

9-9-2022

Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals: A Quality Improvement Project

Thamar Maurice
Florida International University, Tmaur008@fiu.edu

Follow this and additional works at: <https://digitalcommons.fiu.edu/cnhs-studentprojects>

Recommended Citation

Maurice, Thamar, "Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals: A Quality Improvement Project" (2022). *Nicole Wertheim College of Nursing Student Projects*. 158. <https://digitalcommons.fiu.edu/cnhs-studentprojects/158>

This work is brought to you for free and open access by the Nicole Wertheim College of Nursing and Health Sciences at FIU Digital Commons. It has been accepted for inclusion in Nicole Wertheim College of Nursing Student Projects by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.

Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals:
A Quality Improvement Project

A Scholarly Project Presented to the Faculty of the
Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements
For the Degree of Doctor of Nursing Practice

By

Dr. Thamar Maurice, DNP, APRN, FNP-C

Supervised by

Dr. Carmen Framil-Suarez, DNP, APRN, ANP-BC

Approval Acknowledged:

DocuSigned by:

Charles Buscemi

5D66DFEB42C74F7...

_____, DNP Program Director

Date: 9/9/2022

Contents

Abstract

Introduction and Statement of the Problem

Primary DNP Project Goal and Objectives

Literature Summary and Related Evidence

 Literature Search

Literature Review

Definition of Terms

Conceptual Underpinning and Theoretical Framework of the Project

 PICO Clinical Question

 Methodology

 Setting, Participants, and Procedures

 Analysis

 Data Collection and Management

 Results

 Discussion

 Findings

 Limitations

 Implications for Advanced Practice Nursing

 Conclusions

References

Appendix (IRB approval letter, data collection documents, and other supporting documents, including a support letter from the facility)

- A. Data Collection Tool
- B. Post Survey
- C. FIU IRB Approval
- D. FIU Written Consent form in English
- E. FIU Recruitment Letter
- F. FIU Announcement
- G. Facility Approval letter from Jackson Behavioral Health Hospital
- H. Facility Approval second letter from Jackson Behavioral Health Hospital
- J. Jackson Health System office research application

Abstract

Stress can lead to individuals feeling overwhelmed or unable to cope with life's pressures (Mayo Clinic, 2021). It results from our body's basic-level response to pressures from a situation or life event. Individual reactions to stress vary from person to person. Other influences are socioeconomic circumstances, the environment, and genetic factors. Typical stressors include new or unexpected experiences, threats to the self, or feelings of losing control over a situation. Stress is a frequent problem that affects individuals of different groups depending on their status at a given time and context. The primary goal of this project was to assess the efficacy of an online therapy program in enhancing medical professionals' skills in the self-management of stress. The program was the American Academy of Family Practice's three-step mindfulness-based therapy. Topics covered included mindful consumption behavior, mindfulness, and subjective happiness. Participants were recruited from a local community behavioral health hospital. They responded to both pre-and post-therapy questionnaires using the Qualtrics online survey system. The results indicated an overall improvement in knowledge about stress and mindfulness therapy among 44% of participants, supporting the effectiveness of mindfulness-based therapy. The results suggest that Advanced Practice Nurses and RNs might be able to use similar therapy and education over a more extended period to advance their abilities to handle stress.

Background: A comprehensive evaluation assesses the state of self-perceived stress among medical professionals in a hospital setting. Informal interviews with stakeholders revealed job anxiety and stress. Medical professionals are aware of the everyday pressures of their working environment. However, the COVID-19 pandemic has increased the focus on reducing self-perceived stress for these critical healthcare workers.

Methods: This pilot pre and post-quantitative study's intervention used specific programs of mindfulness-based therapy twice weekly for one week. Participants ($N = xxx$) completed online pre-and post-intervention Perceived Stress Scale (PSS) surveys to determine the efficacy of the intervention.

Keywords: Mindfulness-based therapy, Perceived Stress Scale, Stress Reduction, Advanced Practice Nursing

Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals: A Quality Improvement Project

Introduction

Stress is the degree to which one may feel overwhelmed or unable to cope with life's pressures (Fondation de L'institut Universitaire en Santé Mentale de Montréal, 2021). Stress is our body's response to pressures from a situation or life event at the most basic level (Fondation de L'institut Universitaire en Santé Mentale de Montréal, 2021). Individual reactions to stress vary and can also differ according to socioeconomic circumstances, the environment, and genetic factors. Typical stressors include new or unexpected experiences, threats to the self, or feelings of losing control over a situation (Fondation de L'institut Universitaire en Santé Mentale de Montréal, 2021). Stress is a common problem that affects individuals from different groups depending on their status at a given time and context (Fondation de L'institut Universitaire en Santé Mentale de Montréal, 2021). The *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (DSM-V) does not explicitly list stress as a unique diagnosable mental health disorder. However, there are listings for Trauma- and Stressor-Related Disorders (American Psychiatric Association [APA], 2013, p. 265.) DSM-V defines Trauma and Stressor-Related Disorders as "Intense or prolonged psychological distress or marked physiological reactions in response to internal or external cues that symbolize or resemble an aspect of the traumatic

event(s)” (APA, 2013, p. 281). It is commonly known that front-line healthcare workers (HCWs) work in stressful environments. Therefore, it is no surprise that the extraordinary circumstances of the COVID-19 pandemic multiplied worker stress levels to the point of burnout (Kim et al., 2021). Due to the high-stress levels, one could argue that Acute Stress Disorder (308.3 (F43.0)) would apply to pandemic-induced stress in HCWs.

Problem Epidemiology

Medical professionals are aware of the everyday pressures of their working environment. However, the COVID-19 pandemic has increased the focus on reducing self-perceived stress for these critical healthcare workers. Elevated stress among the front-line psychiatric HCWs became a worldwide phenomenon with the onset of the COVID-19 pandemic. According to Gupta and Sahoo (2020), at least 18% of the front-line psychiatric HCWs experienced acute stress during the pandemic. HCWs experiencing stress are deprived of normalcy in routine life activities and daily operations. In addition, Muller et al. (2020) research has shown that HCWs often have significant bio psychological vulnerabilities. These vulnerabilities include socio-environmental conditions such as the risk of disease exposure, inadequate personal protective equipment, perceived stigma, and the psychological implications of quarantine.

COVID-19 has brought about the intensification of work in global health systems. Blanco-Donoso et al. (2021) reported that this phenomenon increases HCW work-family conflict, exhaustion, and intentions to leave healthcare. For smaller psychiatric mental healthcare clinics, the loss of psychiatric professionals can devastatingly impact client care. Mheidly et al. (2020) predicted a continuation of HCWs leaving healthcare in all specialties until HCW stress subsides. Virkstis et al. (2021) stated that the pandemic had exhausted the nursing workforce, and there is considerable doubt among healthcare administrators that the future supply meets

demand. Although nursing leaders offer emotional support to front-line HCWs, they overlook a potential untapped opportunity to ensure HCW staffing levels. Providing flexible nursing options for how, when, and where nurses work by offering employees schedules and roles that better meet their needs may increase HCW morale and improve employee retention.

The primary goal of this project was to improve medical professionals' stress self-management skills by using the online American Academy of Family Practice three-step mindfulness-based therapy. A comprehensive evaluation assesses the state of self-perceived stress among medical professionals in a hospital setting. Informal interviews with stakeholders revealed job anxiety and stress.

Problem Statement

Elevated stress among the front-line psychiatric HCWs became a worldwide phenomenon with the onset of the COVID-19 pandemic. According to Gupta and Sahoo (2020), at least 18% of front-line psychiatric HCWs experienced acute stress during the pandemic. Acute stress resulted when HCWs were deprived of normalcy in routine life activities and daily operations. In addition, Muller et al. (2020) have suggested that HCWs often have significant bio psychological vulnerabilities. These vulnerabilities include socio-environmental conditions such as the risk of disease exposure, inadequate personal protective equipment, perceived stigma, and the psychological implications of quarantine.

During a pandemic, adverse health conditions escalate for the patient and the HCW. This escalation often leads to reduced quality healthcare delivery vis-à-vis stress. Psychiatric HCWs are most likely to feel that people do not see their importance in the usual context as psychiatrists. The unusual construct of mandated quarantine lockdown and social distancing

profoundly impact HCW efficacy. Imposed isolation and lack of personal human contact can lead to self-doubt and focus on the self rather than the client (Magill et al., 2020).

COVID-19 has brought about the intensification of work in global health systems. Blanco-Donoso et al. (2021) reported that intensification increases HCWs' work-family conflict, exhaustion, and intentions to leave healthcare. For smaller psychiatric mental healthcare clinics, the loss of psychiatric professionals can devastatingly affect client care. Mheidly et al. (2020) predicted a continuum of HCWs leaving healthcare in all specialties until HCW stress subsides. Virkstis et al. (2021) reported that the pandemic had exhausted the nursing workforce, and there is considerable doubt among healthcare administrators that the future supply of workers will meet demand.

Although nursing leaders offer emotional support to front-line HCWs, they overlook a potential opportunity to ensure HCW staffing levels. Flexible job options for how, when, and where nurses work can offer employees schedules and roles that better meet their needs and thus increase HCW morale and improve employee retention. There are numerous studies on the retention of HCWs and the value of older workers staying in the workforce (e.g., CITATION). However, there is little literature regarding how COVID-19 burnout leads to the departure of HCWs.

Project Objectives

This Quality Improvement project seeks to educate providers on interventions that will help decrease stress. The student researcher will obtain a baseline on providers' knowledge about accessing the mindfulness therapy tool and then measure knowledge gained by providers after the educational intervention. The researcher then statistically analyzed the data collected in the

pre-and post-survey questionnaires, which helped guide further discussion regarding the implication of the outcomes to practice and suggested recommendations for future research.

Summary of the Literature

Literature Search

The foundation of the literature search began with the breakdown of the keywords associated with the following PICO question, “Among healthcare providers (P), will specified programs of meditative and mindfulness-based cognitive therapy (I) twice weekly for one week (T) mitigate work-related physiological and psychological symptoms (O) of stress, anxiety, and burnout compared (C) to no intervention?” The following search engines and research databases: Google Scholar and CINAHL (Cumulative Index to Nursing and Allied Health Literature), were utilized for the literature search. Keywords and Booleans terms for the search included: “stress” AND “Perceived Stress Scale”; "mindfulness-based therapy" OR "mindfulness," OR "stress reduction techniques"; "acute stress disorder" OR "perceived stress"; "stress and anxiety" AND "healthcare providers"; "Covid-19" AND "burnout ." Inclusion criteria included the nurse population, mindfulness techniques, effects of stress, effects of Covid, peer-reviewed articles from 2017-2022, English language, and full text. Exclusion criteria included no relation to nurses, unrelated to stress in nurses, and techniques not related to mindfulness or cognitive mindfulness therapy. With the inclusion and exclusion criteria, 150 articles were narrowed down to the PICO question.

Definition of Terms

Perceived Stress Scale (PSS)

The Perceived Stress Scale is a tool created to assess individual responses to stress encountered in daily life (Liu et al., 2020). The PSS is constructed as a questionnaire determining how often the respondent felt or thought a certain way (Liu et al., 2020). This tool focuses on the stress experience and feelings of the respondents (Liu et al., 2020). The PSS was the best tool for this project due to its simplicity and straightforward design. This premium tool involved simple questions that were easy for the respondents to complete and understand. It is an efficient tool that took less than 10 minutes for respondents to complete. With the simple design of the PSS, it was easy to evaluate the responses and determine the findings without taking a copious amount of time.

Mindfulness-Based Cognitive Therapy (MBCT)

Mindfulness-based cognitive therapy (MBCT) is a form of mental health treatment based on mindfulness and cognitive-behavioral techniques. Cognitive-behavioral theories deal with the connections between the thoughts and feelings and the body and behaviors of an individual. Mindfulness refers to an awareness of oneself and one's mental and physical processes (Goodman et al., 2021). MBCT is a recently introduced intervention. Commonly, it includes a weeks-long training program. Participants learn about their thoughts, feelings, and health. Mindfulness techniques such as meditation can help stop negative stimuli from triggering depression and other mental health disorders such as anxiety (Dziak, 2019). A study on the effectiveness of MBCT on patients with multiple sclerosis presented MBCT as an effective intervention that improved psychological well-being and expanded awareness of optimal self-regulation (Ghodspour et al., 2018). Chiesa et al. (2015) compared pharmacology and the use of MBCT. They concluded that the results suggested the superiority of MBCT over psycho-

education for non-remitted MD subjects. MBCT is low-cost, patient-centered, and suitable for online distance learning (Khusid & Vythilingam, 2016).

Technology and Online MBCT

This project's strength is the online use of MBCT in treating stress among HCWs. MBCT offers a self-management strategy that allows HCWs to control their feelings and manage their symptoms of stress more effectively. HCW preference and satisfaction of mode of care delivery can be significant for this population because of exhaustion stress. The online delivery of MBCT offers HCWs a means to self-manage their stress symptoms at leisure (Brunner et al., 2018). The literature offers evidence for successfully using MBCT as a replacement treatment plan for pharmacology. As clinicians, the doctorate nurse practitioner (DNP) must adapt, improvise, and overcome obstacles to treat patients effectively. Using the Internet for online patient education is one way to close the patient and clinic gap.

Mindfulness

Mindfulness is the concept of training one's attention on the present moment without dwelling on the past or future events. It is a valuable tool for MDD/PTSD reduction therapy. In MBCT, one acknowledges their thoughts about the past or future but does not dwell upon them (Baer, 2010). MBCT is an active treatment process that directly involves women veterans in their care. Because the delivery format is online, the likelihood of acceptance and compliance with the intervention is high. MBCT empowers women in the self-management of their depressive symptoms (Baer, 2010).

Conceptual Underpinning and Theoretical Framework of the Project

Introduction to the PICOT Question

Workplace stress is a genuine and present concern among HCWs. However, in the COVID-19 healthcare environment, collaboration and communication often become complex, dynamic, and challenging. The Psychiatric Mental Health Nurse Practitioner (PMHNP) is well-placed to find problem areas and lead with innovation and interprofessional cooperation when addressing issues pertinent to healthcare practice (Leggett & Price, 2020). A PMHNP can show leadership in problem-solving by using a PICOT question. The PICOT question format is a consistent “formula” for developing answerable and researchable questions. PICOT is the acronym for: population or disease, intervention, or variable of interest, comparison, outcome, and time (Rios et al., 2010). The PICOT question for this quality improvement study intervention is as follows: Among healthcare providers (P), will specified programs of meditative and mindfulness-based cognitive therapy (I) twice weekly for one week (T) mitigate work-related physiological and psychological symptoms (O) of stress, anxiety, and burnout compared (C) to no intervention? The caring theory would be applied within the specified cognitive therapy programs in which care needs such as expressing positive and negative feelings, sensitivity to oneself and others, faith, and hope are addressed and understood (Riegel et al., 2018).

Theoretical Framework Guiding the Project

The primary theoretical framework guiding this project is the concept of caring. The nursing concept of caring embodies the DNP as an individual caring for the patient’s physical, biological, sociological, and cultural needs (Watson, 2008). Graduate nurses from Nurse Practitioner schools must adopt the eight common essential core nursing competencies to provide quality care (AACN, 2006; National Organization of Nurse Practitioner Schools [NONPS], 2020). This project reflects the constructive and caring theory in addressing the different types of stress experienced by healthcare professionals and how it affects their care for themselves and

patients. Within this project, the caring theory is used to care for and understand each healthcare professional individually to provide individualized solutions to their stress and incorporate mindfulness-based therapy.

Jean Watson's Caring Theory is the basis of interprofessional human care and the foundation of providing quality nursing care (Wei & Watson, 2018). The Human Caring Theory was created to establish a caring-healing environment, improve the caring consciousness of a healthcare professional to care for oneself and others and maintain respect for human dignity for patients (Wei & Watson, 2018). Interventions based on the caring theory are known to promote patients' psychological and physical well-being (Wei & Watson, 2018). The caring theory uses caring principles to cultivate an environment that promotes positive outcomes for the patient and improves human interaction and relations between healthcare providers, patients, and their families (Wei & Watson, 2018). For this project, the caring theory will be the basis of the Mindfulness-base therapy intervention. Incorporating this theory with MBCT will promote an environment that decreases anxiety, promotes wellness, and facilitates measures that improve healthcare workers' mental health.

Methodology

Ten participants were recruited as volunteers via email. Participants completed an online consent form and an online survey consisting of demographics and the PSS. Perceived Stress was assessed before and after the intervention using the Perceived Stress Scale (PSS). PSS scores range from 0 to 40 and capture the respondents' assessment of the most important thing happening in their lives at a given moment. The treatment involved completion by the participant of two specific programs from the American Academy of Family Practice three-step mindfulness-based therapy. The programs were accessed within one week. Each program took

no more than 10 to 15 minutes to complete, for a maximum of 30 minutes in total. A link to the online pre-and post-treatment questionnaire was delivered via email to allow online responses using a secured Qualtrics link. Test data were scored as a percentage of correct answers concerning the content of the treatment materials. The nonparametric Wilcoxon Signed-Ranks Test was used to determine the significance of the treatment. The anonymity of the participants was kept throughout. Participants were not expected to experience any risk, harm, or discomfort in this project other than taking the time (approximately 30 minutes in total over one week) to complete the tasks associated with participation, including the pre and post-test, the intervention training, and the intervention.

This quality improvement study was designed to determine the impact of online mindfulness-based therapy for HCWs on stress and anxiety in a hospital setting. Interviews were used in data collection to obtain stakeholders' perspectives on the intervention. The interview involved 10 participants from a hospital setting; the participants were voluntarily engaged in the research. The participants were health care professionals selected across different departments. They completed an online survey to collect data using online mindfulness-based therapy twice a week for one week. The participants were divided into intervention ($n = 10$) and control groups ($n = 10$). The study used the perceived stress scale (PSS) survey to analyze the efficiency of the intervention.

Results

Participants

Most participants were female (70%) and between 25 and 59 years old (80%). The ethnic mix included Black (60%), Asian (20%), and White or Hispanic (10%). The educational level

percentages were: Associate Degree (10%), Bachelor's Degree (30%), Master's Degree (50%), and Doctoral Degree (10%). Before the intervention, perceived stress scores ranged from 10–24 with a mean = of 15.3 ($SD = 5.48$). Scores at baseline were relatively normally distributed. At post-intervention, perceived stress scores ranged from 7–21, with a mean of 11.50 ($SD = 5.15$). Scores at post-intervention were positively skewed. Therefore, the nonparametric Wilcoxon Signed-Ranks Test was used to assess whether perceived stress changed significantly. The perceived stress change was statistically significant ($Z = 44.00, p = .013$).

Discussion

Findings

The study results reveal the potential benefits of using online MBCT intervention to help healthcare HCWs overcome stress-related issues in the healthcare setting. The study captured a significant population of HCWs; thus, the data collection and analyses were significantly powered to produce sufficient qualitative findings on the impact of the intervention. Responses to our questions suggested crucial benefits of the intervention; participants provided their responses with the PSS tool to determine the impact of the intervention on their work and life experiences. The mean rating for MBCT participants was 9.3, implying that the 1-week program substantially benefited the HCWs.

Limitations

Data were collected within one week. A total of 10 participants were included in the study. The study did not include a range of staff, such as the Chief Executive Officer, kitchen staff, or environmental workers, which limited the study's results. With the inclusion of more

staff with different job responsibilities, the study would have yielded a more significant number of various responses to stress and the intervention.

Implications for Advanced Practice Nursing

The potential benefits to providers are an increase in mindfulness knowledge, leading to reduced stress at work. This study is expected to promote the use of stress-reduction interventions among HSCs. Ellen et al. (2014) identified barriers and facilitators that hinder the implementation of support for evidence-informed decision-making. Teaching and implementing new practices that will improve patient care will require some money to be spent, time, and a culture change to see results. The results have implications for advanced practice nursing. The level of practice and the work environment for this group of nurses is extreme, especially during the COVID-19 pandemic. It is essential to ensure that the intervention is used to ensure that they can manage stress (Janssen et al., 2018). The intervention can increase personal and professional accomplishments and decrease anxiety, stress, and burnout. Based on the study, there are indications that MBCT causes a decrease in job-related stress. The intervention is vital for the nurses' mental health and stress levels because they are vulnerable to such experiences due to workloads and long work hours (Kriakous et al., 2020). The study implies that nurses should actively engage in the intervention to promote excellent work constitutions and improve their mental health (Blankespoor et al., 2017). Their participation in the intervention may lead to reduced psychological stress.

Conclusions

Findings from this project showed that providers gained significant PSS after the educational session. Staff came to work with a more positive attitude and ready to give safe

patient care. Staff morale changed the way they worked because they felt less stressed. Staff members could complete self-tasks outside of work, which made them feel better.

Mindfulness-based therapy is not just beneficial for HCWs. Anyone can use it and benefit from it. Its use could benefit HCWs in all hospital departments, clinics, and private practices.

The results of this study, as well as prior research, suggest that training on MBCT is beneficial for HCWs. Psychological pressure is one of the most significant challenges facing healthcare professionals. Poor mental health can affect the quality of service and competency and translate into poor patient-care outcomes. Therefore, online mindfulness-based cognitive therapy is essential for HCWs and healthcare organizations to consider promoting workers' mental health in healthcare settings. As a result of the COVID-19 pandemic, HCWs are the most affected group of employees globally; they are the front-line workers in the fight against the pandemic and are engaged in the identified work environment due to COVID-19 health-related cases. The research, therefore, indicated that the intervention could help reduce stress levels and improve the mental health of HCWs. The most robust outcomes of the study were decreased emotional exhaustion, psychological stress, anxiety, and occupational stress.

Quality Improvement Plan

Individuals from all professions may be able to benefit from mindfulness interventions. Various organizations should consider investing in mindfulness-based therapy for their staff and incorporating this training in their orientation process. There are more healthcare jobs available since the beginning of the COVID-19 pandemic, meaning that as aging nurses retire, current staff will have more staff available and feel less stress.

It would be beneficial to use mindfulness all over the hospital, not just within the behavioral health area. Recruiting more males in healthcare is also essential since most females

are still in their childbearing years. More hospitals should incorporate education or partner with community colleges to help employees continue their education cost-effectively. The Healthy People 2020–2030 project has indicated that 275,000 additional nurses will be needed. There will be more job opportunities in healthcare than any other occupation through 2026. One way to prevent turnover is by ensuring less stress among HCWs through the continued use of mindfulness-based therapy by everyone at all levels.

References

- Blanco-Donoso, L. M., Moreno-Jiménez, J., Cifri-Gavela, J. L., Jacobs, S., & Garrosa, E. (2021). Daily work-family conflict and burnout to explain healthcare workers' leaving intentions and vitality levels: Interactive effects using an experience-sampling method. *International Journal of Environmental Research and Public Health*, *18*(4), 1–17. <https://doi.org/10.3390/ijerph18041932>
- Blankespoor, R. J., Schellekens, M. P., Vos, S. H., Speckens, A. E., & de Jong, B. A. (2017). The effectiveness of mindfulness-based stress reduction on psychological distress and cognitive functioning in patients with multiple sclerosis: a pilot study. *Mindfulness*, *8*(5), 1251–1258. <https://link.springer.com/article/10.1007/s12671-017-0701-6>
- Brunner, J., Schweizer, C. A., Canelo, I. A., Leung, L. B., Strauss, J. L., & Yano, E. M. (2018). Timely access to mental healthcare among women veterans. *Psychological Services*, *13*(3), 498-503. <https://doi.org/10.1037/ser0000226>
- Chiesa, A., Castagner, V., Andrisano, C., Serretti, A., Mandelli, L., Porcelli, S., & Giommi, F. (2015). Mindfulness-based cognitive therapy vs. psycho-education for patients with major depression who did not achieve remission following antidepressant treatment. *Psychiatry Research*, *226*(2–3), 474–483. <https://doi.org/10.1016/j.psychres.2015.02.003>

- Dziak, M. (2019). *Salem Press Encyclopedia of Health*. EBSCO Information Services.
- Fondation de L'institut Universitaire En Santé Mentale de Montréal. (2021, March 24). *Recipe for Stress*. Centre for Studies on Human Stress (CSHS).
<https://humanstress.ca/stress/understand-your-stress/sources-of-stress>
- Ghodspour, Z., Najafi, M., & Boogar, I. R. (2018). Effectiveness of mindfulness-based cognitive therapy on psychological aspects of quality of life, depression, anxiety, and stress among patients with multiple sclerosis. *Journal of Practice in Clinical Psychology*, 6(4), 215-222. <http://dx.doi.org/10.32598/jpcp.6.4.215>
- Goodman, R. J., Trapp, S. K., Park, E. S., & Davis, J. L. (2021). Opening minds by supporting needs: Do autonomy and competence support facilitate mindfulness and academic performance? *Psychology of Education*, 24(1), 119–142. <https://doi.org/10.1007/s11218-020-09577-9>
- Gupta, S., & Sahoo, S. (2020). Pandemic and mental health of the front-line healthcare workers: A review and implications in the Indian context amidst COVID-19. *General Psychiatry*, 33(5), e100284. <https://doi.org/10.3390/nursrep11010004>
- Janssen, M., Heerkens, Y., Kuijer, W., Van Der Heijden, B., & Engels, J. (2018). Effects of mindfulness-based stress reduction on employees' mental health: A systematic review. *PloS one*, 13(1), e0191332.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0191332>
- Khusid, M. A., & Vythilingam, M. (2016). The emerging role of mindfulness meditation as an effective self-management strategy, Part 2: Clinical implications for chronic pain, substance misuse, and insomnia. *Military Medicine*, 181(9), 969–975.
<https://doi.org/10.7205/MILMED-D-14-00678>

- Kim, S., Sloan, C., Montejano, A., & Quiban, C. (2021). Impacts of coping mechanisms on nursing student's mental health during COVID-19 lockdown. *Nursing Reports*, *11*(1), 36–44. <https://doi.org/10.1176/appi.ps.202000274>
- Kriakous, S. A., Elliott, K. A., Lamers, C., & Owen, R. (2020). The effectiveness of mindfulness-based stress reduction on the psychological functioning of healthcare professionals: A systematic review. *Mindfulness*, 1–28. <https://link.springer.com/article/10.1007/s12671-020-01500-9>
- Leggett, S. A., & Price, D. M. (2020). Addressing communication dilemmas through clinical nurse specialist leadership. *AACN Advanced Critical Care*, *31*(3), 318–321. <https://doi.org/10.4037/aacnacc2020503>
- Liu, X., Zhao, Y., Li, J., Dai, J., Wang, X., & Wang, S. Factor structure of the 10-item perceived stress scale and measurement invariance across genders among Chinese adolescents. *Frontiers in Psychology*, *11*(357). <https://doi.org/10.3389/fpsyg.2020.00537>
- Magill, E., Siegel, Z., & Pike, K. M. (2020). The mental health of front-line health care providers during pandemics: A rapid review of the literature. *Psychiatric Services*, *71*(12), 1260–1269. <https://doi.org/10.1176/appi.ps.202000274>
- Mayo Clinic. (2021). *Stress management*. <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress/art-20046037>
- Mheidly, N., Fares, M. Y., & Fares, J. (2020). Coping with stress and burnout associated with telecommunication and online learning. *Frontiers in Psychiatry*, *8*(574969). <https://doi.org/10.3389/fpubh.2020.574969>

- Muller, A. E., Hafstad, E. V., Himmels, J. P.W, Smedslund, G., Flottorp, S., Stensland, S. O., Stroobants, S., Van De Velde, S., & Gunn, E. V. (2020). The mental health impact of the COVID-19 pandemic on healthcare workers, and interventions to help them: A rapid systematic review. *Psychiatric Research, 293*(113441), 1–11.
<https://doi.org/10.1016/j.psychres.2020.113441>
- Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.
- Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing.
- Riegel, F., Crossetti, M.G.O., & Siqueira, D.S. (2017). Contributions of Jean Watson’s theory to holistic critical thinking of nurses. *Revista Brasileira de Enfermagem, 71*(4), 2072-2076.
<http://dx.doi.org/10.1590/0034-7167-2017-0065>
- Rios, L. P., Chenglin, Y., & Thabane, L. (2010). Association between the research question framing using the PICOT format and reporting quality of randomized controlled trials. *BMC Medical Research Methodology, 10*, 11–18. <https://doi.org/10.1186/1471-2288-10-11>
- Virkstis, K., Herleth, A., Langr, M., Rewers, L., & Fennell, E. (2021). Nursing’s staffing mandate: Build a more flexible workforce. *The Journal of Nursing Administration, 51*(4), 177–178. <https://doi.org/10.1097/NNA.0000000000000993>
- Wei, H. & Watson, J. (2018). Healthcare interprofessional team members’ perspectives on human caring: A directed content analysis study. *International Journal of Nursing Sciences, 6*(1), 17-23. <https://doi.org/10.1016/j.ijnss.2018.12.00>

Appendix A

Data Collection documents

Perceived Stress Scale

Pre Survey: Please select what applies

Age Range

1. 18-24
2. 25-59
3. 60+

Gender

1. Male
2. Female

Race

1. Black
2. White
3. Hispanic/Latino
4. Asian

Education level

1. High school
2. Some College
3. Associate's Degree
4. Bachelor's Degree
5. Masters' Degree
6. Doctoral Degree

Perceived Stress Scale.

For each question, choose from the following alternatives:

0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

_____ 1. In the last week, how often have you been upset because of something that happened unexpectedly?

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

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

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

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

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

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

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

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

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

Figuring Your PSS Score

You can determine your PSS score by following these directions:

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

this:

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

- Now add up your scores for each item to get a total. My total score is _____.
- Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.

- ▶ Scores ranging from 0-13 would be considered low stress.
- ▶ Scores ranging from 14-26 would be considered moderate stress.
- ▶ Scores ranging from 27-40 would be considered high perceived stress.

The Perceived Stress Scale is exciting and important because your perception of what is happening

in your life is most important. Consider the idea that two individuals could have the same events and experiences in their lives for the past month. Depending on their perception, the total score could put

one of those individuals in the low-stress category and the total score could put the second person in the high-stress category.

Disclaimer: The scores on the following self-assessment do not reflect any particular diagnosis or course of treatment.

They are meant as a tool to help assess your level of stress. If you have any further concerns about your current well

-being, you may contact EAP and talk confidentially to one of our specialists.

Appendix B

Post Survey

Perceived Stress Scale.

For each question choose from the following alternatives:

0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

_____ 1. In the last month, how often have you been upset because of something that happened unexpectedly?

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

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

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

_____ 5. How often have you felt that things were going your way in the last month?

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

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

_____ 8. How often have you felt that you were on top of things in the last month?

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

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

Figuring Your PSS Score

You can determine your PSS score by following these directions:

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

this:

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

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

- Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.

- ▶ Scores ranging from 0-13 would be considered low stress.
- ▶ Scores ranging from 14-26 would be considered moderate stress.
- ▶ Scores ranging from 27-40 would be considered high perceived stress.

The Perceived Stress Scale is exciting and important because your perception of what is happening

in your life is most important. Consider the idea that two individuals could have the same events and experiences in their lives for the past month. Depending on their perception, the total score could put

one of those individuals in the low-stress category and the total score could put the second person in

the high-stress category.

Disclaimer: The scores on the following self-assessment do not reflect any particular diagnosis or course of treatment.

They are meant as a tool to help assess your level of stress. If you have any further concerns about your current well-being, you may contact EAP and talk confidentially to one of our specialists.

Appendix C

IRB Approval



**Office of Research Integrity
Research Compliance, MARC 414**

MEMORANDUM

To: Dr. Carmen V. Framil

CC: Tamar Maurice

From: Maria Melendez-Vargas, MIBA, Coordinator

Date: June 6, 2022

Proposal Title: "Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals: A quality improvement project."

W

Approval # IRB-21-0534-AM01

Reference # 110815

The Florida International University Office of Research Integrity has approved the following modification(s):

- Participation is expected a total of approximately 1 week.
- Changed PI to Dr. Framil.
- Jackson Behavioral Health Hospital approved proposal.

Special Conditions: N/A.

For further information, you may visit the FIU IRB website at <http://research.fiu.edu/irb>.

MMV/em

Appendix D

FIU Consent form



ADULT ONLINE CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Stress Reduction Using Online Mindful-Based Therapy for Medical Professionals

PURPOSE OF THE STUDY

This study aims to use a comprehensive evaluation tool to assess the state of self-perceived stress among medical professionals in a hospital setting.

NUMBER OF STUDY PARTICIPANTS

If you decide to be in this study, you will be one of 10 people in this research study.

DURATION OF THE STUDY

Your participation will involve 10-15 minutes twice a week for 4 weeks.

PROCEDURES

If you agree to be in the study, we will ask you to do the following things:

1. I will complete and sign an informed consent to participate in the study.
2. I will complete a pre-test questionnaire for online mindfulness-based therapy.
3. I will complete a post-test questionnaire that is identical to the pre-test questionnaire.

RISKS AND DISCOMFORTS

I understand that the risks, discomforts, or stresses I may face during participation include:

No health risks are expected.

BENEFITS

The study has the following possible benefits for you:

Providers will have:

1. Increased knowledge about how to overcome barriers toward work-related stress.
2. Increased knowledge on the impact of stress-related in the workplace makes it more efficient and safer for staff.
3. Increased knowledge of online mindfulness-based therapy used may help decrease work-related stress.

ALTERNATIVES

There are no known alternatives available to you other than not participating in this study.

CONFIDENTIALITY

The records of this study will be kept private and protected to the fullest extent provided by law. In any sort of report, we might publish, we will not include any information that will make it possible to identify you. Research records will be stored securely, and only the researcher team will have access to the records. However, your records may be inspected by an authorized University or other agents who will keep the information confidential.

COMPENSATION & COSTS

There are no costs to you for participating in this study.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this study is voluntary. You are free to participate in the study or withdraw your consent at any time during the study. You will not lose any benefits if you decide not to participate or quit the study early. The Investigator reserves the right to remove you without your consent at such time that he/she feels it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have questions about the purpose, procedures, or other issues relating to this research study, you may contact Thamar Maurice at Jackson Behavioral Health Hospital at 305-490-6797, tmaurit@yahoo.com.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

PARTICIPANT AGREEMENT

I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions about this study, and they have been answered for me. I am providing my informed consent by clicking on the "consent to participate" button below.

(Insert Consent to Participate Button Here on the Website)

Appendix E

FIU Recruitment letter



Recruitment Email for Stress Reduction using online American Academy of Family Practice three-step mindfulness-based therapy for medical professionals: A quality improvement project

Dear Jackson Behavioral Health Staff,

My name is Thamar Maurice, and I am a student in the Graduate Nursing Department at Florida International University. I am writing to invite you to participate in my quality improvement project. This project aims to improve the nurses' knowledge of stress reduction using an online American Academy of Family three-step mindfulness-based therapy for medical professionals. You are eligible to participate in this project because you are a staff member at Jackson Behavioral Health Hospital. I am contacting you with the permission of your nursing director and the Nursing and Evidence-Based Council at Jackson Behavioral Health Hospital.

If you decide to participate in this project, you will be asked to complete and sign a consent form. You will complete a pre-test questionnaire, which is expected to take approximately 10-15 minutes. Then you will then be asked to view an approximately 20-minute-long educational presentation online. After watching the video, you will be asked to complete the post-test questionnaire, which is expected to take approximately 10-15 minutes. *No compensation will be provided.*

Remember, this is entirely voluntary. You can choose to be in the study or not. If you would like to participate, please click on the link provided (link for Qualtrics questionnaire). If you have any questions about the study, please email or contact me at Thamar Maurice or 305-490-6797.

Thank you very much.

Sincerely,

Thamar Maurice

Appendix F

ANNOUNCEMENT

Florida International University

Nicole Wertheim College of Nursing & Health Sciences

Doctor of Nursing Practice Project Presentation

Abstract

Quality Improvement Project to improve Stress Reduction Using Online Mindful-Based Therapy for Medical professionals

By

Thamar Maurice, APRN

Stress is the degree to which one may feel overwhelmed or unable to cope with life's pressures. Individual reactions to stress vary with each person and differ according to socioeconomic circumstances, the environment, and genetic factors. Some typical stressors include new or unexpected experiences, threats to the self, or feelings of little control over a situation. Stress is a common problem that affects individuals of different groups depending on their status at a given time and context. The primary objective of this project is to improve medical professionals' stress self-management skills by using the online American Academy of Family Practice three-step mindfulness-based therapy. This quality improvement project that a small exposure to mindfulness over a week made a difference to several health care providers and social qualities like mindful consumption behavior, mindfulness, and subjective happiness.

Participants were recruited via secure email from a Local Community behavioral health hospital. Data were collected by the pre-test & post-test questionnaires via the Qualtrics-online survey system. Questions on these modules evaluated different aspects of stress. There was an overall knowledge improvement of more than 44%. The result of this quality improvement demonstrated the effectiveness of mindfulness-based therapy. Advanced Practice Nurses and RNs play a key to health care systems and need the skills to reduce their stress with mindfulness-based therapy exercises.

Date: July 25, 2022

Department: Graduate Nursing

Time: 11:00 am Lead Professor: Dr. C. V. Framil

Place: Zoom

Appendix G

Facility Approval letter



Nursing Research & Evidence Based Practice Council

July 8, 2022

Dear Ms. Maurice (Thamar),

This letter is to inform you that your Quality Improvement proposal titled: “**Stress Reduction Using Online Mindful-Based Therapy for Medical professionals: A quality improvement project**” has been reviewed and approved by the Nursing Research & Evidence-Based Practice Council and the CNO Council at Jackson Health System (JHS).

The next step is approval from the JHS Clinical Trials Office. I have added Kristina Maradiaga, Research Coordinator, to the accompanying email, who will guide you through the final approval steps.

Should you have any questions please feel free to contact me.

Sincerely,

Bridgette Johnson

Bridgette M. Johnson, PhD, APRN
 Director of Clinical Practice & Regulatory Compliance
 Chair, Nursing Research & Evidence-Based Practice Council
 (305) 585-8361
Bridgette.johnson@jhsmiami.org

cc: Carol Biggs, MBA-HA, DHSc
 Senior Vice President & Chief Nursing Executive
 Chair, CNO Council
 Jackson Health System

cc: Katuska Barbery, MBA
 Director of Clinical Trials Office
 JHS Clinical Trials Office
 Jackson Health System

cc: Kristina Maradiaga
 Research coordinator
 Dedicated Research Unit
 Jackson Health System

Appendix H



JHS Office of Research
Jackson Medical Towers, Ste. 803
1500 NW 12th Avenue
Miami, FL 33136

July 15, 2022

Dr. Tamar Maurice
tamar_maurice@jhs-miami.org
305-490-6797

The JHS Clinical Trial Office on 7/13/2022 reviewed the Non-Human Subject Research protocol approved by JHS Council and CNO Council. This quality improvement project focused on, Stress Reduction Using Mindful-Based Therapy for Medical Professionals is now approved and may commence at Jackson Health System.

Study Title: Stress Reduction Using Mindful-Based Therapy for Medical Professionals is now approved and may commence at Jackson Health System: A quality improvement project.

Principal Investigator: Tamar Maurice

Type of Study: Quality improvement project

Enrollment Target: Local Site: Up to 10 Participants

Study Approved Time: 1 week

Study fees waived in support of Nursing Program

It is noted, the Office of Research Integrity Research Compliance, from Florida International University Evaluated a Non-Human Subjects Research application FIU ID REF

Appendix J

JHS Office of Research Application Form PDF File

Research Facility

* Select one facility:

JJAACCKKSSOONN BBEEHHAAVVIOORRAALL HHEEAALLTTHH HHOOSSPPIITTAALL

* JHS Unit/Floor: JBHH

* Nurse Manager Name: Chris Moran

Study Details

* IRB Number: 21-0534

* Title of Study: Stress Reduction Using Online Mindful-Based Therapy for medical professionals

* Does the Principal Investigator have JHS privileges to perform the study?

Yes

No

* Principal Investigator

Name: Thamar Maurice

Phone number: 305-490-6797

* Did the Study Coordinator complete the Cerner class to utilize researcher-provider accounts?

Yes

No

* Study Coordinator:

Name: Thamar Maurice

Phone number: 305-490-6797

* Department Name: JBHH

* UM Department Finance Contact :

Name: NONE

Phone number: 305-355-7254

* Expected Study Subjects:

Jackson number: 5-10

Trial-wide number: 5-10

* Estimated Study Duration: 4 weeks

Page 1 of 4

ClinicalTrials.gov Number:

Funding Source

* Select one source

Externally

Internally

Internally Funded Option

* Select one option

BBoothh FFeeddeerraall aanndd llnnddussttryy

n/a

Type of Study Submission

* Select one type

Human Subject

Resident/Fellow Research

Other Research

Human Subject Options

* Select one Option

Clinical Trial

Registry

Retrospective Chart Review

Observational with Intervention

Observational without Intervention

Single Subject Authorization

Biorepository

JHS Research Activities

* Recruitment with Flyer?

Yes

No

* Will you recruit in the ER?

Yes

No

* Enrollment (consent)?

Yes

No

* Diagnostics (i.e Imaging, EKG)

Yes

No

* Treatment (i.e surgical procedures, nursing care, monitoring, etc.)?

Yes

No

Page 2 of 4

* Follow-Up?

Yes

No

* Blood Draw?

Yes

No

* Pharmacy Service?

Yes

No

* Pathology Services (i.e, labs, specimens)?

Yes

No

Additional Resources Required

* Do you require PowerTrials™ Use of Prescreening Tool?

Yes

No

* Do you require PowerTrials™ Use of Research Order Sets?

Yes

No

* Grant preliminary data requests?

Yes

No

N/A

* Nursing Time (i.e., beyond standard-of-care)?

Yes

No

N/A

Other Resources (i.e., ECG, PCT, Ortho, Resp. Time) :

ENROLLMENT CHECKLIST

Study enrollment cannot begin until the below checklist has been completed.

1. **IRB Approval:** Study **MUST** be approved by the IRB of Record for the JHS Office of Research.
For Device Studies: Centers of Medicare Services (CMS) approval letter from Sponsor and determination of local Medicare Administrative Contractor (CMS approval before final approval).

2. **JHS Clinical Research Review Committee (CRRC):** The JHS CRRC must approve the study and an approval letter will be sent and uploaded by the JHS Office of Research.

3. **Sponsor Contract (if applicable):** The JHS Site Agreement or UM Work Order, inclusive of the budget an agreement **MUST** be signed by JHS and UM (if applicable).

4. **JHS Staff Approval:** Staff on affected floors **MUST** be in-serviced on the research study, and a copy of the signed in-service log **MUST** be submitted to the JHS Office of Research. Contact Gabriel Blaschke at Gabriel.Blaschkepola@jhsmiami.org

5. **JHS Pharmacy:** PI and study team **MUST** contact JHS Pharmacy for any cost estimates during the study review process. An In-service is required before the initiation of the study. Contact Luis Alfonso at

6.

Page 3 of 4

LAlfonso@jhsmiami.org

* I agree with the statements above:

Important Information

*I understand that I cannot start my study until I complete the **above checklist** and receive the JHS CRRC Letter.*

Once my study is approved:

I will submit a signed Research Informed Consent (ICF) to the JHS Office of Research within 24 hrs. of consenting a patient via email at ClinicalTrialsOffice@jhsmiami.org (which includes the patient signature, MR

number, Date of Consent) As per JHS Research Policy, I understand that failure to comply will lead to potential discontinuation of all research activities.

1.

2. I will place a copy of the Research ICF in the patient's medical record.

I will also provide **monthly** patient enrollment status using Appendix "A" (which will be attached to JHS CRRC.

Approval Letter).

3.

4. I will ensure that payment is provided within **60 days** of receiving the invoice.

* I agree with the statements above:

© 2022 Jackson Health System. All Rights Reserved.

Page 4 of 4