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Choose your DNP progra	m:* Adult-Gerontology Acute Care Nurse Practitioner (Doctor of Nursing Practice) Family Nurse Practitioner (Doctor of Nursing Practice) Post-Master's DNP (Doctor of Nursing Practice)  Reduction in Correcti	
Date of Manuscript Appro		
udent Signature	Electronically signed by LaShelle Melton on 07/18/2023 11:02:50 AM	
nair, DNP Manuscript gnature	Electronically signed by Douglas Stephens on 07/19/2023 4:55:11 AM	
NP Clinical Coordinator gnature	Electronically signed by Lori McGrath on 07/20/2023 2:20:10 PM	
IP Program Coordinator gnature	Electronically signed by Heather Wallace on 07/20/2023 2:58:24 PM	
sociate Dean of Health ofessions and Wellness gnature	Electronically signed by Elizabeth Gulledge on 07/20/2023 3:08:23 PM	
an of Health ofessions and Wellness gnature	Electronically signed by Tracey Matthews on 07/20/2023 4:01:43 PM	
an of Graduate Studies gnature	Electronically signed by Channing Ford on 07/20/2023 9:46:22 PM	

# Stress Reduction in Correctional Healthcare Workers: A Survey of Healthcare Staff Stress Levels in a Tennessee Correctional Facility using the Perceived Stress Scale

A DNP Project Submitted to
The Graduate Faculty
Of
In Partial Fulfillment of the
Requirements for the Degree of
Doctor of Nursing Practice

By

LaShelle R. Melton

August 4, 2023

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#### Abstract

**Background**: Correctional nurses' function in a high-stress environment due to the nature of their clients and the importance of environmental security. Job stress and satisfaction are theorized relational concepts that influence intent to stay, and turnover as described in the anticipated turnover model. Acute stress can occur in correctional nurses when faced with unexpected or intense situations, such as a medical emergency, a violent incident, or a suicide attempt. Several factors can contribute to acute stress in correctional nurses, leading to overwhelming feelings and making it difficult for nurses to provide quality care.

Purpose: The DNP project aims to implement an evidence-based, theory-based stress reduction program at this Tennessee Correctional Facility. The project focuses on improving stress management and increasing awareness and compliance among prison healthcare workers. The Mindfulness-Based Stress Reduction (MBSR) program focuses on practicing mindfulness to decrease perceived stress levels in healthcare staff who provide direct patient care. Healthy People 2020 goals support the importance of addressing inequalities and enhancing care in correctional healthcare.

**Method**: This study utilizes a quantitative approach with a pre-post design to assess the effectiveness of an evidence-based stress reduction program in a correctional healthcare facility in West Tennessee. The participants include full-time healthcare staff working in the facility who provide direct patient care, with twelve out of eighteen surveyed nurses agreeing to participate. The project investigated how short-term mindfulness interventions can reduce burnout and perceived stress and reduce the desire to leave the organization.

**Results**: Organizational transparency demonstrates the need for leadership to expand and improve policies and procedures to include stress reduction programs. Interviews with staff

revealed a need for a cultural change regarding health care and mental health (MH) prevention.

The project aim is to determine whether stress, perceived stress, and emotional recovery are reduced.

**Recommendations**: This project helped highlight the importance of addressing perceived stress levels in staff through mindfulness-based stress reduction techniques and provided resources to ensure that the worker intervened frequently.

*Keywords:* stress management, mental health, correctional nurses, mindfulness, stress reduction.

## Acknowledgements

I first want to thank God and, next, the esteemed faculty at JSU for their invaluable instruction, unwavering patience, and unwavering support throughout this program. The knowledge and skills I have acquired during this program have been truly transformative, enabling me to contribute towards improved staff and patient outcomes and to deliver top-quality care in my advanced teaching and practice.

I am also immensely grateful to my loving partner and dear friend, Linda, for her exceptional patience, unwavering support, deep understanding, and continuous encouragement during this process. I am also profoundly grateful to my children, Akeylah, Angelo Jr., and KyShawn, for their unwavering support and encouragement, motivating me to be the best mother, grandmother, and mental health provider I am called. To my wonderful grandchildren, Tobias, Toryn, Dallas, and Karson, I apologize for being overwhelmed and unable to spend quality time with you. I promise to make it up to each one of you.

As the eldest among my siblings, I want to express my gratitude to them for keeping me on my toes and for being keen observers of my journey. They have been a constant source of inspiration. Finally, I would like to express my deepest gratitude to my mother, who raised me with unwavering strength and taught me to overcome life's adversities and learn from my mistakes. Nobody is born with instructions; it is up to you to choose what you will learn from your experiences.

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Stress Reduction in Correctional Healthcare Workers: A Survey of Healthcare Staff Stress

Levels in a Tennessee Correctional Facility using the Perceived Stress Scale

Correctional healthcare is quite challenging, and staff in such facilities face various health consequences, elevated levels of workplace stress and related factors. The implications of burnout, attrition, and decreased engagement among healthcare professionals are significant staff. Additionally, chronic burnout negatively impacts organizations, leading to higher turnover, increased absenteeism, stress, and reduced work engagement (Lee, 2017).

Although nursing professionals play a crucial role in providing quality healthcare and addressing health disparities in correctional settings, the mental health of nurses also needs to be managed to ensure adequate performance and patient outcomes. International research indicates that one-third of public safety workers, including healthcare workers, suffer from mental disorders. This project examines how perceived stress through mindfulness-based stress reduction compared to no intervention affects correctional nurses and the care they provide in a West TN prison (Redfearn et al., 2020).

# **Background**

Worldwide gauges show that one in three open security laborers 'have a mental ailment. Physicians' occupations are related to destitute well-being results and work-related stress, and factors are related to stress levels. Healthcare laborers report higher rates of post-traumatic stress disorder (PTSD). Mental health-related issues influence people's well-being, and mental ailment can affect the staff's capacity to create or collaborate care for prisoners (Barry, 2020). The well-being of staff members must be identified and addressed to guarantee that inmates are well-treated (Fusco *et al.*, 2021). Nursing professionals are at the forefront of delivering healthcare services in correctional settings (Whitehead, 2006).

According to Dieppe et al. (2020), caring interactions between healthcare professionals significantly positively influence patient outcomes and the mental well-being of healthcare workers. Increased stress and decreased performance are expected in nursing, and compassion fatigue and stress pose a severe risk to healthcare providers and their patients (Sinclair *et al.*, 2017).

The local press of the Tennessee Center revealed numerous documents highlighting the issue of inequality in practice. In 2017, a government audit pointed out staffing shortages as evidence of non-compliance with contracts and regulations in managing the facility. The audit raised concerns about the absence of reported severe incidents deemed problematic. Due to a lack of staff, doctors failed to document serious accidents or injuries on state records during the one-and-a-half-year inspection. Recent filings indicate cases of sexual abuse and harassment at the facility. It is crucial to prioritize patient, community, and employee safety and establish a secure and humane environment in corrections. Data indicates a direct correlation between high employee stress and a quadrupled homicide rate.

From March 2014 to June 2019, ten murders were committed at private facilities, and five state detainees were murdered at state-run offices during the same period. The reports state the issue as private offices are regularly understaffed, rougher, and less secure than state prisons. Occupational push influences specialists in restorative offices. A proposed and tried show of the impacts of alter, prepare, and distributive equity on work among staff was assessed in detainment facilities. The discoveries appear that procedural equity, distributive equity, and procedural equity influence work complexity (Fitzgerald et al., 2000).

The American Psychiatric Association reported 120,000 deaths in the United States and US\$191 billion in annual healthcare costs resulting from workplace stress in 2015. Among

healthcare workers, more than 50% of physicians, 30% to 50% of advanced practice providers, and 33% of nurses have reported burnout symptoms. In a 2019 National Physician Burnout, Depression, and Suicide Report, Medscape reported that from more than 15,000 physician respondents, 42% reported burnout, and 14% stated they had experienced thoughts of suicide. These findings indicate a significant toll on healthcare providers, which has also been shown to harm the quality of patient care (White *et al.*, 2021). Work stress is a significant problem in therapy, and changes in the workplace can also cause work stress (Bickford, 2005).

A study that used squares regression analysis of reported self-report data showed that decision-making and quality control significantly impact job stress (Shirey *et al.*, 2012). Addressing stress in correctional healthcare improves working conditions and quality of life for healthcare staff. It leads to increased job satisfaction, improved patient care, and better outcomes for both staff and incarcerated individuals (Jones *et al.*, 2013). A strategy to tackle stress among healthcare workers in correctional facilities is mindfulness, an anti-anxiety and burnout treatment beneficial in healthcare. Mindfulness practices can promote well-being in correctional healthcare settings (Raab *et al.*, 2015).

# **PICOT Question**

The PICOT question for the project implementation was as follows: In correctional healthcare staff, does the implementation of a stress reduction program compared to no stress reduction program reduce perceived stress over 60 days?"

#### **Needs Analysis**

Facilities report there are two options available at this time, staff could have three company-paid visits to a mental health professional, or there is a stress leave option through FMLA. According to the leadership staff and quality assurance (QA), other options and support

groups are available. In the last year, no staff members have used the EAP program; they report that it may be related to the recent Covid-19 pandemic because they have taken advantage of that resource in previous years. Practice gap information was collected by interviewing staff, leadership, human resources, and quality assurance staff. The findings revealed several significant aspects during discussions with human resources and quality assurance at the facility. Firstly, three to eight medical codes are called for assorted reasons daily.

Additionally, the population experiences at least one aggressive fight per week, resulting in severe injuries or even deaths. Moreover, at least one altercation involving staff members every quarter lead to grave injuries or fatalities. Lastly, it was noted that the staff members endure daily instances of verbal and mental abuse.

These findings shed light on the challenging and potentially dangerous environment faced by the healthcare staff at the facility. According to interviews, any staff member employed has been involved in a traumatic event directly or indirectly. The stressful environment poses barriers to staff retention; staffing is currently down 35% or more. In the last 12 months, this facility reports that five staff members either resigned or went on stress leave; one employee who took stress leave lost work for two months. Eighteen staff members were sent the initial invite and education; twelve responded and were emailed to complete the Perceived Stress Scale (PSS) survey to understand how circumstances impact perceived stress and feelings.

## **SWOT Analysis**

The DNP project on implementing a stress reduction program in a correctional healthcare facility has strengths, challenges, prospects, and threats (Appendix A). The strengths include that the project is based on evidence-based practices, which would ensure the use of effective interventions. The project addresses incarcerated individuals' unique healthcare challenges to

improve their health outcomes. Recognizes the vital role of nursing professionals in delivering quality healthcare and reducing health disparities in correctional settings. Reports on healthcare disparities, IOM reports, nursing education quality, and Healthy People 2020 goals provide support and highlight the importance of addressing disparities and enhancing care in correctional healthcare.

The weaknesses include that only twelve out of eighteen surveyed nurses agreed to participate, potentially limiting the sample size and generalizability of the findings. The project focuses on mindfulness-based stress reduction techniques, which may not address all aspects of stress and burnout experienced by healthcare workers. Opportunities, including stress reduction programs, can improve organizational outcomes such as reduced turnover, increased job satisfaction, and enhanced work engagement. By addressing stress and burnout, the project could enhance the quality of mental health care services provided to incarcerated individuals.

Threats include the political environment influencing practice change in correctional healthcare, which may impact the successful implementation of the stress reduction program. The project may need help with resource allocation and availability, which could impact the program's effectiveness and sustainability. Overall, the project has strengths in its evidence-based approach and recognition of healthcare challenges in correctional settings. However, there are areas for improvement, such as limited participation and scope of intervention. The opportunities lie in positive organizational impact, cultural change, and improved quality of care. The threats include the political environment and limited resources. By leveraging strengths and addressing weaknesses and threats, the project can maximize its potential for success and positive outcomes.

#### **Problem Statement**

Working in a correctional healthcare setting poses challenges and stressors, and this project will emphasize the need to address work stress and promote well-being among healthcare workers. Interventions and support systems are required to help healthcare staff cope with stress. Improving nurses' well-being can enhance patient care by establishing a more supportive work environment. It is crucial to understand the stress levels experienced by healthcare staff in correctional facilities and identify interventions to manage them effectively. By examining perceived stress levels, valuable insights can be gained into specific stressors and their impact on well-being. This knowledge can inform the development of targeted stress reduction interventions for correctional healthcare workers.

# **Aims and Objectives**

This project aims to investigate the stress level experienced by correctional staff and explore the effectiveness of mindfulness-based stress reduction in reducing their stress levels. The study recognizes the significant role that stress plays in the lives of correctional staff and seeks to address this issue by implementing mindfulness techniques as a stress reduction intervention. The outcome of this project will also form the basis for retaining a balanced workforce, adequate support staff, and the need for experienced staff in the healthcare environment. Mindfulness practice aims to develop a clear and open mind without judgment, become more assertive, improve thinking, and increase awareness and compassion for others (Hunter, 2016).

The objectives of the project are as follows:

 To assess the current stress level among correctional staff in the target facility using validated stress measurement tools.

- Implementing a mindfulness-based stress reduction program for correctional staff,
   incorporating meditation and related techniques, reduces stress and enhances well-being.
- To evaluate the effectiveness of the mindfulness-based stress reduction program in reducing stress levels among correctional staff through pre- and post-intervention stress assessments.
- To identify the factors that contribute to stress among correctional staff, such as work environment, job demands, and organizational support, to inform future interventions and improvements.

# **Review of Literature**

The databases used were Google Scholar and PubMed, using the following keywords "nursing job satisfaction," "stress reduction techniques," "healthcare worker," and" burnout." The search initially yielded approximately 144 relevant studies, which were reviewed during an initial screening by examining their abstracts, titles, and conclusions. Studies that were not relevant to the objectives of the current project were excluded during this initial screening phase. To reduce the search yield, the following strategies were employed: Studies published within the past 15 years, studies that focused on healthcare workers, studies that contained data specific to nurses, studies on healthcare workers in correctional facilities, and studies published in the English language. On the other hand, non-English studies, studies with inadequate sample sizes (less than 10), studies without precise data on nurses, and studies using objective tools to assess stress were excluded. The selected studies were screened further, and after screening the abstracts, a full-text assessment was performed. After the final screening, a total of nineteen studies were selected. The type of studies finally selected were Qualitative studies, Quantitative studies, Systematic reviews and meta-analyses. Retrospective reviews, and a few case series.

# Stress and its Consequences in Correctional Healthcare

Stress is a significant issue in the healthcare industry, and numerous studies have shown its significance among nurses specifically. It has been found that those who work in prisons are more likely to experience stress and burnout than the general population (Harizanova & Stoyanova, 2020). Suicide rates among corrections officers are 40-100% greater than among police officers in the public. Despite the severe impact of COVID-19 on the US jail system, no research has been conducted on the emotional well-being of corrections officers and staff during the epidemic. Results from the research of 589 correctional officers found that 48% of medical workers and 32% of correctional officers were identified with moderate to extreme depressive symptoms, 37% reported mild to high anxiety levels symptoms, 47% of healthcare workers and 57% of correctional officers possessed symptoms of stress, and 50% of healthcare workers and 45% of correctional officers had post-traumatic stress symptoms. Most studies of hospital frontline healthcare professionals have found lower rates (Lai *et al.*, 2020; Chew *et al.*, 2020).

# **Factors Contributing to Stress in Correctional Healthcare**

Nurses and other healthcare professionals in correctional healthcare face unique challenges and stressors (Barry, 2020). Studies have identified factors such as high workload, lack of support, low profits, and understaffing as contributors to job dissatisfaction and increased stress levels (Atefi et al., 2014). A questionnaire was administered to 3,523 nurses registered in 131 nursing units in hospitals in Michigan and California. Data were collected between November 2008 and October 2009. The study revealed many satisfied employees, providing evidence of their contentment with their work (Kalisch et al., 2012).

#### **Mindfulness-Based Stress Reduction**

Mindfulness-based stress reduction programs have been shown to be effective in reducing stress and improving well-being among healthcare professionals (Jones *et al.*, 2011). Although research on applying mindfulness interventions specifically in correctional healthcare is limited, studies from other healthcare settings have demonstrated their effectiveness in reducing stress and promoting resilience (Kwentua, 2022).

#### **Benefits of Mindfulness-Based Stress Reduction**

Maintenance costs are high within the USA, and finding and holding skilled health professionals is significant. Too much stress can affect your health, so managing and calming your mind and body is essential. This study aims to address employees' needs and reduce the effects of stress, psychological symptoms, depression, and stress. The proposed program will implement a stress reduction program and evaluate employees using the Perceived Stress Scale (PSS) questionnaire/survey to compare results. Mindfulness training is given to employees every week for six weeks to reduce stress, and stress management training is used to reduce stress and impact team dynamics. Although stressful environments can affect nurses' relationships and health, mindfulness interventions can reduce stress (Bartlett et al., 2019).

# **Plans to Decrease Stress**

Burnout is a significant problem, and nurses should be trained to reduce stress and thus reduce burnout. This review focused on assessing the impact of problem-solving and support group interventions on reducing nurses' stress levels. According to Ruotsalainen, a randomized controlled trial (RCT) was conducted in a school, and the burnout level was assessed using the Maslach Burnout Scale before, after, and six months after the intervention. Two-way repeated measures ANOVA and Bonferroni-corrected paired t-tests were used to identify interactions.

After interventions, the feeling of fatigue during the crisis disappeared immediately (Ruotsalainen et al., 2008).

The review shows nurses getting emotional support and how it helps reduce and manage stress. The program is designed to reduce employees' stress and increase their performance. Flexibility helps them solve problems, adapt to new situations, and have more hope for the future. Giving nurses the ability to work better in a stressful environment is a terrific way to reduce stress. (Çam, 2015).

Having a lot of stress and implementing ways to reduce it is essential to calm your mind and body. The project aims to evaluate stress reduction services to meet the needs of employees. The proposed intervention will obtain permission to use a stress reduction program and screen employees with a Perceived Stress Scale (PSS) questionnaire/survey to compare results.

#### **Previous Studies on Stress Reduction in Healthcare Professionals**

Aiken et al. (2002) examined the relationship between staffing, death and rescue failure incidents, nurses' job satisfaction, and stress levels. The study collected data and investigated the relationship between staffing and events involving death, rescue failure, and nursing organizations. Nurses were asked about their work history, experience, and stress levels. The study also surveyed nurses on caregiver ratios and their impact on job satisfaction and burnout. Similarly, Atefi et al. (2014) examined factors associated with job satisfaction in critical care and medical-surgical settings. This study recruited eighty-five nurses for focus groups on spirituality, work environment, and motivation. The focus groups identified high workloads, lack of nurse support, low profits, and understaffing as factors contributing to stress. Teamwork was identified as a positive aspect that nurses took pride in.

Furthermore, studies by Caricati et al. (2013) and Han et al. (2015) investigated psychological variables related to nurses' job satisfaction. They identified the impact of workload, support, and work schedules on job satisfaction. Han et al. (2015) surveyed 5,000 nurses in North Carolina and Illinois, resulting in a final sample of 1,641 participants. The study evaluated nurses' job demands, support, self-management, and work schedules. The data from this project indicated that nurses would intentionally leave their current jobs if the job were more physically and mentally demanding, had longer working hours, lacked independence, and had less support.

#### **Theoretical Framework**

Barney Glaser and Anselm Strauss' grounded theory methodology (GTM) has been integral to health social science. GTM allows for systematically collecting and analyzing qualitative data to inductively develop middle-range theories to make sense of people's actions and experiences in the social world (Belgrave & Seide, 2019). A few studies have employed qualitative methods to rigorously examine the experiences of healthcare professionals enrolled in mindfulness-based stress reduction (MBSR). The model derived from the data demonstrated that participants echoed themes similar to those described by clinical populations engaged in MBSR, such as the salience of the group experience and support, the discovery of acceptance as well as the realization that some degree of frustration and distress is part of learning and establishing a mindfulness practice (Irving et al., 2012).

#### Plan, Study, Do, Act (PDSA)

Based on an assessment of a US rural hospital system, 94% of workers experienced adverse health consequences. This review conducted a quality improvement (QI) project to implement a stress management program for HCWs in a hospital system. Five hundred HCWs

were informed of the program through hospital communication channels. Using the Plan–Do–Study–Act (PDSA) process, we screened workers presenting for care to the occupational health clinic. Project team members recruited other workers for stress screening throughout the organization. Interventions included contacting workers with elevated scores on the Perceived Stress Survey. The nurse practitioner scheduled them for a shared decision-making (SDM) appointment, where workers were informed of and encouraged to participate in stress reduction activities. Surveys were used to assess the effectiveness of SDM appointments and stress reduction (White et al., 2021).

The project facilitator will use the Plan–Do–Study–Act (PDSA) process; she will survey healthcare workers who provide direct care using the perceived stress survey. Interventions will include having participants take a survey, an agreement to participate in a six-week Mindfulness-Based Stress Reduction Program will be obtained (Appendix B), and a post-implementation survey will be conducted using the Perceived Stress Survey.

# Methodology

The Nursing Service Task Force (NSDT), developed by Meyer and O'Brien-Pallas, can compare workers and was developed in 1978 for large organizations based on the open theory of Katz and Kahn (Meyer & O'Brien-Pallas, 2010). The NSDT has many concepts that can identify factors affecting job satisfaction, including people, materials, resources, information, services, pain volume, and organizational performance indicators (Meyer & O'Brien-Pallas, 2010). The NSDT may explain why there are more changes in nursing and what influences job satisfaction. According to Meyer and O'Brien-Pallas (2010), NSDT can help maintain values and measure thresholds in treatment. "NDT thus provides a theoretical framework for analyzing and controlling the essential factors affecting the care of children in large healthcare settings (Meyer

& O'Brien-Pallas, 2010). Mindfulness-Based Stress Reduction (MBSR) talks about a therapy based on meditation that positively affects the mind and body. Little attention has been paid to its health benefits. The aim is to explore the available backings for the effectiveness of MBSR in healthy subjects, focusing on its stress-reducing effects (Chiesa & Serretti, 2009). Psychosocial factors contribute to morbidity and mortality in healthy populations and clinical settings. Behavioral education is necessary to train people in the stress-affected community to use critical thinking skills to reduce the problem. This study aims to assess how effective a completed form of a behavioral intervention model is in reducing mental illness risk in a non-medical population.

Initially, all healthcare personnel that provide direct care will receive an email explaining the program by sending enrollment forms and invitations. Employees who respond to the invitation will receive the agreement to participate and consent form via email. Following this, the personnel are to be sent for a preliminary evaluation to return; Employees will also receive a link to watch video and audio with goals for that week. Employees will complete five questions to ensure they have completed their weekly work. At the end of the six-week program, participants will fill out another questionnaire/survey and compare it with the original questionnaire/survey to see the percentage of success after the program is complete to measure results. The long-term benefit is that nurses will be given a mental health questionnaire when applying for jobs to recognize changes in their mental status. They also ensured that nurses were trained in stress management and reduction early.

#### **Timeline**

Project planning started in June 2021 with the completing the Collaborative Institutional Training Initiative (CITI) (Appendix C) and an analysis to include the background information, identifying the problem, performing and describing needs assessment from an organizational

perspective, evaluating the project Site and Population, researching data to formulate project Design Preparation, developing the project implementation plan and procedure, evaluating organizational current processes, a research tool to use pre and post surveys, developed the Picot Question, develop a timeline for completion and reviewed any ethical considerations and also developed a Project Title (Appendix D).

Project planning was continued, as well as the project proposal and initial Institutional Review Board (IRB) submission (Appendix E). I conducted an additional review of background information and literature review to support self-care, identified any expected problems or changes, reviewed the scope of my project to determine if realistic and appropriate, revised the PICO (T), performed a needs assessment from an organizational perspective, re-evaluated the project Site and Population and Identifying stakeholders, Formulate Project Design, Discussion with preceptors regarding quality improvement, Develop project implementation/session plan and procedure (Appendix F) and Evaluate the organizational current process for recruitment and retention strategies. The perspective implementation facility obtained A letter of support (Appendix G). In September 2021, I started to develop a DNP project proposal, obtained permission to use implementation tools (Appendix H) and prepared my IRB application. During this time, I also submitted the DNP proposal and all certificates, IRB applications, and letters of engagement to the Faculty Chair. At this time, I still needed IRB approval in time to progress to DNP course 798; I received IRB approval in April of 2022 and would be considered for readmit in January of 2023.

In January 2023, I was approved and readmitted to commence the project, after which the implementation of the project commenced. My chair was changed then, and I had to start with the steps completed in 2021 to examine whether this project was still valid for implementation at

the selected site. I started by collaborating with my preceptors and chair about the project, then completed an analysis of data and wrote the rough draft DNP Manuscript. I had several changes since 70% of the staff who had initially been educated concerning the project and agreed to participate no longer worked for the facility. I had to do a complete revision of my previously approved IRB. Once the second IRB was approved, nursing education was completed and recruiting conducted, and a total of twelve staff of the eighteen staff agreed to participate in the six-week project; the pre-implementation survey (Appendix I) was complete, and the project started and was completed on May 20, 2023, the post-implementation survey was complete (Appendix I), and my final rough draft was submitted.

# **Setting and Population**

The proposed project will occur in a correctional healthcare facility in West TN that opened in 2002 and has a capacity of 1536 medium security inmates. As of 2016, there is a total of four of these private prisons that house state inmates. There is a total of eight full-time registered nurses (RNs) and nine full-time Licensed Practical Nurses (LPNs) who were surveyed. All eight RNs agreed to participate in the project; however, only four of the nine Licensed Practical Nurses agreed to participate. The nurses that declined to participate in the project agreed that this is a stressful environment; however, due to currently being enrolled in accelerated LPN to RN bridge programs and family circumstances prohibited them from being able to participate in the project at this time. The human subjects of this project will be involved in pre, and post-implementation survey participation; they will also be involved in weekly elearning for six weeks. The participants will complete a five-question weekly quiz and fill out the post-implementation survey. The stakeholder in this project is Leslie Norfolk, Health Service

Administrator (HSA) at the facility, along with my two preceptors, Dr. T. Robertson, who provides medical care and Dr. T. Mason.

Furthermore, L. Melton, a DNP student, is the principal facilitator of this project. In this role, my responsibilities are educating the facility concerning the project, issuing and obtaining consent forms, and advising participants that this is voluntary. Participants will be notified that this is voluntary; voluntary participation in this project will allow participants to withdraw from the project at any time under any circumstance. Any participant may withdraw from the program at any time in writing or via email.

## **Inclusion/Exclusion Criteria for Nurses**

Initially, when I started my project, the inclusion criteria were that any full-time or parttime healthcare staff would be eligible for inclusion, and only the PRN staff would be excluded
from meeting the criteria. In April of 2022, I received IRB approval and began my project. I
performed my recruitment and education on the project and received ten nurses that agreed to
participate; however, due to a delay, I could not complete the project in 2022. I returned to JSU
in January of 2023and when I returned to complete the project, about 70% of the nurses I
previously interviewed and had agreed to participate had either resigned or were terminated from
the facility. FT staff surveyed in 2022 and still employed at the facility: 2-RN and 1-LPN. A new
FT was hired but needed to be surveyed. 8-RN 9-LPN. I had to revise my approved previous
IRB, I gained approval on April 5, 2023, and I surveyed only the FT nurses, which were about
eighteen, and twelve agreed to participate. The six that did not advise me due to obligations
either at home or at school that they could not participate in the project at this time. My revised
inclusion criteria are that any staff employed by the medical department that provides direct
patient care would be eligible. Moreover, my revised exclusion criteria are any staff that may or

may not be employed in the medical department and do not provide direct patient care, any nurses that agreed in 2022 and are no longer employed at the facility and any nurses who have previous obligations that would be a barrier to their successful participation in the project.

#### **Recruitment and Consent**

Recruitment flyers (Appendix J) were sent to nursing staff to introduce this project and before obtaining written consent from interested participants. The consent forms (Appendix K) were appropriately filled by those who agreed to participate after reviewing the recruitment flyer and project education. After signing the consent form, the participants were emailed a pre-project survey before participating in a 6-week program on perceived stress levels. The participants were then issued a post-project survey to determine if their level of satisfaction improved over the 6-week project. In the recruitment interview, potential participants will be informed that all participation is voluntary. Before agreeing to participate in this project, consent will be obtained, and participants will be informed again to reiterate that participation is voluntary. This project has minimal risk due to the assessment of the stressful environment having the potential to evoke an emotional response. To minimize the emotional risk and protect the participants, participants will be provided adequate time to complete surveys and educational sessions with breaks to discuss their feelings with a mental health provider. Mental Health professional is provided at the facility.

#### **Dissemination**

Anxiety disorders constitute issues for patients and therapists, but little is known about why and what therapists use and recommend in education to reduce stress theory (SRT) (Bistricky et al., 2016). Reducing stress is vital for health. Therefore, the project results will be distributed internally to medical organizations, nursing managers and medical leaders. Each year,

a PowerPoint presentation will be created to communicate the program to nurses and nursing supervisors during OJT training and continuing education. In a broader platform, data can be sent to other sites and healthcare companies (Rodney, 2020). The project findings can also be disseminated through other channels, including professional conferences, publications, workshops, webinars, and collaborations with professional associations. These efforts aimed to reach nurses and care providers working with the given population and engage them in discussions about the implications of the research.

The following steps for nurses and care providers caring for the given population include implementing evidence-based practices, pursuing education and training opportunities, advocating for policy and practice changes, fostering collaboration and knowledge sharing, and contributing to further research. These actions aim to improve patient outcomes, enhance care delivery, and drive ongoing improvements in the field.

#### **Results**

## **Statistical Data and Results of Analysis**

Before the survey (Pre-Survey), the participants' stress levels ranged from 17 to 29.

Participant Twelve reported the lowest stress level of seventeen, while Participant 4 reported the highest of twenty-nine. The other participants had stress levels ranging from 20 to 28.

After the survey (post-Survey), the participants' stress levels showed some variation compared to the pre-survey results. The stress levels ranged from 18 to 26. Participant Twelve continued to report the lowest stress level of twenty, while Participant 4 reported the highest stress level of twenty-six. Notably, some participants experienced decreased stress levels from the pre-survey to the post-survey. For example, Participant 1, Participant 2, and Participant 5 reported lower stress levels of eighteen compared to their pre-survey scores of 29, 25, and 26,

respectively. However, some participants had higher stress levels post-survey than their presurvey scores. For instance, Participant 3 and Participant 5 reported stress levels of twenty-two in the post-survey, which increased from their pre-survey scores of 28 and 26, respectively.

The respective numbers indicate the participants' stress scores measured using a questionnaire tool. A high score indicates an elevated stress level, while a low score indicates a lower stress level.

Before the survey, all twelve participants scored between 17 and 29. Five participants' scores were in the moderate stress range from 14-26, and the other seven were in the high perceived stress range between 27-40. The pre-survey questionnaire includes items related to anger due to unexpected occurrences, feelings of being unable to control personal life matters, stress and nervousness, confidence in managing personal issues, perceptions of things being out of control, struggles in dealing with tasks, ability to control irritating situations, feelings of being in control, anger due to things outside of their control, and challenges become overwhelming.

The post-survey implementation results reflect the participants' responses after the intervention or survey. The questionnaire items remain the same, and participants rate the frequency of their experiences using the same scale. Overall, the questionnaire captures participants' perceptions and experiences of stress, anger, control, and confidence before and after the intervention or survey implementation. The results can be analyzed to assess any changes in these variables and evaluate the effectiveness of the intervention or survey in addressing and managing stress-related factors.

All twelve participants were between 18 and 26, at the moderate perceived stress range between 14 and 26. In the pre-survey, I had seven participants who scored at a high perceived stress level. Although the scores changed some, the overall results are that implementation was

successful. The type of t-test was a paired T-test showing pre- and post-survey implementation using data elicited from the participants on the same issue at a six-week time interval (Appendix L). The paired t-test results indicate a significant difference between the mean pre-survey and post-survey scores.

The pre-survey and post-survey data analysis revealed significant differences in participant scores. The average difference between the pre-survey and post-survey scores was 5.33 (SD = 4.19), indicating a noticeable change in the measured variables. The pre-survey average score was 25.92, while the post-survey standard deviation was 3.99, suggesting variability in the post-survey scores. This suggests that the intervention or treatment impacted the participants' scores. A paired t-test was conducted to examine the significance of the observed differences. The results indicated a significant effect of the intervention (t (11) = 4.41, p = 0.001), demonstrating that the differences in scores were unlikely to occur by chance.

These findings provide convincing evidence for the effectiveness of the intervention in influencing the measured variables. The significant improvement in scores suggests that the intervention positively impacted the participants' outcomes. Overall, these results support the hypothesis that the intervention had a significant effect on the pre-survey and post-survey scores, indicating the effectiveness of the treatment in addressing the intended outcome. Figure 1 summarizes the participant's responses. The p-value was significantly less than 0.05, indicating a significant difference between the pre-survey and post-survey scores. Therefore, the survey implementation significantly impacted the participants' scores, specifically regarding their perceived stress levels. Participants utilizing the interventions reported 25% to 72% reduced stress levels. In a rural setting, this successful project included workers across job classifications.

Team engagement, PSS screening, SDM opportunities, and stress management activities were projected strengths (White *et al.*, 2021).

#### Discussion

This study addresses the research gap by exploring stress levels and job satisfaction among correctional healthcare staff in Tennessee. It will assess the effectiveness of a mindfulness-based stress reduction program in reducing stress and improving well-being. The study will provide valuable insights into effective stress reduction strategies for this population by examining correctional healthcare professionals' unique challenges and stressors.

Stress is still a great danger for nurses. The United States has a very comprehensive system. However, more is needed to understand the stress of doctors' work and how it affects their health and well-being. Moral and social issues arise between colleagues, management, and inmates. Fear stems from concerns about physical safety and violence in the workplace, while the need is related to high job pressure and lack of support in the organization.

Studies have shown that the unique work environment of medical professionals affects stress and violence in all areas. There should be a consistent examination and assessment of the welfare and health of doctors and their medical facilities. Additional resources can improve work and safety to reduce stress and provide policies that reduce morale problems, workplace violence and harassment (Keller et al., 2022).

This project had several objectives related to examining stress levels, implementing a mindfulness-based program, and evaluating its effectiveness. The pre-survey results showed a range of stress levels among participants, with some experiencing moderate stress and others reporting prominent levels of perceived stress.

The mindfulness-based program was successfully implemented, and the post-survey results indicated variations in stress levels, with some participants reporting lower stress levels after participating. This suggests that the intervention positively impacted reducing stress and promoting well-being among correctional staff. Regarding the program's effectiveness, a paired t-test was conducted, revealing a significant difference between the mean pre-survey and post-survey scores. The average difference of 5.33 in the participants' perceived stress levels further supports the effectiveness of the mindfulness-based intervention.

The survey questionnaire also captured participants' perceptions and experiences of stress, anger, control, and confidence. Analyzing these findings can provide valuable insights into the factors influencing stress levels, informing future interventions and improvements.

# **Implications for Clinical Practice**

Correctional services are one of the most misunderstood areas in prison. Getting information from patients who need it can be challenging (Magola et al., 2022). Nurses working in prisons encounter diverse difficulties daily and must be capable of transitioning from the emergency room to psychiatric nursing within minutes. Without the nurse present, the inmates would have died from injuries sustained in the care; therefore, nurses need to have an optimum state of health, both physically and mentally.

Stress is a widespread problem affecting so many people that the World Health Organization (WHO) has identified it as one of the most life-threatening problems of the 21st century. Stress may be the product of a mental or physical reaction resulting from the person's inability to meet a need or the ability to complete a task (Kakemam et al., 2019). Work stress is a confronting problem for nurses. Nurses work to support inmates' health while adhering to the strict rules and safety of the facility (Konyk et al., 2021).

# **Steps for Progress in the Future**

Implementing a mindfulness-based stress reduction (MBSR) program in a treatment situation can be essential for psychological support and stress reduction for workers and prisoners. To continue using the MBSR program, the hospital can take the following steps.

Firstly, assessing the need for an MBSR program in prison is crucial. Gathering information about stress levels and interest in mindfulness practices through surveys is vital to understand the population's specific needs.

Continuing education for staff is vital to ensure ongoing support for the program. Regular training sessions can be held to educate inexperienced staff about the benefits of mindfulness and how it can help reduce stress and promote mental health. This will help reinforce the program's principles and ensure its sustainability.

# Sustainability

Burnout can have a momentous financial impression on healthcare organizations. RN training course costs in the United States can exceed \$50,000; the first-year savings of over are significant. New nurses are inexperienced in training them, which can lead to more stress and surrender. The health benefits of support nurses are health insurance and home security (Rodney, 2020).

This evidence-based implementation project has the potential to be replicated in similar settings. Its methodology, interventions, and outcomes can serve as a blueprint for other healthcare institutions and providers. A comprehensive plan was implemented to disseminate the project outcomes, including peer-reviewed publications, conference presentations, workshops, and collaborations with professional associations. Future projects should build upon the current success, focusing on improvement, expansion, and collaboration. Dissemination of project

outcomes in the future should involve diverse channels such as publications, media partnerships, social media, and collaborations with research institutions to ensure lasting impact and improved healthcare practices.

#### Limitations

This project has some limitations. The short duration of the intervention (six weeks) poses a challenge in assessing the program's long-term impact. It is difficult to determine if the observed effects are sustained beyond the intervention period. Future research should consider longer follow-up periods to assess the program's lasting effects. Participants were asked to review their results to minimize bias, adding a limitation to self-reporting. The reliance on self-reporting introduces the possibility of response biases or inaccuracies in participants' perceptions.

Furthermore, an additional limitation mentioned by some participants was the impact of fatigue and time constraints on their participation. Personal, school, and family responsibilities were cited as factors that may have affected the level of engagement and commitment of some nurses. Lastly, there may have been attrition or loss of participants throughout the study, which could introduce a potential source of bias. It is essential to consider the potential impact of missing data on the overall findings and interpretation of results. Given these limitations, it is vital to interpret the findings within these constraints and to recognize the need for further research with more extensive and diverse samples, extended follow-up periods, and strategies to minimize attrition and bias.

#### Conclusion

The survey of healthcare staff stress levels in Tennessee prisons aimed to assess the bearing of the work setting and job demands upon the well-being of healthcare workers in these

settings. The survey results could inform policies and interventions to reduce tension and improve psychological well-being outcomes among healthcare staff. It is possible that the survey found elevated levels of stress among healthcare staff in Tennessee prisons due to the challenging and sometimes dangerous nature of their work. Working in a correctional facility can involve exposure to violence, trauma, and other inconvenient situations, affecting mental health.

If the survey did find elevated levels of stress among healthcare staff in Tennessee prisons, policymakers need to take action to address this issue. This could involve implementing training programs to help staff cope with the demands of their work, providing mental health resources, and improving working conditions to reduce stressors. By taking these steps, policymakers can help ensure that healthcare staff in Tennessee prisons can provide the best possible care to their patients while maintaining their well-being.

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Table 1

Pre/Post Survey Graph

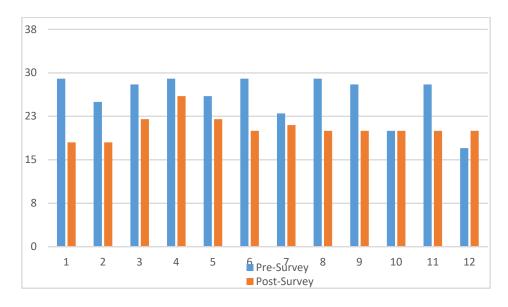


Table: Chart showing the changes in the participants' responses pre-and post-survey.

Scores ranging from 0-13 would be considered low stress.

Scores ranging from 14-26 would be considered moderate stress.

Scores ranging from 27-40 would be considered high perceived stress.

# Appendix A

SWOT Analysis: Medical Nursing Unit at a prison in Tennessee

## **SWOT Analysis**

Internal			
Harmful towards the objective			
Teamwork climate not			
favorable to new oncoming			
staff			
The trusting relationship with			
the county health department			
has not solidified			
There is an active barrier with			
staff concerning process			
changes handed down from			
corporate staff			
ernal			
Threats			
Trying to keep staff excited and boost			
morale related to the project			
Inability to fully engage staff due to			
voluntary Participation			
Staff may not do education, may share			
post-test answers			

# Appendix B

## Participation Agreement

PARTICIPA	TION AGREEMENT
1. Subject consent:	
*	een read to me, and I understand what has his form or this study have been answered,
Subject Name:	
Subject Signature:	Date:
2. Signature of Investigator/Individual	Obtaining Consent:
To the best of my ability, I have explained contents, including all the information in study participants and those of their parer have been accurately answered.	this consent form. All questions of the
Investigator/Person Obtaining Consent (p	rinted name):
Signature:	Date:

## **Appendix C**

## **CITI Training Certification**



Completion Date 23-Sep-2021 Expiration Date 22-Sep-2024 Record ID 45279534

This is to certify that:

### LaShelle Melton

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Social and Behavioral Responsible Conduct of Research

(Curriculum Group)

Social and Behavioral Responsible Conduct of Research

(Course Learner Group)

1 - RCR (Stage)

Under requirements set by:

Jacksonville State University



Verify at www.citiprogram.org/verify/?w03033efd-7b9f-471e-9f1f-e28c407d0717-45279534

# Appendix D

# DNP Project Timeline

Completion:	Pre-Design	Design	Implementation	Evaluation
First Summer	Define the clinical problem.  Develop the initial Picot.  Complete an initial review of the literature.			

Fall	Finalized the Picot Question.		
	I communicated with the University faculty about project ideas.		
	Met with Preceptor and Stakeholders at Hospital.		
	Review of Literature: Completed Table of Evidence on smoking cessation interventions on patients' intention to quit and the effect of an educational or training intervention on nurses' implementation of a smoking cessation program.		
	Select Theoretical Methodology		
	Complete CITI training		
		Began draft of Project Proposal	
		Obtain PERC Approval	
		Submit and obtain IRB Approval.	

Spring		Implement DNP Project.	Data collection and statistical analysis  Final project manuscript preparation.
Final Summer			Final project manuscript submission, Project Dissemination, Poster Presentation and submit ePortfolio.

## Appendix E

## University IRB Approval



Institutional Review Board for the Protection of Human Subjects in Research 203 Angle Hall 700 Pelham Road North Jacksonville, AL 36265-1602

April 4, 2023

LaShelle Melton Jacksonville State University Jacksonville, AL 36265

Dear LaShelle:

Your protocol for the project titled "Implementing a Mindfulness-based Stress Reduction Program in a Tennessee Correctional Facility to Reduce Stress in Correctional Healthcare Workers" protocol number 04042023-01 has been approved for renewal/revision by the JSU Institutional Review Board for the Protection of Human Subjects in Research (IRB).

If your research deviates from that listed in the protocol, please notify me immediately. One year from the date of this approval letter, please send me a progress report of your research project.

Best wishes for a successful research project.

Sincerely,

Staci Stone

Human Protections Administrator, Institutional Review Board

Phone: 256-782-5284 • www.jsu.edu • An Equal Opportunity | Affirmative Action Employer

## Appendix F

### Session Plan

### 6-Week Mindfulness-Based Stress Reduction Program

Week 1- Sign consent agreements and submit a pre-implementation survey. Participation in six-week support group program agenda issued. Gather participants' email addresses. Watch four concise videos, and all participants will be emailed audio files to listen to at home, all by Beth Mulligan—host question-and-answer sessions to decrease confusion or concern.

Week 2- (session week 1) Gather data concerning staff perception of stress and what has previously been done to reduce stress, provide education and email handouts on guided imagery which may be as easy as bringing your eyes together for one minute traipsing through a peaceful and calm scene. Here, think about all the sensory encounters you would participate in and let yourself feel like you are there. With a few minutes past, open your eyes and get back to the present moment.

Week 3- (session week 2) Learn the participant's knowledge concerning stress management and communication and whether guided imagery helped. Provide education and email handouts on Mediation. Mediation results in stress relief on a short-term basis and lasting benefits for stress management. Many diverse perceptions of mediation to try – each one continues to be unique and bears its feel. You might mention a mantra you repeat as you take adjusted deep breaths. Alternatively, you might use a few minutes to practice mindfulness, having to do with being in the moment. Focus on what you hear, touch, see, taste, and smell.

Week 4- (session week 3) Learn if meditation helped and provide education and email handouts on Onwards relaxation of the muscles in the body is done batch by batch; to practice this, you can begin with a few deep breaths and take time to tighten and loosen each muscle group, beginning with your forehead and getting down to your toes. Practicing this will help you identify tension and tightness within your muscles and relax more easily. Nevertheless, every time you practice, you should encounter some feeling of relaxation coursing through your body.

Week 5- (session week 4) Learn if muscle relaxation helped and provide education and email handouts on Karate Breathing. Learning to concentrate on breathing or altering how you breathe can make an enormous difference to your entire stress level. Breathing techniques can cool your body and brain in just a few minutes. The best news is that no person around you gets to know you do them. Breathing practices bring down stress in a stressful conference or using a seat in a crowded theatre. While there may be many diverse breathing exercises, such as karate breathing, sure others account for breathing through the nose and watching your belly get filled with air. It would be best if you counted slowly enough from one to -3. Hold it for one second, then gently breathe in the air calmly, peacefully, and slowly.

Week 6- (session week four, last session) Learning if breathing helped and providing education and email handouts on affirmative self-talk. The manner you speak to yourself makes a lot of important. Brutal self-criticism, self-denial, and pessimistic predictions are not of help. If you repeatedly reflect thus: "I cannot manage this", "I do not have the time for that", you will be stressing yourself out. Trying to speak to yourself more compassionately and realistically is second to none. When you name-call yourself or doubt your ability to break forth, try to respond with some positive inward talk. Affirmative self-talk can assist you in developing a healthier outlook. In addition, a positive and kind discourse can assist you

in managing your emotions and behaving positively. Lunch will be served and submit a post-implementation survey and closeout program.

## Appendix G

## Participating Agency Letter of Support



March 22, 2022

Letter of Support for DNP Project for Lashelle Melton

Jackson State University Dept. of Nursing,

Whiteville Correctional Facility is sending this letter to express support for the proposed project; "Stress Reduction in Correctional Healthcare Workers: Impacting stress levels by implementing a Mindfulness-based Stress Reduction Program in a Tennessee Correctional Facility," implemented by LaShelle Melton. Our facility will provide the contact data, access to staff, administrative support as well as any other support needed to assist in this project. All staff have been trained in confidentiality and HIPAA compliance; they have also agreed to follow the approved IRB protocol in the implementation of this project. Whiteville Correctional is a 24-hour skilled medical unit in a 1500 bed medium custody correctional facility located at 1440 Union Springs Road in Whiteville, Tennessee. This facility is managed by Corecivic and has been in operation since 1998. We do not give LaShelle Melton permission to use our facility name and/or company name in her DNP project and future presentations, we prefer to be referred to as a correctional facility and/or prison in Tennessee. If you have any further question, feel free to contact Leslie Norfork, HSA at 731-254-9400 ext 40818.

Kindest Regards,

Leslie Noridrk, HSA, KN Whiteville Correctional Facility

Core Civic AMERICA'S LEADER IN PARTNERSHIP CORRECTIONS



## Appendix H

#### Permission to use Perceived Stress Scale

#### PERMISSION FOR USE OF THE PERCEIVED STRESS SCALE

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

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

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

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

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

Good luck with your work.

Sheldon Cohen Robert F. Doherty University Professor of Psychology

Shelly Cle

Department of Psychology Baker Hall 335-D

Carnegie Mellon University Pittsburgh, PA 15213

Appendix I

Participants' pre and post-survey results

Participant	Pre-Survey stress	Post-Survey stress score
identification	score	
number		
1	29 - high perceived	18 -moderate stress
2	25 –moderate	18 -moderate stress
3	28 - high perceived	22 - moderate stress
4	29 - high perceived	26 - moderate stress
5	26 –moderate	22 -moderate stress
6	29 - high perceived	20 - moderate stress
7	23 -moderate	21 -moderate stress
8	29 - high perceived	20 - moderate stress
9	28 - high perceived	20 - moderate stress
10	20 -moderate	20 -moderate stress
11	28 - high perceived	20 - moderate stress
12	17 -moderate	20 - moderate stress

## Appendix J

Participant Recruitment Flyer

# Participants Needed for a DNP Nursing Project

## **PURPOSE:**

To standardize stress management interventions provided to employees to increase job satisfaction for staff and the awareness of these interventions.

## WHO:

All staff in the medical department and participation are voluntary.

## WHAT:

Attend a 60-minute session virtually weekly to receive education on stress management interventions. I will use video and audio recording as a trainer.

## WHERE:

At any available computer.

<u>WHEN: A weekly</u> session will take place for the next six weeks.

### DATE:

To be determined.

If interested, please respond to the attached invite, or contact me.

**LaShelle Melton PMHNP-BC** 

at

lmelton2@stu.jsu.edu

## Appendix K

## Participant Consent Form

**TITLE OF STUDY:** Stress Reduction in Correctional Healthcare Workers: A Survey of Healthcare Staff Stress Levels in a Tennessee Correctional Facility using the Perceived Stress Scale

This project evaluates nurse job satisfaction and how it is an essential factor to consider, given how the healthcare climate continues to change. Many factors contribute to nurses' job satisfaction, including work environment, ethics, and professional dedication. A study addressed the theme of work environment, including patient-to-nurse ratio and nurse retention. Within the study, there was a direct correlation between the number of patients a nurse cared for and the level of job satisfaction. Other factors contributing to job satisfaction are salary, equipment, supplies, and ancillary staff. Multiple factors contribute to job satisfaction; some are more adaptable than others—a description of the procedure and location where the project will take place. After signing the consent form, staff will be emailed a pre-project survey and participate in a six-week program that concerns job satisfaction and feeling supported. Staff will then be issued a post-project survey to see if satisfaction improved over the six-week support group. With this project, there are no potential risks to the subject, including physical, which will be only under staff last three number of their staff number.

Benefits of the project to society and individuals: This project aims to study the association with increased stress in staff and what factors play a role. Furthermore, how patient care is closely related to job satisfaction, the results are the groundwork for establishing consistent staffing ratios within the inpatient environment, adequate ancillary staff, and retaining experienced staff. Participation in this project is voluntary, and any person who refuses to participate will incur no

penalty or loss of benefits to which the participant is otherwise eligible. Any staff may withdraw
from the study at any time without penalty. If any information is needed or answers to questions
or in the event of a research-related injury or emergency, do not hesitate to contact LaShelle
Melton at (901) 212-4314.
Signature Date

Project Facilitator \_\_\_\_\_\_ Date \_\_\_\_\_

**Appendix L**Paired T-test showing pre- and post-survey implementation.

			t-Test: Paired Two Sample for Means		
Participant	Pre-Survey	Post-Survey			
1	29	18		29	18
2	25	18	Mean	25.63636364	20.81818182
3	28	22	Variance	16.45454545	4.163636364
4	29	26	Observations	11	11
5	26	22	Pearson Correlation	0.29325082	
6	29	20	Hypothesized Mean Difference	0	
7	23	21	df	10	
8	29	20	t Stat	4.024865046	
9	28	20	P(T<=t) one-tail	0.001209712	
10	20	20	t Critical one-tail	1.812461123	
11	28	20	P(T<=t) two-tail	0.002419424	
12	17	20	t Critical two-tail	2.228138852	
Total Mean	25.9166667	20.5833333			
Total Std. Dev	3.81790373	2.01900691			