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Assessing the Perceptions and Attitudes of Burnout Syndrome in Nurse Practitioners in Primary Care Settings

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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

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by

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Dedication

This scholarly project is dedicated to my mother, Cathy Mayes. You did not get a chance to see me throughout this journey, but may you rest in peace knowing your only child completed it in your memory. I hope I can continue to make you and Daddy, Richard Lattier, proud. To my husband, Jonathan, thank you for your love and support throughout this journey; I could not have gotten through it without you.

Acknowledgments

I would like to give honor to God for seeing me through this program and project. Without his grace and mercy, I would not be here today. A special thanks to Dr. Tonja Hartjes for chairing this scholarly project. Without her expertise, it would not have been completed. Thanks to my mentor, Dr. Rachel Davis, for her constant support, guidance, and encouragement. Further appreciation goes out to Dr. Cheryl Green, Dr. Lawrence Santiago, Dr. Kim Love, Dr. Amanda Rockinson-Szapkiw, Dr. Susan Quisenberry, Dr. Destiny Birdsong, and the Abilene Christian University's faculty for their knowledgeable contributions to this scholarly project's success.

Abstract

The implications of workload and personal and patient-related burnout have been identified in numerous physicians' studies. While burnout syndrome has become a subject of great interest for examining provider burnout to assess successful solutions, there is minimal research unique to nurse practitioners in primary care settings. This project was intended to determine the prevalence and effect of nurse practitioners' burnout in primary care settings and make recommendations for improving nurse practitioners' overall health and well-being. The key outcomes of concern for this project were, first, improvement in burnout scores on the Copenhagen Burnout Inventory tool pre- and posteducational intervention, and second, participation in an online survey. A 19-question pre- and postsurvey were sent to 600 nurse practitioners, yielding a 21% response rate (N = 75). Of the 75 respondents, the smallest and largest preintervention personal burnout score was 0, and the highest was 95. The results from this project suggest that additional research is warranted.

Keywords: Burnout, burnout syndrome, nurse practitioner, primary care, resiliency, retention in nurse practitioners, self-care, and quality of care

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Burnout syndrome (BOS) is a phenomenon characterized by overwhelming exhaustion, feelings of cynicism, and detachment from the workplace (World Health Organization, 2019) and is a growing concern compounding the already-growing shortage of primary care nurse practitioners (NPs; Morgan & Somera, 2014). Approximately 30% to 50% of NPs will experience some degree of BOS during their careers (Lyndon, 2016). In fact, the escalating obstacles associated with work can put NPs at an increased risk for BOS, inadequate coping skills, reduced employee satisfaction, and increased turnover rates (Abraham et al., 2019).

Nurse practitioners often suffer from the strain of caring for patients and families and the challenges of dealing with restricted budgets, staff shortages, complicated patient demands, and their own feelings of lack of control (Smith, 2014). The high level of BOS and primary care NPs' stress levels creates a need for aligned strategies to assist in minimizing external work stressors. Providers have already raised such concerns in the clinical setting as well as in current literature (Abraham et al., 2019; Dyrbye et al., 2019; Reith, 2018); the positive effects of reducing BOS include enhancing the healthcare workforce, increasing NP satisfaction, decreasing turnover rates, and improving the overall quality of healthcare. Therefore, this scholarly project was designed to focus on interventions and education designed to increase awareness and offer BOS prevention strategies for primary care NPs.

Statement of the Problem

Primary care NPs may become vulnerable to the adverse effects of BOS. As Lewin and Balser (2017) noted, BOS hurts the morale of groups and teams, reduces organizational productivity, and decreases the quality of life. With premature turnover of highly trained professionals, BOS can also be financially disadvantageous, representing a substantial

investment loss. Lewin and Balser (2017) have suggested that burnout syndrome also poses a risk to the patients' well-being in the form of suboptimal outcomes and avoidable mistakes. This may also threaten NPs' health in a number of ways, including fatigue, depersonalization, despair, and suicidal ideation (Centers for Disease Control and Prevention [CDC], 2019). As such, BOS has become a significant healthcare problem that has consequences for healthcare organizations, patients, NPs, and their families (Kreitzer & Klatt, 2017).

At present, understanding BOS and promoting resilience appear to be a priority for healthcare organizations. Administrators now realize there is a considerable expense associated with BOS (Shanafelt & Noseworthy, 2017), but it is also imperative to learn more about its impact on primary care NPs. This scholarly project's goal was to specifically assess primary care NPs' perceptions and attitudes toward BOS and recommend interventions that can improve resilience and an overall sense of wellbeing.

Background

Burnout syndrome has emerged as a significant problem in U.S. medicine in the 21st century (Reith, 2018). It is characterized by three main dimensions: (a) mental exhaustion, (b) depersonalization and cynicism, and (c) a reduced sense of personal achievement (Maslach & Leiter, 2016). This syndrome was first defined by clinical psychologist Herbert Freudenberger (1974), who coined the terms *burnout* and *professional burnout* to describe physical and behavioral symptoms such as growing anger, frustration, suspicion, paranoia, and depression (Bridgeman et al., 2018). Freudenberger (1974) proposed that professionals who are prone to burnout syndrome are typically dedicated and engaged. Literature suggests that BOS is not an acute disorder but an accumulation of the impact of professional duties (Reith, 2018). The role of NPs continues to grow as the United States faces an increase in physician shortages (Hoff et al.,

2019). As a result, NPs are particularly at risk due to multiple professional duties, high patient caseloads, and long work hours.

Loretta Ford was the first to pioneer the NP profession to bridge the gap in accessible and affordable healthcare for children and families (Silver et al., 1985). Chattopadhyay et al. (2015) predicted that NPs would assume an even more significant role, expanding access to healthcare and growing the primary care demand by 81% between 2010 and 2020. The U.S. health system has seen a significant increase in NPs (Ortiz et al., 2018). There are currently more than 270,000 licensed NPs providing quality healthcare throughout the country (American Association of Nurse Practitioners, 2018). However, according to the Agency for Healthcare Research and Quality, self-reported feelings of BOS may result in many of those health professionals' abandoning the profession (Agency for Healthcare Research and Quality [AHRQ], 2016; Lyndon, 2016). As a result, BOS can additionally increase the already imminent shortage of available primary care providers.

The effects of the syndrome are not limited to NPs' well-being alone; provider BOS is detrimental to patient care (Reith, 2018). According to Lewin and Balser (2017), BOS has a deleterious effect on the healthcare system as a whole and on healthcare quality as patients experience it. Sinsky et al. (2016) argued that BOS is associated with increased risk of medical errors and malpractice, reduced patient empathy, lower patient adherence rates, and decreased patient satisfaction.

Purpose of the Study

This quantitative descriptive study's purpose was to investigate the attitudes and perceptions of BOS in primary care NPs. The goal was to determine quality improvement interventions to reduce BOS and increase health promotion, which includes actions taken to

improve stress, diet, involvement with the family, and spirituality (Pender, 2011). However, a link between nurse practitioners' health-promoting habits and stress is not well defined, but stress can negate healthy choices and lead to chronic illnesses (Purdy, 2013). Therefore, this quantitative study analyzing BOS management approaches was designed to expose habits that encourage or impede NPs' well-being in primary care settings. The desired results of this scholarly project were to increase awareness of BOS, decrease its effects, and improve self-care for NPs practicing in primary care settings.

Significance

This scholarly project addressing BOS among NPs practicing in primary care settings could prove significantly important and might help meet the potential demand for NPs in primary care. According to the Health Resources and Services Administration (2016), there is a projected shortage of 20,400 primary care providers by 2020 (e.g., physicians, physician assistants, etc.); however, the supply of primary care NPs is expected to increase by 30% from 55,400 in 2010 to 72,100 in 2020. If a shortage of other kinds of healthcare providers means that NPs will be expected to provide a larger portion of primary care services in the future (Health Resources and Services Administration, 2016), then increasing demand might also increase BOS among NPs. Complexities in dealing with professional expectations and role demands could also impact BOS.

Despite these projections and concerns, BOS recognition in NPs could improve their physical and mental health over time (Pender, 2011). Improved health and wellness offer the potential for personal health, work-life balance, and safer, higher-quality care. Improved BOS awareness could also further promote widespread engagement in programs to reduce BOS and

promote wellness. This scholarly project could assist in recognition of poor health habits and raise awareness for BOS improvement.

Nature of the Project

Utilizing the Copenhagen Burnout Inventory (CBI) tool, primary care NPs practicing in Texas were given a web-based survey regarding their perceptions and attitudes about their personal symptoms of burnout syndrome. The participants were drawn from the Texas Nurse Practitioners association registry (see Appendix A), and the CBI was completed based on the inclusion criteria. Once the participants completed the CBI, educational interventions were provided. The findings of the completed CBI of Texas NPs were analyzed to assist in implementing quality improvement measures for educational, organizational, and social change. Copenhagen Burnout Inventory results for Texas NPs were also compared with national literature on NP burnout syndrome. The findings of the project were then translated for educational, organizational, and social change.

Research Questions

A PICOT question was formulated to investigate, identify, and implement best practices to prevent BOS among NPs: Does the implementation of an educational burnout assessment tool improve the perceptions and attitudes related to burnout among primary care NPs versus no burnout assessment tool?

P - Nurse practitioners in primary care

I - Education on burnout assessment

C - No burnout assessment tool

O - Show an improvement in the perceptions and attitudes about burnout syndrome

T - Within a three-week timeframe

Definition of Key Terms

Burnout syndrome. A state of excessive and prolonged stress caused by emotional, physical, and mental exhaustion. It typically happens when a person feels overwhelmed, emotionally drained, and unable to meet constant demands (Psychology Today, n.d.).

Nurse practitioner. A nurse who is qualified to treat and diagnose certain medical conditions without direct physician supervision. Every NP must matriculate from a master's or doctoral degree program and have specialized clinical training beyond the curriculum of their original registered nurse licensure (RN).

Primary care. In this project, primary care is an umbrella term that encompasses health promotion, disease prevention, preventive management, therapy, patient education, acute and chronic disease diagnosis, and treatment (American Academy of Family Physicians, 2020). If adequately implemented, primary care is beneficial to patient health and also decreases the financial burden on the public health system (Smith, 2016).

Self-care. Any activity that a person intentionally performs to take care of their mental, emotional, and physical health (Michael, 2019).

Chapter 2: Literature Review

This literature review examined descriptive, cross-sectional pilot studies and systematic reviews of BOS. It was also designed to define causes of BOS that were directly related to work environment practices and practices that promote or impede job satisfaction. Findings from the literature review provide support for implementing burnout syndrome interventions through Nola Pender's health promotion model (Pender et al., 2010). Building on Pender's theoretical framework, applied initiatives would offer the nurse practitioner workforce the opportunity to practice health promotion and burnout syndrome reduction.

Literature Search Methods

A comprehensive literature search was conducted on PubMed, Google Scholar, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) using the following keywords: *BO*, *BOS*, *nurse practitioner*, *primary care*, *quality of care, resiliency, retention in nurse practitioners*, and *self-care.* Inclusion criteria included articles published between the years 2013 and 2020. Exclusion criteria included literature specific to certified registered nurse anesthetists, certified nurse specialists, and certified nurse-midwives, as the concentration of this project was NPs practicing in primary care. After searching the databases listed above, 209 articles were identified as potential sources. The implementation of an educational tool and strategies deemed helpful for NPs' well-being was highly supported based on most of the literature abstracts.

Results of Review of Literature

Twenty-three peer-reviewed journal articles were reviewed for emerging themes and for evidence to support the use of BOS assessments and interventions. Emerging themes were (a) intent to leave and retention, (b) burnout syndrome, (c) resilience, and (d) BOS and quality care.

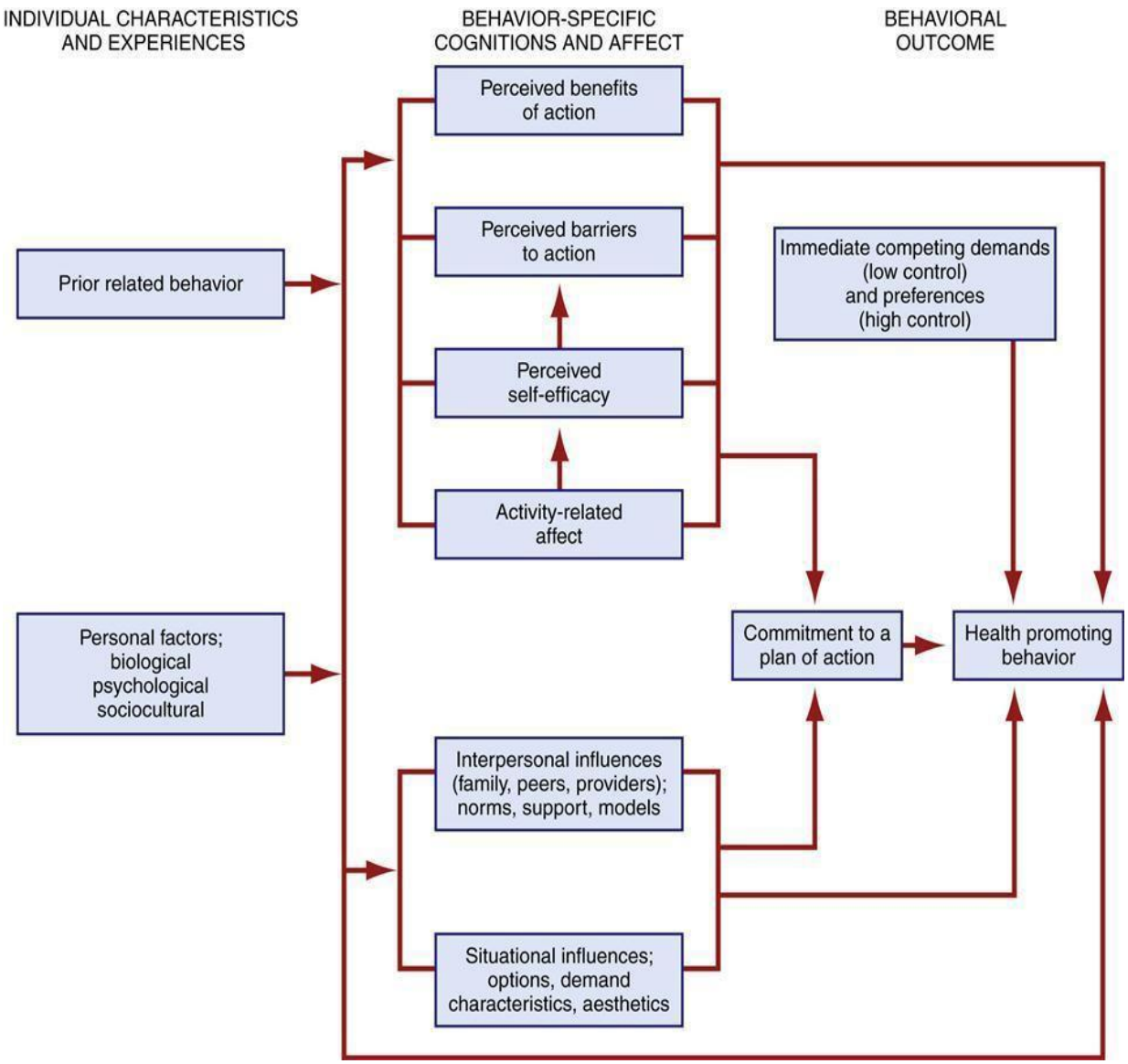
Conceptual Framework

Pender's (2011) health promotion model (HPM) is the guiding conceptual framework for this project. On an empirical basis, the HPM is derived from two views: the expectancy value theory and social cognitive theory. Expectancy value theory refers to a participant's engagement in acts that accomplish goals based on personal values and the ability to achieve them. Social cognitive theory relates to the thoughts, behaviors, and environments of an individual's daily interactions. The HPM was first introduced in 1982 but was revised in 1996 as experimental discoveries and unique custom philosophies created more solid nursing practices and interventions, produced more positive impacts, and influenced patient behavior (Pender, 2011).

According to Pender, to change one's behavior, an individual must change their thought process (Pender et al., 2010). The HPM describes behavior-specific cognitions, thoughts, and feelings regarding obstacles to and rewards for action (see Figure 1). Centered on Pender's theoretical framework, enacted interventions should allow NPs to practice health promotion—i.e., self-care—and BOS reduction in primary care. Based on Pender's HPM philosophical values, the use of burnout syndrome education not only decreases burnout but encourages the acceptance and continuity of healthy lifestyles. Inevitably, minimizing burnout syndrome and pressure among NPs in primary care could result in increased recruitment, better outcomes for patients, and enhanced employee satisfaction.

Figure 1

A Flowchart Showing Pender's Health Promotion Model



Note. Reprinted from *Health Promotion in Nursing Practice* (6th ed.), by N. J. Pender, C. L. Murdaugh and M. A. Parsons, 2010, Pearson. Reprinted with permission.

Intent to Leave and Retention

Healthy workforces foster healthy work environments: places wherein employees feel supported (Harris & Griffin, 2015). This is important because, at present, NPs are at an elevated

risk for BOS and low job satisfaction, resulting in high turnover rates (Kelly et al., 2017). The nationwide turnover rate for NPs is double that of physicians: 12.6% compared to 6%, respectively (Health Resources and Services Administration [HRSA], 2016). In two health systems studies of primary care clinicians and staff, conducted over a two to three-year period, Willard-Grace et al. (2019) found even higher turnover rates, with a reported 53% of clinicians reporting BOS. A qualitative study conducted by Brom et al. (2016) noted that many NPs found their first job stressful because of a lack of confidence and the feeling that they did not meet their team members' expectations. Feelings of anxiety, stress, and an absence of assistance are typical feelings for NPs who move into new roles as providers (Barnes, 2015b). Brom et al. (2016) suggested a direct link between satisfaction, stress, and an intent to stay. Faraz (2017) noted that a lack of time for relationships and the absence of peers could also lead to feelings of isolation outside work. Thus, the need for a burnout tool in primary care is necessary.

According to Barnes (2015a) and Faraz (2017), the successful training of an NP into their role increases job satisfaction and retention, thus reducing BOS. Reith (2018) mentioned that at an institutional level, BOS leads to greater job turnover and physicians' and nurses' increased thoughts about quitting. This may lead to reduced efficiency for the workforce. Organizations with NPs experiencing BOS may face several negative economic and social impacts, such as reduced productivity, high levels of absenteeism, and high levels of turnover. However, finding strategies to reduce BOS and keep nurses in the NP profession through early recognition, prevention, and education will improve retention (Harris & Griffin, 2015). Additionally, creating a culture of normalcy around BOS can foster a healthy work environment and improve overall relationships within the practice setting. On the other hand, failure to address burnout syndrome can impose significant financial burdens on individuals and organizations.

Burnout Syndrome

Currently, there is a lack of research that links burnout syndrome's impact among primary care NPs and other healthcare professionals (e.g., acute care NPs, physician assistants, etc.), and BOS may not be essentially related to nursing alone but can affect other healthcare workers as well. In fact, according to the literature, job dissatisfaction has been reported as a widespread workforce phenomenon, impacting many healthcare providers. Burnout syndrome is also an inherent risk for healthcare professionals due to the complexity of operating in highly stressful environments (Di Benedetto & Swadling, 2014; Dobie et al., 2016). Bridgeman et al. (2018) addressed BOS as a risk factor of the rising workload among practicing practitioners. Due to the complexity of the healthcare spectrum in patient workload, balancing job duties has often led to mental exhaustion and stress within the workplace (Magtibay et al., 2017). Nurse practitioners particularly struggle to cope with their increasingly complicated roles in caring for complex patients. Ideally, understanding BOS's impact appears to be essential in incorporating training and coping strategies in the profession.

Resiliency

Resilience is described as the ability to adapt coping skills that minimize distress and help individuals relieve moral distress and burnout syndrome (Antanaitis, 2015). Recognizing BOS and fostering resilience has increasingly become a concern (Shanafelt & Noseworthy, 2017). Strategies for creating resilience can improve personal strengths, which could reduce burnout syndrome's effects (Richez, 2014). It is more likely that primary care NPs may possibly mask their stress behind the fear of failure and disappointment among patients and colleagues. However, through the integration of resilience-focused coping mechanisms, these nurse practitioners can potentially eliminate complexities within the profession and decrease emotional

discomfort and BOS (Antanaitis, 2015). Guo et al. (2018) noted that adaptable and effective resilience-enhancing interventions are needed to alleviate burnout syndrome and reduce stress at NPs' workplaces. Kemper et al. (2015) has suggested that, by reducing BOS, a person may become more mindful of their thoughts in times of stress and improve their ability to adapt to the needs of their patients and themselves.

BOS and Quality of Care

New changes in healthcare delivery have raised concerns that provider BOS may continue if the increased patient load and administrative requirements keep outpacing available resources (Dyrbye et al., 2019). Nurse practitioners experiencing high levels of BOS may lose their ability to care for and connect with their patients. This can cause patient dissatisfaction with care and adverse reporting on clinic surveys (Harris & Griffin, 2015). Nurse practitioners with high BOS levels often self-report that they are less likely to deliver quality care, which impedes patient outcomes (Hinderer et al., 2014). Healthcare provider BOS could be considered a quality healthcare problem, but little is known about the consistency and magnitude of this relationship.

Burnout syndrome can be associated with many issues, not only for individual providers but for their employer organizations, patients, and the entire healthcare system. Nurse practitioners who are highly qualified to manage their patient care and provide safe and quality care are typically well-trained and transitioned into their roles by their organizations (Barnes, 2015a). Supportive organizations may enhance NPs' feelings of well-being, increase their job performance, and reduce retention.

Conclusion and Summary

Various studies support the initiation of workplace setting programs to combat BOS among NPs. Interventions and implementations to reduce BOS could improve outcomes in the

profession. The use of stress management training would be beneficial for reducing or eliminating BOS symptoms. It is essential to create and incorporate strategies within healthcare organizations that promote self-care, sustainability, and a culture of caring to benefit the staff. Nonetheless, more research is needed to explicitly discuss using burnout syndrome reduction techniques in primary care environments where NPs are practicing.

Scope and Limitations

This project's scope aimed to implement strategies to combat BOS, increase awareness, and promote self-care. The inclusion criteria are open to all genders over the age of 18 who are practicing primary care NPs in Texas and who both understand and can read English. Exclusion criteria include primary care NPs outside Texas under the age of 18 and unable to understand or read English. Limitations of this project include using a convenience sample to assess potential participants' attitudes and perceptions of burnout syndrome.

Chapter Summary

Burnout syndrome is prevalent in various fields of healthcare, including nursing. There is a need for ongoing awareness-raising and preventive initiatives for workers within healthcare organizations. Creating a culture where the avoidance of burnout syndrome is openly practiced and discussed will help NPs build proactive self-care strategies to enhance well-being and job satisfaction (Harris & Griffin, 2015). A study of previous burnout syndrome prevention strategies influenced the instructional curriculum and preventive methods (Pender, 2011).

Chapter 3: Methodology

The National Taskforce on Humanity in Healthcare estimates that almost one-third of healthcare workers suffer from burnout syndrome (Vocera Communications, 2018). The impact of BOS on patients and organizations is costly and undeniably detrimental. Work detachment and depersonalization may result in poorer patient interactions and, in turn, more medical errors, adverse events, and decreased patient satisfaction (Limb, 2019). Researchers note that, while there is strong evidence to suggest a connection between BOS and consequences for patient safety, there is a need for further study to understand the nature of this relationship (Limb, 2019).

Project Design

The research design for this scholarly project was a quantitative method with a descriptive design to analyze surveyed participants. The project's research design was nonexperimental and descriptive, and the type of analysis was quantitative. The rationale for this quantitative study was to assess attitudes and perceptions of NPs on BOS. According to Dyrbye et al. (2017), there could be obstacles for primary care NPs to evaluate themselves for BOS, and these obstacles need to be examined more closely. An online survey was available for primary care NPs for three weeks, with the selection based on convenience sampling. The answers were collected via SurveyMonkey© (see Appendix B) and computed via the Statistical Package for the Social Sciences (SPSS) version 26 (George & Mallery, 2020). The data from the survey was used in primary care settings to determine attitudes and views on NPs' BOS. Based on the research, evidence-based approaches may be developed to suggest potential strategies and procedures to enhance overall practice outcomes. In addition, the data obtained from this project may theoretically be applied in increasing BOS awareness.

Instrument and Measurement Tools

This project used the Copenhagen Burnout Inventory assessment tool for BOS designed by Dr. Tage Kristensen in 1999 (Sestili et al., 2018). The CBI assessment is a 19-questionnaire assessment with the inclusion of three subdimensions or domains: personal BOS, work-related BOS, and client BOS. The proposed CBI assessment survey focuses on past and present attitudes and perceptions. Each of the three domains consists of six to seven questions with a 5-point Likert scale response, which ranges between *always*, *often*, *sometimes*, *seldom,* and *never/rarely*. The CBI assessment tool is reliable and valid as it prospectively generates the same results given within a similar setting to represent evidence analysis. The authors Andrew Chin et al. (2018) and Borritz et al. (2006) corroborated the CBI assessment's reliability and validity at 88%.

Data Collection, Management, and Analysis Plan

This scholarly project initiated the CBI tool as the data instrument, consisting of a 19-question survey that assessed burnout syndrome as well as participants' perceptions of their abilities to regularly manage stressful circumstances (Sestili et al., 2018). The responses are recorded into 100, 75, 50, 25, and 0 ratings. Higher scores show a greater degree of burnout syndrome (Kristensen et al., 2005). The CBI is also divided into three subdimensions: personal BOS (M = 32.7, Cronbach's alpha = .80, SD = 15.7); job BOS (M = 31.7, Cronbach's alpha = .78, SD = 14.8); and client BOS (M = 36.6, Cronbach's alpha = .83, SD = 18.3), accordingly (Kristensen et al., 2015). Each dimension is viewed separately as a continuous variable. A research study on the Danish populations' personal burnout syndrome and the Motivation and Job Satisfaction Project offered clear evidence for the CBI's reliability.

The purposive convenience sampling of at least 65 Texas nurse practitioners was accessed through an email invitation (see Appendix C) to participate in this scholarly project

after institutional review board (IRB) approval (see Appendix D). The participants gained access to the survey via SurveyMonkey© (e.g., an online survey program). To minimize biases of the selected sampling, the primary investigator (PI) abided by the inclusion criteria linked to the survey via SurveyMonkey©. The survey began with the pre-19-question CBI tool assessment (see Appendix E), which measured perceptions on BOS via a Likert scale and was followed by an educational presentation on burnout syndrome via Prezi (see Appendix F). Prezi is an online presentation program similar to PowerPoint. Participants then retook the same 19-question CBI tool assessment to create their post answers. The goal was to focus on interventions and education designed to increase awareness and prevention strategies for primary care nurse practitioners who may be suffering from BOS.

The presentation survey and total presentation took approximately 20 minutes to complete. At the end of the CBI survey, the participants were given four demographic questions: age, gender, years of practice, and highest education, to which they had the choice not to respond. After SurveyMonkey© captured the responses, I transferred the collection of data to SPSS version 26 with the assistance of a statistician (George & Mallery, 2020). The plan involved using a paired *t* test to assess the relationship of the involved variables, identify gaps in awareness (perceptions), measure perceptions and attitudes of the primary care NP, and evaluate any commonalities of BOS screening use or nonuse in the primary care setting.

A Wilcoxon signed-rank test was used to determine whether there was a median difference between presurvey and postsurvey responses of primary care practitioners on each of the CBI items. This test was considered appropriate, as it is the nonparametric equivalent to the paired sampled *t* test and used when responses are recorded at the ordinal level—just as they were on the CBI (Kim & Mallory, 2014). It was chosen over the sign test because the individual

response distributions were evenly distributed. This chapter provides the findings from the project's data analysis. The online web-based research survey was available via SurveyMonkey© for three weeks. The collection of this data began after final approval from Abilene Christian University's Institutional Review Board.

Methodology Appropriateness

A quantitative method with a descriptive design was the selection method for this scholarly project. I utilized a convenience sampling of participants from the Texas Nurse Practitioners association through an email listing at a budget cost of $100.00 U.S. dollars. The effect size for each of the burnout syndrome scales utilized the projected power analysis calculated with SPSS version 26 for a sample size of approximately 65 participants. For each of the following sample size calculations, a paired *t* test analyzed the significance of each assessment at a projected value of alpha = 0.05.

Feasibility and Appropriateness

Through the planning stage, I engaged stakeholders at Patient's Choice, located in Dallas, Texas (see Appendix G), concerning the logistics of resources needed to deliver the educational session via Prezi presentation. Before the execution of the project, anticipated issues of implementation and efficiency were thoroughly evaluated. Evaluation of the reliability of the action strategy used to improve feasibility underwent continual assessment.

IRB Approval and Process

A certificate of completion was received upon completing ACU's Protecting Human Research Subjects and the EthicsCore training module (see Appendix H). I defended the proposal with the Doctor of Nursing Practice (DNP) committee and gained approval to submit

the proposal to ACU's IRB. An expedited IRB application was submitted. Approval of IRB was obtained prior to conducting any further research on this project.

Interprofessional Collaboration

Successful teams can improve patient outcomes and NPs' well-being. According to the Agency for Healthcare Research and Quality, "The main objective of medical teamwork is to improve the timely and effective use of knowledge, skills, and resources by healthcare providers to enhance the quality and safety of patient care" (AHRQ, 2016, p. 1). This study suggests that team-based support is an asset to the improvement of complex problems, and it can increase NPs' well-being. As the PI and employee, it was necessary to obtain an independent educator (proxy) to provide the study participants educational intervention. Collaboration with a Doctor of Nursing Practice mentor with <20 years of experience was instrumental in assisting with evidence-based education information for this project.

Practice Setting and Target Population

In 2019, Texas had 25,392 licensed nurse practitioners residing within the state (Texas Board of Nursing, 2019). There were approximately 76 primary care offices in the Dallas-Fort Worth and surrounding areas (Texas Health and Human Services, n.d.). This practice setting and target population best represented the my practice area and interest. Participation selection occurred through convenience sampling of actively licensed primary care nurse practitioners in the Dallas-Fort Worth area. The project setting was a web-based, electronic online survey**.**

Risks and Benefits

Human subjects were at minimal risk for this project. Some participants experienced minimal discomfort due to the topic (BOS) and the presentation, which included web-based photos of happy and sad expressions (see Appendix F). This project did not involve vulnerable

populations (e.g., children, prisoners, pregnant women, or those with mental disabilities). Participants were contacted by email through SurveyMonkey© via the Texas Nurse Practitioners association. Participants were given implied consent before entering the survey and were notified that their participation was optional, and they could voluntarily leave the study at any time without penalty.

All participants remained anonymous, as did their submitted responses. All unidentifiable participant response data remained in SurveyMonkey© on a secure encryption HTTPS in the form of responses, numbers, and statistics. The data collection after the survey was manually transferred from the SurveyMonkey© secured site to SPSS version 26 for my final analysis. I kept and secured all data via a password-protected digital file. The project data will be maintained for five years and then destroyed. The data collection began after final approval from the Abilene Christian University's Institutional Review Board. The project's benefit is for participants to recognize the need to become familiar with BOS, expand screening for BOS, and increase self-care interventions to prevent BOS. See Table 1 for the project timeline.

Table 1

Timeline

Date	Task
August 2019	Meet with DNP chair
September 2019	Initial DNP proposal
	Chapters 1–3
November 2019	Approval for mini-proposal
March 2020	Revised DNP proposal, Chapters 1–3
	Announcement of Defense Proposal
April 22, 2020	Defense proposal
June 2020	IRB submission
July 2020	Recruitment of participants and data collection
	Email blast of survey (includes invitation email, consent, and survey link to SurveyMonkey©)
August–Sept. 2020	Consult with chair for revisions DNP Proposal
November 2020	Raw data storage and data collection Inactivation completed
January–February 2021	Rough drafts of Chapter 4 & 5
May 2021	Final defense

Chapter Summary

Burnout syndrome is growing in complexity among my organization, and practices in North Texas are overwhelmed by patients and workloads. Responses from primary care NPs using the CBI assessment tool may lead to quality improvement interventions, education, the use

of burnout screening tools within primary care, and an understanding of burnout syndrome and its symptoms. Based on this project, evidence-based approaches may then be developed to create possible strategies, identify burnout syndrome, and enhance the program's overall outcomes. The analyzed data obtained from this scholarly project may potentially increase burnout syndrome awareness.

Chapter 4: Results

This chapter outlines the data analysis of the pre- and postsurvey research design to examine nurse practitioners' awareness, perceptions, and attitudes regarding burnout syndrome screening in the primary care setting. This project was composed using the Copenhagen Burnout Inventory tool. Participants completed a 19-question online pre- and postsurvey questionnaire followed by postsurvey responses concerning their awareness, perceptions, and attitudes related to BOS. The median difference between presurvey and postsurvey responses of primary care practitioners on each of the CBI items was determined using a Wilcoxon signed-rank test. This test was chosen since it is a nonparametric equivalent to the paired sampled *t* test and can be used when responses are reported at the ordinal stage, as they were on the CBI (Kim & Mallory, 2014). It was chosen over the sign test because the individual response distributions were evenly distributed. This chapter provides the findings from the project's data analysis.

Data Collection

The Texas Nurse Practitioners (TNP) association was utilized to recruit subjects for this scholarly project. The TNP distributed approximately 600 emails to consent and to enroll primary care nurse practitioners. Of these invitations, 128 nurse practitioners responded to the SurveyMonkey© link, yielding a response rate of 21%. Of those 128 responders, 101 met the inclusion criteria and were enrolled as project participants. Of those, 75 completed pre- and postsurvey questionnaires as well as the educational presentation. Twenty-six participants did not complete any portion of the scholarly project. As such, the participant base for this scholarly project was $N = 75$.

Participant Demographics

In terms of nurse practitioners, 98% (*n* = 125) self-identified as being certified family nurse practitioners licensed in Texas, and 81% (*n* = 101) worked part- or full-time in a primary care setting. With respect to education, 6.7% (*n* = 5) held a Ph.D., 13.3% (*n* = 10) held a DNP, and 80% (*n* = 60) held master's degrees. In terms of the level of experience, 5.3% (*n* = 4) had less than one year experience, 36% (*n* = 27) had between one and five years' experience, 13.3% (*n* = 10) had six to 10 years of experience, and 45.3% (*n* = 34) had greater than 10 years' experience.

There were 75 participants who answered enough items to be included in the analyses in this report. All 75 participants completely answered the demographic and burnout screening questions, and 75 participants answered most of the CBI questions (this will be discussed further in the sections where the CBI scores are analyzed). In addition to answering the Copenhagen Burnout Inventory before and after the survey and viewing the educational module, the participants were asked four demographic questions about their years of practice (see Table 2), highest degrees (see Table 3), ages (see Table 4), and genders (see Table 5). These variables are categorical (with each participant in one of several categories) and are summarized using frequency tables, which are appropriate for this type of data.

Table 2

Frequency Distribution of Participant Years of Practice

Years of practice	*n*	%
Less than one year	4	5.3
One to five years	27	36.0
Six to 10 years	10	13.3
10 years or more	34	45.3
Total	75	100.0

From Table 2, the most common years of practice category for participants was “10 years or more,” which was selected by 34 of the 75 participants (45.3%). The next most common category was “One to five years,” selected by 27 participants (36%). The least common selected by participants, “Less than one year,” was chosen by just four (5.4%) of the respondents.

Table 3

Frequency Distribution of Highest Degree Earned

Highest degree	*n*	%
Master’s degree	60	80.0
Doctor of Nursing Practice (DNP) degree	10	13.3
Ph.D. degree	5	6.7
Total	75	100.0

Table 3 shows that many participants’ maximum education is a master’s (60 participants, or 80% of the respondents); 13.3% have DNP degrees, and 6.7% have Ph.D. degrees.

Table 4

Frequency Distribution of Age

Age	*n*	%
26–49 years	38	50.7
50–65 years	31	41.3
Over 65 years	6	8.0
Total	75	100.0

From Table 4, approximately 38 participants, or 50.7% of all participants, reported their ages between 26 and 49. The next most common age category was 50–65 years (41.3%), and the smallest category was over 65 years (8%).

Table 5

Frequency Distribution of Gender

Gender	*n*	%
Female	65	86.7
Male	10	13.3
Total	75	100.0

As is common in the nursing world, Table 5 indicates that a majority of participants—86.7%—were female. The remaining 13.3% were male.

Data Analysis of Survey Results

Of the 75 participants, the mean and standard deviation were reported for both pre- and postsurvey responses and the results of the Wilcoxon signed-rank tests for each item on the 19-question CBI. These results analyzed the primary care nurse practitioners' perceptions of several CBI items before and after participating in the educational presentation.

Personal Burnout Items

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

Work-Related Burnout Items

7. Do you feel worn out at the end of the working day?
8. Are you exhausted in the morning at the thought of another day at work?
9. Do you feel that every working hour is tiring for you?

10. Do you have enough energy for family and friends during leisure time?
11. Is your work emotionally exhausting?
12. Does your work frustrate you?
13. Do you feel burnt out because of your work?

Client-Related Burnout Items

14. Do you find it hard to work with clients?
15. Does it drain your energy to work with clients?
16. Do you find it frustrating to work with clients?
17. Do you feel that you give more than you get back when you work with clients?
18. Are you tired of working with clients?
19. Do you sometimes wonder how long you will be able to continue working with clients?

Primary care nurse practitioners who received the educational training had a statistically significant median decrease in scores on five items from their presurvey and postsurvey answers, including personal burnout (PB) item 1: “How often do you feel tired?”; item 3: “How often are you physically exhausted?”; and item 5: “How often do you feel worn out?” This also occurred with work-related burnout (WRB) item 1: “Do you feel worn out at the end of the working day?”; and item 2: “Are you exhausted in the morning at the thought of another day at work?” The participants’ scores on client-related burnout (CRB) remained similar pre- and postsurvey (see Table 6).

Table 6

Results of the Wilcoxon Signed-Rank Tests

	Pretest (a)		Posttest (b)		Wilcoxon
Item	*M*	*SD*	*M*	*SD*	*p*
PB1	62.16	20.375	57.77	20.241	.007*
PB2	No data	No data	51.67	22.260	
PB3	58.00	21.810	52.67	22.351	.031*
PB4	36.33	23.715	35.33	26.024	.700
PB5	56.00	19.642	51.67	24.082	.100
PB6	27.00	19.608	25.34	20.057	.302
WB1	65.67	20.865	58.11	23.448	<.001*
WB2	44.00	27.213	39.67	27.599	.043*
WB3	33.33	26.423	34.67	25.959	.523
WB4	61.67	22.260	64.00	22.224	.227
WB5	57.33	22.426	53.67	22.016	.112
WB6	51.67	23.370	50.67	22.123	.503
WB7	44.67	24.760	42.00	27.620	.210
CB1	32.67	20.123	34.00	22.750	.700
CB2	40.67	20.039	41.33	21.550	.815
CB3	37.33	21.107	39.00	20.235	.607
CB4	53.12	29.946	51.33	27.229	.832
CB5	28.00	24.646	27.33	23.672	1
CB6	36.00	26.712	34.67	27.538	.700

Finally, each subscale was analyzed. Wilcoxon signed-rank tests were also used to determine whether there was a median difference between the pre- and postsurvey responses on each subscale of the CBI. Primary care nurse practitioners' perceptions of a burnout assessment tool changed after receiving education about the tool. Primary care nurse practitioners who received the educational training had a statistically significant decrease in the median scores on the PB (p = .006) and WRB subscales (p = .023) from pre- to postsurvey. Primary care nurse practitioners who received the educational training remained similar pre- and postsurvey on the CRB subscale (see Table 7).

Table 7

Pre- and Postsurvey Results

	Presurvey (a)		Postsurvey (b)		Wilcoxon signed-rank	
Scale	*M*	*SD*	*M*	*SD*	*Z*	*p*
PB	47.900	16.7556	44.4500	18.90280	-2.737	.006*
WRB	51.190	14.5882	48.952	16.1199	-2.270	.023*
CRB	37.933	18.8991	37.944	19.4299	- .618	.537

Perceptions of Burnout Screenings

The participants (N = 75) also responded to two questions about their perceptions of burnout screenings utilizing Likert-type response scales. These questions have a direct bearing on the overall purpose of the scholarly project and are summarized using frequency distributions. These responses are also included in a bar chart (see Figure 2).

Table 8 shows that the most common response to this item was *very important*, with 37.3% of respondents. Only one respondent said that burnout screening was *not at all important*;

the majority (66.7%) of the respondents said that burnout screening was either *very important* or *extremely important*.

Table 8

Frequency Distribution of Responses to Question #1

Response	*n*	%
Not at all important	1	1.3
Somewhat important	9	12.0
Moderately important	15	20.0
Very important	28	37.3
Extremely important	22	29.3
Total	75	100.0

Figure 2

Bar Chart of Responses to Question #1

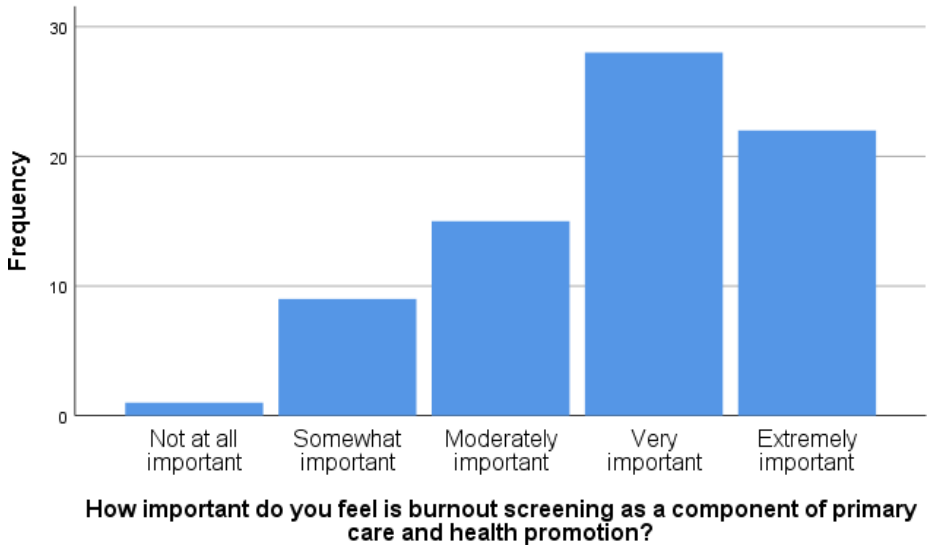


Table 9 shows that the most common response among respondents was *somewhat likely*, with 32% of respondents. Overall, just under half (48%) of respondents felt they were either *somewhat likely* or *extremely likely* to perform burnout screenings in their current practice.

Twenty percent felt they were *neither likely nor unlikely*, and the remaining 32% said they were *somewhat likely* or *not at all likely* to perform these screenings.

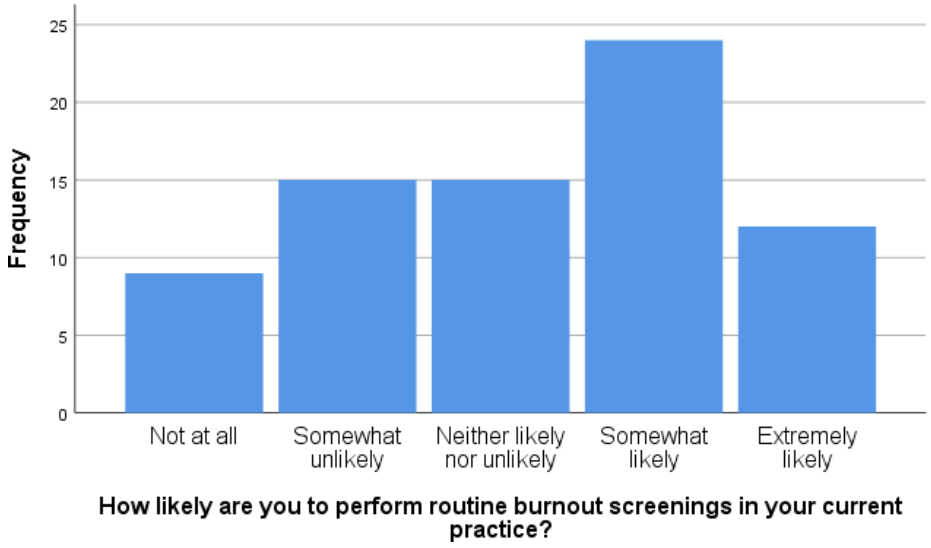
Table 9

Frequency Distribution of Responses to Question #2

Response	*n*	%
Not at all	9	12.0
Somewhat unlikely	15	20.0
Neither likely nor unlikely	15	20.0
Somewhat likely	24	32.0
Extremely likely	12	16.0
Total	75	100.0

Figure 3

Bar Chart of Responses to Question #2



Copenhagen Burnout Inventory Scores

The participants also responded to items from the CBI both before and after viewing an educational presentation on burnout. The CBI has a total of 19 Likert-type items; these are used to determine scores ranging from 0 to 100 on each of three subscales. Those subscales are the

personal burnout scale, the work-related burnout scale, and the client-related burnout scale. The personal burnout and client-related burnout scales are meant to be determined from six items each, and the work-related burnout scale is meant to be determined from seven items. Unfortunately, participants skipped the second item on the personal burnout scale for the preintervention scores. Only the five items included in both versions were included in calculating the personal burnout scores for these participants.

Of the $N = 75$ participants included in the analyses, $n = 68$ of them responded to all 18 of the included items at both pre- and postintervention. The remaining $n = 7$ participants did not answer exactly one item each. The item that was not answered varied across the participants, although three of them did not answer the client-related burnout question on the pretest: “Do you feel that you give more than you get back when you work with clients?” This appears to be coincidental and not caused by any issues with the testing instrument. Scores were calculated by averaging the answers to the items that each participant did respond to.

Table 10 includes summary statistics for the three CBI subscale scores. These statistics are provided for pre- and postintervention and describe the changes between pre- and postintervention. These changes were calculated for each individual, then summarized for all individuals. These summary statistics are appropriate when variables are numeric, like the CBI subscale scores.

Table 10

Summary Statistics of Copenhagen Burnout Inventory Scores

Scale	Time	*M*	*Mdn*	*SD*	Minimum	Maximum
Personal Burnout	Pre	47.90	45.00	16.76	0.00	95.00
	Post	44.45	45.00	18.90	0.00	95.00
	Change	-3.45	0.00	10.08	-35.00	15.00
Work-Related Burnout	Pre	51.19	53.57	14.59	14.29	85.71
	Post	48.95	50.00	16.12	10.71	85.71
	Change	-2.24	-3.57	7.67	-28.57	14.29
Client-Related Burnout	Pre	37.93	41.67	18.90	0.00	83.33
	Post	37.94	41.67	19.43	0.00	83.33
	Change	0.01	0.00	7.63	-29.17	12.50

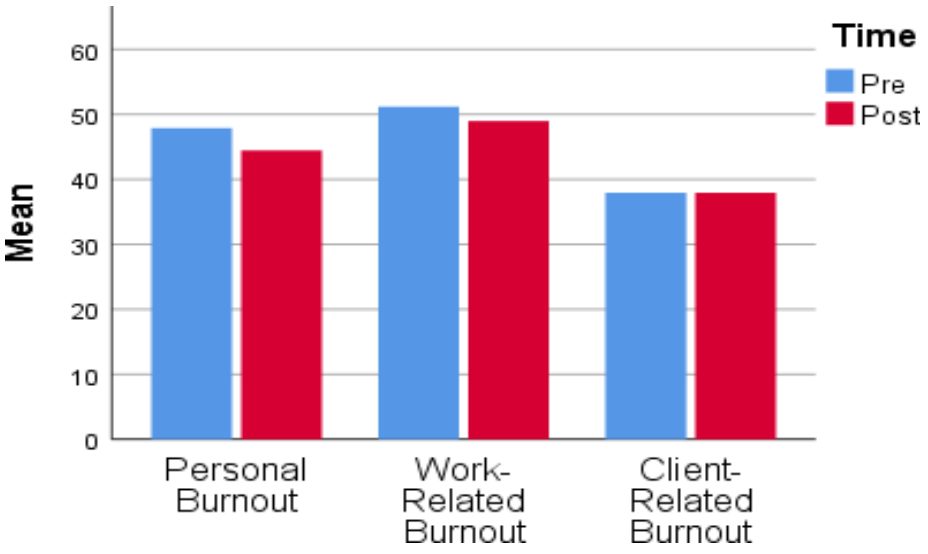
Statistics of CBI Scores

- The mean is the average value of the score; for example, the personal burnout mean score decreased from 47.90 to 44.45 (an average decrease of 3.45).
- The median is another way to describe a "typical" response, and it is the score that would be in the middle if they were all lined up from smallest to largest (also called the 50th percentile). For example, the median pre- (and post) intervention score for personal burnout was 45, meaning that 50% of those who took it scored 45 or higher, and 50% scored 45 or lower.
- The standard deviation is a way of describing the scores' variability from each other; for example, the standard deviation of 16.76 on the preintervention personal burnout score means that a "typical" participant scored within 16.76 points of the average score of 47.90.

- The minimum and maximum are (respectively) the smallest and largest scores; as an example, the lowest preintervention personal burnout score was 0, and the highest score was 95.

Figure 4

Bar Chart of Mean CBI Subscale Scores Pre- and Postintervention



The mean personal burnout and work-related burnout scores decreased from pre- to postintervention, but the mean client-related burnout score (which was also the lowest score) remained stable.

Statistical Test and Analyses

Prior to running statistical analyses, it was determined that the analysis was appropriate. A paired *t* test was used in this scholarly project. This test is appropriate when the outcome (here, the subscale scores) is numeric and there are paired observations. In this case, paired observations exist because each person has a pre- and postintervention score. The paired *t* test also requires a normal distribution of the differences. A test called the “Shapiro-Wilk” test was

conducted to determine whether the scores were approximately normally distributed. The results are in Table 11.

Table 11

Results of Shapiro-Wilk Tests of Normality

Scale	W	*df*	*p*
Personal Burnout	0.930	75	< .001
Work-Related Burnout	0.959	75	.016
Client-Related Burnout	0.897	75	< .001

There are three statistics provided for each of the scores to determine whether the changes (summarized in Table 10) are normally distributed. The W statistic can range from 0 to 1; the closer it is to 1, the more the sample changes resemble data that could be produced by a normal distribution. The degrees of freedom (*df*) represent how much "information" is available to run the test. For the Shapiro-Wilk test, the *df* is equal to the sample size. Finally, the *p* value is how a result is determined based on the significance.

As an example of interpreting a *p* value, the *p* value of < .001 for personal burnout means there is a less than 0.1% chance that a normal distribution could produce data as "nonnormal" as the changes in personal burnout scores seen in this data set. Therefore, it concludes that these data results probably were not produced by a normal distribution because this probability is so small. The *p* values for work-related burnout and client-related burnout would lead to similar conclusions. Because of the paired *t* test, a nonparametric test that does not make any specific assumptions about the distribution of the changes was the most appropriate.

The results of the nonparametric sign test for each of the subscale scores are included in Table 12.

Table 12

Results of Sign Tests of Changes in Scores

Scale	Z	*p*
Personal Burnout	-2.157	.031
Work-Related Burnout	-1.625	.104
Client-Related Burnout	-0.971	.332

There are two statistics for each score. The Z statistic is a standardized version of the typical difference in scores demonstrated by the participants; this statistic is not interpreted directly. The *p* value is, once again, used to determine whether the differences in the pre- and postimplementation scores are statistically significant. As an example, the *p* value for personal burnout scores is $p = .031$, which means if there has been no true underlying change in how the respondents perceive their personal burnout. There is a 3.1% chance that changes would have been seen at least as large as the ones shown in this sample of participants. That is generally considered small (.05 is the "traditional" cutoff), and therefore, it can be concluded that there *has* been an underlying change in perceptions of personal burnout.

Correlational Analyses

Spearman's rho and point-biserial correlation analyses demonstrated that no significant pairwise correlations existed between the personal, work-related, or client-related burnout scores (i.e., pre, post, and change) and the primary care nurse practitioners' experience and demographic variables (see Tables 13–24).

Personal Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variables

Spearman's rho and point-biserial correlation analyses demonstrated that no significant pairwise correlations existed between personal burnout scores (i.e., pre, post, and change) and the primary care nurse practitioners' experience and demographic variables (see Table 13).

Table 13

Correlation Matrix for Personal Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variables

Demographic variable	PB Pre	PB Post	PB Change
Gender	.181	.196	-.010
Age	-.057	-.013	.146
Degree	-.073	-.059	.055
Years of Practice	-.168	-.181	.004

Work-Related Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variables

Spearman's rho and point-biserial correlation analyses demonstrated that no significant pairwise correlations existed between the work-related burnout scores (i.e., pre, post, and change) and the primary care nurse practitioners' experience and demographic variables (see Table 14).

Table 14

Correlation Matrix for Work-Related Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variables

Demographic variable	WRB Pre	WRB Post	WRB Change
Years of Practice	-.176	-.185	-.108
Degree	-.100	-.070	-.010
Age	.074	-.024	-.221
Gender	.125	.100	-.018

Client-Related Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variables

Spearman's rho and point-biserial correlation analyses demonstrated that no significant pairwise correlations existed between the client-related burnout scores (i.e., pre, post, and change) and the primary care nurse practitioners' experience and demographic variables (see Table 15).

Table 15

Correlation Matrix for Client-Related Burnout Scores and Primary Care Nurse Practitioners' Experience and Demographic Variable

Demographic variable	CRB Pre	CRB Post	CRB Change
Years of Practice	-.189	-.215	-.028
Highest Degree	-.134	-.087	-.006
Age	-.097	-.148	.001
Gender	.073	.113	.116

Additional Analyses: Cross-Tabulation Tables and Fisher's Exact Tests

Two additional postsurvey questions were examined with further analyses. Cross-tabulation tables and Fisher's exact tests were used to examine primary care nurse practitioners'

responses to the question, "How important do you feel is burnout screening as a component of primary care and health promotion?" by gender, age, degree, and years of practice.

Gender. Most men (60% of men) and women (67.7% of women) believed that a burnout screening is an *extremely important* or *very important* component of primary care and health promotion. The observed frequencies and percentages within each gender for both male and females' responses are presented in Table 16. Fisher's exact tests with a Bonferroni correction demonstrated that males and females did not significantly differ in their response choices for this question, $p = .580$.

Table 16

Responses by Gender for Question #1

Item response	Women (n = 65)	Men (n = 10)	Total (N = 75)
Extremely important	18 (27.7%)	4 (40.0%)	22 (29.3%)
Very important	26 (40.0%)	2 (20.0%)	28 (37.3%)
Moderately important	13 (20.0%)	2 (20.0%)	15 (20.0%)
Somewhat important	7 (10.8%)	2 (20.0%)	9 (12.0%)
Not at all important	1 (1.5%)	0 (0.0%)	1 (1.3%)

Age. More than half (66.6%) of the nurse practitioners reported that a burnout screening is an *extremely important* or *very important* component of primary care and health promotion, and all primary care nurse practitioners over the age of 65 reported that they believed the burnout screening was either *extremely important* or *very important* (n = 6, 100%). Only a few primary care nurse practitioners (n = 10, 13.3%) between the ages of 26 and 65 reported that the screening was only *somewhat important* or *not important at all*. However, Fisher's exact tests with a Bonferroni correction demonstrated that primary care nurse practitioners' responses to the question did not significantly differ based on their age group, $p = .679$. The observed frequencies and percentages of responses within each age group are presented in Table 17.

Table 17

Responses by Age for Question #1

Item response	26–49 years	50–65 years	Over 65 years	Total (*N* = 75)
Extremely important	10 (26.3%)	8 (25.8%)	4 (66.7%)	22 (29.3%)
Very important	14 (36.8%)	12 (38.7%)	2 (33.3%)	28 (37.3%)
Moderately important	9 (23.7%)	6 (19.4%)	0 (0.0%)	15 (20.0%)
Somewhat important	4 (10.5%)	5 (16.1%)	0 (0.0%)	9 (12.0%)
Not at all important	1 (1.5%)	0 (0.0%)	0 (0.0%)	1 (1.3%)

Degree. Additionally, the majority of DNP-holding (60%), Ph.D.-holding (80%), master's degree-holding (66.7%), and female participants (67.7%) believed that a burnout screening is an *extremely important* or *very important* component of primary care and health promotion. Fisher's exact tests with a Bonferroni correction demonstrated that primary care nurse practitioners' degree types did not significantly influence their response choices for this question, $p = .851$. The observed frequencies and percentages for each category of responses within each degree type are presented in Table 18.

Table 18

Responses by Degree Type for Question #1

Item response	DNP degree	Ph.D. degree	Master's degree	Total (*N* = 75)
Extremely important	2 (20.0%)	1 (20.0%)	19 (31.7%)	22 (29.3%)
Very important	4 (40.0%)	3 (60.0%)	21 (35.0%)	28 (37.3%)
Moderately important	3 (30.0%)	0 (0.0%)	12 (20.0%)	15 (20.0%)
Somewhat important	1 (10.0%)	1 (20.0%)	7 (11.7%)	9 (12.0%)
Not at all important	0 (0.0%)	0 (0.0%)	1 (1.7%)	1 (1.3%)

Years of Practice. Again, the majority of nurse practitioners (66.6%) believed that a burnout screening is an *extremely important* or *very important* component of primary care and health promotion, and all primary care nurse practitioners who had less than a year's experience

in the field believed that the burnout screening was *extremely* or *very important*. The observed frequencies and percentages for each category of responses across each primary care nurse practitioner's years-of-experience category are presented in Table 19. Fisher's exact tests with a Bonferroni correction demonstrated that primary care nurse practitioners' degree types did not significantly influence their response choices for this question, $p = .877$.

Table 19

Responses by Years of Practice for Question #1

Item response	Less than one year	One to five years	Six to 10 years	10 years or more	Total (N = 75)
Extremely important	3 (75.0%)	7 (25.9%)	2 (20.0%)	10 (29.4%)	22 (29.3%)
Very important	1 (25.0%)	11 (40.7%)	4 (40.0%)	12 (35.3%)	28 (37.3%)
Moderately important	0 (0.0%)	6 (22.2%)	2 (20.0%)	7 (20.6%)	15 (20.0%)
Somewhat important	0 (0.0%)	2 (7.4%)	2 (20.0%)	5 (14.7%)	9 (12.0%)
Not at all important	0 (0.0%)	1 (3.7%)	0 (0.0%)	0 (0.0%)	1 (1.3%)

Cross-tabulation tables and Fisher's exact tests were also used to examine primary care nurse practitioners' responses to the question, "How likely are you to perform routine burnout screenings in your current practice?" by gender, age, degree, and years of practice.

Gender. The majority of males and females believed that a burnout screening is an important component of primary care and health promotion; however, only 10 women (15.4%) and two men (20%) reported that they were *extremely likely* to perform a burnout screening in their practice. That is, only 16% (n = 12) of the primary care nurse practitioners surveyed said they were likely to perform the screening. The observed frequencies and percentages within each gender for both males' and females' responses are presented in Table 20. Fisher's exact tests (2 x 2) with a Bonferroni correction demonstrated that males and females did not statistically significantly differ in their response choices for this question, $p = .888$

Table 20

Responses by Gender for Question #2

Item response	Women (*n* = 65)	Men (*n* = 10)	Total (*N* = 75)
Extremely likely	10 (15.4%)	2 (20.0%)	12 (16.0%)
Somewhat likely	22 (33.8%)	2 (20.0%)	24 (32.0%)
Neither likely or unlikely	13 (20.0%)	2 (20.0%)	15 (20.0%)
Somewhat unlikely	12 (18.5%)	3 (30.0%)	15 (20.0%)
Not at all	8 (12.3%)	1 (10.0%)	9 (12.0%)

Age. A little less than half (48%) of the nurse practitioners reported that they were either *extremely likely* or *somewhat likely* to perform burnout screenings; however, it is interesting to note that within the over 65 age group, all of the nurse practitioners reported that they were either *extremely likely* or *somewhat likely* to perform burnout screenings (*n* = 6, 100%). The observed frequencies and percentages for each response within each age group are presented in Table 21. Fisher's exact tests with a Bonferroni correction demonstrated that age groups did not significantly differ in their response choices for this question, $p = .071$.

Table 21

Responses by Age for Question #2

Item response	26–49 years (*n* = 38)	50–65 years (*n* = 31)	Over 65 years (*n* = 6)	Total (*N* = 75)
Extremely likely	3 (7.9%)	6 (19.4%)	3 (50.0%)	12 (16.0%)
Somewhat likely	16 (42.1%)	5 (16.1%)	3 (50.0%)	24 (32.0%)
Neither likely or Unlikely	8 (21.1%)	7 (22.6%)	0 (0.0%)	15 (20.0%)
Somewhat Unlikely	7 (18.4%)	8 (25.8%)	0 (0.0%)	15 (20.0%)
Not at all	4 (5.3%)	5 (6.7%)	0 (0.0%)	9 (12.0%)

Degree. The observed frequencies and percentages for each response within each degree group are presented in Table 22. Fisher's exact tests with a Bonferroni correction demonstrated that primary care nurse practitioners' degree types did not significantly influence their response

choices for this question, $p = .170$. However, while 60% of Ph.D. holders were *extremely likely* or *somewhat likely* to perform routine burnout screenings, only 20% of DNP holders and 41.6% of master's degree holders were *extremely likely* or *somewhat likely* to perform the screenings.

Table 22

Responses by Degree for Question #2

Item response	DNP degree	Ph.D. degree	Master's degree	Total ($N = 75$)
Extremely likely	0 (0.0%)	1 (20.0%)	11 (18.3%)	12 (16.0%)
Somewhat likely	2 (20.0%)	2 (40.0%)	20 (33.3%)	24 (32.0%)
Neither likely or unlikely	4 (40.0%)	1 (20.0%)	10 (16.7%)	15 (20.0%)
Somewhat unlikely	1 (10.0%)	0 (0.0%)	14 (23.3%)	15 (20.0%)
Not at all	3 (30.0%)	1 (20.0%)	5 (8.3%)	9 (12.0%)

Years of Experience. Finally, the observed frequencies and percentages for each response within the years of experience group are presented in Table 23. Fisher's exact tests with a Bonferroni correction demonstrated that primary care nurse practitioners' years of experience did not significantly influence their response choices for this question, $p = .397$.

Table 23

Responses by Years of Experience for Question #2

Item response	Less than one year	One to five years	Six to 10 years	10 years or more	Total ($N = 75$)
Extremely likely	2 (50.0%)	2 (7.4%)	1 (10.0%)	7 (20.6%)	12 (16.0%)
Somewhat likely	1 (25.0%)	12 (44.4%)	3 (30.0%)	8 (23.5%)	24 (32.0%)
Neither likely or unlikely	1 (25.0%)	6 (22.2%)	2 (20.0%)	6 (17.6%)	15 (20.0%)
Somewhat unlikely	0 (0.0%)	3 (11.1%)	4 (40.0%)	8 (23.5%)	15 (20.0%)
Not at all	0 (0.0%)	4 (14.8%)	0 (0.0%)	5 (14.7%)	9 (12.0%)

Finally, the observed frequencies and percentages for each response within each question are presented in Table 24. Fisher's exact tests with a Bonferroni correction demonstrated that

primary care nurse practitioners' ratings of burnout screenings' importance were significantly associated with their reported likelihood of performing burnout screenings, $p = .001$. For example, if primary care nurse practitioners were to indicate that burnout screening was important, then they were more likely to perform a burnout screening. Seventy-five percent of primary care nurse practitioners who rated the burnout screening as *extremely important* reported that they were *extremely likely* to perform a burnout screening.

Table 24

Cross-Tabulation Table Demonstrating Responses to Two Questions

Item responses	How likely are you to perform routine burnout screenings in your current practice?					
How important	Extremely likely	Neither likely nor unlikely	Not at all	Somewhat likely	Somewhat unlikely	Total
Extremely important	9	3	1	7	2	22
% within	75.0%	20.0%	11.1%	29.2%	13.3%	29.3%
Moderately important	0	5	2	3	5	15
% within	0.0%	33.3%	22.2%	12.5%	33.3%	20.0%
Not at all important	0	0	1	0	0	1
% within	0.0%	0.0%	11.1%	0.0%	0.0%	1.3%
Somewhat important	0	3	3	0	3	9
% within	0.0%	20.0%	33.3%	0.0%	20.0%	12.0%
Very important	3	4	2	14	5	28
% within	25.0%	26.7%	22.2%	58.3%	33.3%	37.3%

Question Guiding the Inquiry

The primary PICOT question investigated for this scholarly project was: Does the implementation of an educational burnout assessment tool improve the perceptions and attitudes

related to burnout among primary care nurse practitioners compared to no burnout assessment tool? This scholarly project focused on assessing the gaps in BOS awareness in primary care nurse practitioners. Such gaps could affect NPs' attitudes and perceptions on burnout screening tools such as the CBI.

Conclusion

The results demonstrate that primary care nurse practitioners' perceptions of several CBI items changed after receiving education. Primary care nurse practitioners who received the educational training had a statistically significant median decrease in scores on five items between pre- and postsurvey, including personal burnout items 1, 3, and 5, and work-related burnout items 1 and 2. Primary care nurse practitioners' perceptions of a burnout assessment tool changed before and after receiving education about the tool's two subscales. Primary care nurse practitioners who received educational training had a statistically significant median decrease in scores on the PB ($p = .006$) and WRB subscales ($p = .023$) from pre- to postsurvey. When primary care nurse practitioners indicated that the burnout screening was important, they were more likely to report that they would perform a burnout screening. Based on the data results, there has been a statistically significant change in personal burnout scores following the educational intervention.

Chapter 5: Discussion of Findings

This quantitative scholarly project was conducted to determine the perceptions and attitudes of nurse practitioners regarding burnout syndrome screening and awareness in the primary care settings and strategies to assess and address BOS. Early recognition of BOS could be beneficial for NPs in primary care settings as they are an essential component of the healthcare realm and have a direct impact on patient safety and well-being of NPs. This chapter discusses the project findings, the implications to NPs, their patients, and healthcare leaders. Recommendations will be provided for primary care NPs as well as future studies.

Use of HPM Within the Project

This scholarly project emphasized health promotion, and the results are connected to the project's theoretical framework health promotion model. The HPM employs six concepts to predict health behavior: perceived susceptibility, perceived severity, perceived benefits, perceived threats, barriers to action, and self-efficacy (Pender et al., 2010). This project utilized each concept as follows:

- *Perceived Susceptibility*: Primary care NPs recognized they were more susceptible to BOS if not addressed.
- *Perceived Severity*: Primary care NPs realized that not addressing BOS could create short- and long-term harm to themselves as well as to the safety of their patients.
- *Perceived Benefits*: Primary care NPs were aware that a burnout assessment tool might be a good way to combat BOS.
- *Barriers to Action*: Self-care strategies and techniques were discussed, and the primary care NP's best way to avoid BOS was to practice self-care.

- *Perceived Threats*: Primary care NPs' failure to understand the severity and potential detriment of unrecognized BOS to themselves, their organizations, and the safety of their patients.
- *Self-Efficacy*: The education given during the project reiterated the importance of eliminating BOS.

Correlation With Literature

According to numerous nursing and physician reports, variables such as workload, workplace climate, and life circumstances all play roles in BOS. Consequences of BOS include job dissatisfaction, poor quality of life, and unfavorable patient outcomes. Literature on BOS is common; however, few research studies specifically focus on nurse practitioners in primary care settings (Kapu et al., 2019; Werneburg et al., 2018). This scholarly project's findings supported existing literature findings based on primary care NPs' responses to the CBI 19 pre- and postintervention questions about BOS awareness.

BOS Characteristics Improved Following Education

The 19-questions about nurse practitioners' attitudes included information about their perceptions of burnout and their likelihood of using a burnout assessment tool. Primary care nurse practitioners who received the Prezi educational training had a statistically significant decrease in scores from their pre- to postsurvey answers on five items, including personal burnout (PBO) items (1) "How often do you feel tired," (3) "How often are you physically exhausted," and (5) "How often do you feel worn out"; and work-related burnout (WRB) items (1) "Do you feel worn out at the end of the working day" and (2) "Are you exhausted in the morning at the thought of another day at work?" Participants' ability to identify BOS

characteristics improved following the educational intervention; however, their scores were greater impacted by the personal burnout subcategory.

Burnout syndrome has significant personal and professional implications, including patient safety, satisfaction, and employee retention (Hunsaker et al., 2015). Primary care NPs' perceptions of the burnout assessment tool changed before and after receiving education about the tool. Primary care NPs who received the educational training also had a significant decrease in presurvey scores to postsurvey on the PBO and WRB subscales. Based on this project's results, organizations with NPs experiencing BOS may face adverse economic and social consequences, including decreased productivity and higher turnover rates. As such, individuals and organizations will face substantial financial costs if they do not address BOS. On the other hand, finding ways to minimize BOS and keep NPs in the primary care setting through early detection, prevention, and education would support retention (Harris & Griffin, 2015). By fostering a safe work environment and improving overall relationships within the practice setting, burnout screening will promote a culture of normalcy. Nurse practitioners can also implement daily self-care activities to reduce their own risk of BOS. Yet, in spite of these findings, more research is required to handle BOS reduction strategies in NP-practice primary care settings specifically.

Correlational Analysis

This scholarly project examined relationships between the variables to identify gaps in awareness. It also measured primary care NPs' perceptions and attitudes and searched for any commonalities in the use and nonuse of BOS screening in primary care. Utilizing a Likert-type scale, participants responded to two additional questions about their perceptions of burnout screening after their educational intervention. The two questions were "How important do you

feel is burnout screening as a component of primary care and health promotion?" and "How likely are you to perform routine burnout screenings in your current practice?" These findings have a direct bearing on the purpose of this scholarly project. Sixty-six percent of respondents felt it was *extremely important* or *very important* to screen for burnout. Only one respondent felt that burnout screenings were *not at all important*. Overall, just under half (48%) of respondents felt they were *somewhat likely* or *extremely likely* to perform routine burnout screenings in their current practice. Only 32% of respondents thought they would be *somewhat likely* to perform burnout screenings in their everyday practice. The remaining 20% felt they were *neither likely nor unlikely* to perform burnout screenings.

Cross-Tabulation Tables

Correlation analysis was conducted to determine whether there were any meaningful correlations between personal, work-related, or client-related burnout scores and the experience and demographic variables of the primary care NP. This scholarly project revealed no significant correlation between personal, work-related, or client-related burnout scores and primary care NPs' years of experience, ages, genders, or degrees. With the help of additional analyses, two postsurvey questions were investigated.

1. **"How important do you feel is burnout screening as a component of primary care and health promotion?"**

In using gender, age, degree, and years of experience, cross-tabulation tables analyzed primary care NPs' responses to the question "How important do you feel is burnout screening as a component of primary care and health promotion?" A burnout screening is an *extremely important* part of primary care and health promotion, according to the majority of men (60%) and women (67%). Burnout screening was deemed *extremely important* or *very important* by all

(100%) primary care NPs in the over 65 age group. In comparison, screening was considered to be *somewhat important* or *not important at all* by a small percentage of primary care NPs in the 26–65 age group (13.3%). According to Fisher's exact test, primary care NPs' answers to the question did not statistically vary depending on their age group. Furthermore, the majority of DNPs (60%), Ph.D.s (80%), and master's degree holders (66.7%), as well as females (67.7%), agreed that a burnout screening is an *extremely important* or *very important* aspect of primary care and health promotion. According to Fisher's exact test, primary care NPs' answers to the question did not statistically vary depending on their degree type. Burnout screening was deemed *extremely important* or *very important* by all primary care NPs with less than one year of experience in the field. These results are exceptionally vital for novice primary care NPs. In previous literature, new NPs faced feelings of anxiety, stress, and an absence of assistance as they transitioned into their new roles as providers (Barnes, 2015b). This awareness by novice primary care NPs can create opportunities for them to use strategies that decrease their BOS chances. Burnout screening was *extremely important* or *very important* to the remaining primary care NPs with more than one year of experience (66.6%).

2. **"How likely are you to perform routine burnout screenings in your current practice?"**

Primary care NPs' responses to the question "How likely are you to perform routine burnout screenings in your current practice?" were analyzed using cross-tabulation tables by gender, age, degree, and years of experience. While most males and females agreed that burnout screening is an essential component of primary care and should be performed regularly, only 15.4% of women and 20% of men said they were *extremely likely* to implement one in practice. Just 16% of polled primary care NPs said they were *extremely likely* to conduct the screening.

Forty-eight percent of NPs said they were either *extremely likely* or *somewhat likely* to conduct routine burnout screenings; however, it is worth noting that all (100%) of the NPs in the over 65 age group said they were either extremely likely or somewhat likely to conduct routine burnout screenings. Just 20% of DNP holders and 51.6% of master's degree holders were *highly likely* or *somewhat likely* to conduct regular burnout screenings, compared to 60% of Ph.D. holders who were *extremely likely* or *somewhat likely* to do so. The importance of burnout screenings was strongly related to the probability of performing a burnout screening by primary care NPs. Seventy-five percent of primary care nurse practitioners who rated routine burnout screenings as *highly significant* said they were *extremely likely* to do so.

Implications of Analysis for Leaders

Burnout syndrome is a phenomenon that has been associated with adverse patient and safety outcomes (Limb, 2019). In virtually every healthcare system, quality patient care and safety are essential, and healthcare systems' financial well-being is at the forefront of every executive's mind. Although nurse practitioners may be one of the most critical components of patient care and safety outcomes, NPs are not always a high priority among healthcare systems' financial standings.

The development of BOS awareness programs for NPs promotes whole health within organizations, encourages NP self-care, and shows support in the face of an ever-changing healthcare system where working conditions often foster stressful situations. Nursing leadership must prioritize educating primary care NPs on the benefits of identifying and evaluating BOS and incorporating self-care activities into the fabric of nursing life. Implementing a BOS awareness program within an organization can help primary care NPs develop essential skills that will enable them to be present for themselves and their patients.

Evidence-Based Practice Findings and Relationship to DNP Essentials (I-VIII)

The DNP Essentials are curricular elements and standards created by the American Association of Colleges of Nursing to ensure quality in nursing programs. Attainment of the DNP Essentials is required for graduation and can be demonstrated within the DNP project. Within this scholarly project, the DNP Essentials I-VIII are exhibited in several examples. A discussion of the relationships between the DNP Essentials and aspects of this project can be seen by evaluating how each essential concentrates on change that can influence healthcare outcomes through direct or indirect care and changes within an organization (VanderKooi et al., 2018).

Essential I: Scientific Underpinnings for Practice

The theoretical structure of the health promotion model was used as the basis for developing this scholarly project. For a direct connection with the project idea, the initial rendition of this model relating to the concepts of its theory was made. This interpretation compares how this scholarly project covers a portion of the research that is useful to nurse practitioners and their need to know about burnout syndrome. This helps researchers better understand how education on burnout syndrome can be effective in improving the quality of care administered by healthcare providers.

Essential II: Organizational and System Leadership

This refers to the creation and maintenance of sustainable progress needs and observable results for the redesign of practical and effective care with organizational, cultural, and financial support. Caring for both the provider and the patient is consistent with Bodenheimer and Sinsky's (2014) Quadruple Aim, which addresses the need to enhance community health, improve the patient experience, and minimize healthcare costs, all while considering NPs' well-

being. Nurse practitioners' burnout syndrome shows itself in decreased work satisfaction, higher turnover, and increased sick days, all of which affect patient safety, satisfaction, and cost containment (Brom et al., 2016; Willard-Grace et al., 2019). In this scholarly project, addressing BOS implied that transparency for patients and nurse practitioners is an important issue for personal well-being, quality of life, and protection.

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

Scholarship and research with an emphasis on human well-being are implemented in nursing practice. The gathered data provided a foundation of evidence for potential research into the impact of BOS in primary care settings. Published literature supports the need for BOS screening and its effects in the primary care setting.

Essential IV: Information Systems and Technology and Patient Care Technology for the Improvement and Transformation of Healthcare

This shows how information technology improves patient care outcomes (Chism, 2019). The DNP graduate is equipped with the ability to use information technology to improve patient care quality and introduce and monitor the enhancement of procedures. Gathering accurate data to produce evidence for nursing practice and evaluating programs of care for BOS was essential for providing accurate data outcomes and assessing potential risks for BOS development. Further research should be conducted to assess the technologies accessible to NPs' use for BOS screening.

Essential V: Healthcare Policy for Advocacy

This scholarly project's findings showed the need for the improvement of primary care nurse practitioner strategies at both the systemic and clinical levels. A DNP graduate is capable of examining policy from the viewpoints of patients, providers, and other healthcare stakeholders

(American Association of Colleges of Nursing [AACN], 2006, 2019). A DNP graduate must also be able to communicate with public officials and advocate for policies that improve population health. Policies that advocate for prevention, reduction, and education can help reduce BOS and improve the overall health and well-being of primary care nurse practitioners. Nurse practitioner BOS is a worldwide epidemic, and when it comes to finding alternatives to burnout, facilities and nursing associations must have a clear voice when advocating for NPs and healthcare policies. As is, the individual NP is faced with uncertainties and overburdening changes that directly affect the quality of patient care as well as the financial viability of healthcare systems. Insisting on legislation that addresses the needs of individual NPs would improve the quality of health care.

Essential VI: Interprofessional Collaboration

The DNP graduate is prepared to work on multidisciplinary teams with patients and families to lead nursing practice changes (AACN, 2006). The findings of this project may contribute to the introduction of well-being strategies and techniques, which would necessitate the need for an interprofessional team to develop the model.

Essential VII: Clinical Prevention and Population Health

The DNP graduate is prepared to identify health determinants as well as disease occurrence and distribution. This expertise enables the DNP graduate to contribute to efforts to enhance population health (AACN, 2006). This scholarly project aimed to improve the outcomes of primary care nurse practitioners who are at risk for burnout syndrome. The scholarly project's findings should be analyzed to extrapolate to other healthcare providers.

Essential VIII: Advanced Practice Nursing

The results of this scholarly project's dissemination will provide preliminary data and knowledge for other advanced nursing practice researchers interested in reducing NP burnout and advancing nursing practice through collaboration and evidence.

Limitations

The generalizability of the project findings is limited due to the small sample size and convenience sampling. In addition, the small sample size contributed to a low variable for each demographic question, which impacted the statistical analysis, particularly for two perception questions. Despite my efforts to encourage participation in the survey, the low response rate from primary care NPs in Texas indicates that the NPs in the sample was not representative of all NPs in the country. Furthermore, it cannot be conclusively said that poor practice environments alone cause NP BOS. To determine as much, a regression model is needed. In the face of these limitations, this scholarly project contributes to the growing literature on NP-provider BOS.

Recommendations for Future Research

Burnout syndrome is a well-known condition in the United States. Burnout syndromes' effects on NPs in the workplace are also linked to chronic illness and disease. Burnout syndrome and an unsafe working environment have similar repercussions on the cost and quality of treatment in primary care environments and the lives of patients. Developing burnout management techniques such as relaxation techniques, scheduling self-care days, and accepting limitations, facilitates NPs with the low incidence of burnout and promotes health practice climates. When these techniques are used together, they help minimize the rising incidence of chronic disease while also enhancing worker satisfaction and patient safety (Barnes, 2015a; Faraz, 2017; Reith, 2018). Additional research on BOS within the NP workforce, other factors influencing NP BOS, and the use of burnout assessment tools are required.

Conclusion

As the U.S. healthcare industry evolves and new healthcare occupations emerge, it has become increasingly important for organizations to create effective strategies for employees to identify BOS and engage in BOS reduction techniques. In light of anticipated provider shortages, it is imperative to improve the health and well-being of primary care NPs and the patients and families they serve. Assessing and addressing BOS along with other key variables that may contribute to alleviate BOS primary care NPs is paramount. As a result, educational institutions and employers recognize the evolving need for education and annual training on recognition of and techniques to alleviate burnout syndrome.

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Appendix A: Request to Texas Nurse Practitioners Association

To Whom It May Concern:

I am writing a letter requesting an email listserv of all nurse practitioners in Texas by the Texas Nurse Practitioners association. This information will be utilized for the recruitment of a research study for burnout syndrome screening. The Texas Nurse Practitioners association will email all potential participants for recruitment. I understand I will not have access to the emailing listserv.

Thank you for your assistance in this matter.

Appendix B: SurveyMonkey© Legal Document of Data Use

Security Statement

LAST UPDATED: JANUARY 27TH, 2020

This Security Statement applies to the products, services, websites, and apps offered by SurveyMonkey Inc., SurveyMonkey Europe UC, SurveyMonkey Brazil Internet Ltda. and their affiliates (collectively "SurveyMonkey"), which are branded as "SurveyMonkey" and "Wufoo", except where otherwise noted. We refer to those products, services, websites, and apps collectively as the "services" in this Statement. This Security Statement also forms part of the user agreements for SurveyMonkey and Wufoo customers.

SurveyMonkey values the trust that our customers place in us by letting us act as custodians of their data. We take our responsibility to protect and secure your information seriously and strive for complete transparency around our security practices detailed below. Our Privacy Policy also further details the ways we handle your data.

Physical Security

SurveyMonkey's information systems and technical infrastructure are hosted within world-class, SOC 2 accredited data centers. Physical security controls at our data centers include 24x7 monitoring, cameras, visitor logs, entry requirements, and dedicated cages for SurveyMonkey hardware.

Compliance

SurveyMonkey, Wufoo, and SurveyMonkey Apply are compliant with the Payment Card Industry's Data Security Standards (PCI DSS 3.2) and can therefore accept or process credit card information securely in accordance with these standards. SurveyMonkey re-certifies this compliance annually. SurveyMonkey has achieved ISO 27001 certification.

Access Control

Access to SurveyMonkey's technology resources is only permitted through secure connectivity (e.g., VPN, SSH) and requires multi-factor authentication. Our production password policy requires complexity, expiration, and lockout and disallows reuse. SurveyMonkey grants access on a need to know on the basis of least privilege rules, reviews permissions quarterly and revokes access immediately after employee termination.

Security Policies

SurveyMonkey maintains and regularly reviews and updates its information security policies, at least on an annual basis. Employees must acknowledge policies on an annual basis and undergo additional training such as HIPAA training, Secure Coding, PCI, and job-specific security and

skills development and/or privacy law training for key job functions. The training schedule is designed to adhere to all specifications and regulations applicable to SurveyMonkey.

Personnel

SurveyMonkey conducts background screening at the time of hire (to the extent permitted or facilitated by applicable laws and countries). In addition, SurveyMonkey communicates its information security policies to all personnel (who must acknowledge this) and requires new employees to sign non-disclosure agreements, and provides ongoing privacy and security training.

Dedicated Security Personnel

SurveyMonkey also has a dedicated Trust & Security organization, which focuses on application, network, and system security. This team is also responsible for security compliance, education, and incident response.

Vulnerability Management and Penetration Tests

SurveyMonkey maintains a documented vulnerability management program, which includes periodic scans, identification, and remediation of security vulnerabilities on servers, workstations, network equipment, and applications. All networks, including test and production environments, are regularly scanned using trusted third-party vendors. Critical patches are applied to servers on a priority basis and as appropriate for all other patches.

We also conduct regular internal and external penetration tests and remediate according to severity for any results found.

Encryption

We encrypt your data in transit using secure TLS cryptographic protocols. SurveyMonkey and Wufoo data is also encrypted at rest.

Development

Our development team employs secure coding techniques and best practices, focused around the OWASP Top Ten. Developers are formally trained in secure web application development practices upon hire and annually.

Development, testing, and production environments are separated. All changes are peer reviewed and logged for performance, audit, and forensic purposes prior to deployment into the production environment.

Asset Management

SurveyMonkey maintains an asset management policy, which includes identification, classification, retention, and disposal of information and assets. Company-issued devices are

equipped with full hard disk encryption and up-to-date antivirus software. Only company-issued devices are permitted to access corporate and production networks.

Information Security Incident Management

SurveyMonkey maintains security incident response policies and procedures covering the initial response, investigation, customer notification (no less than as required by applicable law), public communication, and remediation. These policies are reviewed regularly and tested bi-annually.

Breach Notification

Despite best efforts, no method of transmission over the Internet and no method of electronic storage is perfectly secure. We cannot guarantee absolute security. However, if SurveyMonkey learns of a security breach, we will notify affected users so that they can take appropriate protective steps. Our breach notification procedures are consistent with our obligations under applicable country level, state, and federal laws and regulations, as well as any industry rules or standards applicable to us. We are committed to keeping our customers fully informed of any matters relevant to the security of their account and to providing customers all information necessary for them to meet their own regulatory reporting obligations.

Information Security Aspects of Business Continuity Management

SurveyMonkey's databases are backed up on a rotating basis of full and incremental backups and verified regularly. Backups are encrypted and stored within the production environment to preserve their confidentiality and integrity and are tested regularly to ensure availability.

Your Responsibilities

Keeping your data secure also requires that you maintain the security of your account by using sufficiently complicated passwords and storing them safely. You should also ensure that you have sufficient security on your own systems. We offer TLS to secure the transmission of survey responses, but you are responsible for ensuring that your surveys are configured to use that feature where appropriate. For more information on securing your surveys, visit our Help Center. This article is written for SurveyMonkey customers, but some of the guidance will apply equally to our Wufoo customers.

Logging and Monitoring

Application and infrastructure systems log information to a centrally managed log repository for troubleshooting, security reviews, and analysis by authorized SurveyMonkey personnel. Logs are preserved in accordance with regulatory requirements. We will provide customers with reasonable assistance and access to logs in the event of a security incident impacting their account.

Appendix C: Web Announcement and Implied Consent

Keisha D. McKinsey, MSN, APRN, FNP-C, a doctoral student at Abilene Christian University working under the direction of the faculty chair, Dr. Tonja Hartjes, DNP, ACNP, CNEcl, FAANP, Associate Professor of Abilene Christian University, is inviting you to participate in a scholarly project. The title of this scholarly project is Assessing the Attitudes and Perceptions of Burnout Syndrome in Nurse Practitioners in Primary Care Settings.

Your participation in this scholarly project will involve the viewing of a web-based educational presentation and a 25-question electronic survey. The estimated time of your commitment to this scholarly project is approximately 25 minutes. The purpose of this scholarly project is to determine nurse practitioners' awareness regarding burnout syndrome with respect to burnout syndrome screening in the primary care setting.

The hope is that your responses may benefit you to improve quality measures and evidence-based practice about burnout syndrome screening in the primary care setting. New information may lead to the familiarization of burnout syndrome awareness, thus potentially leading to educational, preventive measures. The possible benefits for you from this research may include a direct benefit of awareness and screening about burnout syndrome. It is not promised you will receive benefits from this scholarly project, and there are no incentives provided from participating in this research project.

As with any research, there are risks and benefits. The risks to you as a participant in this scholarly project may include the possibility of a loss of confidentiality, in which this risk is minimal; no identifiable personal information will be collected or shared with a third party with this scholarly project. Another risk as a participant in this scholarly project may include the possibility of minimal discomfort due to the topic (burnout syndrome) and the presentation of photos, which should not exceed daily practices as a health provider. These risks are minimal, and no other risks beyond normal everyday experiences are present.

The results of this scholarly project may be printed or published in a doctoral project, scholarly research journal, or presented at a professional conference. Results presented will be in cumulative form, and all responses, including your name and identity, will remain completely anonymous. Survey results will not be provided, as this research serves as a training exercise for the researcher.

The information you share will be collected through the online software SurveyMonkey©. The SurveyMonkey© program is approved for research use by Abilene Christian University and is firewall guarded with the IP tracker turned off. All responses remain anonymous, and no one will know if you participated in the survey. You have the right not to include your personal or demographic data in this survey.

Your participation in this scholarly project is voluntary, and you may exit the survey at any time without penalty. You are free to decline participation or decline any survey questions you wish not to answer without penalty or loss of any benefits to which you are otherwise entitled.

If you have any questions regarding this project, or if any problems arise, you may call the researcher, Keisha McKinsey, MSN, APRN, FNP-C at (xxx) xxx-xxxx, or the researcher chair, Dr. Tonja Hartjes, at (xxx) xxx-xxxx. You may also ask questions, state concerns regarding your rights as a research participant, or express any feelings of pressure to participate by contacting: Dr. Megan Roth, Chair of the Institutional Review Board at Abilene Christian University, (xxx) xxx-xxxx.

If you voluntarily agree to consent to participate in this study, please click the link below or cut and paste the link into your web browser. Click only after you have read all of the information provided in this consent form and your questions have been answered to your satisfaction. If you wish to have a copy of this consent form, you may print it now. You do not waive any legal rights by consenting to this study. https://www.surveymonkey.com/r/9H3QM2Z

Your responses to this survey are appreciated. Thank you for your time and consideration as a valued health partner.

Appendix D: IRB Approval

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

July 13, 2020

Keisha D. McKinsey
Department of Nursing
Abilene Christian University

Dear Keisha,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Assessing the Perceptions and Attitudes of Burnout Syndrome in Nurse Practitioners in Primary Care Settings",

was approved by expedited review (Category 7) on 7/13/2020 (IRB # 20-083). Upon completion of this study, please submit the Inactivation Request Form within 30 days of study completion.

If you wish to make any changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the Study Amendment Request Form.

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the Unanticipated Events/Noncompliance Form.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Appendix E: Copenhagen Burnout Inventory Tool

Welcome to the Survey on Burnout Syndrome! Please answer the following eligibility questions.

Q1 Are you at least 18 years old?
- ❍ Yes
- ❍ No

Q2 Are you a licensed nurse practitioner in the state of Texas?
- ❍ Yes
- ❍ No

Q3 Do you currently practice full- or part-time in a primary care setting?
- ❍ Yes
- ❍ No

Q4 Can you read English?
- ❍ Yes
- ❍ No

Please answer the following 19 presurvey questions. You may skip any question you do not care to answer or exit the survey at any time. After responding to these questions, you will be directed to the viewing of a brief presentation, after which you will return to respond to the final 19 questions.

A1. How often do you feel tired?
A2. How often are you physically exhausted?
A3. How often are you emotionally exhausted?
A4. How often do you think: “I can’t take it anymore?”
A5. How often do you feel worn out?
A6. How often do you feel weak and susceptible to illness?

A7. Do you feel worn out at the end of the working day?
A8: Are you exhausted in the morning at the thought of another day at work?
A9: Do you feel that every working hour is tiring for you?
A10: Do you have enough energy for family and friends during leisure time?
A11: Is your work emotionally exhausting?
A12: Does your work frustrate you?
A13: Do you feel burnt out because of your work?
A14: Do you find it hard to work with clients?
A15: Does it drain your energy to work with clients?
A16: Do you find it frustrating to work with clients?
A17: Do you feel that you give more than you get back when you work with clients?

A18: Are you tired of working with clients?
A19: Do you sometimes wonder how long you will be able to continue working with clients?

Please click the following link or copy it into your browser to enter the Education Presentation on Burnout Syndrome. You will be returning to continue the survey after watching it.
Photos of Burnout Syndrome are presented at http://prezi.com/

Please respond to the following 19 postsurvey questions in light of the presentation. Please do not go back and change answers to the previous questions.

B1. How often do you feel tired?
B2. How often are you physically exhausted?
B3. How often are you emotionally exhausted?
B4. How often do you think: “I can’t take it anymore?”
B5. How often do you feel worn out?
B6. How often do you feel weak and susceptible to illness?

B7. Do you feel worn out at the end of the working day?
B8: Are you exhausted in the morning at the thought of another day at work?
B9: Do you feel that every working hour is tiring for you?
B10: Do you have enough energy for family and friends during leisure time?
B11: Is your work emotionally exhausting?
B12: Does your work frustrate you?
B13: Do you feel burnt out because of your work?

B14: Do you find it hard to work with clients?
B15: Does it drain your energy to work with clients?
B16: Do you find it frustrating to work with clients?
B17: Do you feel that you give more than you get back when you work with clients?
B18: Are you tired of working with clients?
B19: Do you sometimes wonder how long you will be able to continue working with clients?

Response Options: Always (100), Often (75), Sometimes (50), Seldom (25), Never/Almost Never (0).

Please answer the following perception questions.

P1 How important do you feel is burnout screening as a component of primary care and health promotion?

- ❍ Extremely important
- ❍ Very important
- ❍ Moderately important
- ❍ Somewhat important
- ❍ Not at all important

P2 How likely are you to perform routine burnout screenings in your current practice?

- ❍ Extremely likely
- ❍ Somewhat likely
- ❍ Neither likely nor unlikely
- ❍ Somewhat unlikely
- ❍ Not at all

Please answer the following demographic questions. You have the option not to respond to these questions and may exit now if you wish. However, responses are appreciated.

D1 How many years of practice do you have?

- ❍ Less than one year
- ❍ One to five years
- ❍ Six to 10 years
- ❍ 10 years or more

D2 What is the highest degree of education you have completed?

- ❍ Master's degree
- ❍ Doctor of Nursing Practice (DNP) degree
- ❍ Ph.D. degree

D3 What is your age?

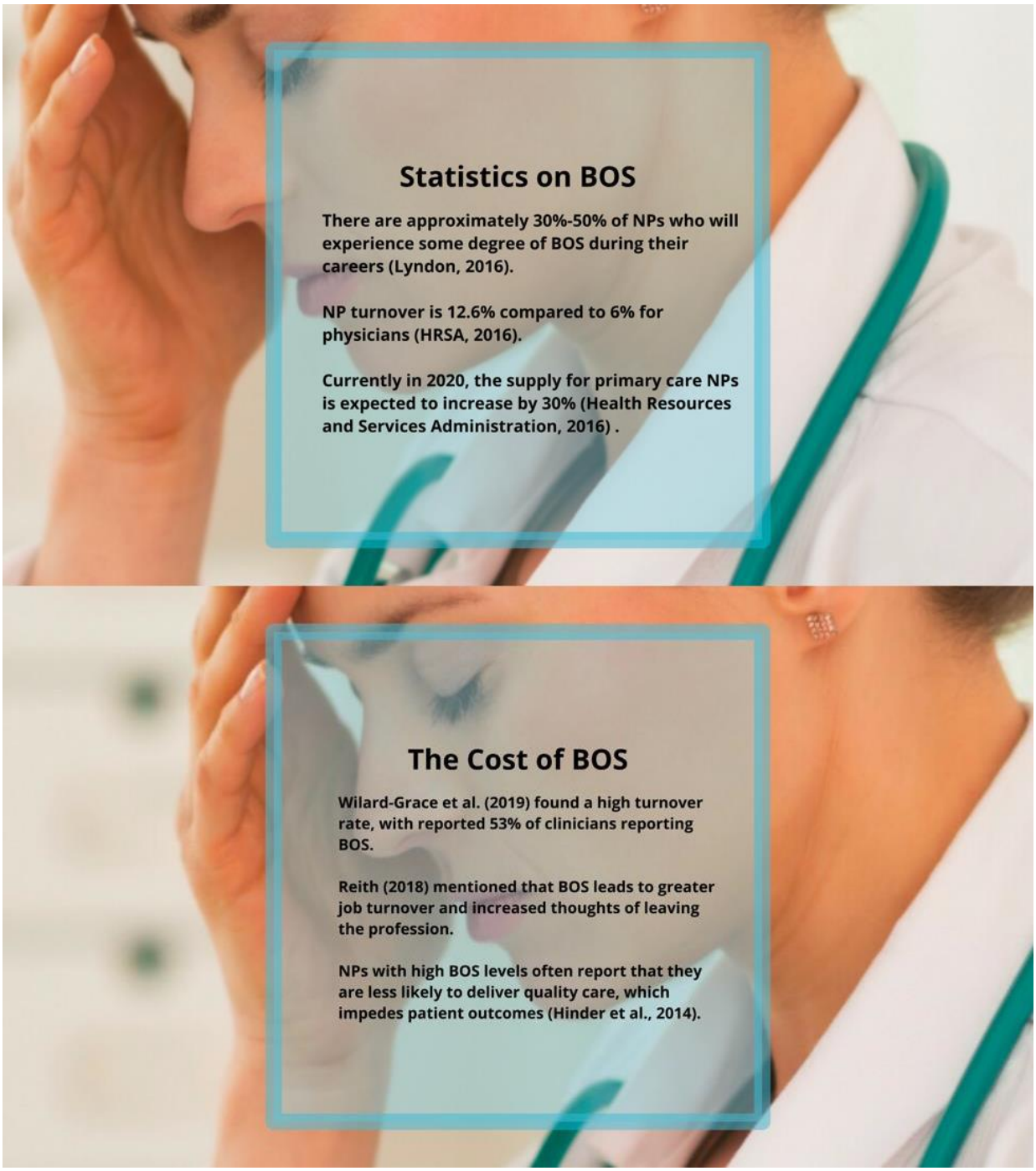
- ❍ 18–25 years
- ❍ 26–49 years
- ❍ 50–65 years
- ❍ Over 65 years

D4 What is your gender?

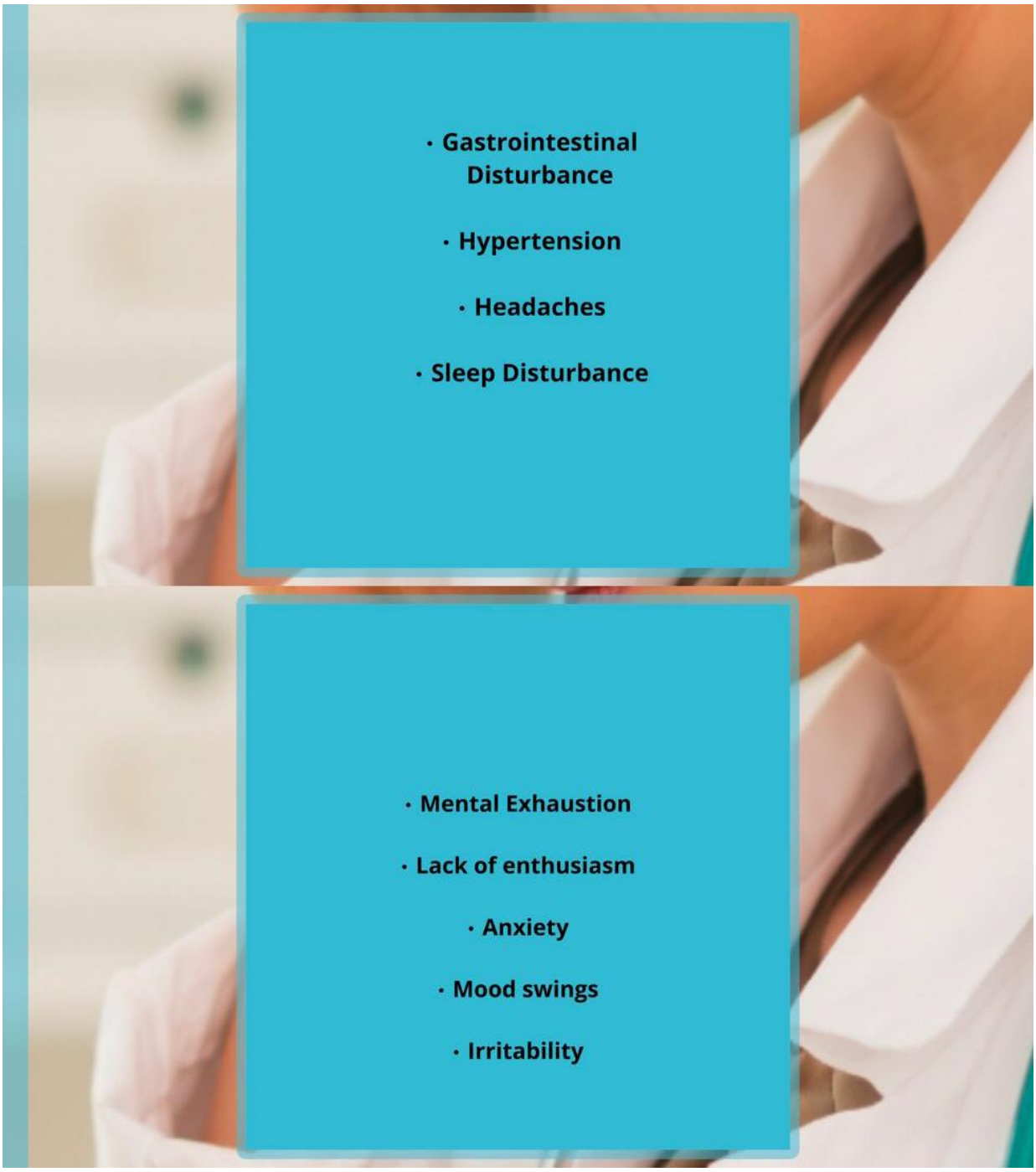
- ❍ Male
- ❍ Female

D5 This concludes the survey. Thank you for your participation as a valued health provider!

Appendix F: Prezi Presentation


Statistics on BOS
There are approximately 30%-50% of NPs who will experience some degree of BOS during their careers (Lyndon, 2016).
NP turnover is 12.6% compared to 6% for physicians (HRSA, 2016).
Currently in 2020, the supply for primary care NPs is expected to increase by 30% (Health Resources and Services Administration, 2016) .
The Cost of BOS
Wilard-Grace et al. (2019) found a high turnover rate, with reported 53% of clinicians reporting BOS.
Reith (2018) mentioned that BOS leads to greater job turnover and increased thoughts of leaving the profession.
NPs with high BOS levels often report that they are less likely to deliver quality care, which impedes patient outcomes (Hinder et al., 2014).

- Forgetfulness
- Difficulty concentrating
- Detachment
- Poor Performance


• Gastrointestinal Disturbance
• Hypertension
• Headaches
• Sleep Disturbance
• Mental Exhaustion
• Lack of enthusiasm
• Anxiety
• Mood swings
• Irritability

Risk factors of burnout syndrome:

- **Alcohol/substance abuse**
- **Poor physical and emotional quality of life**
- **Poor patient care and patient related errors**
- **Higher turnover rates**

What Does This Mean

Patient care:

- **Lower patient satisfaction**
- **Higher incidence of medical errors**
- **Reduced Compassion**

Healthcare Organizations:

- **Resignation, Increased Turnover Rates**
- **Absenteeism**

What Does This Mean

Patient care:

- Lower patient satisfaction
- Higher incidence of medical errors
- Reduced Compassion

Healthcare Organizations:

- Resignation, Increased Turnover Rates
- Absenteeism

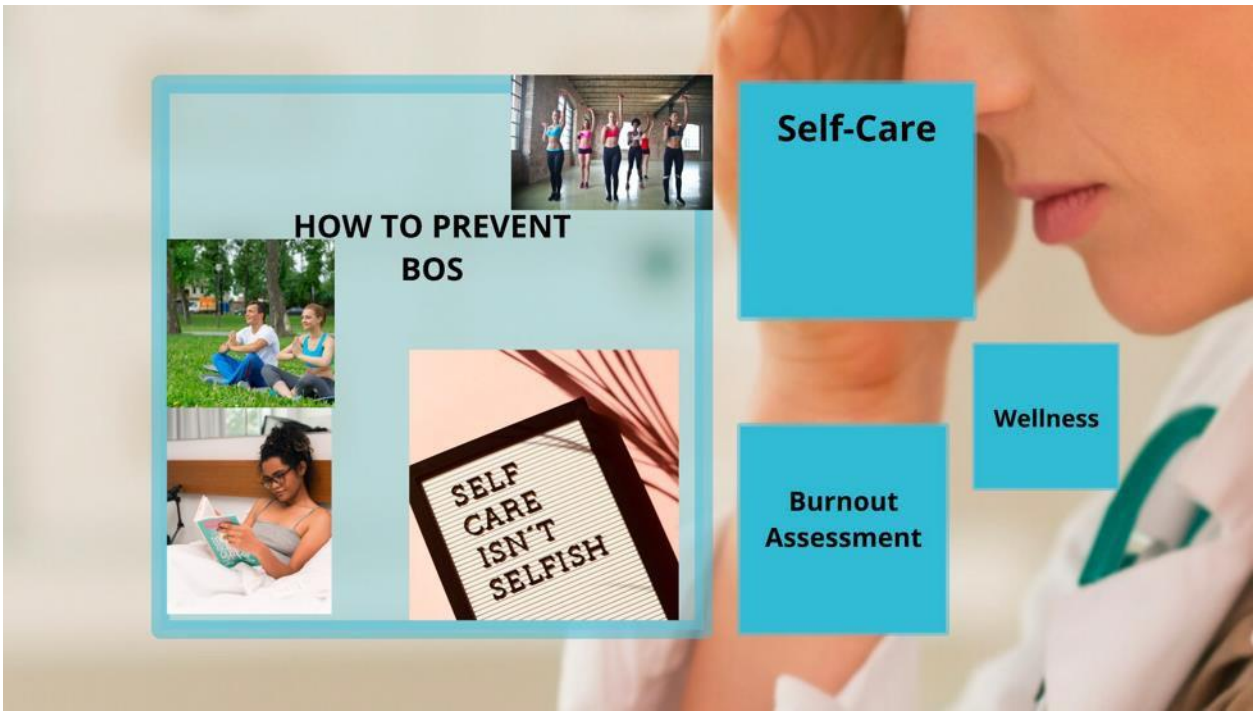
What Does This Mean

Patient care:

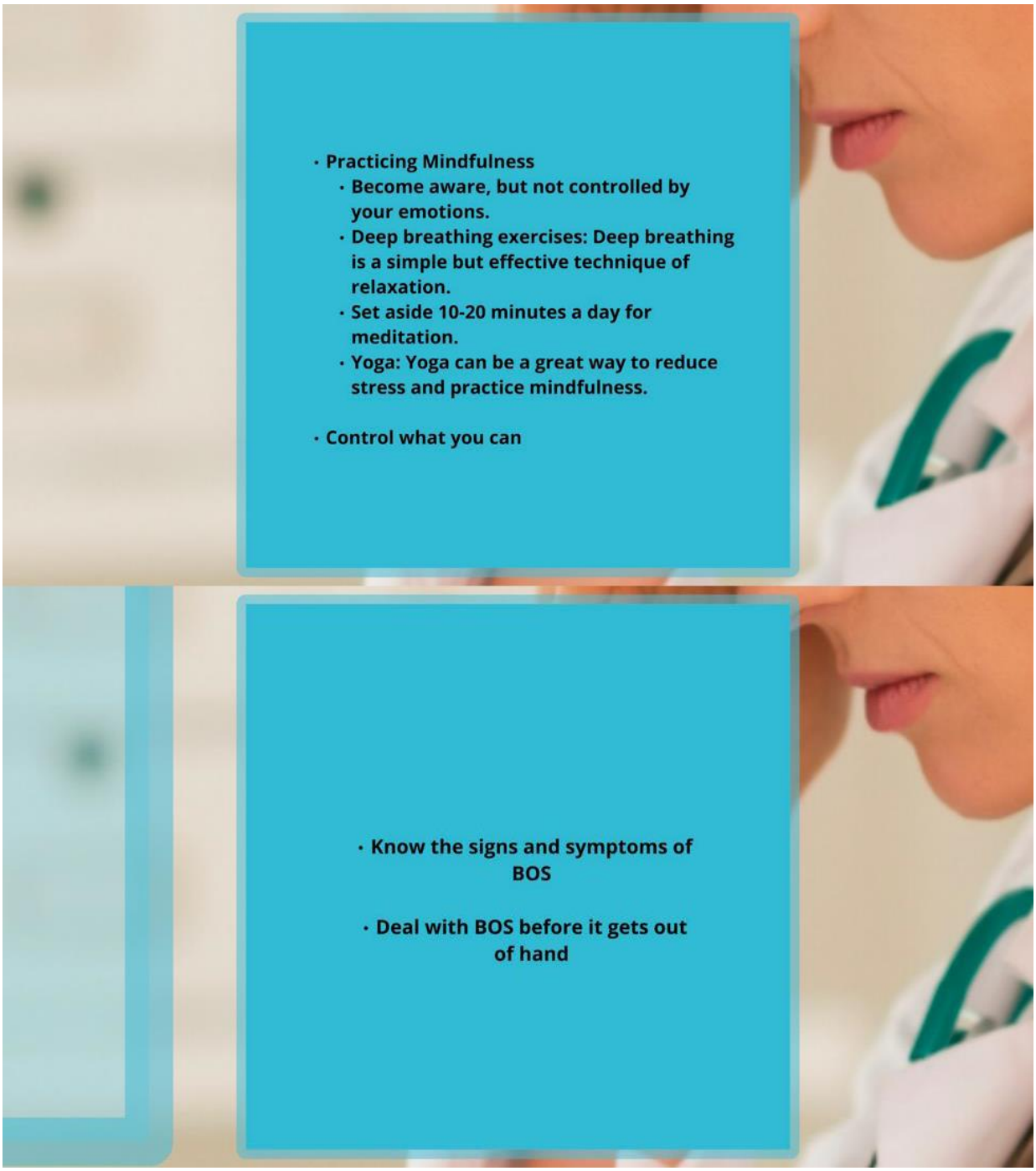
- Lower patient satisfaction
- Higher incidence of medical errors
- Reduced Compassion

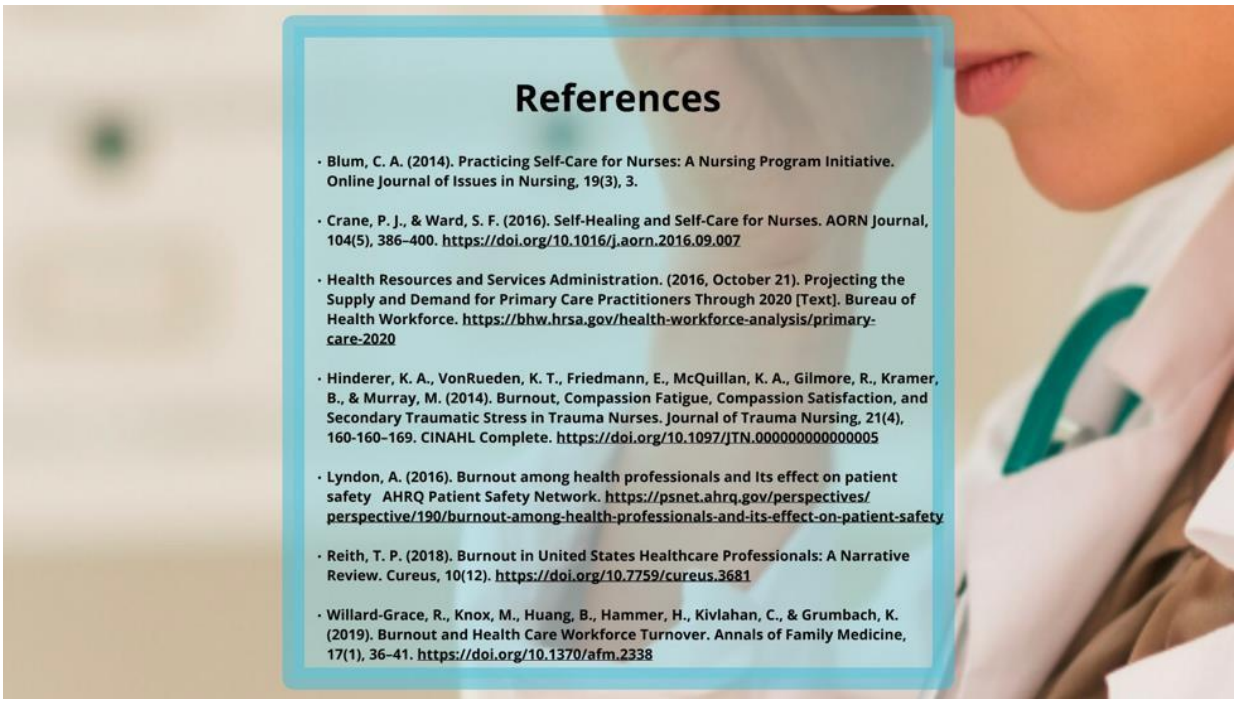
Healthcare Organizations:

- Resignation, Increased Turnover Rates
- Absenteeism


HOW TO PREVENT
BOS
SELF
CARE
ISN'T
SELFISH
Self-Care
Wellness
Burnout
Assessment


• Take Breaks
• Schedule self-care
• Make time for relaxation
• Accept your limitations


• Practicing Mindfulness
• Become aware, but not controlled by your emotions.
• Deep breathing exercises: Deep breathing is a simple but effective technique of relaxation.
• Set aside 10-20 minutes a day for meditation.
• Yoga: Yoga can be a great way to reduce stress and practice mindfulness.
• Control what you can
• Know the signs and symptoms of BOS
• Deal with BOS before it gets out of hand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Hinderer, K. A., VonRueden, K. T., Friedmann, E., McQuillan, K. A., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, Compassion Fatigue, Compassion Satisfaction, and Secondary Traumatic Stress in Trauma Nurses. Journal of Trauma Nursing, 21(4), 160-160–169. CINAHL Complete. https://doi.org/10.1097/JTN.0000000000000005
Lyndon, A. (2016). Burnout among health professionals and Its effect on patient safety AHRQ Patient Safety Network. https://psnet.ahrq.gov/perspectives/perspective/190/burnout-among-health-professionals-and-its-effect-on-patient-safety
Reith, T. P. (2018). Burnout in United States Healthcare Professionals: A Narrative Review. Cureus, 10(12). https://doi.org/10.7759/cureus.3681
Willard-Grace, R., Knox, M., Huang, B., Hammer, H., Kivlahan, C., & Grumbach, K. (2019). Burnout and Health Care Workforce Turnover. Annals of Family Medicine, 17(1), 36–41. https://doi.org/10.1370/afm.2338

Appendix G: Letter of Support

January 10, 2020

Abilene Christian University
Addison, Texas

RE: IRB Letter of Support

Dear Institutional Review Board Chair and Members:

I am writing this letter of support for one of our colleagues, Keisha D. McKinsey

It is our intention to support Mrs. McKinsey in her project and assist with the goals aligned within the research study.

Research Overview

Project Summary: The goal of this quantitative descriptive scholarly project is to assess the perceptions and attitudes of burnout syndrome in primary care nurse practitioners. Does the use of a burnout assessment tool change the perceptions and attitudes related to burnout syndrome awareness among primary care NPs compared to no burnout assessment tool?

Objectives: The goals of this research project is to investigate the attitudes and perceptions of burnout syndrome in primary care nurse practitioners. The research hopes to accomplish the improvements in primary nurse practitioners prevention and management of burnout syndrome.

Background & Rationale: The increasing amount of Nurse Practitioners who are experiencing burnout syndrome in Texas is presenting challenges in the primary care setting. Assessing the attitudes and perceptions of burnout syndrome in primary care NPs is essential; however, NP burnout syndrome has become

a significant healthcare problem that has consequences not only for healthcare organizations, but also for the costs and quality of the NPs' and their families lives. This research is important to community health in reducing the number of primary care nurse practitioners who are experiencing burnout, and improve evidence-base practice measures for patients.

In closing, this research project is acceptable and within the cultural norms and ethical beliefs of this clinical site.

Regards,

Dr. Ara Dayian

Keisha D. McKinsey, MSN, APRN, FNP-C

Keisha D. McKinsey, NP-C

Appendix H: PHRP and EthicsCore Training

CERTIFICATE

OF COMPLETION

PHRP Online Training, LLC certifies that

Keisha McKinsey

has successfully completed the web-based course
"Protecting Human Research Participants Online Training."

Date Completed: **10/22/2019**
Certification Number: **2838930**

PHRP
Protecting Human Research Participants
Online Training

CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section One: Ethical Issues in Research

of the

Online Research Ethics Course

On this Day:

12/09/2019

Have an Ethical Day

CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section Two: Interpersonal Responsibility

of the

Online Research Ethics Course

On this Day

12/09/2019

Have an Ethical Day

CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section Three: Institutional Responsibility

of the

Online Research Ethics Course

On this Day

12/09/2019

Have an Ethical Day

CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section Four: Professional Responsibility

of the

Online Research Ethics Course

On this Day

12/09/2019

Have an Ethical Day

CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section Five: Animals in Research

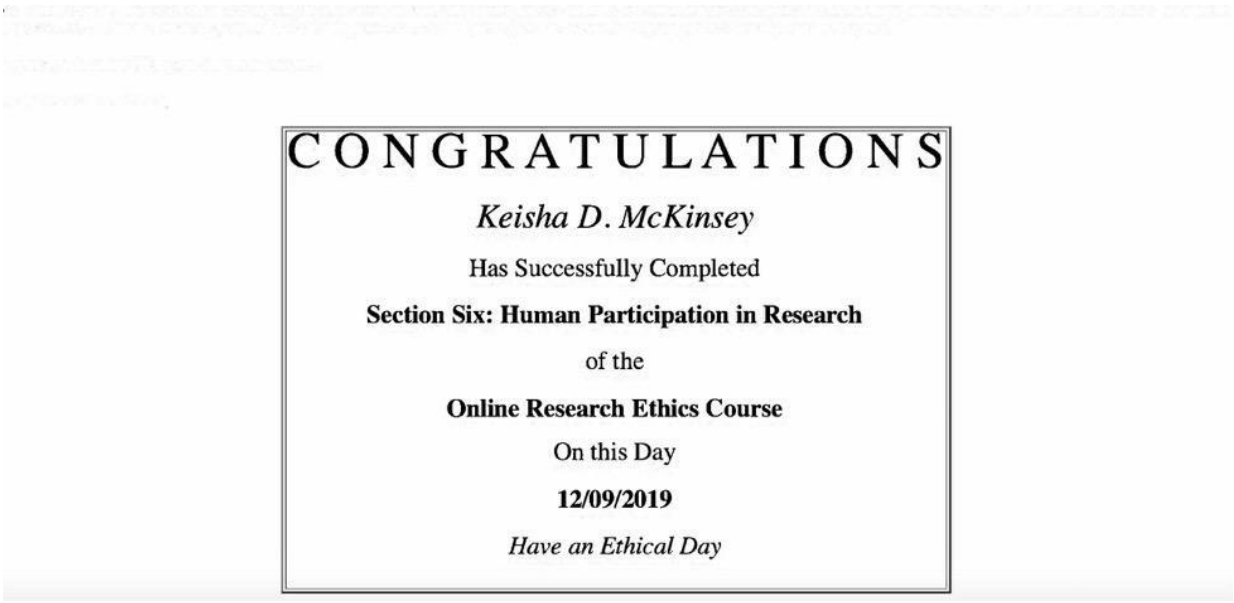
of the

Online Research Ethics Course

On this Day

12/09/2019

Have an Ethical Day



CONGRATULATIONS

Keisha D. McKinsey

Has Successfully Completed

Section Six: Human Participation in Research

of the

Online Research Ethics Course

On this Day

12/09/2019

Have an Ethical Day

Appendix I: Google Terms of Use

GENERAL GUIDELINES FOR USE OF GOOGLE

The Basics

Google Maps and Google Earth's "Content" (as defined in the Google Earth/Google Maps Additional Terms of Service) includes everything you'd find in these products: map and terrain data, imagery, business listings, traffic, reviews, and other related information provided by Google, its licensors, and users.

These guidelines cover your use of the Content—with one exception. There are some particular guidelines regarding your use of Street View imagery available from both Google Maps and Google Earth. Please read the section below for instructions on how Street View imagery may or may not be used.

Terms of Service

To help you figure out whether your use of the Content is acceptable, first read the following documents:

- Google Terms of Service
- Google Maps/Google Earth Additional Terms of Service

Your use of the Content is first and foremost governed by the licenses above.

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