

Abilene Christian University

Digital Commons @ ACU

Electronic Theses and Dissertations

Electronic Theses and Dissertations

3-2023

Burnout in Medical Assistants in Primary Care: Can Mindfulness be a Solution?

Natalee D. Calais

Abilene Christian University, nxc21a@acu.edu

Follow this and additional works at: <https://digitalcommons.acu.edu/etd>



Part of the Behavior and Behavior Mechanisms Commons, Cognitive Behavioral Therapy Commons, Family Practice Nursing Commons, Movement and Mind-Body Therapies Commons, Other Nursing Commons, Other Psychiatry and Psychology Commons, Psychological Phenomena and Processes Commons, and the Somatic Bodywork and Related Therapeutic Practices Commons

Recommended Citation

Calais, Natalee D., "Burnout in Medical Assistants in Primary Care: Can Mindfulness be a Solution?" (2023). Digital Commons @ ACU, *Electronic Theses and Dissertations*. Paper 594.

This DNP Project is brought to you for free and open access by the Electronic Theses and Dissertations at Digital Commons @ ACU. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ ACU.

This doctoral project, directed and approved by the candidate's committee, has been accepted by the College of Graduate and Professional Studies of Abilene Christian University in partial fulfillment of the requirements for the degree

Doctor of Nursing Practice

Nannette W. Glenn, Ph.D.

Dr. Nannette Glenn, Dean of
the College of Graduate and
Professional Studies

March 2023

Doctoral Project Committee:

Colleen Marzilli

Dr. Colleen Marzilli

Cheryl Green

Dr. Cheryl Green

Abilene Christian University
College of Graduate and Professional Studies

Burnout in Medical Assistants in the Primary Care Setting: Can Mindfulness Be a Solution?

A dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Nursing Practice

by

Natalee D. Calais

April 2023

Dedication

This project is dedicated to my mother. Her unwavering love and encouragement helped propel me through this journey. In my heart, I dedicate this project to my late father who loved and supported me unconditionally. My parents were my biggest cheerleaders who always inspired me to be greater and do greater. To my children Layla and Christian, I dedicate this project to them. May they be inspired and know that their education equals opportunity. To my project chair Dr. Colleen Marzilli, my committee member Dr. Cheryl Green, and my mentor and friend Dr. Ashley Leak Bryant, who were patient and supportive while advising me with their expertise. None of this would have been possible without my village and most importantly God for directing my path through completion.

Acknowledgments

I would like to thank my ACU instructors for challenging, leading, and inspiring me through this program. The education and information I learned in these last two years will prepare me for an executive leadership path reflecting nursing scholarship and excellence. Thank you to my advisors who walked alongside me through the program.

© Copyright by Natalee D. Calais (2023)

All Rights Reserved

Abstract

Burnout is described as feelings associated with emotional exhaustion, depersonalization of patients, and a loss of sense of personal accomplishment and it is unique to healthcare workers. Current research highlights this condition among physicians, nurses, and mid-level providers; however, insufficient research exists regarding the effects of burnout on medical assistants. Research led to mindfulness as a possible solution defined as an intentional regulation of attention and awareness of the present moment. This project sought to see if mindfulness practices could be utilized to mitigate the effects of burnout in medical assistants. It was hypothesized that mindfulness could be a solution. This project featured a pretest/posttest quasi-experimental research design. The seven participants were medical assistants from three different clinics, part of an eight-clinic primary care network. Each of the sites was given a mindfulness activity for participants to complete during their working shift for 10 minutes. The practices were journaling, meditation, or going outside. The researcher gave participants the Maslach Burnout Inventory and Areas of Worklife Survey as pre- and postintervention tests. Paired t tests were conducted, results were analyzed in Excel, and p -values were calculated. Though there was a difference in the pretest and posttest scores for the depersonalization and personal accomplishment subscales, results show that mindfulness activities showed a statistically significant impact in the area of emotional exhaustion and workload.

Keywords: burnout, mindfulness, medical assistants, quasi-experimental

Table of Contents

Acknowledgments.....	ii
Abstract.....	iv
List of Tables	vii
List of Figures.....	viii
Chapter 1: Introduction.....	1
The Impact of Burnout in the Healthcare Workforce	3
A National Focus on Burnout in Healthcare.....	5
The Effects of Burnout on the Healthcare Delivery System.....	6
Statement of the Problem.....	7
Purpose of the Study	8
Research Question	10
Hypothesis.....	11
Definition of Key Terms	11
Scope of the Project	12
Limitations of the Project.....	14
Summary	14
Chapter 2: Literature Review	16
The Impact of Mindfulness on Healthcare.....	17
Mindfulness Techniques	18
Meditation	18
Journaling.....	19
Nature-Based Mindfulness.....	19
Theoretical Framework Discussion	20
Summary	22
Chapter 3: Research Method and Project Design	25
Methodology Appropriateness.....	28
Instrument/Measurement Tools	29
Data Collection/Management	30
Timeline	31
Analysis Plan	31
Feasibility and Appropriateness.....	32
Cost	33
IRB Approval and Process.....	33
Interprofessional Collaboration	34
Practice Setting for EBP	34
Target Population.....	34

Risks.....	35
Benefits	35
Summary	36
Chapter 4: Results	37
Data Collection	37
Data Analysis	40
Limitations	47
Summary	48
Chapter 5: Discussions, Conclusions, and Recommendations	50
Discussion of Findings.....	51
Recommendations for Future Research	59
Relationship to the DNP Essentials	60
DNP Essential I: Scientific Underpinnings for Practice	60
DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence- Based Practice	61
Summary	62
References.....	64
Appendix A: ACU IRB Approval Letter	72
Appendix B: Project Site Approval Letter	73
Appendix C: Participant Informed Consent.....	74
Appendix D: Participant Solicitation Email	78
Appendix E: Areas of Worklife Survey and Permission to Administer	80
Appendix F: MBI Survey and Permission to Administer	83

List of Tables

Table 1. Demographic Data of Participants	38
Table 2. Time Log Results	39
Table 3. Pretest and Posttest MBI Human Services Survey	42
Table 4. Pretest and Posttest Data Areas of Worklife Survey	47

List of Figures

Figure 1. MBI Pre- and Post-Data Depersonalization	41
Figure 2. MBI Pre- and Post-Data Personal Accomplishment	41
Figure 3. MBI Pre- and Post-Data Emotional Exhaustion.....	42
Figure 4. AWS Pre- and Post-Data Workload	44
Figure 5. AWS Pre- and Post-Data Control.....	44
Figure 6. AWS Pre- and Post-Data Reward.....	45
Figure 7. AWS Pre- and Post-Data Community	45
Figure 8. AWS Pre- and Post-Data Fairness.....	46
Figure 9. AWS Pre- and Post-Data Values	46

Chapter 1: Introduction

Burnout is defined as feelings of exhaustion, cynicism, and perceived inefficacy resulting from prolonged job-related stress (Reith, 2018). This condition was defined by psychologist Herbert Freudenberger in 1974, derived from the 1950s slang expression for drug users to burn until fuel is exhausted (Freudenberger, 1974, as cited in Reith, 2018). He came up with the term while serving as a volunteer at a clinic in a drug-plagued neighborhood in the East Village of New York City. Freudenberger observed the characteristics of burnout manifesting in people employed in positions that required higher levels of “personal involvement and empathy,” and described by him as occurring “primarily among the dedicated and the committed” (Freudenberger, 1974, as cited in Reith, 2018, p. 2). Dedicated and committed are attributes often used to describe healthcare workers. He noted the overall impact of the “emotional depletion and accompanying psychosomatic symptoms among the clinic’s volunteer staff” (Freudenberger, 1974, as cited in Reith, 2018, p.1). Freudenberger went on to describe burnout as exhaustion resulting from excessive demands on energy, strength, or resources in the workplace that often leads to feelings of malaise, fatigue, frustration, cynicism, and feelings of inefficacy.

Burnout is also explained as a “syndrome of emotional exhaustion, depersonalization, and a sense of low personal accomplishment” (Goldberg et al., 2020, para. 2). This phenomenon is on the rise and is uniquely experienced among healthcare providers and clinic staff. The prevalence was high, especially navigating the uncharted waters through the COVID-19 pandemic. A Washington Post/Kaiser Family Foundation survey of 1,327 healthcare workers serving on the frontlines during the COVID-19 pandemic revealed a heightened 55% identified with feelings of mental and physical exhaustion or burnout (Kaulshik, 2021).

The World Health Organization (WHO) goes on to describe burnout as a phenomenon unique in an occupational context and should not describe experiences in other areas of life (WHO, 2023). A connection exists between an individual's perception of burnout and their overall well-being. If not addressed, burnout can lead to undesirable effects on one's well-being and it can negatively influence their interaction with fellow staff and patients affecting the overall healthcare delivery system.

Clinician burnout can have a negative influence on the overall well-being of the individual. Mind Garden, an international publisher of psychological assessments, found that the impact of burnout can affect one's physical and mental health. Symptoms can include the development of a physical illness, an increase of feelings associated with hopelessness, increased irritability, and impatience. It can also affect the way one interacts with others leading to poor interpersonal relationships with family, coworkers, or friends. In more severe cases, burnout can cause diminished executive functioning, affecting one's ability to pay attention and retain or remember information (Mind Garden, 2018).

Despite symptoms of burnout being similar to depressive symptoms, it is not an official diagnosis included in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5). This manual is the official classification of medical psychiatric disorders in the United States (Reith, 2018). However, the WHO does feature burnout in the *International Classification of Diseases* (ICD-11) and defines it as an occupational phenomenon characterized by chronic stress in the workplace not adequately managed (WHO, 2023). How healthcare workers feel about their work environment can influence their perceptions of burnout.

The term *nurse burnout* was featured in a 2020 blog from the University of St. Augustine for Health Sciences (USA) and is defined as “the state of mental, physical, and emotional

exhaustion caused by sustained work-related stressors, such as long hours, the pressure of quick decision-making, and the strain of caring for patients who may have poor outcomes” (USA, 2020, para.1). The perception of high stress, lack of sleep, seeming absent, or decreased support from administrators and colleagues can lead to organizations experiencing high turnover, staff absenteeism, delivery of low-quality patient care, and can negatively impact patient safety. These characteristics are all associated with work-related conditions that can lead to a cause-and-effect association with burnout (USA, 2020).

Many healthcare providers and staff are feeling the effects of work-related stress that leads to burnout, especially with the increased demand for healthcare prompted by the COVID-19 pandemic. In particular, the pandemic has forced healthcare providers into unfamiliar working circumstances that they have never encountered before. The AMA’s Coping With COVID-19 for Caregivers Survey was utilized by 42 healthcare organizations between May and October 2020. The survey featured responses from 20,947 physicians and other staff. Results showed 61% feared contracting COVID themselves or exposing their families, 38% expressed feelings associated with anxiety or depression, 43% felt overloaded from work, and 49% felt feelings of burnout (Berg, 2021). Berg also reported that “stress scores were highest among nursing assistants, medical assistants, social workers, and inpatient workers” (2021, para. 3). Although the effects of the COVID-19 pandemic are widespread, even before the pandemic, healthcare workers were at great risk to experience work-related stress that leads to burnout, which can harm their overall well-being and affect the overall delivery of care.

The Impact of Burnout in the Healthcare Workforce

Burnout in the healthcare workforce can be detrimental to the employee, and it may also have a negative domino effect on the delivery of patient care and the overall patient experience.

According to the National Academy of Medicine (2022), symptoms of burnout affect 35%–54% of nurses and physicians and 45%–60% of medical students and residents. The 2018 edition of the *New England Journal of Medicine Catalyst* reported that 83% of physicians experience burnout in healthcare organizations (Heath, 2019). Physician burnout leads to physicians being less empathetic to patients, which in turn affects the provider-patient experience and may cause patients to seek care elsewhere. Physicians need to see the patient as more than just a problem and be capable of empathetic communication to foster optimal and effective physician-patient relationships (Heath, 2019). A physician who is overwhelmed or detached, feelings that have also been associated with burnout, is at greater risk to make medical mistakes.

According to Levine (2021), prepandemic physicians were twice as likely to develop burnout in comparison to the general workforce, and 40% reported feelings associated with depression or suicidal ideations. Since the pandemic, 60%–75% of clinicians reported symptoms associated with burnout including difficulty sleeping, exhaustion, and PTSD leading to an estimated 20%–30% of healthcare workers quitting their jobs during this time (Levine, 2021). Other vital members of the healthcare team can also be impacted by burnout. In a 2016 study of 812 nurses, 35.3% admitted to having feelings associated with burnout (Dyrbye et al., 2019), while another study of 396 nurse practitioners showed 25.3% expressed feelings of burnout (Abraham et al., 2021). Morr (2020) revealed in a study of 600 physician assistants that 40% had feelings of burnout. Although the number of research participants must be considered when examining the final reports described above, it is consistent among professional healthcare providers that burnout is prevalent and represents an area of clinical concern that needs careful attention.

The impact of burnout can also affect other medical personnel in acute and ambulatory settings, including medical and nursing assistants and front desk clerks. Leo et al. (2021) referenced a systemic review analyzing health employee stress during the COVID-19 pandemic in the healthcare workplace. Results from the review showed that stress scores in U.S. health organizations were highest among women, Blacks, and Latinos working in hospitals as nursing assistants, medical assistants, and social workers. Burnout initially affects healthcare workers' own health and safety. However, secondary effects can impact the healthcare delivery system and have caught the attention of national organizations who have taken action to address the burnout phenomenon.

A National Focus on Burnout in Healthcare

The Institute for Healthcare Improvement developed the Triple Aim, which is a national initiative with a focus on the overall delivery of care by improving patient care and reducing healthcare costs. The adoption of the Quadruple Aim was added based on the concern to understand the contributing factors of clinician distress that can lead to burnout and to come up with operational interventions to create healthy work environments. The overall goal of adding an additional aim was to address healthcare provider burnout and create a sense of joy in the workplace (Fitzpatrick, et. al., 2019).

The National Institute for Occupational Safety and Health (NIOSH) recognizes the work environment as a social determinant of health. Healthy People 2030 defines social determinants as conditions in “the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health functioning, and quality-of-life outcomes and risks” (U.S. Department of Health and Human Services (HHS), 2020). NIOSH has created the Health Worker Mental Health Initiative not only to raise awareness of mental health issues, including feelings

associated with burnout, but to identify healthy workplace and community support, screening tools, and resources for healthcare workers (National Institute of Occupational Safety Health, n.d.).

In 2017 the National Academy of Medicine (NAM) formed the Action Collaborative on Clinician Well-Being and Resilience. This consists of a collaboration of more than 200 professional organizations addressing the issues around clinician burnout. The aim is to focus awareness on clinician burnout, improve understanding of the contributing factors, especially in the workplace, and continue to advance and provide evidence-based solutions to mitigate the effects of clinician burnout and improve patient care (National Academy of Medicine, 2022). National organizations are bringing awareness to clinician and healthcare worker burnout and offering resources and solutions that can be modeled at the organizational level.

The Effects of Burnout on the Healthcare Delivery System

At the healthcare organization level burnout can be attributed to absenteeism, increased turnover, and decreased job performance. All of these influence the overall delivery of care impacting the patient experience and continue to increase among staff (Mind Garden, 2018). Burnout is experienced as a direct result of prolonged exposure to perceived unfavorable occupational conditions, including low autonomy over decisions regarding patient care, a high number of job-related demands, poor collegial relations, long working hours, poor work-life balance, concerns over staffing and resources, and perceived insufficient support from administration (Abraham, 2020). For example, documentation demands have increased as governmental and private insurance companies have adopted added quality measures. According to Reith (2018), physicians are overburdened with preparing documentation to meet quality measures. This could be enough time to see an additional nine patients while the clerical staff is

spending approximately two hours on paperwork for every patient seen by the provider. In another example, Reith (2018) discussed the average 51-hour workweek for physicians and noted the inverse correlation between hours worked and job satisfaction—physicians that worked more hours had less job satisfaction while physicians working fewer hours had more job satisfaction.

Clinician burnout can have a negative ethical impact on the delivery and standard of patient care. Medical errors by surgeons are correlated with burnout (Reith, 2018). Reports also showed that clinicians experiencing burnout tend to have higher patient mortality rates and nosocomial infections (Reith, 2018). Reith (2018) noted that in medical students, burnout precipitated alcohol abuse, decreased altruism, and increased dishonest clinical behavior. The effects of physician burnout are shown to affect provider-patient interaction as the studies have shown a decrease in patient satisfaction (Reith, 2018).

These negative repercussions can have a detrimental effect on organizations economically. According to the American Medical Association, it cost the United States on average \$4.6 billion annually when factoring in the costs associated with physician turnover and a reduction in their clinical hours (Henry, 2019). These expenses cost an organization an estimated \$7,600 annually per employed physician (Henry, 2019).

Statement of the Problem

According to Abraham (2021), there is an insufficient number of studies specifically analyzing burnout among primary care providers. This group includes physicians, nurse practitioners, and physician assistants. Even less research has been dedicated to the effects of burnout on medical assistants in the primary ambulatory care setting. The current research conducted in acute care facilities with hospital nurses and staff cannot be generalized to

clinicians and staff in the primary care setting. Although similar, the roles have different healthcare delivery requirements, organizational structure, patient demographics, and needs. These are all factors that can influence job perception and overall provider well-being.

Medical assistants (MAs) are the population of interest for this project. MAs play a vital role in the delivery of care and overall patient experience in the ambulatory care setting. There are increased number of MAs being hired in primary care offices. They are trained to perform tasks associated with clerical front desk duties as well as direct patient care and back-office clinic duties. Despite anecdotal reports suggesting that MA turnover is high, not enough studies to date have calculated the rate or cost of MA turnover (Friedman & Neutze, 2020). One retrospective study analyzing MA turnover and associated costs in a single large family medicine clinic from 2017 found that MA turnout that year was 59%. That cost the organization an estimated \$213,000, which is \$14,200 per MA, and 40% of the average salary for MAs. Researchers concluded that the turnover rates in the practice featured in the study were similar to other estimates of other personnel in primary care and allied health (Friedman & Neutze, 2020).

Purpose of the Study

The purpose of this DNP project was to examine if brief mindfulness intervention reduce perceptions of burnout among MAs working in a primary care clinic. Upon approval from both Abilene Christian University's IRB and clinic site administration (see Appendix A and Appendix B), I conducted a pilot-study project utilizing a quasi-experimental pretest–posttest design. Participants were asked to complete an assessment to measure burnout as a pretest, then engage in a 10-minute mindfulness intervention per work shift over six weeks, and then do a follow-up posttest at the end of the six weeks to determine the effectiveness of the interventions used to

reduce the feelings associated with burnout. Participants were asked to sign informed consent documents before initiating the study (see Appendix C).

The Maslach Burnout Inventory - Human Services Survey for Medical Personnel (MBI-HSS (MP)) along with the Areas of Work-Life Survey (AWS) are instruments proven to be specific and reliable to measure the level and perception of burnout among healthcare workers (see Appendix F and Appendix E). The combined assessment consists of 50 items and usually takes 25–30 minutes to complete (Mind Garden, 2018). The MBI was developed by Maslach and Jackson to identify what can be done about burnout and identify new knowledge that can be gained about burnout prevention (Maslach et al., 2011).

The brief mindfulness-based activities included journaling, going outside, and meditation. I selected these mindfulness-based activities because each is an example of an activity that literature has shown to be a practice that can increase mindfulness. These activities are feasible and could be performed while at work in a brief period of time. I encouraged participants to engage in a mindfulness activity during their allotted one-hour lunch period. Each clinic site was randomly assigned to one of those three activities. Participants were given a log to document the date, starting and ending time of the mindfulness activity, and a reason they were unable to participate if that occurred. This log was turned in to me at the end of the six weeks. The Journaling group was given a separate notebook to write down their thoughts during the 10-minute activity and I encouraged the group to focus on an attitude of gratitude. These notebooks were considered private and were not turned in to me.

After the six weeks, I compared Excel results from the MBI and AWS pretest and posttest to determine if mindfulness practices reduced the employee's perception of burnout by displaying a difference in the outcomes of the tests. Individual results remained anonymous

among participants, however, I gave each participant their MBI and AWS results. I gave clinic administrators a summary of the survey results without any participant identifiers.

Research Question

I have a personal interest in understanding the cause of burnout among MAs and the impact MA burnout has on the healthcare delivery system in primary care. The primary care office where I have worked for 13 years has experienced high MA turnover. I have witnessed many of the employees display symptoms associated with burnout and the effects that MA burnout has on their job performance, patient interaction, and the overall patient experience. It has affected the delivery of care when recently hired employees are training even more recently hired employees. Patients have made comments about noticing all the new faces each time they come for routine visits. There is a negative effect on the morale of the team when staff is discussing their job dissatisfaction with each other and sometimes with patients. I recognized this as a problem and wanted to understand why clinic MAs are experiencing burnout.

It is important to identify strategies that have been proven to help mitigate employee burnout. The purpose of the project was to identify an appropriate intervention to address MA burnout. The goal of the project was for MAs to report fewer feelings associated with burnout. Studies exist linking the benefits of individually focused mindfulness practices in the healthcare setting to reduce burnout. Mindfulness is defined as “present moment awareness with an attitude of openness and nonjudgment” (Hente et al., 2020).

The PICO(T) research question is the following: “In the primary care setting, how does the MA engaging in 10 minutes of an individually focused mindfulness activity during their workday affect the MAs perceptions associated with employee burnout?” The “P” or population of interest are the MAs employed in a primary care, ambulatory care clinic. The “I” or

Intervention was the three 10-minute mindfulness activities. This study design did not have a “C” or comparison group. The “O” or Outcome was the measurement of the level of burnout at the end of the six-week study duration. The “T” is the six weeks of study duration.

Hypothesis

I hypothesize that in the primary care setting, the MA who engages in 10 minutes of an individually focused mindfulness activity during their workday would reduce their perceptions of feelings and symptoms associated with employee burnout. This hypothesis is based on various literature that reports improved mental health benefits as a result of practicing the selected mindfulness activities in the study: journaling, meditating, and being outdoors (Sparks, 2018). Cultivating an attitude of gratitude has been associated with “strengthening your immune system and improving sleep patterns, feeling optimistic and experiencing more joy and pleasure, being more helpful and generous, and feeling less lonely and isolated” (Mindful, 2021, para. 6). Meditation has been linked to improved sleep, decreased job burnout, and improved attention (Sparks, 2018). Key features of practicing mindfulness are intensely focusing on your environment and being in the moment. Going outdoors creates the ideal environment for one to accomplish this (Sparks, 2018).

Definition of Key Terms

The dependent variable in this study was the degree to which the participant was experiencing burnout. Burnout is defined as a “syndrome of exhaustion, depersonalization, and diminishing accomplishment” (Mind Garden, 2019, Para. 4). The dependent variable or burnout was measured with a reliable tool, the MBI for MP. The MBI is specifically designed to measure burnout levels and is scientifically proven to be both valid and reliable (Maslach & Leiter, 2021).

The measurement utilizing the MBI occurred at the initiation of the study before engaging in any mindfulness activity.

This study utilized MAs as the population. An MA is defined as an individual that has completed a specific educational program along with clinical hours preparing that individual to work in a specific role usually alongside clinicians in primary- or ambulatory-care settings (American Association of Medical Assistants, n.d.). The individual must have been employed and functioning in that role within the clinic.

The independent variables were journaling, going outside, and meditation. Journaling was defined as the study participant writing in a provided notebook for the 10-minute duration. Going outside was defined as the study participant going outdoors for a 10-minute duration. Meditation was defined as one being “intensely aware of what you’re sensing and feeling in the moment, without interpretation or judgment” (Sparks, 2018). Participants were asked to turn off their electronics and be in a quiet space free of distractions or other people for the 10-minute duration.

The primary care setting is defined as an ambulatory healthcare clinic not associated with a hospital or providing emergency care.

Scope of the Project

The study population of interest for this project was MAs. The participants came from three primary care ambulatory clinics that are part of a larger eight-clinic primary care network located in the city of Houston and surrounding suburbs. Informed consent was obtained before study initiation. Inclusion criteria were human subjects, male or female, employed with the clinic functioning as an MA and at least 18 years of age. Exclusion criteria included anyone under the

age of 18 that was not employed or functioning as an MA. There are about 16 MAs employed between the three clinics of interest.

These clinics are ambulatory care clinics that are part of a larger clinic network providing primary care with a single physician owner. The clinics employ other clinicians, including physicians, nurse practitioners, and physician assistants at each location. Clinic hours of operation were Monday through Friday from 8:00 a.m. until 8:00 p.m. The clinics were open Saturdays and Sundays from 8:00 a.m. until 6:00 p.m. The majority of the MAs worked three or four consecutive 12-hour shifts each week. Each MA was required to take a one-hour lunch break during their shift. This was an ideal time to engage in 10 minutes of a mindfulness activity. The average number of patients seen in the clinics is 26–40 per 12-hour shift. The clinic accepts both walk-ins and patients with appointments. The clinics also provide COVID-19 testing and treatment in addition to primary care.

MAs are responsible for triaging all of the patients, obtaining vital signs, administering injections or nebulized breathing treatments, and conducting callbacks to discuss clinician comments with patients regarding their lab or diagnostic imaging. The various job duties, working environment, and long consecutive shifts could create work-related stress on the MA that could lead to burnout that could negatively impact the overall delivery of care. I have witnessed frequent MA turnover, absenteeism, and staff disengagement. As a consequence, MAs new to the company often train even more recently hired MAs resulting in operational errors or deficits, delayed patient care, decreased continuity of care, and decreased patient satisfaction.

Mindfulness activities are successful interventions against the negative impact of burnout. The three mindfulness practices planned for this study presented MAs with a feasible opportunity to see if there was any benefit for them personally, especially if their MBI score

correlated with burnout. My goal in this study was for MAs to practice proven mindfulness activities that can help mitigate their perceptions of burnout.

Limitations of the Project

There are a few limitations identified with this project. Due to the high turnover rates of MAs within the organization, losing a project participant due to attrition posed a risk. There was a chance that participants could not practice the mindfulness intervention during their working hours because their job duties took precedence and did not allow the time. In addition, this project occurred within an organization that provides primary care and the findings may not apply to other ambulatory or acute care settings. This project is a pilot project in nature with a low number of participants. For that reason, a project with a larger number of participants may be needed to identify any relationship between brief mindfulness activities and MAs' perceptions of burnout.

Summary

Although this DNP project focused on burnout in MAs in primary care settings, this phenomenon is not unique to MAs in that setting. As indicated previously, this project can be categorized as a pilot study. Additional studies could model this project and could be performed with other members of the healthcare team and in the acute care settings. The MBI is a tool that organizations could incorporate as a reliable tool to measure employee burnout. I believe the healthcare executive and administrative leadership should evaluate any level of burnout among employees to seek an understanding of employee experiences, how the employees developed a loss of enthusiasm for work, feelings of cynicism, and/or a low sense of personal accomplishment (Mayzell, 2020). If the organization is experiencing high staff turnover, low retention rates, and disengaged staff, these occurrences are all manifestations of burnout and it is

paramount to understand how to manage them. Once that evaluation is made, measurable strategies need to be implemented to reduce staff burnout and improve the overall employee and staff experience. This will ultimately improve the healthcare delivery system in that setting.

Mindfulness has been associated with reducing perceptions of burnout and interventions can be brief, cost-effective, and relatively simple to carry out. It is my hope that the participants gain effective mindfulness practices that they can use in their workday and beyond that are beneficial in mitigating burnout.

Chapter 2: Literature Review

It is well-known that the healthcare industry has problems with staff retention. Many organizations have experienced high turnover, disengaged staff, and low employee satisfaction. These concerns have occurred among clinicians, MAs, and clerical workers. Those in healthcare are aware of these concerns and I, as a DNP student on the Executive Leadership track, have gained an increased interest in these retention issues. I believe that the knowledge gained through this project can be applied to my current practice and any medical organization experiencing high turnover, disengaged staff, and low employee satisfaction. Numerous factors may contribute to the phenomenon that is occurring within this organization. However, the literature is ripe with the discussion of *burnout* and *mindfulness* and the effects mindfulness may have on the healthcare workforce, specifically the primary care office. The purpose of this literature review is to gain insight into the current research available to provide a scientific basis for addressing the challenges of retention, engagement, and burnout.

The area of interest is determining if there was a positive relationship between mindfulness activities and the self-perception of burnout among MAs within the primary care interdisciplinary team. Utilizing the ACU Brown Library Database, I conducted an advanced search utilizing the terms *brief mindfulness practices*, *primary care healthcare professionals*, and *burnout*. The search was limited to full-text, peer-reviewed articles since 2018. This search yielded 13 articles. A similar search on PubMed using the similar search terms *brief mindfulness*, *burnout*, and *health professionals* resulted in seven articles published since 2018. I conducted other searches through Google Scholar utilizing the advanced search terms *brief mindfulness*, *burnout*, and *healthcare professionals* and the results yielded 11 articles. These 31 articles were narrowed in scope by reading the abstract and removing articles that did not meet the intent of

the project resulting in 10 articles. I conducted additional searches on Google Scholar using the search terms *mediation mindfulness*, *journaling mindfulness*, *gratitude mindfulness*, and *nature-based mindfulness*. This search yielded four pertinent articles.

The Impact of Mindfulness on Healthcare

Healthcare workers experience higher levels of work-related stress compared to other professions. This level of stress can have detrimental effects on the health of the worker. Psychological interventions have been shown to not only help workers identify their work-related stressors, but they can also be used as effective coping strategies. Mindfulness is a type of psychological intervention. It is defined as having an open mind, maintaining patience, and having an attitude of acceptance all the while being able to focus on the current situation in a nonjudgmental way. Studies suggest there is a connection between mindfulness practices and decreased symptoms associated with depression, anxiety, and self-perceived burnout (Hente et al., 2020; Klatt et al., 2022; Patel et al., 2019; Prudenzi et al., 2022; Salvado et al., 2021; Sanso et al., 2019; Server et al., 2022; Slavin, 2019; Straus et al., 2018).

When health personnel are under high levels of stress and are experiencing burnout, it can negatively impact their ability to provide effective patient care and practice empathy. Research shows that mindfulness interventions have been associated with reducing negative stress-related health outcomes within healthcare systems. This includes improving physician awareness and mental clarity and reducing the tendency for shortcuts that can negatively impact patient safety (Calabrese, 2019; Copeland, 2020; Hente et al., 2020; Klatt et al., 2022; Liu et al., 2022; Prudenzi et al., 2022). Other benefits as related to medical practice include mindfulness being shown to increase provider-patient interactions, improve care as clinicians are more connected with their patients, enable providers to engage in increased active listening, and lead

to increased patient satisfaction (Hente et al., 2020; Klatt et al., 2022; Liu et al., 2022; Prudenzi et al., 2022; Straus et al., 2018).

The Association of American Medical Colleges (AAMC) endorsed legislation in 2020 aimed at organizations to establish workplace interventions and programs that address suicide, burnout, and mental health among health professionals that could reduce burnout and increase provider resilience (Klatt et al., 2022). There are both organization- and individual-based interventions to mitigate the effects of burnout in healthcare personnel. In recent years organizations have been encouraging the use of brief individual-based mindfulness interventions that have gained in popularity due to the associated reduced costs, moderate level of efficacy, healthcare acceptability, and their ability to enhance provider job performance (Copeland, 2021; Hente et al., 2020; Server et al., 2022). In this study, I examined three mindfulness practices—meditation, journaling, and going outside—to determine if the literature supports a correlation between these interventions being used by healthcare personnel feeling burnout.

Mindfulness Techniques

Meditation

Meditation is a type of mindfulness practice that initially encourages one to look inwards and focus on their breathing by removing all external distractions. One is advised to direct their attention to the flow of their breathing and be aware of but resist trying to control it. One is encouraged to accept and observe various sensations in their environment and pay attention to their feelings without avoiding or trying to control them. During meditation, one is encouraged to intentionally be aware of their thoughts and their environment and the ways one experiences the sensory world. This involves being aware of what one sees, smells, tastes and feels (Liu et al., 2022; Patel et al., 2019). Mindfulness meditation has been associated with an individual's natural

ability to cope with adverse emotional events, leading to a greater sense of emotional balance and improved well-being. It has also been associated with reducing emotional exhaustion and depersonalization, while elevating one's sense of personal accomplishment (Calabrese, 2019; Copeland, 2021; Salvado et al., 2021).

Journaling

Mindfulness journaling can be described as an opportunity for one to reflect on their experiences during their work shift by writing down their innermost thoughts in a journal. It can also represent an opportunity to be introspective and to take the perspective of another person. It has been shown to decrease burnout and compassion fatigue, and it has been associated with an increase in compassion satisfaction among nurses. A gratitude journal is a type of mindfulness journaling in which the individual focuses on positive thoughts and things that they are thankful for. Positive emotions have been shown to broaden people's ideas about possible decisions, and they can help to open their awareness to a wider range of thoughts and actions than is typical. Other benefits of a gratitude journal include better health, overall sleep, improved relationships, and optimal work performance (Copeland, 2021; Sotile et al., 2019).

Nature-Based Mindfulness

It has been proven that spending time in nature, especially outdoors, has many health benefits, including promoting optimal health and preventing health problems such as stress, depression, and anxiety. It has also been associated with improving one's immunity and interpersonal functioning. Mindful walking or being outdoors in natural settings has been shown to reduce levels of stress hormones such as cortisol. It creates an opportunity for one to disconnect from their work and to gain a sense of recharging one's self (Copeland, 2021; Cunningham & Cayir, 2021; Djernis et al., 2019). According to Kaplan's ART theory (attention

restoration theory), “exposure to nature can support the restorative process in part because such natural settings are often physically distant from one’s stressful everyday life, and also because nature promotes so-called soft fascination, which is defined as effortless attention drawn to fascinating objects” (Djernis et al., 2019, p. 2). Going outdoors creates an opportunity for one to intentionally redirect their focus outward to the details of their surroundings, which can lead to more absorbing experiences with nature (Ballew & Omoto, 2018; Djernis et al., 2019).

Theoretical Framework Discussion

Nurse pioneer Betty Neuman developed the Neuman systems model in 1974 based on a holistic systems approach to focusing on the various types of stressors that may cause harm to a person’s health or well-being as well as the defense mechanisms that may reduce the impact of stress altogether. She believed client healing could be strengthened through specific primary-, secondary-, and tertiary-nursing interventions (Bademli & Duman, 2017). Reflecting upon the model, the *client* is the clinician or healthcare worker, and the *nurse* is the nurse executive or administration. Nurse executives need to recognize that the work environment can be a source of stress that can lead to burnout. To continually assess any level of clinician or staff burnout needs to be emphasized. In addition, evidence-based strategies at the primary-, secondary-, and tertiary-levels need to be implemented to mitigate the effects of burnout.

The client in the Neuman systems model is viewed as a unique system with a normal range of responses that constantly interact with environmental influences. Based on those interactions with the environment, the client learns to develop a set of protective mechanisms called *defense lines* that protect against a variety of stressors that can result in either a positive or negative outcome for the client. The normal line of defense represents the client’s usual wellness-level and is the result of how the client has adapted to environmental stressors in the

past (Turner & Kaylor, 2015). Beyond the normal line of defense is the flexible line of defense, described as a *protective buffer* that prevents client system stressor invasions and keeps the system free from stressor reactions or symptoms. Examples of this type of defense include the level of resilience, tenacity, spiritual well-being, age, and some physiological measures (Turner & Kaylor, 2015).

According to the Neuman systems model, the lines of resistance are within the normal line of defense. When an environmental stressor penetrates through the normal line of defense, it leaves the fundamental structure or core at risk and causes an adverse chain reaction. The resistance lines are triggered to protect the basic structure that is at the center or core of the client. This activation of the resistance lines, which attempts to stabilize the client and help return to wellness, is a process called *reconstitution*. The invasion of the core by a stressful situation could result in severe health impacts including physical or psychological illnesses. The effect of the stressor can be affected by the number of stressors the client system faces at a particular time, the intensity of the stressors, and the stability or well-being state of the system. If reconstitution is not achieved, the environmental stressor pierces the resistance lines, and settles in the core. The client becomes at risk of dangerous health-related consequences, such as severe depression, feelings of spiritual abandonment, the development of other physical comorbidities, or even death (Hannoodee & Dhamoon, 2020).

The goal of the nurse in the Neuman systems model is to restore the well-being of the client by mitigating the effects of environmental stressors and increasing the lines of defense through the use of primary-, secondary-, and tertiary-nursing interventions. Primary intervention occurs before the stress invades the system expanding the flexible line of defense. Examples include wellness programs, encouraging open lines of communication between leadership and

staff, staff accommodations, addressing staff concerns before it becomes a problem as appropriate, and mentoring new nurses or staff. Secondary interventions occur after the system has reacted to an invading stressor, and it seeks to implement strategies to strengthen the lines of defense and reach reconstitution. Examples include encouraging self-guided techniques, such as mindfulness, personal resilience strategies, achieving life balance and spirituality, and seeking professional counseling. Tertiary prevention occurs as reconstitution is being established and helps the client to prevent relapse by learning how to maintain the current level of wellness, offering protection from additional stressors. Examples include challenging staff to change their ways of thinking about nursing practice, to learn from past problems, and to focus on practices to strengthen resilience through the use of support groups and self-help books (Turner & Kaylor, 2015).

This proposed DNP project is in alignment with the Neuman systems model and utilizes it as a theoretical framework. The awareness brought on by the project regarding burnout among the MAs can lead to leadership implementing primary preventative mindfulness strategies to the MAs and the entire team before it becomes a problem. Using the MBI pretest and posttest results, leadership can identify the magnitude of the problem and begin to encourage mindfulness activities at the secondary preventative level. If the study results prove to be statistically significant to accept the hypothesis, it would appear to benefit individuals or the organization as a whole and leadership may choose to develop and implement an ongoing mindfulness program at the tertiary level.

Summary

Through this literature review, it is evident that sufficient literature lacks in studying the relationship between mindfulness interventions and perceptions of burnout among the primary

care interdisciplinary team. The literature review identified mixed results for successful interventions to address this complex phenomenon. Few studies indicate a statistically significant relationship. In this DNP project, I aimed to identify an intervention that can have a positive influence on employee burnout and influence provider well-being.

Although this DNP project focused on burnout in MAs in primary care settings, this phenomenon is not unique to MAs in that setting. As indicated previously, this project can be categorized as a pilot study. Additional studies could model this project and could be performed with other members of the healthcare team and in the acute care settings. The MBI is a tool that organizations could incorporate as a reliable tool to measure employee burnout. I believe the healthcare executive and administrative leadership must evaluate any level of burnout among employees to seek an understanding of employee experiences, how the employees developed a loss of enthusiasm for work, feelings of cynicism, and/or a low sense of personal accomplishment (Mayzell, 2020).

If the organization is experiencing high staff turnover, low retention rates, and disengaged staff, these occurrences are all manifestations of burnout; it then becomes paramount to understand how to manage and reduce levels of stress. Once that evaluation is made, measurable strategies need to be implemented to reduce staff burnout and improve the overall employee and staff experience. This will ultimately improve the healthcare delivery system in that setting. Neuman's systems model is a theoretical framework that can serve as a template to address this phenomenon. Mindfulness has been associated with reducing perceptions of burnout and interventions can be brief, cost-effective, and relatively simple to carry out. It was my hope that the participants in this study gained effective mindfulness practices that could be used in

their workday and beyond that could be beneficial in mitigating any perceptions or unintentional consequences associated with burnout.

Chapter 3: Research Method and Project Design

I conducted this proposed pilot project using a pretest–posttest quasi-experimental research design to test the methods and feasibility of conducting the project on a larger scale in the future. The hypothesis was that brief mindfulness practices will improve employee perceptions of symptoms of burnout. The mindfulness interventions that participants practiced in this project were journaling, meditation, and time outside. Each clinic was purposefully assigned to one of the three mindfulness groups and all participants working at that clinic were advised to carry out the activity once a shift for 10 minutes for six consecutive weeks. In the following paragraphs I describe the methodology used in the project.

I contacted the physician owner of the primary care clinics in which the proposed project would take place and discussed the project proposal. The owner gave verbal approval over the phone and an agreement to meet in person during the next working day to sign a Clinic Approval Letter as done. The following week, a hard copy of the letter was signed as well as an electronic copy via Hellosign (see Appendix B). This agreement was consented to with the understanding that project implementation was contingent on approval from ACU’s IRB.

Once IRB approval was granted I began to implement the study (see Appendix A). I met with the physician owner or the office manager who was responsible for clinic operations, provided them with the project details, and determined which day was available to meet with the MAs in person at the prospective clinics during a designated lunch hour. Next, I sent out an inner-office email to all the MAs employed at the three preselected clinics informing them of the meeting date and time that would take place to discuss the upcoming project (see Appendix D). The following week, I commuted to the three clinic sites during the lunch hour and provided a lunch of up to \$25 per clinic to prospective participants. These visits occurred on three separate

days to accommodate clinic lunch hours, usually from 1:00 until 2:00 pm. Available days were Sunday, Monday, Tuesday, or Saturday as those are the days I do not work.

During the initial meeting, I discussed the details of the project utilizing PowerPoint. Details included the topic of interest, purpose, incentives, risks if any, and project methods. I also answered any questions as they arose. Burnout and mindfulness were discussed in detail. The target population was given one week to decide whether to participate or not. They were informed that I would return in one week and willing participants could then sign the informed consent (See Appendix C). I returned the following week during lunch to obtain the informed consent forms. This was via hard copy and participants were given a copy.

I administered the pretests—MBI-HSS for Medical Personnel (see Appendix F) and the AWS (see Appendix E) to identify and measure employee perceptions of burnout. I placed the MA participants in each clinic into one of three single brief mindfulness-based interventions: journaling, meditation, and going outside. I gave participants a notebook to log their activity. They were asked to create a participant identifier in four-digit form. That four-digit identifier was printed on their notebook and a part of the secure data collection only known to me. The purpose of the notebook was to document the date, time, and duration of the intervention, and if the participant worked but did not complete the intervention during their shift and why it was not completed. These notebooks were collected at the end of six weeks. The amount of time the participants were actually able to practice the mindfulness intervention during their shift was be recorded. Once the study was completed the notebooks were shredded.

At the end of six weeks, all subjects were given the posttests (MBI and AWS) to identify and measure their perceptions of burnout. I returned to each clinic during the designated lunch hour to administer this posttest via writing and collect the notebooks. In an effort to prevent

attrition, I contacted participants via phone outside of clinic hours at the two-week mark and inquire how they were feeling about the mindfulness practice and inquire if they had any questions or concerns.

Once I had collected all the notebooks and tests, the results of the pretest and posttest were compared and the data were analyzed to see if there was a measurable reduction in burnout scores after the six-week mindfulness interventions. Individual results were given to each participant in writing and the overall results were shared with the participants in writing. The physician owner and office manager were given a written report of the overall results. All participants' results will remain anonymous only to the individual participant and me.

The pretest and posttest were conducted using instruments that have been proven to be both valid and reliable. The Maslach Burnout Inventory (MBI) Human Services Survey for Medical Personnel along with the Areas of Work-Life Survey (AWS) are two complementary instruments to assess perceptions of burnout (Mind Garden, 2018). These instruments are also used internationally and are proven to be both valid and reliable. I was granted permission from Mind Garden, Inc. to utilize the tools via email. An official letter from Mind Garden, the company that owns the copyrights to the instrument provided formal letters upon purchase of the instruments (see Appendix E and Appendix F).

The brief mindfulness-based activities included journaling, going outside, and meditation. Each clinic was preselected for a specific intervention and all participants working at that clinic were asked to engage in the same mindfulness intervention that was selected for that clinic. These mindfulness activities were selected because each intervention is an example of an activity that literature has shown to be considered an example of mindfulness. These interventions are feasible and could be conducted while at work in a short time frame.

The journaling group was given a journal to write down their thoughts and feelings. They were prompted to be intentional and focus on an attitude of gratitude. Focusing on an attitude of gratitude has been associated with “strengthening your immune system and improving sleep patterns, feeling optimistic and experiencing more joy and pleasure, being more helpful and generous, and feeling less lonely and isolated” (Mindful, 2021, para.4). Those benefits may be linked to improving perceptions of burnout and overall healthcare provider well-being. I have kept these journals private and were only viewed by the participants in this journaling group.

The group selected to go outside was encouraged to take the 10 minutes and utilize their senses to connect with nature. Focusing on what they smelled, the details in what they saw, the sounds they heard, and how they felt. They were advised to unplug from any distractions and try to enjoy the moments of being outdoors. Key features of practicing mindfulness are intensely focusing on your environment and living in the moment. The outdoors creates the ideal environment for one to accomplish this (Sparks, 2018).

Meditation is another beneficial practice associated with mindfulness. Participants in this group were encouraged to disconnect from external distractions, sit in a quiet place, focus on their breathing, and focus on their thoughts and emotions for 10 minutes. Meditation has been linked to improved sleep, decreased job burnout, and improved attention. According to Sparks and the Mayo Clinic, meditation can help a person experience thoughts and emotions with greater balance and acceptance (Sparks, 2018).

Methodology Appropriateness

The pretest–posttest quasi-experimental research design was appropriate for this particular study. According to Stratton (2019), the pretest–posttest research design has been useful in evaluations of study participants’ attitudes or viewpoints related to an event. It has also

been useful in analyzing one's comfort in applying the material presented in a training session or with the introduction of a new concept. The assumption that one has a higher score on a posttest compared to a pretest is attributed to the additional insight or knowledge gained during the intervention. In a quasi-experimental design, no control group is needed (Stratton, 2019).

As related to this project, the participants were given a pretest, then educated on the concept of mindfulness, followed by six weeks of engaging in the new concept, followed by a posttest to see if the new concept improved any perception of burnout. The assumption correlates with the hypothesis that one would see an improvement in their posttest scores as related to engaging in the new concept that was learned. The smaller sample size allowed this project to be a pilot study. Information from the methodology and project outcomes would allow this project to be a model for a larger-scale project or study.

Instrument/Measurement Tools

The MBI-Human Services Survey for Medical Personnel along with the Areas of Work-Life Survey (AWS) was uniquely designed to measure burnout as defined by the WHO as a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed (WHO, 2023). In 2015 the MBI was utilized in 88% of burnout research publications (Mind Garden, 2021). With this being one of the most highly and internationally used tools to measure burnout in healthcare personnel, it was appropriate for this project. The combined test features 50 questions and usually takes about 10–15 minutes to complete. It is broken into two parts. The MBI-HSS for Medical Personnel (MBI-HSS (MP)) is a 22-question, six-item Likert scale survey (see Appendix F) and the AWS is 28-question, five-item Likert scale survey (see Appendix E; Mind Garden, 2021). I have been permitted by Mind Garden, Inc., the international publisher of the instruments, in writing via email to utilize the instruments. The test

can be administered online or with pen and paper. It was administered via pen and paper for this project.

The MBI consists of three subscales that measure the area of emotional exhaustion (EE), which is described as emotional depletion due to job demand and continuous work-related stress. The next area is depersonalization (DP), which is defined as one's response toward the recipient service. The final area measured is personal accomplishment (PA), which measures the degree of personal competence, achievement, and satisfaction with one's work (Shaikh et al., 2019).

The AWS examines the areas of workload, control, community, fairness, reward, and values (Mind Garden, 2018). The workload is described as the amount of work at any given time, the degree to which the workload interferes with one's personal life, and one's feelings about their workload. Control has to do with the level of participation the worker has over choices and decisions related to job responsibilities and the level of autonomy one has on the job. The community has to do with the relationships that one has with colleagues and management. Fairness has to do with consistent and equitable rules and justice in the treatment within the organization. Reward includes compensation, perks, awards, or salary as well as verbal recognition. Finally, values examine the constancy and connection between one's personal values and the inherent organizational values (Mind Garden, 2018). Both tests have proven to demonstrate test reliability and validity.

Data Collection/Management

For this project, I was aware of which intervention group each participant had been selected for. Demographics from each participant was included after the intervention was completed. I provided a notebook for each participant to be able to record information regarding their brief mindfulness-based activity; date, start time, end time, duration, and the specific

intervention utilized. The individuals were also instructed to record if they were unable to engage in the intervention and why. Each participant created a four-digit identifier. This number was on their notebook and the key was stored on my personal password-protected laptop. This laptop will remain in a secure location.

Data from the pretest and posttest were collected, stored, and uploaded into Excel where I analyzed it. This software is password-protected. Participants' responses remained confidential to only myself and all hard copy results were shredded after the study along with the notebook logs. At the end of the study, participants received a hard copy report of their pretest and posttest results as well as the generalized results. The physician owner and office manager also received a generalized study report. However, no participant identifiers were listed to maintain confidentiality.

Timeline

The project implementation took place in the Fall of 2022 after ACU IRB approval. Once the IRB approved the project, I met in person with the office manager and discussed the final project details. An implementation date was determined at that time. The informational meeting took place a week before the six-week intervention phase of the project began. The data analysis phase took place at the end of the six-week intervention. The final data analysis took a few weeks to complete. Once the analysis was completed, participants were informed as described above.

Analysis Plan

Data featuring the demographics of the participants are displayed via a table. The data from the pretest and posttest was entered into an Excel spreadsheet, then analyzed via paired t tests. Paired t tests are often used when “comparing the means of two measurements taken from

the same individual, object, or related units” to determine if there is a statistically significant finding in the mean difference (University Libraries, 2022, para. 1). This is a parametric test commonly used in pretest–posttest research. This project used the paired t test to determine if there was a statistically significant difference in the pretest and posttest after the six weeks of mindfulness practice.

Feasibility and Appropriateness

This project was both feasible and appropriate. The target population of interest for this project was MAs employed in the primary care setting. Out of availability and accessibility, the sample population was MAs obtained via convenience sampling from the network of three of the eight primary care clinics in which I am also employed. For this reason, the setting and proximity to the subjects made the project feasible for me. The mindfulness practice of 10 minutes during the work shift was feasible and appropriate for those who work a 12-hour shift. The mindfulness practices selected, journaling, going outside, and meditation, are appropriate and feasible as they all have been shown to reduce burnout in healthcare providers in research.

Numerous studies examining the effects of burnout among physicians and nurses are found in the literature. However, according to Morris et. al. (2021), “Almost no research has focused on the burnout and professional fulfillment of medical assistants, who provide a bulk of the work in medical offices” (p. 111). The researcher noted high turnover, staff disengagement, job dissatisfaction, and reports of job stress among the MAs and recognized these were all characteristics associated with burnout. This prompted the researcher to examine interventions that could help mitigate these negative effects. The literature revealed mindfulness as a feasible intervention to burnout in health care providers. The lack of existing studies on MAs created an area of interest that needed more study, making this an appropriate project to conduct.

Cost

There were costs involved in purchasing a journal for participants in the journaling intervention group as well as a notebook for participants to record the date and time of the mindfulness activity. Notebooks were purchased from Dollar Tree for one dollar each and utilized for the journals and the mindfulness log. There was a cost associated with the use of the MBI and the AWS. The cost was \$231.00. This included a 20% student discount on the cost of the instrument approved by Mind Garden, Inc. In addition to the \$25 lunch provided at the initial meeting, I offered an incentive for participants by entering participants' names in a drawing for a \$25 gift card to be selected at the end of the study. All participants had an equal opportunity to win the gift card as the winner was selected randomly, one winner per clinic, at the end of the six-week intervention period. The raffle took place after participants completed the posttest at each clinic.

IRB Approval and Process

As previously stated, I spoke initially with the sole physician owner of the primary care clinics over the phone and received verbal approval. Next, I met in person with the physician owner and reiterated the details of the project, as previously discussed. A hard copy of the clinic approval letter was signed and an electronic signature was given utilizing Hellosign (Appendix B). The letter was signed with the knowledge that the project would begin implementation pending ACU IRB approval. The hard copy was uploaded on the secure ACU password-protected canvas site. This company did not have a formal IRB, but approval for the project was completed through the ACU review system. Following a PowerPoint project proposal with the DNP chair and committee members, I completed the necessary ACU IRB requirements.

Interprofessional Collaboration

I developed the project with the advisement from the DNP chair, DNP committee, and a mentor, all with signed agreements. Additional collaboration was given by ACU course professors during specific project-related course assignments. The physician owner signed a clinical approval letter to host the project at clinic sites. No additional interprofessional collaborations were conducted for this project.

Practice Setting for EBP

This project took place at three ambulatory clinics that provide primary care to men, women, and children. Primary care includes annual wellness exams, pap smears, chronic disease management, and acute care management, including respiratory illness, urinary tract infections, and simple musculoskeletal injuries. All the clinics also test and treat COVID-19. The clinic employs physicians, nurse practitioners, physician assistants, MAs, and administrative staff. The average clinic usually sees 25–42 patients per shift. All MAs are required to take a one-hour lunch each shift. The MAs work alternating schedules of three consecutive days one week and four consecutive days the following week.

Target Population

This project population was from a diverse pool of MAs. The project was conducted using human subjects all 18 years of age or older. Inclusion criteria included study participants who were currently full-time employees of any of the three primary care clinics. Participants could be either male and female, of any ethnicity, practicing in the role of an MA. Exclusion criteria included anyone not operating under the title of MA, under the age of 18, and not employed full-time at the clinic. Participant demographics were recorded in the data analysis

section in table format. Demographics also include the length of time each participant has been working as a MA and the length of time employed by the company.

Risks

There was minimal risk to study participants. The meetings, pretest and posttests, and interventions took place during working hours and were designed to take place during designated lunchtime. That could have been a potential problem if the morning clinic ran into the designated lunchtime, and MAs may not have been able to meet to discuss the project details or initiate the project. If this would have occurred I would have waited until clinic participants were available once the morning clinic ended to meet with the participants.

Benefits

In this study I aimed to focus on mindfulness practices that can reduce employee perceptions of burnout, so this study should not cause increased stress or anxiety. Instead, it should be an opportunity to learn mindfulness solutions to engage in the future. The information gathered in this project may be utilized in other healthcare settings, including ambulatory, primary care, and acute care settings. The brief mindfulness-based interventions may be promoted by management for use by their staff (or themselves) to reduce any employee perceptions of burnout, knowing that data has shown that burnout can negatively impact one's well-being. Burnout effects can also lead to absenteeism, decreased job satisfaction, and impaired decision making all of which will impact the overall delivery of care as well (Copeland, 2021). Organizational leaders need to understand that reducing employee burnout may lead to increased job satisfaction, decreased absenteeism, and improved staff retention all of which can positively impact the overall delivery of care.

Summary

Many healthcare providers are feeling the effects of burnout, especially with the COVID-19 pandemic. The pandemic has forced healthcare providers into uncharted waters as many have experienced working conditions that they have never encountered before. The effects are not only felt in the acute care settings but have trickled down into the ambulatory and primary care settings. Even before the COVID-19 pandemic, healthcare workers were at greater risk for experiencing burnout, which can harm their overall well-being and affect the overall delivery of care. This can lead to high turnover and staff absenteeism, all of which I have witnessed over the years at the primary care clinic setting affecting the MAs employed in the organization. This has presented as a problem of interest and the catalyst that me interested in the phenomenon.

Mindfulness is supported in the literature as a solution to help alleviate symptoms of burnout.

Through this project, I aimed to determine if the MAs were indeed experiencing burnout and if brief mindfulness practices on each workday can have a positive impact. If so, the hope would be that participants and the organizational leadership recognize study findings and encourage mindfulness interventions as a solution to alleviate symptoms of burnout, realizing that this would increase employee well-being and positively impact the overall organizational delivery of care.

Chapter 4: Results

MAs play an instrumental supportive role to the professional healthcare providers in primary ambulatory care clinic settings. This entire healthcare team is at increased risk to suffer burnout due to the nature of the job as well as both the physical and mental impact of the role responsibilities and work experiences (Copeland, 2021). There is a lot of literature regarding the effects of burnout on professional healthcare providers, but there has not been enough attention on the study and impact of burnout on MAs. Research also suggests that mindfulness could be correlated with burnout in healthcare personnel. The purpose of this project was to examine the impact of mindfulness activities on burnout in MAs in the primary ambulatory care clinic setting. The mindfulness activities for this project included journaling, going outside, and meditation.

Data Collection

The project participants came from a sample population of MAs from three primary care clinics a part of a larger eight-clinic network. At the onset of the project, there were a total of eight participants. One was lost to attrition due to her resignation from the company. This participant had completed the pretest portion of the project, but her associated data was not included related to the project and has been disregarded. This resulted in seven participants fully completing the project. Inclusion criteria included participants employed full-time in the role of MA, 18 years old or older, and could be male or female. Exclusion criteria included anyone under the age of 18 and not employed full-time in the role of MA. All of the project participants were Hispanic women and worked full-time. Two of the participants have been with the company for 6–10 years, three for 1–2 years, one for 7–9 months, and one for 0–6 months all at the time of the project (Table 1).

Table 1*Demographic Data of Participants*

Participant demographics	
Participant	Years with company
1960	6–10 Years
0908	1–2 Years
1683	1–2 Years
4689	0–6 Months
9999	7–9 Months
4344	1–2 Years
6212	6–10 Years

After completing the preliminary project requirements, gaining site approval to conduct the project with the sole physician owner, meeting with the office manager to discuss project details, gaining ACU IRB project approval, and sending an inter-office solicitation email to the sample population, I was able to meet separately at each of the three prospective clinics with all the MAs. After discussing the details of the project, I returned a week later and obtained signed informed consent from all interested project participants. At that point, I was able to initiate the project.

The initial step in the data collection at that point was to obtain the participants' demographics on a form followed by the administration of the pretest. This project used two surveys to measure perceptions of burnout before and after the six weeks of the mindfulness intervention. Each survey was administered and initially analyzed via pen and paper. The first one was one of the MBI surveys. Specifically, the project utilized the MBI-Human Services Survey for Medical Personnel. This is a 22-question survey with a six-item Likert scale response that on average takes about 10–15 minutes to complete. The other survey was the AWS, which is a 28-question, five-item Likert-scale response test. This took about 15 to 20 minutes to complete.

Participants were each given one notebook that would serve as a time log to record the date and time they were able to practice the mindfulness intervention. They were also asked to record the information even if they were not able to engage and indicate such in the notebook. Table 2 shows the number of entries that represent the dates each participant was able to document in the time log. The chart also shows the entries that the participant documented as a working day but was unable to practice the mindfulness intervention during that shift.

Table 2

Time Log Results

Participant	Time log		
	Total No. of entries	No. of recorded interventions	Entries unable to practice the intervention
1960	12	12	0
0908	27	20	7
1683	27	25	2
4689	10	10	0
9999	9	9	0
4344	8	8	0
6212	22	18	4
Totals	115	102	13

Participants were asked to create a four-digit personal identifier and add this number to their demographic forms, surveys, and notebooks instead of their names. This was vital to ensure participants identification remained protected. They gave their participant identifier privately to me and I then recorded it in a secure password-protected computer. Each participant in the clinic that was selected to practice journaling was given a separate notebook that could be used for journaling. This journal remained confidential to the participant and I did not require that they share the journal with me.

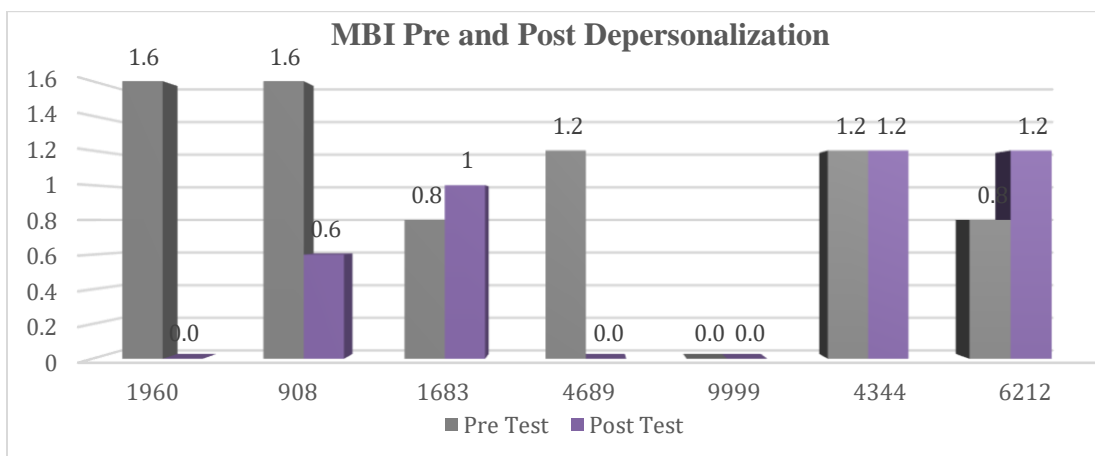
The project took place over six weeks. At the end of the six weeks, I returned to each clinic to collect the data. This involved collecting the time log notebooks and administering both

the MBI and the AWS as posttests. I scored all the tests by hand and entered all the data into Excel spreadsheets. This enabled the creation of tables and the ability to conduct the paired *t* tests allowing the identification of any level of relational significance.

Data Analysis

I conducted this project using a quasi-experimental pretest and posttest design. This was an appropriate design for this project. The dependent variable was the participant's perceptions of burnout, which was measured before and after the intervention of the mindfulness activity—the independent variable. It is noteworthy that due to the non-experimental design of quasi-experimental research, true outcome causality cannot be determined. Instead, this design allows for associations between interventions and outcomes (Stratton, 2019). The hypothesis for this project was in the primary care setting, the MA engaging in 10 minutes of an individual-focused mindfulness activity during their workday.

The results of the MBI were analyzed first. It was advisable to calculate each of the three subscales independently and not attempt to combine them to formulate one cumulative burnout scoring (Maslach et al., 2018). Figure 1 demonstrates the findings from the Depersonalization subscale pretests and posttests for all participants.

Figure 1*MBI Pre- and Post-Data Depersonalization*

All subscales featured a six-item Likert scale ranging from 0 = *Never* to 6 = *Daily*.

According to the MBI manual, higher scores indicate higher degrees of burnout, while lower scores indicate lower degrees of burnout (Maslach et al., 2018).

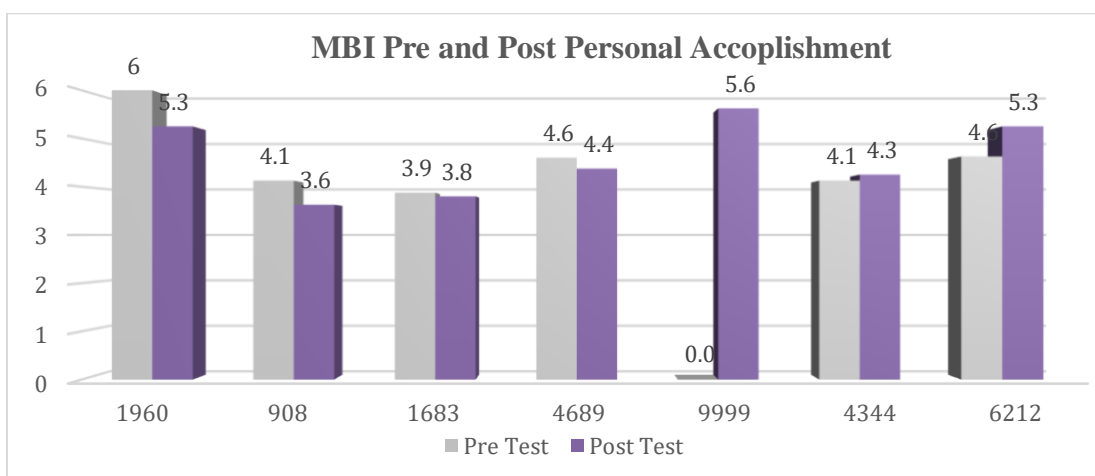
Figure 2*MBI Pre- and Post-Data Personal Accomplishment*

Table 2 demonstrates findings from the Personal Accomplishment subscale. Lower scores indicate higher degrees of burnout while higher scores indicate lower degrees of burnout (Maslach et al., 2018).

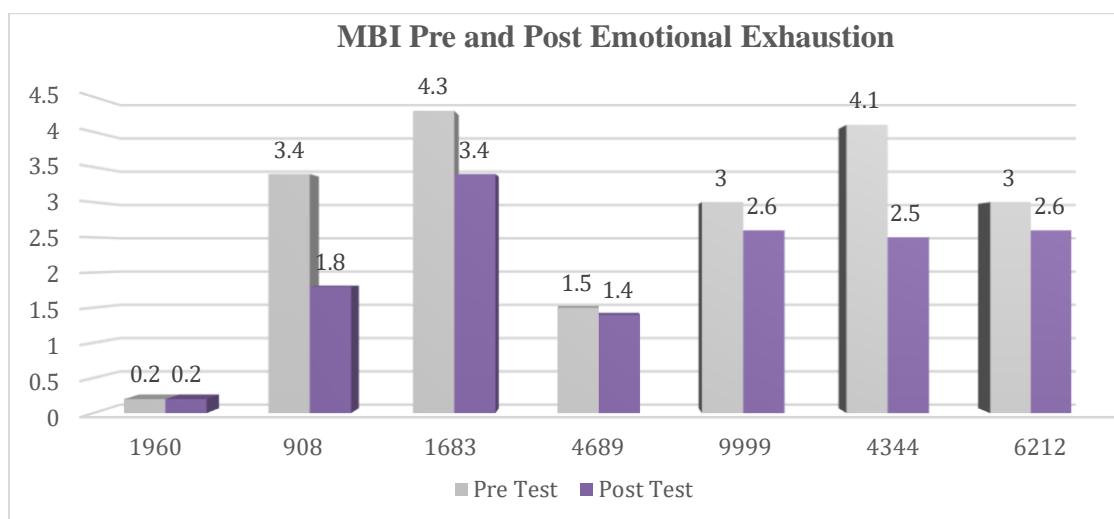
Figure 3*MBI Pre- and Post-Data Emotional Exhaustion*

Figure 3 demonstrates the pretest and posttest findings from the Emotional Exhaustion subscale. For this scale, higher scores indicate higher degrees of burnout while lower scores indicate lower degrees of burnout (Maslach et al., 2018).

Table 3*Pretest and Posttest MBI Human Services Surveys*

Pretest MBI Human Services Survey for Medical Personnel			
Participant	Pre-Depersonalization	Pre-Personal accomplishment	Emotional exhaustion
1960	1.6	6	0.2
908	1.6	4.1	3.4
1683	0.8	3.9	4.3
4689	1.2	4.6	1.5
9999	0.0	0.0	3
4344	1.2	4.1	4.1
6212	0.8	4.6	3
<i>Mean</i>	1.03	3.9	2.8
Posttest MBI Human Services Survey for Medical Personnel			
Participant	Post-Depersonalization	Post-Personal Accomplishment	Emotional Exhaustion
1960	0.0	5.3	0.2
908	0.6	3.6	1.8
1683	1	3.8	3.4
4689	0.0	4.4	1.4
9999	0.0	5.6	2.6
4344	1.2	4.3	2.5
6212	1.2	5.3	2.6
<i>p-value</i>	0.18	0.44	0.03
<i>Mean</i>	0.5	4.1	1.8

Table 3 shows the raw data from all three subscales: Depersonalization, Personal Accomplishment, and Emotional Exhaustion. It also shows the mean raw scores as well as the calculated p -value after a paired t test was conducted in Excel. Paired t tests are utilized to compare two data sets from the same individual, object, or related units (University Libraries, 2023). I utilized the paired t test method in this project to analyze the data for each of the three subscales to determine if the scoring was statistically different before and after the mindfulness interventions.

I analyzed the results from the AWS next. This survey is a 28-item survey examining the areas of work life: Workload, Control, Reward, Community, Fairness, and Values. Each scale includes both positively and negatively worded items. The participants were tasked with reporting the degree of agreement with each state on a 5-point Likert scale that would be used to score and analyze the final results. A score of 1 indicates *Strongly Disagree*, through 3 indicates *Hard to Decide*. A score of 5 indicates *Strongly Agree*. The scoring was reversed for the negatively worded items. For those items, the scoring for responses marked 1, 2, 3, 4, and 5 were scored 5, 4, 3, 2, 1.

According to survey developers, a job-person match is defined as a high score greater than 3.0 which correlates with *Hard to Decide*. This is also above *Agree* and *Strongly Disagree*, which correlates with a higher degree of congruence between the participant's responses and their workplace. A mismatch is defined when the score is less than 3.0, which shows more incongruence between the participant and their workplace (Leiter & Maslach, 2011). Figures 5 through Figure 10 show the pre- and postintervention survey results from the AWS for each of the six survey scales.

Figure 4

AWS Pre- and Post-Data Workload

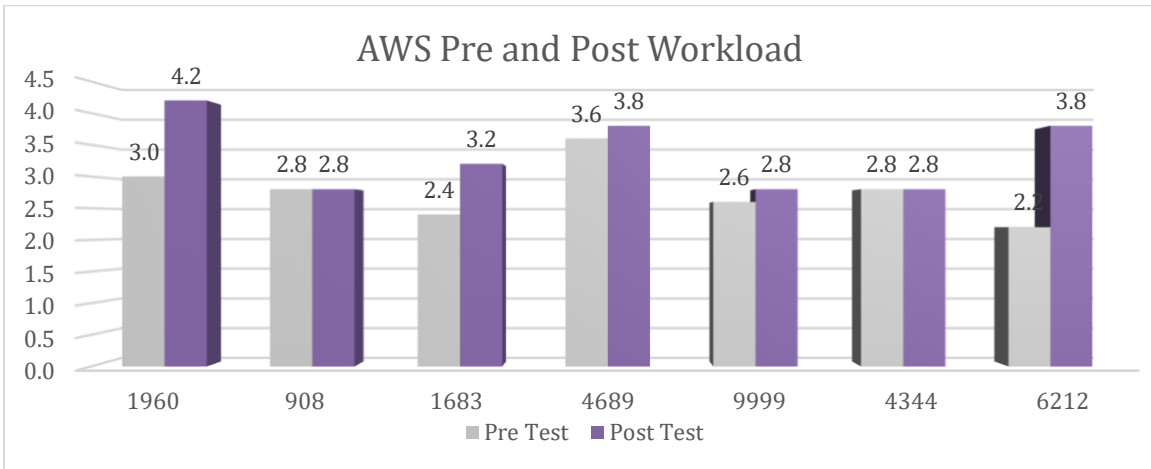


Figure 5

AWS Pre- and Post-Data Control

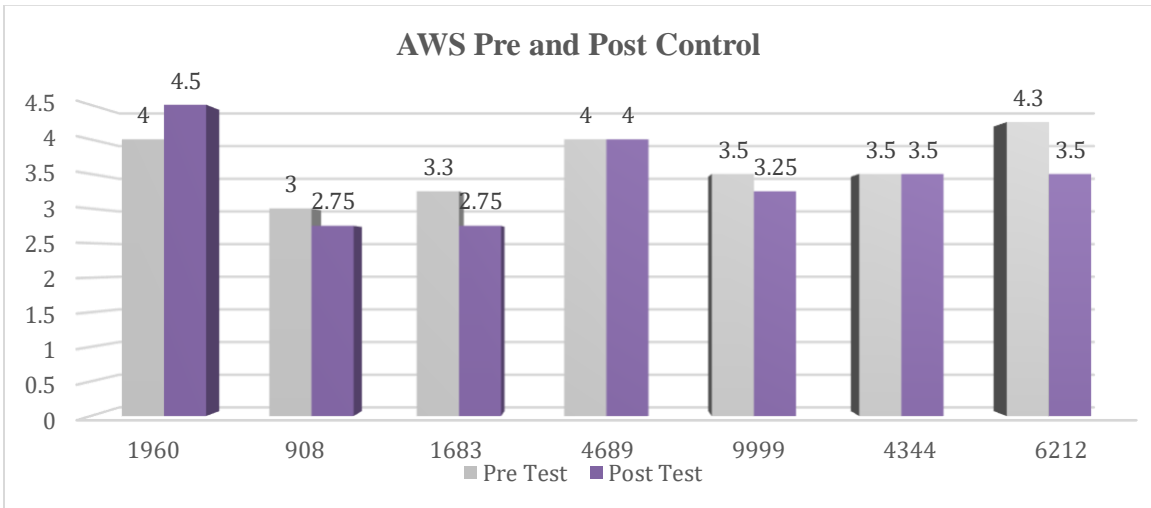


Figure 6

AWS Pre- and Post-Data Reward

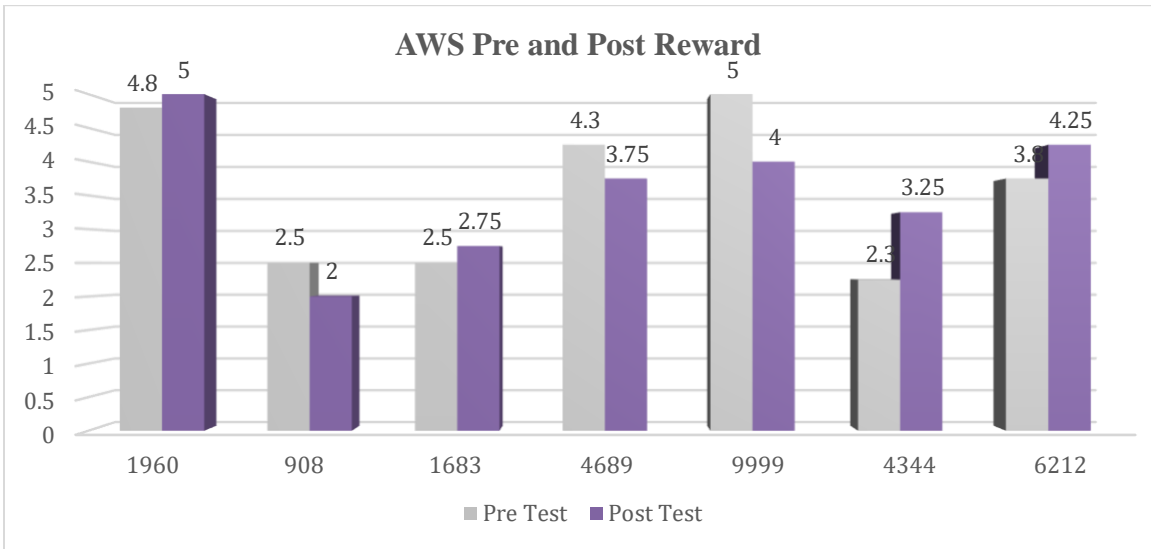


Figure 7

AWS Pre- and Post-Data Community

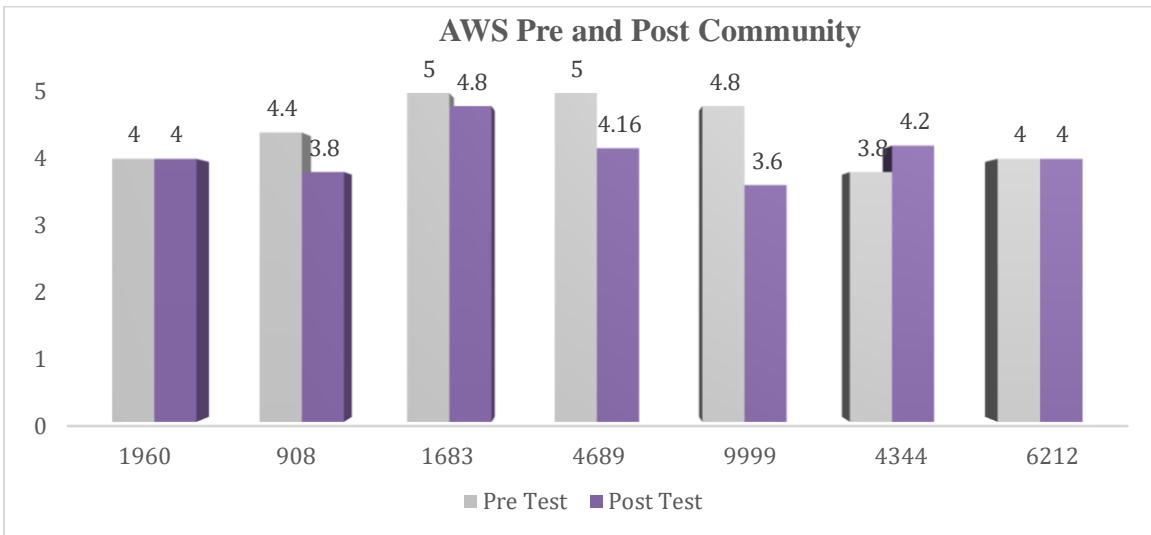
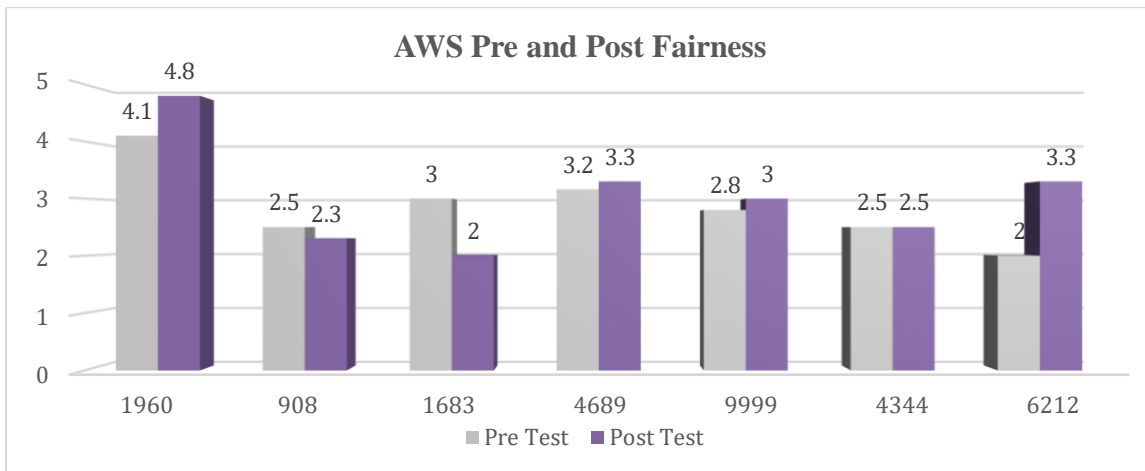
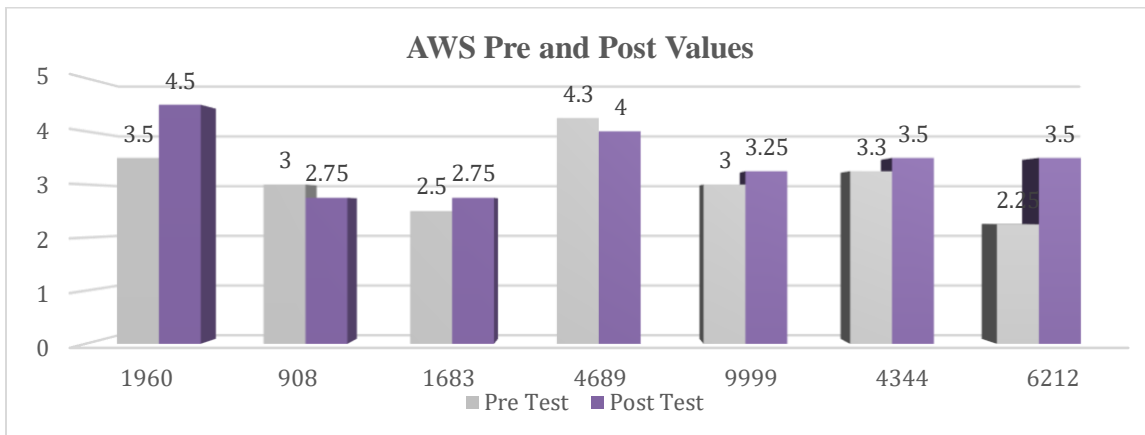


Figure 8*AWS Pre- and Post-Data Fairness***Figure 9***AWS Pre- and Post-Data Values*

The results of the AWS were analyzed to show the mean scores. I conducted paired t tests and calculated a p -value using Excel. Table 4 displays that information.

Table 4*Pretest and Posttest Data Areas of Worklife Survey*

Pretest Areas of Worklife Survey						
Participant	Workload	Control	Reward	Community	Fairness	Values
1960	3.0	4	4.8	4	4.1	3.5
908	2.8	3	2.5	4.4	2.5	3
1683	2.4	3.3	2.5	5	3	2.5
4689	3.6	4	4.3	5	3.2	4.3
9999	2.6	3.5	5	4.8	2.8	3
4344	2.8	3.5	2.3	3.8	2.5	3.3
6212	2.2	4.3	3.8	4	2	2.25
<i>Mean</i>	2.8	3.6	3.6	4.4	2.9	3.1
Posttest Areas of Worklife Survey						
Participant	Workload	Control	Reward	Community	Fairness	Values
1960	4.2	4.5	5	4	4.8	3.25
908	2.8	2.75	2	3.8	2.3	2.25
1683	3.2	2.75	2.75	4.8	2	3
4689	3.8	4	3.75	4.16	3.3	3.5
4344	2.8	3.25	4	3.6	3	3.5
6212	2.8	3.5	3.25	4.2	2.5	2
9999	3.8	3.5	4.25	4	3.3	3
<i>p-values</i>	0.06	0.28	0.98	0.15	0.57	0.56
<i>Mean</i>	3.3	3.5	3.2	3.6	2.7	2.6

Limitations

There were a few limitations identified with this project. This project took place in an ambulatory primary care clinic setting. The responsibilities and work experiences of MAs working in a primary care setting may vary for those employed in a specialty care setting. The responsibilities and work experiences of MAs working in an ambulatory care setting vary from those employed in acute care settings. Therefore the findings from this project may not be applicable to specialty ambulatory or acute care settings.

The demographics of the project participants created some limitations. The sample size of this project was small and inclusive of seven participants. For this reason, it served as more of a

pilot project that could be conducted within a larger organization with a larger population of MAs. In addition, the sample was all Hispanic women. Having a more diverse sample of participants in gender and ethnicity would create a wider perspective on the impact of mindfulness on burnout. Also, the demographics did not ask for age or age range. This could also impact project outcomes.

As related to feasibility, it is not clear from the notebook time log the approximate number of shifts each participant worked. There is clear documentation on the dates the participants were able to practice the mindfulness intervention and some of the participants included dates when they were not able to practice the mindfulness activity. However, due to the low number of entries from some of the participants knowing that they work on average three shifts one week and four shifts the next week alternatively, led me to wonder if some days were omitted from the log during the six weeks of the project. This creates somewhat of a limitation in discussing the feasibility of the project.

Summary

Healthcare workers are at great risk to experience burnout related to occupational demands. Burnout can harm employees' mental health which can further impact the organizational culture, the delivery of care, and the patient experience. MAs represent a vital part of the healthcare team and there is insufficient research examining burnout in this population. Executive leadership needs to be mindful of any employees that may be experiencing burnout, have reliable ways to assess for it and offer reasonable solutions to help mitigate the impact.

This is in alignment with Neuman's systems model in not only identifying stressors but intervening on the primary-, secondary-, and tertiary-levels. The MBI-Human Services Survey for Medical Personnel along with the AWS have both been statistically proven to be reliable and

valid. One of the strengths identified in this project was the ease of administering the instruments as a means for evaluating employee burnout.

Some research links mindfulness activities of journaling, meditation, and going outside as plausible interventions for burnout. This project was able to further explore any association. Another strength was that 10 minutes of these mindful activities was shown to be somewhat helpful for the participants. However, additional research in varied practice settings with more diverse participants would be needed to further explore any association.

Chapter 5: Discussions, Conclusions, and Recommendations

According to Mercer's Research Executive Summary Report of 2021, there are about 9.7 million healthcare personnel employed in positions that are considered to be lower wage. These positions include individuals working as MAs, nurse aids, and home health aides. Despite the need to grow over the next five years to around 10.7 million, an estimated 6.5 million will permanently leave these lower-wage positions (Bateman et al., 2021). This exodus from the industry could be attributed to several reasons. However, employee burnout has been associated with job dissatisfaction, one's intent to leave, or one actually leaving their job (Dyrbe et al., 2019). This is not a concern just impacting lower-wage positions, research has shown that burnout in the healthcare workforce among all members of the team including physicians, mid-level providers, nurses, and community and public health workers has long been a problem, and navigating through the COVID-19 pandemic exacerbated this preexisting condition (U.S. Department of Health and human Services (HHS), 2022).

Burnout has been shown to have a negative impact on one's mental health and can adversely influence the overall patient experience and delivery of care. Feelings of burnout have been associated with emotional exhaustion, depersonalization, and a low sense of personal accomplishment at work. Surgeon General Vivek Murthy said, "The nation's health depends on the well-being of our health workforce. Confronting the long-standing drivers of burnout among our health workers must be a top national priority" (HHS, 2022, para. 4). This burnout phenomenon caught my attention as I have witnessed high turnover and job absenteeism within my organization, especially among the MAs. There exists a lot of research discussing the impact of burnout on physicians and nurses, but there has been insufficient research inquiry into the impact of burnout on MAs.

That is what led to the problem of interest for this DNP project. A quest to understand burnout among this population bore the need to identify possible solutions to mitigate the effects. Research has linked mindfulness, the practice of intentional focus on one's environment and the present moment to reduced feelings associated with burnout (Schroeder et al., 2016). The purpose of this project was to identify if mindfulness could be a solution to burnout in MAs working in primary care.

Discussion of Findings

Feelings of burnout have been associated with emotional exhaustion, depersonalization, and a low sense of personal accomplishment at work. The MBI-Human Services Survey for Medical Personnel and the AWS were the instruments used to measure burnout in the project participants. I hypothesized that in the primary care setting, the MA engaging in 10 minutes of individual-focused mindfulness activity during their workday would reduce their perceptions of feelings associated with burnout.

Specifically, the MBI featured the three associations of burnout; emotional exhaustion, depersonalization, and a low sense of personal accomplishment in the form of subscales with the intent for each of the three subscales to be analyzed and interpreted separately. The instrument developers suggest interpreting the mean score of each subscale by taking into consideration where the score falls on the Likert scale (Maslach et al., 2018). Emotional Exhaustion (EE) can be defined as one feeling energy depletion and or exhaustion (WHO, 2023). Higher scores can be interpreted as higher degrees of burnout (Maslach et al., 2018). Lower scores can be interpreted as lower degrees of burnout. See Table 3 and Figures 1 through 3 for specific mean scores from each of the seven participants. The pretests mean EE score for all of the participants was 2.8. This is a lower score and could indicate participants felt emotionally exhausted several times a

month on average but not necessarily did they feel that way every week (Maslach et al., 2018). The posttest EE mean score for all participants was 1.8. This score is lower than the initial pretest. The paired t test value was $p = .03$. This is statistically significant and signifies that the null hypothesis must be rejected in this project. Findings were clinically significant to support the hypothesis that the 10 minutes of mindfulness was enough to reduce the MA's level of emotional exhaustion.

Depersonalization (DP) can be defined as one feeling an increased sense of mental distance from their job. It can also be experiencing feelings associated with negativism or cynicism related to one's job (WHO, 2023). Higher DP mean scores indicate higher degrees of burnout (Maslach et al., 2018). See Table 3 and Figures 1 through 3 for specific mean scores from each of the seven participants. The mean DP score from all seven participants in the pretest was 1.03. This can be interpreted as the MA feeling disconnected and negative about the job several times a month on average but not necessarily feeling that way every day or every week (Maslach et al., 2018). The mean DP score from the posttest was 0.5. This is a lower score than the pretest. The paired t test value was $p = .18$. Although the mean score from the posttest was lower than the pretest, it was not statistically significant and the null hypothesis cannot be rejected.

Personal Accomplishment (PA) can be described as feelings associated with a reduced sense of professional efficacy (WHO, 2019). Lower scores indicate higher degrees of burnout (Maslach et al., 2018). See Table 3 and Figures 1 through 3 for specific mean scores from each of the seven participants. The mean PA score from the pretest was 3.9. This could indicate that participants felt a lower sense of personal accomplishment several times a month on average but not necessarily did they feel that way every week (Maslach et al., 2018). The mean posttest PA

score was 4.1. This score is higher than the pretest score. This could indicate an even greater sense of personal accomplishment during the six-week intervention period. The paired t test value was $p = .44$. This was not clinically significant, and the null hypothesis cannot be rejected.

The Areas of Worklife Survey (AWS) is scored by analyzing scores from six subscales: workload, control, reward, community, fairness, and values. Instrument developers advise calculating and interpreting all the scores separately and do not advise combining the scales into one score. Each item has a Likert scale of 1 to 5. A score of 1 indicates a strong mismatch between the person and their job environment, while a score of 5 indicates a strong match between the person and their job environment. Some of the items were scored in reverse. The AWS Manual gave details on how to score the items. The instrument developers noted a link between the congruence or compatibility between a person and six domains of his or her job environment. They suggested that the greater the perceived gap between the person and the job, also described in this instrument as job fit, the greater the likelihood of the person experiencing burnout (Leiter & Maslach, 2011).

Workload can be described as the amount of work one has in a given time. When one perceives their workload as manageable, the job is often viewed as enjoyable and sustainable. When one perceives their workload as heavy and exceeding their human limits at times, this has been associated with burnout (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The mean workload pre-AWS score was 2.8. This could indicate participants felt a strong mismatch between themselves and their work. The mean score for the post-AWS was 3.3. This score was higher than the pretest score. This could indicate the participants felt a greater sense of job fit after the six-week intervention period. The paired t test value was $p = .06$. This shows there was

an improvement in the congruence of the participants between themselves and their workload, and it was of moderate statistical significance.

Control on the job can be defined as employees' ability to be able to have professional autonomy in their work, their apparent capacity to influence decisions that affect their work, and their ability to gain access to necessary resources allowing them to perform their job responsibilities. This is based on the premise that people want to have some level of authority and input into the decisions that affect their ability to carry out their jobs for which they will be held accountable. A perceived lack of job control can lead to role conflict and one feeling their job is a mismatch. Burnout has been connected with this role conflict (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The pretest control on the job mean score was 3.6. This could indicate a score higher in favor of a stronger job match. The posttest control on the job mean was 3.5. The paired t test value was $p = .28$, indicating there was not a statistical difference between the two groups. A lower posttest score could indicate the participants experienced conditions in their job that negatively impacted their sense of job control and were not impacted by the mindfulness interventions.

Reward on the job has to do with the degree of recognition one receives. This can be in monetary, social, and intrinsic recognition. It can come from customers, managers, coworkers, and external stakeholders. Lack of reward on the job has been associated with one feeling devalued and with feelings of inefficacy. This can make one feel their job is a mismatch and cause one to be vulnerable to burnout (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The pretest reward mean score was 3.6. This could indicate participants felt like there are

rewards enough to suggest their job is a match. The posttest mean score was 3.2. This score is lower than the pretest score after the intervention period. This could indicate conditions on the job in which participants felt like their sense of reward went down and the six-week mindfulness intervention did not have an impact. The paired t test value was $p = .98$ and not statistically significant enough to reject the null hypothesis.

The community subscale has to do with one's perception of the quality of their overall social interaction at work with their colleagues and supervisors. This also entails issues of conflict, their degree of mutual support, and if they perceive a sense of being a part of a team culture. A lower sense of supervisor and collegial support has been associated with a decreased sense of community leading to burnout and feelings of job mismatch. People thrive in work cultures in which they share praise, comfort, humor, and social support with people they like and respect (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The pretest community mean score was 4.4. This indicates participants felt a strong sense of community. The posttest community score was 3.6. This could indicate conditions on the job negatively impacted participants' perception of their sense of community at work. The paired t test value was $p = .15$, and this was not statistically significant enough to reject the null hypothesis.

Fairness has to do with one's perception rather they are treated fairly and with respect at work. Research has shown that people are more concerned with procedural justice than with favorable outcomes. Job conditions can be perceived as unfair when there is inequity in job workload, pay, observed cheating, or when one sees evaluations or promotions that have been handled unfairly that can also be perceived as unfair working conditions. Employees feel their organization is fair when they feel their manager treats them equally and fairly. This leads to less

burnout and an increased feeling of a job match (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The pretest fairness mean score was 2.9. This could indicate participants felt a low sense of fairness on the job and this is a strong indicator of a job mismatch. The posttest fairness mean score was 2.7. This score was only minimally lower than the pretest indicating the six weeks of mindfulness intervention did not lead to a significant impact on feelings of burnout. The paired t test value was $p = .57$, and this was not significantly significant enough to reject the null hypothesis.

Values have to do with what is in one's heart related to their relationship with their work. When people feel like their work is meaningful, they are more likely to be engaged and feel their job is a strong match. When one experiences value conflict on the job, this widens the gap between individual and organizational values, which creates a type of distress that leads to burnout and feeling like the job is a mismatch (Leiter & Maslach, 2011). See Table 4 and Figures 5 through 10 for detailed scoring from all seven project participants on their pre- and post-AWS scores. The pretest mean score was 3.1. This could indicate that participants felt a sense that the job aligns with their personal values and that their job is a match. The posttest value score was 2.6. This was lower than the pretest score and could indicate that participants felt that some conditions in the work environment were not in alignment with their values at the time of the project, and that the six-week intervention did not have an impact. The paired t test value was $p = .56$, and this was not statistically significant enough to reject the null hypothesis.

Findings from the project support existing literature, indicating that 10-minute mindfulness interventions of journaling, going outside, or meditation were statistically significant to mitigate the MAs perceptions of emotional exhaustion and how they perceive their

workload, which are both characteristics that will influence any degree of burnout. There were some changes in other areas on both the MBI and AWS instrument. However, findings were not statistically significant to reject the null hypothesis. According to Neuman's systems model for nurses, nurse leaders must assess and identify any external threats in the working environment that threaten the employees' natural lines of defense causing them to be vulnerable to feelings of burnout or emotionally exhausted.

Using Neuman's systems model as a conceptual framework, nurse leaders can intervene at primary-, secondary-, and tertiary-levels to prevent and mitigate the effects of burnout on their staff. As shown through this project, brief mindfulness practices of journaling, going outside, or meditation can be used at all three levels. At the primary-level, nurse leaders can assess potential conditions or concerns within the organization that need to be addressed. This can occur by the nurse leader being intentional and practicing open communication with staff so they feel comfortable discussing work-related stressors. Nurse leaders can also provide education to staff on signs and symptoms of burnout and encourage them to regularly practice mindfulness practices as prevention before feelings of burnout develop. This aim is to strengthen the staff's lines of defense and prevent stressors from developing (Turner & Kaylor, 2015).

At the secondary-level, the goal would be to strengthen and preserve the lines of defense from potential workplace stressors to prevent any weakening effects and maintain employee health. At this level, nurse leaders have to use discernment to identify stressors within the organization and address the concerns appropriately. The nurse leader must realize that a change in the practices or working conditions must be done to fully overcome the problem. They can also meet with staff who have been identified as burned out and encourage them to engage in 10 minutes of mindfulness practices, such as journaling, going outside, or meditation, during their

shift to help reduce their feelings of burnout and strengthen their lines of defense (Taylor & Kaylor, 2015).

At the tertiary-level, nurse leaders must aim interventions at resilience building to maintain stable lines of defense and restructuring. This could often involve a managerial and employee mindshift from previous stress-causing practices and mindsets to new practices and healthy mindsets. Nurse leaders may need to re-educate and encourage their staff to regularly practice evidenced-based interventions, such as the mindfulness activities of journaling, going outside, and meditation, to continually reinforce their lines of defense against the negative effects associated with burnout (Taylor & Kaylor, 2015).

For years, the focus of many organizations has been in alignment with the goals of the Triple Aim—improve the individual patient experience of care, improve the health of populations as a whole, and reduce per capita costs of healthcare (Sikka et al., 2015). This was implemented and encouraged at the national level. However, as healthcare continued to evolve and challenges with keeping up with the changes arose, the realization emerged that to achieve the Triple Aim, a new emphasis on the healthcare workforce had to be made. The Triple Aim became the Quadruple Aim with the additional aim focused on improving the experience of providing care. The goal was to develop and enforce working conditions and interventions to help restore joy and meaningfulness to work while also reducing staff burnout (Sikka et al., 2015). This has many implications for further practice.

Leadership within the organization where the project took place needs to be in alignment with the Quadruple Aim and expand their focus and goals at improving the experience of providing care. I have witnessed rates of turnover, disengagement, and absenteeism that are greater among MAs. Researchers report that these occurrences have been associated with staff

who are experiencing burnout that will negatively impact the experience of providing care. Results from the project show that some of the MAs are feeling a sense of depersonalization and a lowered sense of personal accomplishment. Most noteworthy was the evidence that some of the staff were experiencing emotional exhaustion and that 10 minutes of mindfulness interventions during their shift seemed to help mitigate their level of emotional exhaustion. In light of Neuman's systems model, leadership within this organization could intervene at the primary-, secondary-, and tertiary-levels to alleviate these conditions.

Practical examples for this organization could include leadership encouraging staff to present them with any job or organizational concerns that are causing work-related stress so that these concerns can be addressed appropriately. Leadership can create a culture of mindfulness, by educating staff at meetings or through interoffice communication about mindfulness practices, such as 10 minutes of journaling, going outside, and meditation, since these interventions have been shown beneficial. Leadership must recognize that these efforts and practices must be done continually to maintain stability in the staff, reduce burnout, and improve the experience of providing care.

Recommendations for Future Research

There has been ample research related to the impact of burnout on physicians, mid-level healthcare professionals, and nurses. However, there has been insufficient research investigating the impact of burnout on MAs. This is an area that needs additional inquiry. MAs are seen as the backbone of care in ambulatory care settings and they are a vital part of the healthcare team. Gaining additional insight into how burnout impacts them and practical interventions that could alleviate stress and burnout need to be considered.

Moreover, there have been many studies investigating burnout. However, additional research needs to be conducted to continue to fully understand the neurological and psychological effects of burnout on the body and mind. This would further help to understand what happens physiologically in the body and promote the development of interventions that directly treat these effects and mitigate the impact of burnout. This needs to include longitudinal studies to learn if there are any long-term effects of burnout on employees over time or if there are any longer-term interventions proven to be effective. Additional inquiry into the influence that different cultures and organizational contexts have on the work experience that increase burnout is needed to gain a better understanding of prevention and interventions (Maslach et al., 2018).

Relationship to the DNP Essentials

The Essentials of Doctoral Education for Advanced Nursing Practice, also known as the DNP Essentials, was developed by the American Association of Colleges of Nursing (AACN) to create a high standard in the curriculum for universities to guide their programs to successfully educate and prepare DNP graduates. DNP Essential I: Scientific Underpinnings for Practice and DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice are both reflected in this project.

DNP Essential I: Scientific Underpinnings for Practice

This DNP Essential recognizes that one must understand the conceptual foundation of nursing practice. The discipline of nursing is focused on gaining knowledge of the principles and laws that govern not only life practices but well-being and optimal health function whether one is sick or well. The nurse must seek to understand the pattern of human behavior and how it interacts with the environment in normal and stressful situations. The DNP graduate has to gain

insight as to how the nursing processes or actions lead to positive changes and how wholeness and one's health are in continuous interaction with the environment. One has to be able to research, gain knowledge, and be able to translate that knowledge appropriately and quickly amidst the daily demands of the work environment. DNP graduates also must be able to develop new practices based on both nursing and theories researched from other disciplines as appropriate (AACN, 2006).

Through this project, I recognized the need to gain knowledge on what was impacting the well-being and health function of the population of interest, the MAs. Research led to the burnout phenomenon as a possible cause. Further inquiry was needed as to how the work environment impacted the MAs in normal and stressful work situations. The literature pointed to mindfulness as a possible intervention to mitigate the effects. I utilized scientific methodology to conduct a project to determine if mindfulness practices by the MAs would be a solution to mitigate the effects of burnout. Based on the findings from the project and using Neuman's systems model, I was able to come up with new practice approaches involving mindfulness interventions to address the emotional exhaustion experienced by some of the MAs within the project organization.

DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

This emphasizes that research and scholarship are critical elements of the DNP curriculum and practice. DNP graduates must be able to integrate knowledge from research and apply that knowledge to solve problems and improve health outcomes. This involves critically appraising existing literature to determine the best practices to implement based on the existing evidence. One has to be able to design, implement, and evaluate the effectiveness of quality

improvement processes and design new practice guidelines to promote safe patient-centered care that will improve health outcomes (AACN, 2006).

DNP Essential III was exemplified in this project because I had to critically appraise the current literature investigating burnout and interventions designed to alleviate it. The research inquiry led to mindfulness as an effective, practical, and safe way to intervene. The DNP project was designed and implemented using scientific methodology. I utilized the MBI and AWS to measure the effectiveness of the interventions. I made recommendations based on the project findings and existing research that the organization could implement that could positively impact the levels of emotional exhaustion associated with burnout identified in some of the staff.

Summary

This DNP project examined the phenomenon of burnout that has been plaguing the healthcare workforce for many years. At a national level, the government believes the overall health of the country is influenced by the well-being of the healthcare workforce (HHS, 2022). As a result, there has been a focus on improving the well-being of the healthcare workforce and implementing strategies that mitigate the effects of burnout. On a national level the Surgeon General's Advisory Addressing Burnout in Health Workers made three general recommendations: "transform the workplace culture to empower health workers and be responsive to their voices and needs, eliminate punitive policies for seeking mental health and substance-use disorder care, and protect the health, safety, and well-being of all health workers (HHS, 2022, para. 7). This information helps to demonstrate the significance of this project.

I have observed disengaged staff, high employee turnover, and staff absenteeism within my organization that is highest among the MAs and this sparked an interest in understanding why. Mirroring the DNP Essentials I and DNP Essentials III, I critically appraised existing

literature related to this phenomenon and found these are behaviors associated with burnout. There was ample information regarding the effects of burnout on physicians, mid-level providers, and nurses but insufficient data about the impact of burnout on MAs. Further research inquiries led to mindfulness as an evidenced-based practice to mitigate the effects of burnout. That led to the purpose of this DNP project: examining if mindfulness could be a solution for MAs experiencing burnout in the primary care setting.

Based on project findings and knowledge gained through the research and utilizing Neuman's systems model as a conceptual framework, nurse leaders can translate this knowledge to implement evidence-based solutions systematically and practically to address burnout. Findings from this study suggest that even as little as 10 minutes of journaling, going outside to connect with nature, and meditation during a lunch break can mitigate the emotional exhaustion that is associated with burnout. Although additional research is needed to further explore burnout in other healthcare practice settings and among a more diverse group of MAs, for now, mindfulness practices could be a tool that can be shared within this practice organization as an evidence-based solution to feelings of burnout.

References

- AACN. (2006). *The essentials of doctoral education for advanced nursing practice*. American Association of Colleges of Nursing.
<https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf>
- Abraham, C. M., Zheng, K., Norful, A. A., Ghaffari, A., Liu, J., & Poghosyan, L. (2021). Primary care practice environment and burnout among nurse practitioners. *Journal for Nurse Practitioners, 17*, 157–162.
- American Association of Medical Assistants (n.d.). *What is a medical assistant?*
<https://www.aama-ntl.org/medical-assisting/what-is-a-medical-assistant>
- Bademli, K., & Duman, Z. C. (2017). Conceptual framework for nurses in the use of Neuman systems model for caregivers of people suffering by schizophrenia. *Nursing and Health Care, 3*(3). <https://doi.org/10.23937/2469-5823/1510079>
- Ballew, M., & Omoto, A. (2018). Absorption: How nature experiences promote awe and other Positive emotions. *Ecopsychology, 1*(1), 26-35. <https://doi.org/10.1089/eco.2017.0044>
- Bateman, T., Hobaugh, S., Pridgen, E., & Reddy, A. (2021). *US healthcare labor market*. Mercer.
<https://www.mercer.us/content/dam/mercer/assets/content-images/north-america/unitedstates/us-healthcare-news/us-2021-healthcare-labor-market-whitepaper.pdf>
- Berg, S. (2021). *Half of health workers report burnout amid COVID-19*. American Medical Association. <https://www.ama-assn.org/practice-management/physician-health/half-health-workers-report-burnout-amid-covid-19>

- Calabrese, L. (2019). Why mindfulness/meditation is a “no-brainer” for health-care Professionals. *Journal of Patient Experience*, 6(1), 21–23.
<https://doi.org/10.1177%2F2374373518774390>
- Copeland, D. (2021). Brief workplace interventions addressing burnout, compassion fatigue, and teamwork: A pilot study. *Intervention Research Report*, 43(2), 130–137.
<https://doi.org/10.1177/01939459209380>
- Cunningham, T., & Cayir, E. (2021). Nurse leaders employ contemplative practices to promote healthcare professional well-being and decrease anxiety. *Journal of Nursing Administration*, 51(3), 156–161. <https://doi.org/10.1097/NNA.0000000000000987>
- Djernis, D., Lerstrup, I., Poulsen, D., Stigsdotter, U., Dahlgard, J., & O’Toole, M. (2019). A systemic review and meta-analysis of nature-based mindfulness: Effects of moving mindfulness training into an outdoor natural setting. *International Journal of Environmental Research and Public Health*, 16(17), 3202.
<https://doi.org/10.3390/ijerph16173202>
- Dyrbye, L. N., Tait, S. D., Johnson, P. O., Johnson, L., Daniel, S. & Colin, W. P. (2019). A cross-sectional study exploring the relationship between burnout, absenteeism, and job performance among American nurses. *BMC Nursing*, 18(57), 1–8.
<https://doi.org/10.1186/s12912-019-0382-7>
- Fitzpatrick, B., Bloore, K., & Blake, N. (2019). Joy in work reducing nurse burnout: From triple aim to quadruple aim. *Advanced Critical Care*, 30(2), 185–188.
<https://doi.org/10.4037/aacnacc2019833>

- Friedman, J., & Neutze, D. (2020). The financial cost of medical assistant turnover in an academic family medicine center. *Journal of the American Board of Medicine*, 33, 426–430. <https://www.jabfm.org/content/33/3/426>
- Goldberg, D. G., Soylu, T. G., Grady, V. M., Kitsantas, P., Grady, J., & Nichols, L. (2020). Indicators of workplace burnout amongst physicians advanced practice nurses, clinicians, and staff in medium-sized primary care practices. *Journal of the American Board of Family Medicine*, 33(3), 378–385. <https://doi.org/10.3122/jabfm.2020.03.190260>
- Hannoodee, S., & Dharmoon, A. (2020). *Nursing Neuman systems model*. StatPearls Publishing.
- Heath, S. (Ed.) (2019, January 11). *Preventing physician burnout from impacting the patient experience*. Patient Engagement HIT. <https://patientengagementhit.com/features/preventing-physician-burnout-from-impacting-the-patient-experience>
- Henry, T. (2019). Burnout's mounting price tag: What it's costing your organization. *American Medical Association*. <https://www.ama-assn.org/practice-management/physician-health/burnout-s-mounting-price-tag-what-it-s-costing-your>
- Hente, E., Sears, R., Cotton, S., Palleria, H., Siracusa, C., Filigno, S. S., & Boat, T. (2020). Therapy to improve well-being for health professionals proving chronic disease care. *Journal of Pediatrics*, 24, 87–93.
- Kaushik, D. (2021). *Medical burnout: breaking bad*. Association of American Medical Colleges. <https://www.aamc.org/news-insights/medical-burnout-breaking-bad>

- Klatt, M., Westrick, A., Bawa, R., Gabram, O., Blake, A., & Emerson, B. (2021). Sustained resiliency building and burnout reduction for healthcare professionals via organizational sponsored mindfulness programming. *Explore, 18*(2), 179–186.
- Leo, C. G., Sabina, S., Tumolo, M. R., Bodini, A., Ponzini, G., Sabato, E., & Mincarone, P. (2021, October 29). Burnout among healthcare workers in the COVID-19 era: A review of the existing literature. *Frontiers in Public Health, 9*.
<https://doi.org/10.3389/fpubh.2021.750529>
- Levine, M. (2021, November 15). U.S. faces crisis of burned-out health care workers. *U.S. News & World Report*.
- Leiter, M. P., & Maslach, C. (2011). *Areas of Worklife Survey Manual* (5th ed.). Mind Garden.
- Liu, C., Chen, H., Cao, X., Sun, Y., Liu, C-y., Wu, K., Liang, Y-C., Hsu, S-E., Huang, D-H., & Chiou, W-K. (2022). Effects of mindfulness meditation on doctor's mindfulness, patient safety culture, patient safety competency, and adverse event. *International Journal of Environmental Research and Public Health, 19*(6), 32–82.
<https://doi.org/10.3390%2Fijerph19063282>
- Maslach, C., Leiter, M. P., & Jackson, S. E. (2011). Making a significant difference with burnout interventions: Researcher and practitioner collaboration. *Journal of Organizational Behavior, 33*, 296–300.
- Maslach, C., Leiter, M. P., & Jackson, S. E. (2018). *Maslach burnout inventory scoring Instrument and keys*. Mind Garden. www.mindgarden.com
- Maslach, C., & Leiter, M. P. (2021). How to measure burnout accurately and ethically. *Harvard Business Review*. <https://hbr.org/2021/03/how-to-measure-burnout-accurately-and-ethically>

- Mayzell, G. (2020). *The resilient healthcare organization: How to reduce physician and healthcare worker burnout*. Routledge.
- Mindful (2021). *How to practice gratitude*.
<https://www.mindful.org/an-introduction-to-mindful-gratitude/>
- Mind Garden. (2018). *Maslach burnout toolkit for medical personnel*. mindgarden.com.
- Mind Garden. (2019). A message from the Maslach burnout inventory authors.
<https://www.mindgarden.com/blog/post/44-a-message-from-the-maslach-burnout-inventory-authors>
- Mind Garden. (2021). *Maslach burnout inventory (MBI)*.
<https://www.mindgarden.com/117-maslach-burnout-inventory-mbi>
- Morr, M. (2020, May 11). *Burnout and work-life balance assessed among physician assistants*. Clinical Advisor. <https://www.clinicaladvisor.com/home/topics/practice-management-information-center/burnout-and-work-life-balance-revealed-in-new-aapa-survey/>
- Morris, T. S., Malloy, C. L., & Brown-Johnson, C. (2021). Factors affecting burnout among medical assistants. *Foundation of the American College of Healthcare Executives*, 66(2), 111–121. <https://doi.org/10.1097/JHM-D-19-00265>
- National Academy of Medicine. (2022). *Action collaborative on clinician well-being and resilience*. National Academy of Sciences. <https://nam.edu/initiatives/clinician-resilience-and-well-being/>
- National Institute for Occupational Safety and Health. (n.d.). *Healthcare workers: work stress & mental health*. Centers for Disease Control.
<https://www.cdc.gov/niosh/topics/healthcare/workstress.html>

- Patel, R., Sekhri, S., Bhimanadham, N., Imran, S., & Hossain, S. (2019). A review on strategies to manage physician burnout. *Cureus, 11*(6).
<https://doi.org/10.7759/cureus.4805>
- Prudenzi, A., Graham, C., Flaxman, P., & O'Connor, D. (2022). Well-being, burnout, and safe practice among healthcare professionals: predictive influences of mindfulness, values, and self-compassion. *Psychology, Health & Medicine, 27*(5), 1130-1143,
<https://doi.org/10.1080/13548506.2021.1898651>
- Reith, T. P. (2018.). Burnout in United States healthcare professionals: A narrative review. *Cureus, 10*(12). 1–9. <https://doi.org/10.7759/cureus.3681>
- Salvado, M., Marques, D. L., Pires, I. M., & Silva, N. M. (2021). Mindfulness-based interventions to reduce burnout in healthcare professionals: a systematic review and meta-analysis. *Healthcare, 9*(10), 1–15. <https://doi.org/10.3390/healthcare9101342>
- Sanso, N., Galiana, L., Gonzalez, B., Sarmentero, J., Reynes, M., Oliver, A., & Garcia-Toro, M., (2019). Differential effects of two contemplative practice-based programs for health care professionals. *Psychological Intervention, 28*(3), 131–138.
<https://doi.org/10.5093/pi2019a12>
- Schroeder, D. A., Stephens, E., Colgan, D., Hundsinger, M., Rubin, D., & Christopher, M. S. (2016). A brief mindfulness-based intervention for primary care physicians: A pilot randomized controlled trial. *American Journal of Lifestyle Medicine, 12*(1), 83–91.
<https://doi.org/10.1177/1559827616629121>
- Server, A., Suso-Ribera, C., Perez-Carrasco, M., Medel, J., Mesas, A., Ayora, A., & Garcia, R. (2022). Feasibility of brief mindfulness-based program for burnout in pain healthcare professionals. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsy.2022.1009266>

- Shaikh, A., Shaikh, A., Kumar, R., & Tahir, A. (2019). Assessment of burnout and its factors among doctors using the abbreviated Maslach burnout inventory. *Cureus*, *11*(2), <https://doi.org/10.7759/cureus.4101>
- Sikka, R., Morath, J. & Leape, L. (2015). The quadruple aim: care, health, cost, and meaning in work. *BMJ Journals*, *24*(10). <https://doi.org/10.1136/bmjqs-2015-004160>
- Slavin, S. (2019). Preventing physician burnout: satisfaction or something more? *Israel Journal of Health Policy Research*, *8*(34). <https://doi.org/10.1186/s13584-019-0303-y>
- Sotile, W., Fallon, R., & Simmons, G. (2019). *Moving from physician burnout to resilience*. *Clinical Obstetrics and Gynecology*, *62*(3), 480–490. <https://doi.org/10.1097/GRF.0000000000000444>
- Sparks, D. (2018, September 12). Mayo mindfulness: Practicing mindfulness exercises. *Mayo Clinic News Network*. <https://newsnetwork.mayoclinic.org/discussion/mayo-mindfulness-practicing-mindfulness-exercises/>
- Stratton, S. (2019). Quasi-experimental design (pretest and posttest studies) in prehospital and disaster research. *Cambridge Core*, *34*(6), 573–574.
- Straus, C., Gu, J., Pitman, N., Chapman, C., Kuyken, W., & Whittington, A. (2018). Evaluation of mindfulness-based cognitive therapy for life and a cognitive behavioral therapy stress-management workshop to improve healthcare staff stress: Study protocol for two randomized controlled trials. *Trials*. <https://doi.org/10.1186/s13063-018-2547-1>
- Turner, S. B., & Kaylor S. D. (2015). Neuman systems model as a conceptual framework for nurse resilience. *Nursing Science Quarterly*, *28*(3), 213–217.
- University Libraries. (2022). SPSS tutorials: Paired *t*-tests. Kent State University. <https://libguides.library.kent.edu/spss/pairedsamplesttest>

University of St. Augustine for Health Sciences. (2020). *Nurse burnout: risks, causes, and precautions for nurses*. <https://www.usa.edu/blog/nurse-burnout/>

U.S. Department of Health and Human Services. (2020). *Healthy People 2030 - Social determinants of health*. <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>

U.S. Department of Health and Human Services. (2022). *New surgeon general advisory sounds the alarm on health care worker burnout and resignation*.
<https://www.hhs.gov/about/news/2022/05/23/new-surgeon-general-advisory-sounds-alarm-on-health-worker-burnout-and-resignation.html>

World Health Organization. (2023). *Burn-out an “occupational phenomenon”*: International classification of diseases. World Health Organization.
<https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>

Appendix A: ACU IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY

Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
328 Hardin Administration Building, ACU Box 29145, Abilene, Texas 79699-9145
325-674-2885



June 24, 2022

Natalee Calais
Department of Nursing
Abilene Christian University

Dear Natalee,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Burnout on medical assistants in the primary care setting: can mindfulness be a solution?",

(IRB# 22-073) is exempt from review under Federal Policy for the Protection of Human Subjects. If at any time the details of this project change, please advise our office of the change(s) by email, so that the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work!

Sincerely,

Russell P. Krugelock

Vice President for Research

Appendix C: Participant Informed Consent

Title of the Project: Burnout in Medical Assistants in the Primary Care Setting: Can Mindfulness Be a Solution?

You may be able to take part in a research project. This form provides important information about that project, including the risks and benefits to you as a potential participant. Please read this form carefully and ask the Investigator any questions that you may have about the project. You can ask about project activities and any risks or benefits you may experience. You may also wish to discuss your participation with other people, such as your family doctor or a family member.

Your participation in this project is entirely voluntary. You may refuse to participate or stop your participation at any time and for any reason without any penalty or loss of benefits to which you are otherwise entitled.

PURPOSE AND DESCRIPTION: Burnout, as defined as one feeling emotionally exhausted, disconnected, and having a sense of low personal accomplishment is on the rise and is experienced by many healthcare providers and clinic staff. A connection exists between an individual's feelings of burnout and their overall well-being. Undesirable effects on one's well-being will influence their interaction with fellow staff and patients negatively affecting the overall health care experience in the clinic. Mindfulness is present moment awareness with an attitude of openness and no judgment. Many studies exist linking the benefit of one using individual-focused mindfulness techniques in the healthcare setting to reduce perceptions associated with burnout.

This project will take place at your clinic during your working hours. You will take a test at the start of the project to measure any level of burnout you may be experiencing. For six

weeks, you will be asked to practice one of three preselected mindfulness activities for 10 consecutive minutes during your shift. You will be given a notebook where you can log the date and time of your activity. The three mindfulness activities are journaling, meditation, and going outside. The journaling participants will be given a journal in which they can write their thoughts. At the end of the six weeks, you will take the same test again that was taken at the start of the project. Results will be compared to see if the mindfulness activities improved the burnout score.

If selected for participation and you agree, you will be asked to attend three visits with the investigator over the course of 2-3 months. Each visit is expected to take 30 to 45 minutes. During the course of these visits, you will be asked to participate in the following procedures; an informational presentation of the project, the pre-test, ending with the post-test.

RISKS & BENEFITS: There are minimal risks to taking part in this research project. Below is a list of the foreseeable risk:

If the morning clinic runs into the designated lunchtime, MAs may not be able to meet to discuss the project details or initiate the project. If this occurs the DNP learner will wait until clinic participants are available once the morning clinic ends to meet with the participants.

There are potential benefits to participating in this project. The project aims to focus on mindfulness interventions that can reduce employee perceptions of burnout so this project should not cause increased stress or anxiety on participants. Instead, it should be an opportunity to learn mindfulness solutions to engage in the future. The Investigator cannot guarantee that you will experience any personal benefits from participating in this project.

PRIVACY & CONFIDENTIALITY: Any information you provide will be confidential to the extent allowable by law. Some identifiable data may have to be shared with individuals

outside of the study team, such as members of the ACU Institutional Review Board. Otherwise, your confidentiality will be protected by providing each participant a unique patient identifier that will only be known to the Investigator and the participant. At the end of the project, the notebooks used to log the activities will be returned to the Investigator. The notebooks given to the journaling group will remain with each participant.

Participants' responses to the pretests and posttests will remain confidential to only the Investigator and all hard copy results will be shredded after the study along with the notebook logs. At the end of the study, participants will receive a hard copy report of their pre and post-test results as well as the generalized results. The physician owner and office manager will also receive a generalized study report, however, no participant identifiers will be listed to maintain confidentiality. In alignment with ACU standards, "De-identified data collected during this project will be stored in a secure university drive under the project researcher's name. Data will be owned by the university in case access is needed at a future date. This storage system is provided by the online graduate school for doctoral student research data and supported by the university's IT department for security purposes and kept for the minimum required time according to IRB guidelines"

CONTACTS: If you have questions about the project, the Principal Investigator is Natalee Calais, FNP-BC, and may be contacted at xxx-xxx-xxxx or xxxxxxxxx@gmail.com. If you are unable to reach the Principal Investigator or wish to speak to someone other than her, you may contact **Dr. Colleen Marzilli ACU DNP Project Chair** at xxx-xxx-xxxx or xxxxxxxxx@acu.edu. If you have concerns about this project, believe you may have been injured because of this project, or have general questions about your rights as a research

participant, you may contact ACU's Chair of the Institutional Review Board and Executive Director of Research, Megan Roth, Ph.D. Dr. Roth may be reached at (xxx) xxx-xxxx.

xxxxxxxxxxxxx@acu.edu
 320 Hardin Administration Bldg, ACU Box 29103
 Abilene, TX 79699

Additional Information

Your participation may be ended early by the Investigator for certain reasons. For example, we may end your participation if you no longer meet project requirements, the Investigator believes it is no longer in your best interest to continue participating, you do not follow the instructions provided by the Investigator, or the project is ended. You will be contacted by the researchers and given further instructions in the event that you are removed from the project.

Compensation: All participants will be entered into a drawing to receive a \$25 gift card. This drawing will take place at the last meeting after the post-test is completed at each clinic. Eligibility will be for participants who completed the pretest, 6 weeks of the intervention, and the posttest.

Consent Signature Section

Please sign this form if you voluntarily agree to participate in this project. Sign only after you have read all of the information provided and your questions have been answered to your satisfaction. You should receive a copy of this signed consent form. You do not waive any legal rights by signing this form.

|

Printed Name of Participant

Signature of Participant

Date

Appendix D: Participant Solicitation Email

Dear xxxxxxxxxxxx Medical Assistant,

Hello everyone! I am currently working on my Doctor of Nursing Practice at Abilene Christian University. As a part of our academic requirements, we must complete a DNP project. The purpose of a DNP project is to improve health outcomes of an identified concern in healthcare through the development and implementation of a scholarly project that can in turn develop into evidenced-based practice.

The purpose of my DNP project is to examine if brief mindfulness interventions can have a positive impact on feelings associated with burnout in medical assistants working in the primary care ambulatory clinic setting? I will be the Principal Investigator on this project. Inclusion criteria include study participants who are currently full-time employees of any of the three primary care clinics. Participants may be both male and female, of any ethnicity, practicing in the role of a medical assistant. Exclusion criteria will include anyone not operating under the title of medical assistant, under the age of 18, and not employed full-time with the three designated clinic facilities.

The project will feature the same pre- and post-self-conducted tests administered on paper about 6-8 weeks apart. Each test takes on average 25-30 minutes to complete. Both tests will take place during a pre-designed time during the participants' lunch. The pretest will be utilized as a baseline, followed by six weeks of the mindfulness intervention, ending with the posttest. Each clinic will be assigned a mindfulness activity and participants will be asked to engage in 10 minutes of the mindfulness activity once during their working hours each shift for a total of 6 weeks. The mindfulness activities will be unique for each of the three locations and

will include meditation, going outside, and journaling. Participants will be given a confidential log to record the date and time of the activity.

This project has been approved by the ACU Institutional Review Board, Dr. Karimjee, and Tami Havies.

To successfully carry out this project, I need your help! I would love the opportunity to meet with each of you next week (add a specific date and time) during your lunch to discuss the project details. If interested, I ask that you please attend this meeting. I can also be contacted via phone at xxx-xxx-xxxx or via email at xxxxxxxxx@acu.edu.

Sincerely,

Natalee Calais, FNP-BC, DNP Candidate

Appendix E: Areas of Worklife Survey and Permission to Administer

For use by Natalee Calais only. Received from Mind Garden, Inc. on [REDACTED]
Permission for Natalee Calais to [REDACTED]
[REDACTED]

Areas of Worklife Survey

by Michael P. Leiter & Christina Maslach

Published by Mind Garden, Inc.
www.mindgarden.com

Important Note to Licensee

[REDACTED]

This instrument is covered by U.S. and international copyright laws as well as various state and federal laws regarding data protection. Any use of this instrument, in whole or in part, is subject to such laws and is expressly prohibited by the copyright holder. If you would like to request permission to use or reproduce the instrument, in whole or in part, contact Mind Garden, Inc.

For use by Natalee Calais only. Received from Mind Garden, Inc. or [REDACTED]

Areas of Worklife Survey

Please use the following rating scale to indicate the extent to which you agree with the following statements. Please circle the number corresponding to your answer.

1	2	3	4	5
Strongly Disagree	Disagree	[REDACTED]	[REDACTED]	[REDACTED]

Workload

Strongly Disagree	Disagree	[REDACTED]	[REDACTED]	[REDACTED]
----------------------	----------	------------	------------	------------

- | | | | | | |
|---|------------|------------|------------|------------|------------|
| 1. I do not have time to do the work that must be done. | 1 | 2 | 3 | 4 | 5 |
| 2. I work intensely for prolonged periods of time. | 1 | 2 | 3 | 4 | 5 |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| 6. [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| 10. [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] | 5 |

Appendix F: MBI Survey and Permission to Administer

For use by Natalee Calais only. Received from Mind Garden, Inc. on [REDACTED]

Permission for Natalee Calais to [REDACTED]

Maslach Burnout Inventory™

Instruments and Scoring Keys

Includes MBI Forms:

Human Services - MBI-HSS

Medical Personnel - MBI-HSS (MP)

Educators - MBI-ES

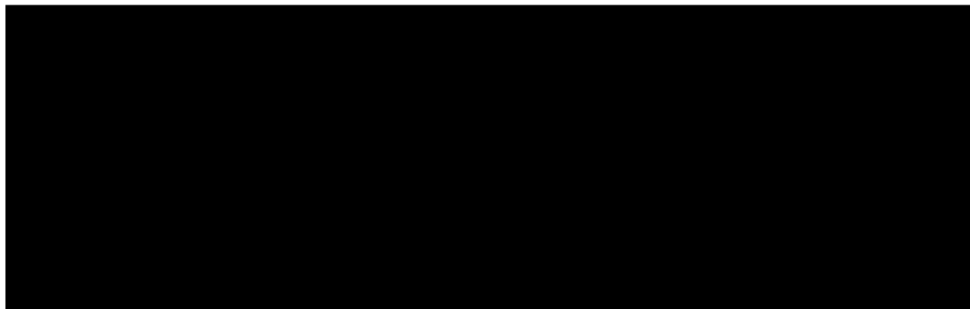
General - MBI-GS

Students - MBI-GS (S)

Christina Maslach
Susan E. Jackson
Michael P. Leiter
Wilmar B. Schaufeli
Richard L. Schwab

Published by Mind Garden, Inc.

info@mindgarden.com
www.mindgarden.com



This instrument is covered by U.S. and international copyright laws. Any use of this instrument, in whole or in part, is subject to such laws and is expressly prohibited by the copyright holder. If you would like to request permission to use or reproduce the instrument, in whole or in part, contact Mind Garden, Inc.

MBI-General Survey: Copyright ©1996 Wilmar B. Schaufeli, Michael P. Leiter, Christina Maslach & Susan E. Jackson.
MBI-Human Services Survey: Copyright ©1981 Christina Maslach & Susan E. Jackson.
MBI-Educators Survey: Copyright ©1985 Christina Maslach, Susan E. Jackson & Richard L. Schwab.
All rights reserved in all media. Published by Mind Garden, Inc., www.mindgarden.com

For use by Natalee Calais only. Received from Mind Garden, Inc. on [REDACTED]

MBI Human Services Survey for Medical Personnel

Christina Maslach & Susan E. Jackson

The purpose of this survey is to discover how various people in the human services or the helping professions view their job and the people with whom they work closely.

Instructions: On the following page are 22 statements of job-related feelings. Read each statement carefully and decide if you ever feel this way about your job. If you do, check the number that best describes how often you feel this way.

Example:

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	[REDACTED]			

How often 0-6	Statement:
------------------	------------

1. _____ [REDACTED]

[REDACTED]

