HIPAA-compliant web-based application and ensures secure tool design, data collection, storage, and processing for any project or research. Participation in the intervention was informed and voluntary, and participants had an opportunity to decline participation. Participants were able to withdraw from the project at any time with no repercussions.

## Summary

This chapter discussed the context, participant population, and study of the interventions. Key definitions that are important to the understanding of this project included: well-being, mindfulness, stress, and burnout. The procedure for recruiting participants was described, including the use of e-mail. A description was offered for the two survey tools used in the project and how they aligned with the constructs of the project, A description of how participants in the study were protected and how the integrity of the data was ensured followed. In Chapter III of this doctoral project, the project leaders focused on an analysis and synthesis of the findings of the project; provided recommendations for addressing the gap in practice; and discussed the strengths and limitations of the project.

# CHAPTER III – RESULTS

## Discussion

For the doctoral project, the project leader utilized quantitative methodology, and a quasi-experimental design was applied. The doctoral project lasted four weeks and included one male and 29 female advanced practice nurses at the selected organization. During the pre-interventional phase, the investigators conducted the participants' recruitment process via email announcement (Appendix A). The initial email group included 82 advanced practice nurses. Informed consent was obtained via email. Participants who responded to a recruitment email (Appendix A) were sent the link for the data collection tool, RedCap. The email contained information about the study and informed consent (see Appendix A), where it was noted that clicking on the survey implies informed consent on the part of the participant. This information was repeated during the introductory section of the RedCap survey. Only the researcher was aware of which advanced practice nurses chose to participate in as leadership and faculty did not have access to the researcher's RedCap survey platform, and RedCap is not synchronized or integrated with any other management system.

There was a total of 82 advanced practice nurses receiving the informational email within the selected facility. Forty-one consented to participate. At the end of week one, 11 participants withdrew their consent. The final number of participants for the study was 30 participants, 20 family nurse practitioners, and 10 mental health nurse practitioners. The initial target for the project was at least 40.

Twenty-eight of the 18 participants were female (93%), with the other two being male (7%) (Table 1). In relation to roles within the medical center, 10 (33%) were

psychiatric nurses and twenty (67%) were family nurse practitioners working in urgent care/emergency room and primary care clinics. Family nurse practitioners assigned to primary care reported the highest level of stress at the beginning of the project. All nurses participating in the project are employed full-time.

Table 1

*Advanced Practice Nurse Description*

| | Gender | |
|---|---|---|
| Specialty | Male | Female |
| FNP | 0 | 20 |
| PMHNP | 2 | 8 |

Data for this doctoral project was collected through two tools: A demographic questionnaire, the Perceived Stress Scale, and Copenhagen Burnout Inventory, pre, and post-intervention. During Week one of the MBSR program, demographic questionnaires were collected from 41 participants. Based on the information collected, 28 of the participants were female, and two were males. Participants were not asked to provide their ages. Out of the 30 participants, 80% reported that they did not currently practice mindfulness meditation. The Perceived Stress Scale and Copenhagen Burnout Inventory was administered during Week one and four of the program.

The Perceived Stress Scale was administered during the initial week and end of the program. In Week one (N=30), the first question the individual was asked in the last month was, how often have you been upset because of something that happened unexpectedly? The majority (73.7%) responded “very often” and 11% responded, “fairly

often". In Week four there was an improvement of "very often" by almost 50% (48.7) and there were no "never" and "almost never" responses in Week four, compared to 5.3% for each initially. The results demonstrated an improvement in the "very often", "sometimes," "almost never," and "never," but to note, there was an increase in the "fairly often" responses.

Another question examined how often participants felt nervous or stressed in the last month (Question # 3). In week one, 26.3% responded "very often" and 47.4% responded, "fairly often." For the "sometimes" and "fairly often" responses, there was less than a 1% change, 25% and 25% respectively. For the initial or final weeks, there were no responses for "almost never" and "never". Upon reviewing the overall average scores for the Perceived Stress Scale, there was an increase from 19.3% to 21.7%. The results of the Perceived Stress Scale can be found in Appendix G.

This project's main objective was to evaluate the effectiveness of using MBSR techniques at the selected VAMC in minimizing burnout and stress among nurses working in areas of high intensity. In the end, only 30 of the 82 nurses who were recruited from high-risk locations and initially engaged in this planned 4-week program of mindfulness-based stress management succeeded. Overall, the nurses in this group were able to participate in the program as intended.

Baseline data gathered for this project showed that nurses working in high-intensity settings inside a VAMC shared a common issue with burnout, stress, and poor self-care. The results of this project suggest that practicing MBSR techniques can aid nurses in increasing their level of self-care while reducing burnout and stress.

Table 2

*Summary of Copenhagen Burnout Inventory*

| | | N=30 | | |
|---|---|---|---|---|
| Scale | Time | Low | Moderate | High |
| Personal | Pre | 29% | 43% | 28% |
| Burnout | Post | 55% | 45% | 0% |
| | Change | 26% | 2% | 28% |
| Work-Related | Pre | 36% | 50% | 14% |
| Burnout | Post | 62% | 30% | 8% |
| | Change | 26% | 20% | 6% |
| Client Related | Pre | 33% | 53% | 12% |
| Burnout | Post | 45% | 50% | 12% |
| | Change | 12% | 3% | 0% |

The personal burnout score for a low response improved from 26% to 55% or personal burnout, from 36% to 62% for work-related burnout, and from 33% to 45% for client-related burnout (Table 2). Table 2 displays a comparison of self-reported burnout, perceived stress, and self-care before and after engagement in the mindfulness program.

## Summary

The conclusion of the investigation and the analysis of the results are outlined in Chapter 3. The results and implications for practice will be discussed in Chapter 4. Overall, this chapter found MBSR to be helpful among participants who practiced at least

one exercise for a minimum of 15-30 minutes per day. Participants who participated in the mindfulness program reported a reduction in burnout based on the CPI subscales.

# CHAPTER IV – DISCUSSION

The Copenhagen Burnout inventory and the Perceived Stress Scale's subscales were used to calculate outcome measures. The characteristics of the sample were outlined using descriptive statistics, which were also used to analyze trends in burnout and perceived stress as well as determine if the data were normally distributed. RedCap was used to do all of the analyses.

This project's main objective was to assess if using mindfulness could help advanced practice nurses who work in demanding situations feel less stressed and burn out. Thirty advanced practice nurses from a Veterans Administration Medical Center (VAMC) in the southeast of the United States underwent an initial assessment for burnout and stress throughout the period of a four-week mindfulness-based stress reduction program. 82 nurses in total were selected to take part in the mindfulness program. Thirty participants finished the program in the end.

For personal burnout, the most response to a high average remained unchanged pre and post-intervention. There was a very minimal improvement for the range of moderate, 2% improvement, but the biggest improvement was noted in the individual rating their personal burnout was less of a factor.

One of the biggest improvements noted was with the work-related reports. At the beginning of the project, of the participants (N=30), 36% ranked their burnout response as low. At the end of the project, there was a report of 62%. The data showed a significant change of 26% in the report. Very little change in the client-related responses pre and post was found. The higher level remained unchanged at 12% pre and post. The

comparison can also be demonstrated in the bar graphs in Figures 2, Figure 3, and Figure 4.

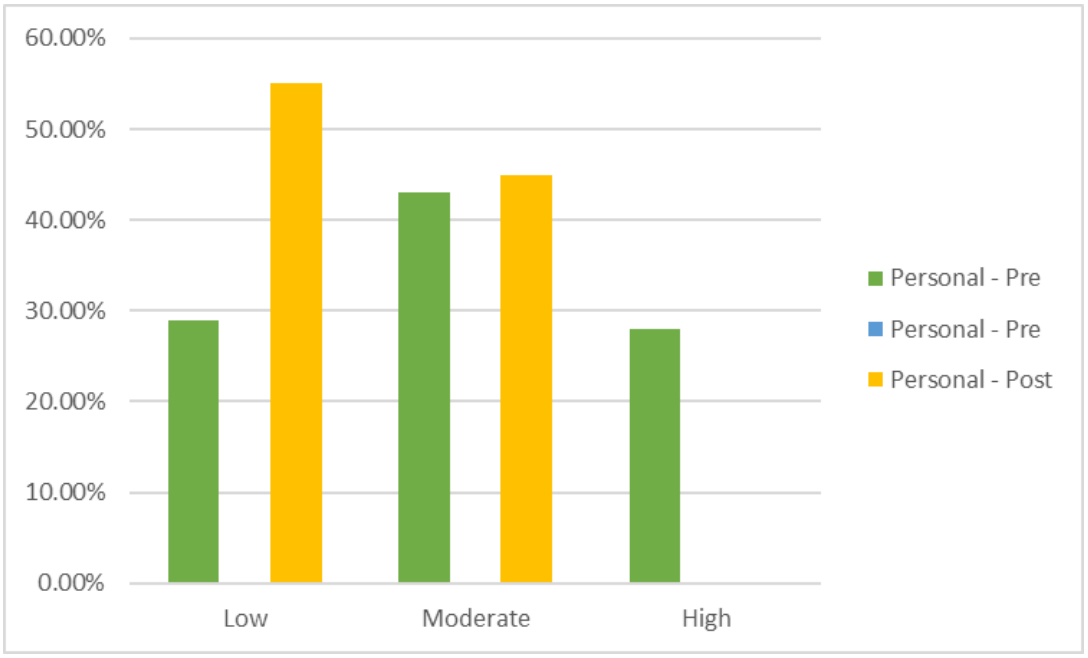



*Figure 2. Personal Burnout: Pre- and Post-Comparison.*

Figure 2 demonstrates that from pre-intervention to post-intervention, there were no reports of high personal burnout.

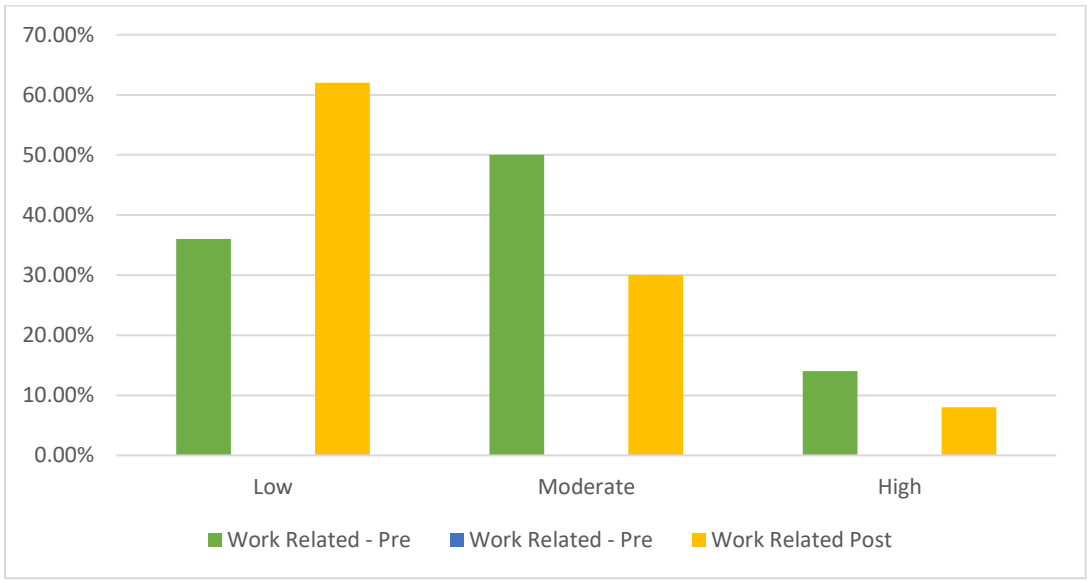



*Figure 3. Work-Related Burnout: Pre- and Post Comparison.*


*Figure 4. Client-Related Burnout: Pre- and Post-Comparison*

## Limitations

Several limitations were encountered during the implementation and conduction of this pre-experimental design project. Limitations included the small number of survey participants. Out of the final sample size of thirty advanced practice nurses participating, 29 of the 30 were female. Due to the small number of male participants, the outcomes might not be generally applicable. The findings might not be applicable to other institutions, due to the fact that the project was only performed at one organization. The single-group pre-test and post-test approach cannot be used to ascribe all observed changes in outcome markers among intervention participants to the intervention alone because there were no comparison groups. Its lack of a comparison or control group renders the non-experimental design poor because it solely includes an intervention group. Identifying what would have happened in the absence of intervention without the aid of a comparison group can be challenging.

All participants in the project were self-selected with no randomization or control groups. The participants represent sampling bias and suppress the generalization of findings. The recruitment of an appropriate sample size proved to be a limitation of the project. Initially, the project began with 41 participants, however, after the first week, 11 nurses were lost due to uncertain reasons. Future research may benefit from an evaluation strategy that incorporates a control group, a bigger participant sample, and data analysis to decide whether there are distinct patterns of change in burnout, perceived stress, and self-care following participant engagement in a mindfulness program.

It turned out to be a constraint to provide the participants with a choice for how many minutes of mindfulness activities they should practice each day. It was discovered that participants engaged in daily mindfulness practice for different amounts of time depending on their schedule, ranging from 15 to 30 minutes per day.

In the future, allotting the participants a specific window of time to practice mindfulness would enable the evaluation of the exercises' efficacy. Meeting with the nurses involved in the project revealed another limitation: maintaining the daily mindfulness practice requirement. While all participants acknowledged doing so, they also acknowledged that scheduling time each day could be difficult at times.

The possibility that the nurses started the project aware that mindfulness purportedly reduced burnout, and stress, and improve poor self-care are further limitations to take into account. One hypothesis is that nurses' responses were biased to show a reduction in burnout and stress as a result of their prior knowledge, which is why pre-program information is important.

## Future Practice Implications

Stress and burnout impact the family and psychiatric nurse practitioner in the workplace and could lead to an unsafe working environment; therefore, having a similar repercussion on the cost and quality of treatment in primary care and mental health environments. The development of burnout management techniques, such as mindfulness can help facilitate the nurse practitioner experience a lower incidence of burnout and stress. With such techniques, there could also be a decrease in the incidence of chronic disease while enhancing work satisfaction and patient safety. Additional research on both stress and burnout within the nurse practitioner workforce in a larger representation could help support the workplace provision of time to practice mindfulness techniques, like a quiet room. Findings from additional research can also help the nurse practitioner to collaborate and work with leadership to offer annual training on recognition of and techniques to alleviate burnout syndrome and address stress.

## Conclusion

Advanced practice nurses experience a significant amount of stress during their professional career. Because the individuals themselves may not be fully aware of the issue of stress, educational interventions that promote awareness and provide strategies to reduce stress are needed. The purpose of this doctoral project was to evaluate the impact of brief mindfulness techniques. A major limitation was the low number of participants. Surveying the frontline staff could have provided valuable information on their stress levels and the effectiveness of the MBSR techniques presented as well. Through the implementation of this doctoral project, it is hoped that advanced practice nurses will become more aware of the issue of stress and how to better manage it.

# APPENDIX A – Recruitment Email

22-1646

Request for Participation in DNP Project

We are writing to let you know about a Doctor of Nursing Practice (DNP) project that you have the option to take part in as an Advanced Practice Nurse. The evidence-based project is being conducted by Nancy Bennett and Jennifer Boose, DNP students at the University of Southern Mississippi. This study has been approved by USM's IRB.

We want to know more about Mindfulness-Based Stress Reduction (MBSR) because while stress is a common phenomenon, it can lead to health issues if it becomes chronic. That stress can lead to poor overall job satisfaction.

This Evidence-Based Project is being done to learn more about the influence of (MBSR) on psychological stress and burnout in the Advanced Practice Nurse.

We are looking for Advanced Practice Nurses with the following:

- Working at least Part-time
- Provide direct patient care

If you decided to take part in the project, We would:

- Send you a link with instructions on completing the 4-week Mindfulness-Based Stress Reduction Practices.

- In this study, we will answer the question, how can Mindfulness-Based Stress Reduction Practices influence the psychological stress and burnout of Advanced Practice Nurses by:

  Having participants complete a 10-item perceived stress scale, pre- and post-intervention

  Having participants complete a 19-item Copenhagen Burnout inventory, pre-and post-intervention

  Participate in an online, self-paced, 4-week Mindfulness-Based Stress Reduction Practices, which will consist of 20-30 minutes of practice/ 6 days per week.

**COSTS**
There is no cost for participate in the study.

**RIGHTS TO PARTICIPATE**
Participation in this quality improvement project is completely voluntary. You have the right to say no. You may change your mind at any time and withdraw. You may choose not to answer specific questions or to stop participating at any time.

APPENDIX B – Mindfulness Protocol


Dear Nursing Colleague,

Here is the protocol for the next four weeks.

Please feel to print it or save it to your device and add dates for your record.

| Week | Type of measurements | Date |
|---|---|---|
| Week 0 | Demographic survey<br>2 brief survey (less than 15 mins) | |
| Week 1 | Recorded my daily participation in the table provided<br>Completed the quick survey at the end of the week | |
| Week 2 | Recorded my daily participation in the table provided<br>Completed the quick survey at the end of the week | |
| Week 3 | Recorded my daily participation in the table provided<br>Completed in the quick survey at the end of the week | |
| Week 4 | Recorded my daily participation in the table provided<br>Completed in the quick survey at the end of the week | |
| Week 4/5 | 2 brief surveys (less than 15 mins) | |
| | | |

As always please feel free to email us with any questions.

Our sincerest thanks!

IRB Protocol # 22-1646

# APPENDIX C - IRB Approval Letter

Office *of*
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI

**NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION**

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.

| | |
|---|---|
| PROTOCOL NUMBER: | 22-1646 |
| PROJECT TITLE: | Improving burnout and stress among advance practice nurses using mindfulness-based stress reduction techniques |
| SCHOOL/PROGRAM | Systems Leadership & Health Outcome |
| RESEARCHERS: | PI: Nancy Bennett<br>Investigators: Bennett, Nancy~Boose, Jennifer~Greer, Anita~ |
| IRB COMMITTEE ACTION: | Approved |
| CATEGORY: | Expedited Category |
| PERIOD OF APPROVAL: | 02-Feb-2023 to 01-Feb-2024 |

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

APPENDIX D – Perceived Stress Scale

# Perceived Stress Scale

A more precise measure of personal stress can be determined by using a variety of instruments that have been designed to help measure individual stress levels. The first of these is called the **Perceived Stress Scale**.

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

**For each question choose from the following alternatives:**
**0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often**

_____ l. In the last month, how often have you been upset because of something that happened unexpectedly?

_____ 2. In the last month, how often have you felt that you were unable to control the important things in your life?

_____ 3. In the last month, how often have you felt nervous and stressed?

_____ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?

_____ 5. In the last month, how often have you felt that things were going your way?

_____ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

_____ 7. In the last month, how often have you been able to control irritations in your life?

_____ 8. In the last month, how often have you felt that you were on top of things?

_____ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?

_____ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

## Figuring Your PSS Score

You can determine your PSS score by following these directions:

- First, reverse your scores for questions 4, 5, 7, and 8. On these 4 questions, change the scores like this:

  0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0.

- Now add up your scores for each item to get a total. **My total score is _____.**

- Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.
  - ► Scores ranging from 0-13 would be considered low stress.
  - ► Scores ranging from 14-26 would be considered moderate stress.
  - ► Scores ranging from 27-40 would be considered high perceived stress.

The Perceived Stress Scale is interesting and important because your perception of what is happening in your life is most important. Consider the idea that two individuals could have the exact same events and experiences in their lives for the past month. Depending on their perception, total score could put one of those individuals in the low stress category and the total score could put the second person in the high stress category.

***Disclaimer**: The scores on the following self-assessment do not reflect any particular diagnosis or course of treatment. They are meant as a tool to help assess your level of stress. If you have any further concerns about your current well being, you may contact EAP and talk confidentially to one of our specialists.*

APPENDIX E – Permission to Use Perceived Stress Scale

## PERMISSION FOR USE OF THE PERCEIVED STRESS SCALE

I apologize for this automated reply. Thank you for your interest in our work.

**PERMISSION FOR USE BY STUDENTS AND NONPROFIT ORGANIZATIONS**: If you are a student, a teacher, or are otherwise using the Perceived Stress Scale (PSS) without making a profit on its use, you have my permission to use the PSS in your work. Note that this is the only approval letter you will get. I will not be sending a follow-up letter or email specifically authorizing you (by name) to use the scale.

**PERMISSION "FOR PROFIT" USE:** If you wish to use the PSS for a purpose other than teaching or not for profit research, or you plan on charging clients for use of the scale, you will need to see the next page: "Instructions for permission for profit related use of the Perceived Stress Scale".

**QUESTIONS ABOUT THE SCALE**: Information concerning the PSS can be found at https://www.cmu.edu/dietrich/psychology/stress-immunity-disease-lab/index.html (**click on scales on the front page)**. Questions about reliability, validity, norms, and other aspects of psychometric properties can be answered there. The website also contains information about administration and scoring procedures for the scales. Please do not ask for a manual. There is no manual. Read the articles on the website for the information that you need.

**TRANSLATIONS**: The website (see URL above) also includes copies of translations of the PSS into multiple languages. These translations were done *by other investigators*, not by our lab, and we take no responsibility for their psychometric properties. If you translate the scale and would like to have the translation posted on our website, please send us a copy of the scale with information regarding its validation, and references to relevant publications. If resources are available to us, we will do our best to post it so others may access it.

Good luck with your work.

Sheldon Cohen
Robert E. Doherty University Professor of Psychology
Department of Psychology
Baker Hall 335-D
Carnegie Mellon University
Pittsburgh, PA 15213

# Copenhagen Burnout Inventory (English version) used in the PUMA study

**NB: The questions of the CBI are *not* being printed in the questionnaire in the same order as shown here. In fact, the questions are mixed with questions on other topics. This is recommended in order to avoid stereotyped response patterns.**

## Part one: Personal burnout

**Definition: Personal burnout is a state of prolonged physical and psychological exhaustion.**

**Questions:**

1. How often do you feel tired?
2. How often are you physically exhausted?
3. How often are you emotionally exhausted?
4. How often do you think: "I can't take it anymore"?
5. How often do you feel worn out?
6. How often do you feel weak and susceptible to illness?

Response categories: Always, Often, Sometimes, Seldom, Never/almost never.

Scoring: Always: 100. Often: 75. Sometimes: 50. Seldom: 25. Never/almost never: 0.
Total score on the scale is the average of the scores on the items.

If less than three questions have been answered, the respondent is classified as non-responder.

## Part two: Work-related burnout

**Definition: Work-related burnout is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person's work.**

**Questions:**

1. Is your work emotionally exhausting?
2. Do you feel burnt out because of your work?
3. Does your work frustrate you?

4. Do you feel worn out at the end of the working day?

5. Are you exhausted in the morning at the thought of another day at work?

6. Do you feel that every working hour is tiring for you?

7. Do you have enough energy for family and friends during leisure time?

Response categories:

Three first questions: To a very high degree, To a high degree, Somewhat, To a low degree, To a very low degree.

Last four questions: Always, Often, Sometimes, Seldom, Never/almost never. Reversed score for last question.

Scoring as for the first scale. If less than four questions have been answered, the respondent is classified as non-responder.

## Part three: Client-related burnout

**Definition: Client-related burnout is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person's work with clients*.**

***Clients, patients, social service recipients, elderly citizens, or inmates.**

**Questions:**

1. Do you find it hard to work with clients?

2. Do you find it frustrating to work with clients?

3. Does it drain your energy to work with clients?

4. Do you feel that you give more than you get back when you work with clients?

5. Are you tired of working with clients?

6. Do you sometimes wonder how long you will be able to continue working with clients?

Response categories:

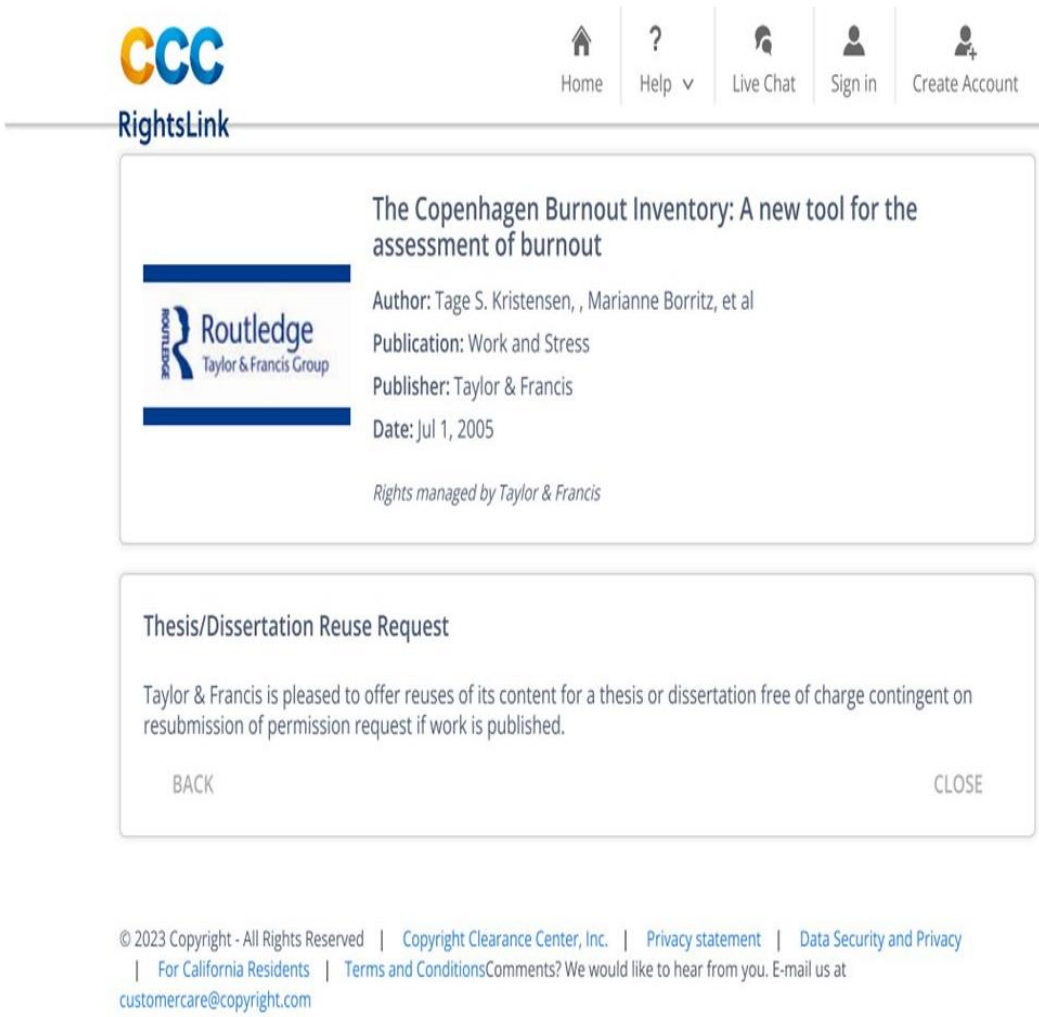
The four first questions: To a very high degree, To a high degree, Somewhat, To a low degree, To a very low degree.

The two last questions: Always, Often, Sometimes, Seldom, Never/almost never.

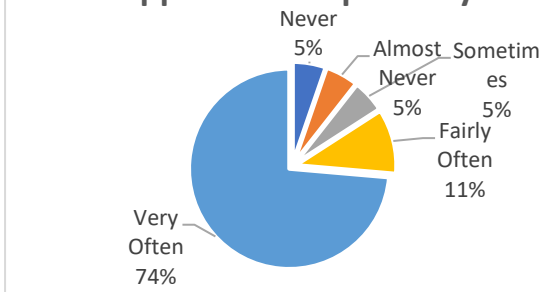
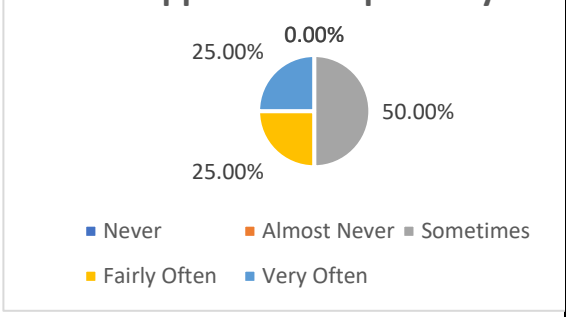
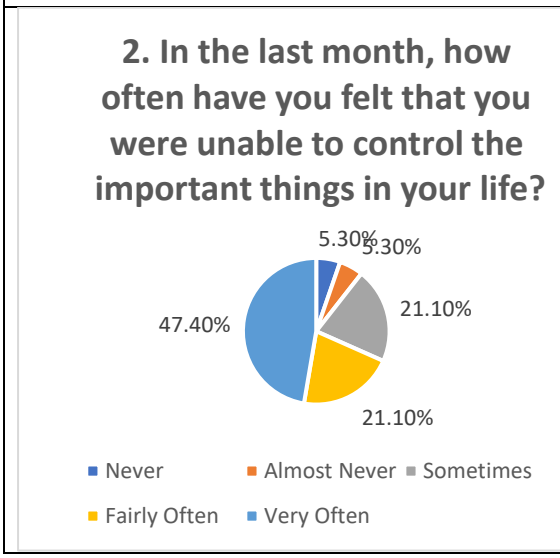
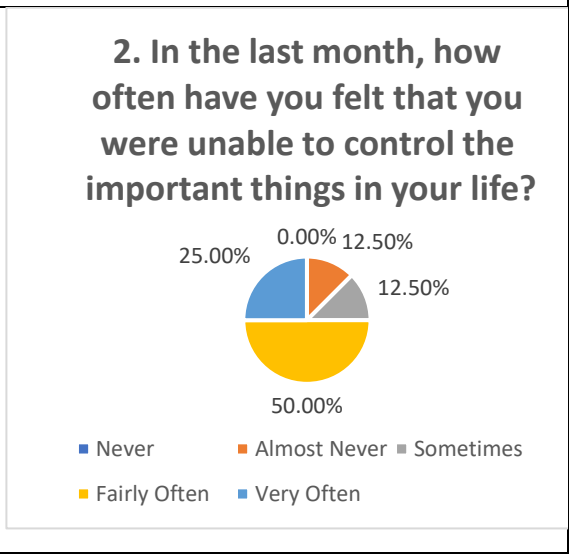
Scoring as for the first two scales. If less than three questions have been answered, the respondent is classified as non-responder.

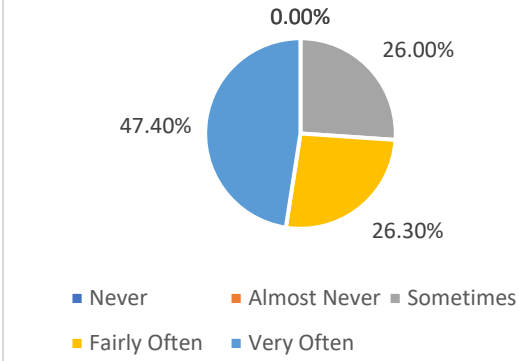
**Used with permission (Kristensen et al., 2017).**

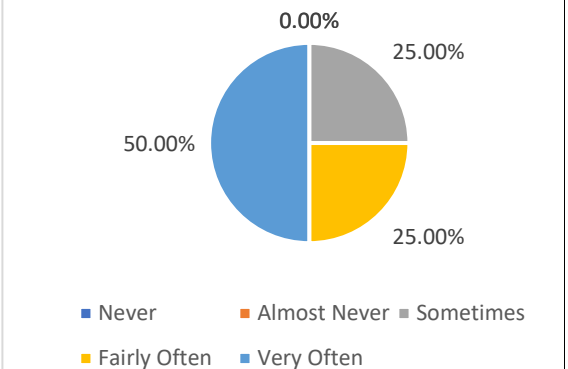
APPENDIX G – Permission to use Copenhagen Burnout Inventory

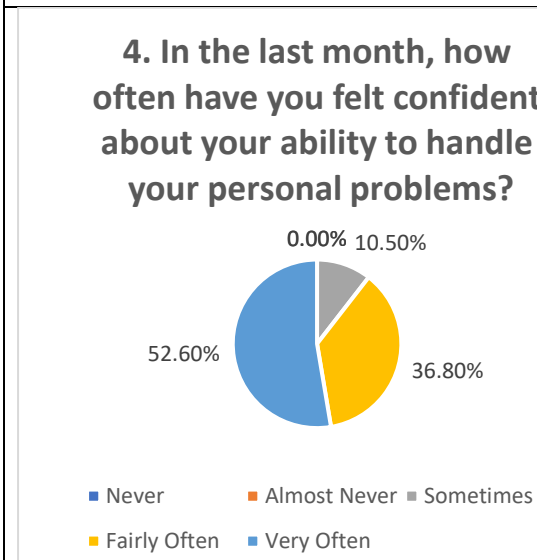


APPENDIX H – Perceived Stress Scale Overall Comparison

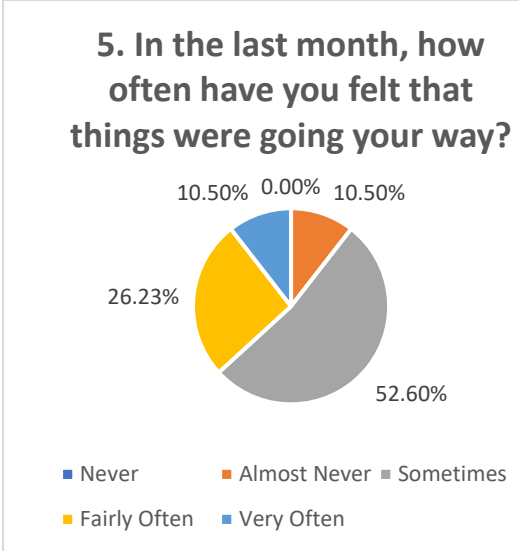
| Pre-Intervention | Post-Intervention |
|---|---|
| N = 30 | N = 30 |
|  |  |
|  |  |

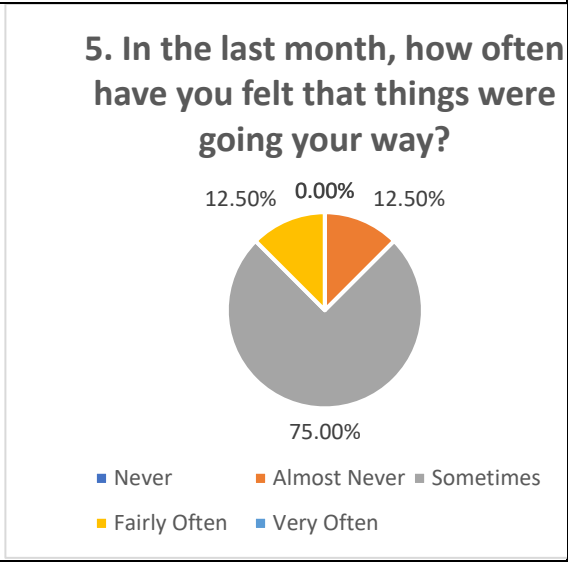

3. In the last month, how often have you felt nervous and stressed?
0.00%
26.00%
47.40%
26.30%
Never
Almost Never
Sometimes
Fairly Often
Very Often

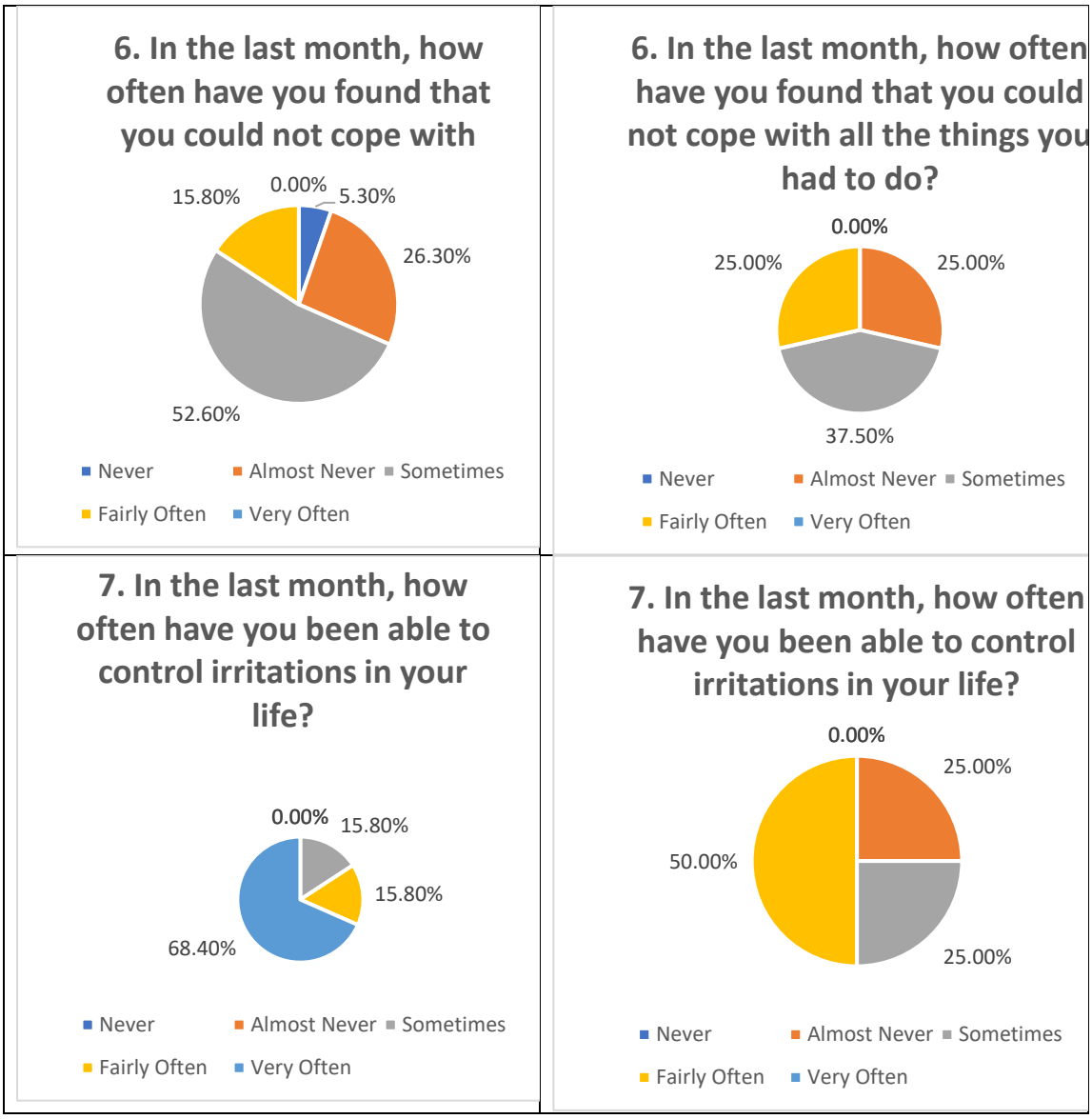

3. In the last month, how often have you felt nervous and stressed?
0.00%
25.00%
50.00%
25.00%
Never
Almost Never
Sometimes
Fairly Often
Very Often

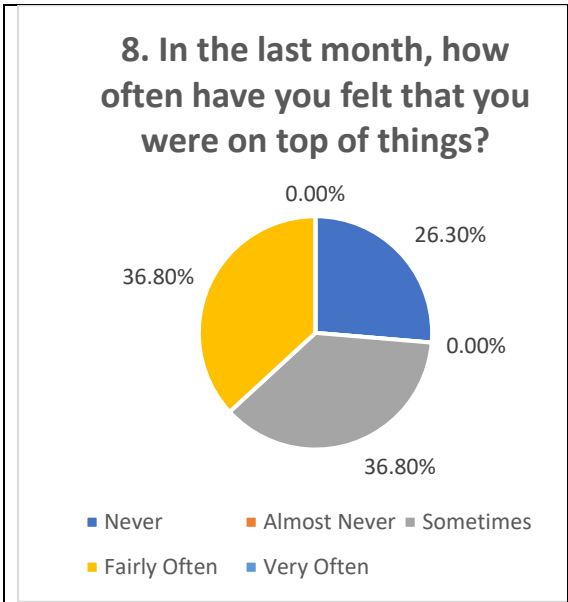

4. In the last month, how often have you felt confident about your ability to handle your personal problems?
0.00%
10.50%
52.60%
36.80%
Never
Almost Never
Sometimes
Fairly Often
Very Often

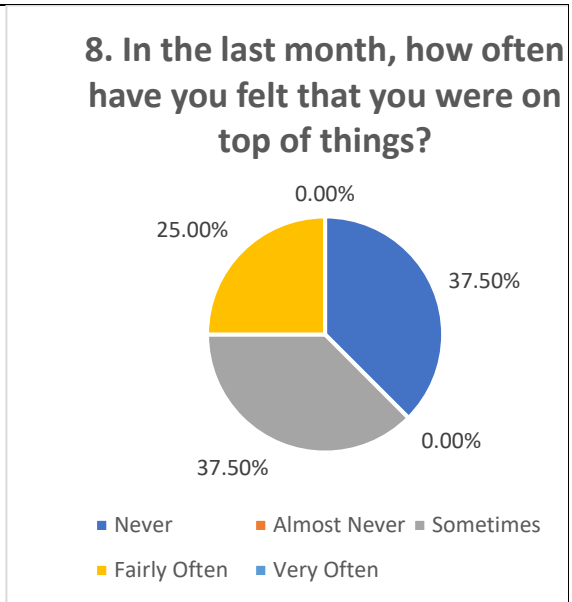

4. In the last month, how often have you felt confident about your ability to handle your personal problems?
0.00%
25.00%
75.00%
Never
Almost Never
Sometimes
Fairly Often
Very Often

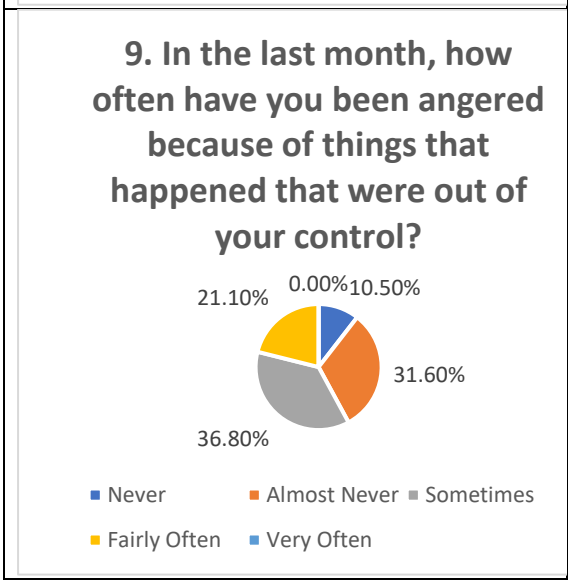

5. In the last month, how often have you felt that things were going your way?
10.50%
0.00%
10.50%
26.23%
52.60%
Never
Almost Never
Sometimes
Fairly Often
Very Often

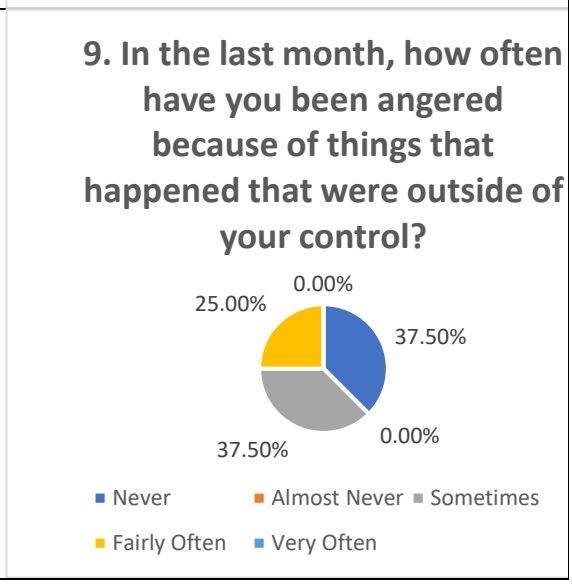

5. In the last month, how often have you felt that things were going your way?
12.50%
0.00%
12.50%
75.00%
Never
Almost Never
Sometimes
Fairly Often
Very Often

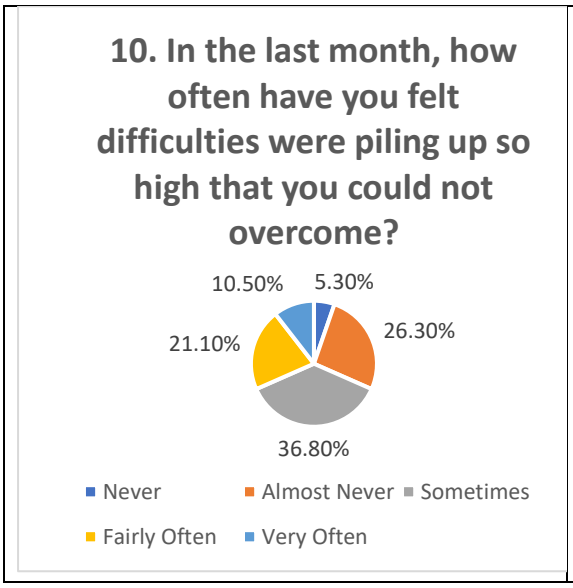

6. In the last month, how often have you found that you could not cope with
15.80%
0.00%
5.30%
26.30%
52.60%
Never
Almost Never
Sometimes
Fairly Often
Very Often
6. In the last month, how often have you found that you could not cope with all the things you had to do?
0.00%
25.00%
25.00%
37.50%
Never
Almost Never
Sometimes
Fairly Often
Very Often
7. In the last month, how often have you been able to control irritations in your life?
0.00%
15.80%
15.80%
68.40%
Never
Almost Never
Sometimes
Fairly Often
Very Often
7. In the last month, how often have you been able to control irritations in your life?
0.00%
25.00%
50.00%
25.00%
Never
Almost Never
Sometimes
Fairly Often
Very Often

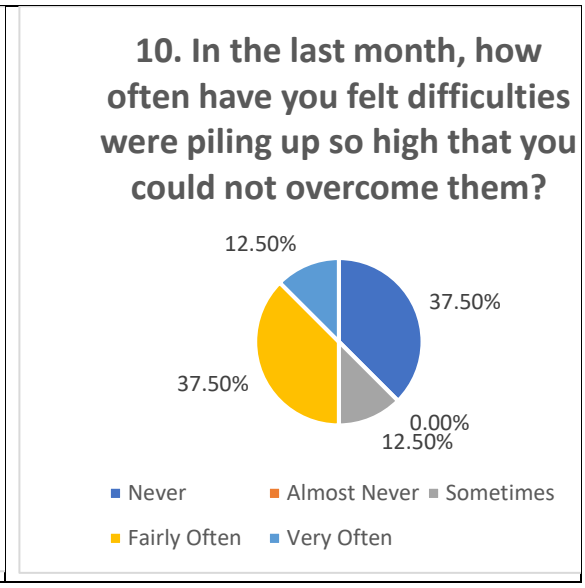

8. In the last month, how often have you felt that you were on top of things?
0.00%
26.30%
36.80%
0.00%
36.80%
Never
Almost Never
Sometimes
Fairly Often
Very Often


8. In the last month, how often have you felt that you were on top of things?
0.00%
25.00%
37.50%
0.00%
37.50%
Never
Almost Never
Sometimes
Fairly Often
Very Often


9. In the last month, how often have you been angered because of things that happened that were out of your control?
21.10%
0.00%
10.50%
31.60%
36.80%
Never
Almost Never
Sometimes
Fairly Often
Very Often


9. In the last month, how often have you been angered because of things that happened that were outside of your control?
0.00%
25.00%
37.50%
0.00%
37.50%
Never
Almost Never
Sometimes
Fairly Often
Very Often


10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome?
10.50%
5.30%
26.30%
21.10%
36.80%
Never
Almost Never
Sometimes
Fairly Often
Very Often


10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?
12.50%
37.50%
37.50%
0.00%
12.50%
Never
Almost Never
Sometimes
Fairly Often
Very Often

APPENDIX I – Letters of Support

**G. V. (SONNY) MONTGOMERY**
**DEPARTMENT OF VETERANS AFFAIRS**
**MEDICAL CENTER**
**1500 East Woodrow Wilson Drive**
**Jackson, MS 39216-5199**

April 4, 2022

The University of Southern Mississippi, DNP Program

RE: Jennifer Boose, DNP Student

To whom it may concern,

I serve in the role of the mental health nurse practitioner supervisor at the Jackson VA Medical Center. Ms. Jennifer Boose has my support to move forward with the planned project at the VA Medical Center. I will be available to assist in any manner needed. I am looking forward to working with the student.

If you need any additional information, please feel free to contact me at 601-[redacted]@va.gov

Dr. Nita A. Magee / es/

Nita A. Magee, PhD, RN, PMHNP-BC
Mental Health APRN's Nurse Manager/Psychiatric Nurse Practitioner
G.V. (Sonny) Montgomery VA Medical Center
1500 E. Woodrow Wilson Drive (116A-3)
Jackson, MS 39216

**G. V. (SONNY) MONTGOMERY**
**DEPARTMENT OF VETERANS AFFAIRS**
**MEDICAL CENTER**
**1500 East Woodrow Wilson Drive**
**Jackson, MS 39216-5199**

April 4, 2022

The University of Southern Mississippi, DNP Program

RE: Nancy Bennett, DNP Student

To whom it may concern,

I serve in the role of the direct supervisor for Ms. Nancy Bennett and support her completing her project at the VA Medical Center. We are looking forward to enhancing the quality of care she already provides.

If you need any additional information, please feel free to contact me at 601-[redacted].gov

Dr. Nita A. Magee / es/

Nita A. Magee, PhD, RN, PMHNP-BC
Mental Health APRN's Nurse Manager/Psychiatric Nurse Practitioner
G.V. (Sonny) Montgomery VA Medical Center
1500 E. Woodrow Wilson Drive (116A-3)
Jackson, MS 39216

PROTOCOL 22-1646


## Weekly Participation Survey

| Days | I performed mindfulness practice:<br><br>1 = At least once<br>2 = At least twice<br>3 = Did not practice | I was able to watch my feelings without getting overwhelmed or becoming distressed?<br><br>1 = Yes<br>2 = No | I experienced moments of inner peace and ease after practicing the mindfulness technique<br><br>1 = Yes<br>2 = No<br>3 = Did not practice | I was more aware and focused for the reminder of my workday.<br><br>1 = Yes<br>2 = No<br>3 = Did not practice |
|---|---|---|---|---|
| **Sunday** | | | | |
| **Monday** | | | | |
| **Tuesday** | | | | |
| **Wednesday** | | | | |
| **Thursday** | | | | |
| **Friday** | | | | |
| **Saturday** | | | | |

**Please print or keep this fillable table to track of your daily data points. You will be requested to input this data on Sunday. Thank you for your consistent participation.**

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