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**Evaluation and Implementation of Mindfulness Module to Reduce Burnout among
Emergency Department Nurses: A Quality Improvement Project**

by

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Paper submitted in partial fulfillment of the
requirements for the degree of

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School of Nursing, University of Louisville

July 18, 2024

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Abstract

BACKGROUND: Nurses working in the ED experience higher burnout rates than those working in other healthcare settings. Defined as emotional exhaustion, depersonalization, and a low sense of personal accomplishment, burnout is associated with increased work absences and turnover and decreased patient satisfaction and quality care. Burnout must be examined and addressed for emergency nurses to continue providing quality care.

PURPOSE: This quality improvement project aimed to evaluate burnout among nurses working in the ED prior to and immediately following a 9-week mindfulness-based intervention.

METHODS: A Plan-Do-Study-Act model was utilized along with application of supporting evidence from the literature and an additional pre- and post-intervention survey. Burnout scores were measured pre- and post-intervention using the Maslach Burnout Inventory (MBI).

INTERVENTION: A module providing mindfulness education was developed and delivered to ED nurses via the project site's online employee education platform. In the weeks following, weekly mindfulness reminders were posted throughout the department to promote continued practice.

RESULTS: A total of 61 MBIs (n=61) were collected, and 57 ED nurses (n=57) completed the mindfulness module within the three-week time frame. Although not statistically significant, there was an improvement in mean emotional exhaustion scores post-intervention, while mean personal achievement and depersonalization scores worsened post-intervention.

DISCUSSION: Despite the lack of statistical significance, the project was well-received by ED staff and prompted increased recognition of burnout symptoms and ways to practice

mindfulness. While the intervention could not definitively be linked to the improved burnout scores, it provided ED nurses with education on the practice of mindfulness to mitigate burnout.

Keywords: emergency nurse, burnout, mindfulness, emotional exhaustion, depersonalization, personal accomplishment

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Introduction

Problem Statement

The emergency department (ED) is known to be a fast-paced, stressful, and often chaotic environment. While this type of environment invites a certain type of nurse to be drawn to working in the ED, it is also the same environment that puts these unique nurses at an increased risk of developing burnout. Defined as emotional exhaustion (EE), depersonalization (DP), and a low sense of personal accomplishment (PA), burnout has both individual and systemic effects in healthcare (Muir et al., 2022). At the individual level, burnout is associated with decreased job satisfaction and increased work absences (Muir et al., 2022). Burnout also has a negative impact on the quality of patient care as well as patient satisfaction (Lee et al., 2021), and is associated with adverse events such as patient falls and hospital acquired infections (Muir et al., 2022). One costly consequence of burnout is increased nurse turnover, as increased burnout is positively associated with a nurse's intent to leave (Lee et al., 2021). Gorman (2019) highlights the nursing shortage that is being experienced globally, and this has been further exacerbated by the COVID-19 pandemic (Muir et al., 2022). In order to provide patients with quality, emergency nursing care, it is critical that burnout be examined and addressed in emergency nurses.

Background and Significance

There has been a considerable increase in the prevalence of burnout among nursing over the last decade (Lee et al., 2021). Muir et al. (2022) reports that the prevalence of burnout among registered nurses in the U.S. has risen from 20-50% to over 50% since the COVID-19 pandemic. Further contributing to these increasing burnout rates is the ongoing nursing shortage (Lee et al., 2021). In a survey of more than 800 nurses throughout the state, the Kentucky Nurses Association (KNA) discovered many nurses feeling overworked with insufficient staffing (2021).

In the same survey, 25% of the nurses admitted to being extremely likely to leave their jobs within three months.

Nurses working in the ED experience higher burnout rates, ranging from 25-55%, than those working in other healthcare settings (Muir et al., 2022). ED overcrowding, increasing levels of violence, and insufficient staffing with no cap on patient ratios contribute to the “physical, emotional, mental and compassion exhaustion” among emergency nurses (Gorman, 2019, p. 134). A study done by Lee et al. found that emergency nurses who reported above average EE were over 8% more likely to leave their job. When compared to the national annual average nurse turnover rate, emergency nurse turnover is significantly higher (2021). Nursing turnover leads to decreased staffing and increased burnout, creating a vicious cycle. Emergency nurses have unique personality traits and are often extroverted with positive outlooks in the face of change (Gorman, 2019). It is imperative that measures are taken to protect this highly vulnerable population from burnout.

Literature Review

As previously mentioned, the prevalence of burnout among nurses has risen substantially over the last decade (Lee et al., 2021). The COVID-19 pandemic further contributed to increased burnout, reaching a prevalence of more than 50% of nurses in the U.S. (Muir et al., 2019). This alarming trend has led researchers to examine the impact of burnout in nursing and explore possible protective strategies.

Burnout in Nursing

While burnout is thought to be caused by workplace environment factors, studies have aimed to provide education on the self-management of symptoms and emotions related to burnout. Two separate randomized controlled trials done by Sawyer et al. (2021) and Dunne et

al. (2019) provided education to emergency staff members on strategies to manage symptoms that lead to burnout, both of which resulted in improved stress levels among the intervention groups. Another randomized controlled trial found that intensive care unit staff burnout decreased significantly regardless of being assigned to the educational intervention or control group (Ricou et al., 2020). In a systematic review of the effectiveness of interventions to reduce emergency department staff burnout, Xu et al. (2020) found that all six of the educational-style interventions significantly reduced stress and burnout. In the same systematic review, levels of staff burnout increased in two of the four studies that implemented organizational interventions, while all but one mindfulness-based intervention resulted in reduced stress levels. Another critical review of eight separate studies found that mindfulness-based interventions significantly reduced burnout in nurses (Green & Kinchen, 2021).

As previously mentioned, burnout rates among ED nurses are higher than nurses working in other healthcare settings. A systematic review done by Xu et al. found that up to 82% of ED staff report burnout (2020). Burnout not only affects individual staff but has negative impacts on patients and hospitals as well. Higher burnout is associated with increased nurse turnover. When compared to the national average nurse turnover rate annually, emergency nurse turnover is significantly higher. It is estimated that ED staff turns over every five years, and in 2020 the turnover rate for emergency nurses was 20%. This high turnover is incredibly costly to the healthcare system. Between advertising, recruiting, hiring, and orienting, hospitals are estimated to spend over \$56,000 to replace one vacated nursing position. In addition to increased turnover, higher incidences of nurse burnout are associated with decreased quality of care, patient satisfaction, and patient safety (Lee et al., 2021).

Due to the slow progression and subjective symptoms of burnout, it is often difficult to measure. Many studies utilize self-reported tools, such as the Maslach Burnout Inventory (MBI), limiting the measurable variables to strictly ordinal data. Only three of the publications included ratio and/or interval data, one of which was conducted by Kline et al. (2020), in which salivary free cortisol levels were measured in addition to self-reported stress scores. Interestingly, decreased salivary cortisol levels did not correlate with decreased self-reported stress scores. In fact, the self-reported stress scores actually increased in nearly half the participants who experienced a decrease in salivary cortisol levels. This highlights the difficulty of reliably measuring symptoms of burnout, as the salivary cortisol levels contradicted the self-reported stress levels. Another study which measured interval and ratio variables, including blood pressure and heart rate, found no significant changes between intervention and control groups (Shin et al., 2020). Finally, a study done by Dunne et al. (2019) incorporated continuous variables including blood pressure, heart rate variability, salivary cortisol, and pro-inflammatory cytokines, and found no significant differences between the control and intervention group. Self-reported ordinal variables, including EE, stress, and anxiety, were significantly improved in the intervention group, contradicting the continuous variable results.

Acknowledging the subjectivity of burnout, studies have attempted to examine methods to decrease the self-reported risk factors, such as EE and DP, which are positively correlated with the development of burnout, as well as increase self-reported protective factors, such as PA and motivation, which are negatively correlated with the development of burnout. A study examining EE levels by Dunne et al. (2019) implemented an attention-based training (ABT) program that focused on teaching mindfulness to reduce burnout among emergency department staff, which resulted in significant decreases in EE scores for up to two months post intervention. However,

no significant reduction in overall burnout scores were reported. Goktas et al. (2022) attempted to examine the effect that motivation has as a protective factor and found that emergency nurses that received motivational messages during the covid-19 pandemic had significantly increased job satisfaction while their peers in the control group had a decrease in job satisfaction, suggesting that interventions to increase motivation will in turn increase job satisfaction. The study also found a significant decrease in compassion fatigue and occupational burnout within the intervention group. Thus, motivational messages may help not only to increase protective factors, but to decrease risk factors in the development of burnout as well.

A study conducted by Salvarani et al. (2019) looked at the role of personality traits possessed by ED nurses in explaining burnout levels and found higher scores on perspective taking were associated with lower levels of EE and DP. A positive relationship was found between empathic concern and EE, which may be due to those with higher empathy taking on the emotions of their patients and families who are suffering. The results of this study suggest that emergency nurse managers should focus on implementing evidence-based interventions that promote mindfulness skills, emotion regulation variability and flexibility in a clinical context and the cognitive side of empathy to combat staff burnout.

Mindfulness-Based Interventions

A number of studies implementing Mindfulness-Based Stress Reduction (MBSR) interventions showed promising benefits to reduce burnout in healthcare professionals. In a systematic review, Pospos et al. found that eight weekly MBSR modules reduced burnout in healthcare professionals but were not statistically significant (2018). Similarly, Green & Kinchen reviewed eight separate studies regarding burnout following MBSR interventions and found significant decreases in burnout among nurses following a number of interventions. These

systematic reviews demonstrated that different MBSR interventions may work better for different nursing environments, as some MBSR interventions were found to have insignificant results, while other interventions, or even the same intervention in a different setting, had significant effects on burnout (2021).

Mindfulness-based interventions were found to be effective in decreasing nurse burnout regardless of the method of delivery. A study comparing mindfulness-based interventions delivered in-person versus via smartphone demonstrated significant improvement in stress and well-being in both groups, but only the in-person group experienced significant reduction in burnout scores (Mistretta et al., 2018). In a separate study, however, Xu et al. (2022) found a significant improvement in burnout scores among emergency department staff following 4 weeks of smartphone app-guided mindfulness practice. Lastly, Profit et al. implemented a web-based mindfulness intervention which resulted in improved burnout scores for up to 6 months post intervention among nurses working in the neonatal intensive care unit (NICU), regardless of whether the intervention was delivered over months or days (2021). Although this study was done in the NICU, results may be generalized to ED nurses also, as both populations care for high-acuity patients. These studies demonstrate promising results that mindfulness interventions don't need to be costly or lengthy to have significant effects on emergency department staff burnout.

Literature Application to Scholarly Project

Emergency nurses work on the frontline of the hospital in an unpredictable environment. High acuity patients can present without notice, and triage nurses must determine which patients can wait and which patients cannot. Emergency departments are experiencing increasing levels

of violence, overcrowding and patient boarding. Emergency nurses have unique personality traits and are often extroverted with positive outlooks in the face of change (Gorman, 2019). The intervention implemented within this QI project targeted ED nurses, as it is imperative to take measures to protect this highly vulnerable population from burnout.

Summary

Unfortunately, much of the evidence available regarding interventions to address emergency nurse burnout is lower-level quality evidence. The overwhelming amount of self-reported variables measured leads to potential for bias due to participants' awareness of the outcome being studied. Lack of blinding in the randomized controlled trials also leads to a potential for bias, apart from a study done by Shin et al. (2020). Ricou et al. (2020) reported a high attrition rate, and a number of the remaining studies fell short of power-size analysis necessary to obtain statistical significance.

The increasing prevalence of burnout occurring among ED nurses is an issue that needs to be addressed for patients to receive quality, emergency care. Interventions aimed at decreasing the progression of burnout are not required to be costly or lengthy, making them feasible for the busy ED environment. An online mindfulness module is one strategy that may be beneficial to combat nurses developing burnout and subsequent nurse turnover. In a high acuity environment such as the ED, having experienced nurses is critical to the quality and safety of care these patients receive. ED nurses must be taken care of themselves so that they can care for others, and that is the purpose of this quality improvement project proposal.

Rationale

Needs Assessment

During a face-to-face meeting with key stakeholders, including the ED nurse director and ED medical director, a needs assessment was completed. A lack of experienced emergency nurses was identified as a concern of both the ED nurse director and the ED medical director. Nurses with less than one year's experience account for nearly half of the staff nurses in the department. When including the agency nurses, employed through a third party for a 13-week contract, that percentage climbs to over half of the staff nurses. Of the 40 nurses with greater than one year of experience within the department, only 15 have reached five years' experience, and there are currently 10 vacant nurse positions waiting to be filled. These findings are consistent with the current literature, as 10% of nurses working in acute care settings have less than one year nursing experience (Lee et al., 2021).

Purpose & Specific Aims

The purpose of this quality improvement project was to evaluate the current state of burnout among nurses working in the ED, design and deliver a module to provide education on the importance of practicing mindfulness, promote continued practice through weekly mindful reminders displayed throughout the unit, and to reevaluate the state of burnout after the nine-week mindfulness intervention. As this proposed project site did not have mindfulness practices in place, this project was used to increase awareness and recognition of burnout and identify methods to decrease its prevalence among ED nurses so that they may continue to provide quality patient care. The specific aims of this project were as follows:

- 100% of ED nurses were provided the opportunity to complete the Maslach Burnout Inventory pre- and post- intervention.
- 100% of ED nurses were provided the opportunity to complete the mindfulness module within a three-week time frame.

- A 25% improvement in total MBI scores of each subscale, including EE, DP, and PA, following completion of the 13-week implementation phase.

Quality Improvement Model

The quality improvement (QI) model implemented within this project was the Plan-Do-Study-Act (PDSA) cycle. Developed in the 1990's and now one of the most used tools in QI, this iterative, four step model has been applied to reduce error and variation in outcomes when seeking improvement in healthcare (Christoff, P., 2018). Focusing on experimentation using small, rapid tests of change, the PDSA cycle is used to evaluate the success an intervention has in bringing about improvement (LoBiondo-Wood et al., 2019). Developing a plan is the first step of the cycle, which includes defining the who, what, when, where, and why of the intervention. Once developed, the intervention is implemented, and results are documented. The third step, study, involves analyzing the results and how they compare to predicted outcomes. Lastly, use the results to determine the intervention's effectiveness, refine the change idea, and develop the plan for the next test to continue improvement (Moran et al., 2024). The steps of the PDSA cycle applied to this project are illustrated in Appendix A.

Methods

Design

As the aim of the project was to initiate change via an intervention, the design chosen included a QI approach with an additional pre- and post-intervention survey design. The QI method applied supporting evidence from the literature as described above. A mindfulness module was developed and delivered to ED nurses via the project site's online employee education portal. This module provided education on the importance of mindfulness and simple ways to practice it. In the weeks following, weekly mindfulness reminders were posted

throughout the department, such as in the medication room and in staff restrooms, to continue encouraging staff to practice mindfulness after the module. Burnout scores were measured pre- and post-intervention using the Maslach Burnout Inventory (MBI).

Setting

The site in which this QI project was implemented is a 44-bed ED with an average daily census of 168 patients, which the U.S. Centers for Medicare and Medicaid Services (2023) categorizes as a high-volume ED. More than 80% of patients admitted to the 519-bed acute care hospital in a suburban area of Kentucky come through the ED. Part of a thrombectomy capable stroke center, chest pain with primary percutaneous coronary intervention and resuscitation accredited, this ED serves to provide lifesaving care to high acuity patients not only in the Louisville Metro area but to surrounding counties as well. This hospital is a four-time designee of the American Nurses Credentialing Center's Magnet Recognition Program, reflecting the organization's commitment to nursing excellence. In alignment with the 2020 Magnet mission statement, excellence remains a core value of this hospital. Magnet status has been attained by less than 10% of hospitals nationwide, and new knowledge, innovations, & improvements are among the pillars included in the Magnet model (ANCC, n.d.). In alignment with the 2020 Magnet mission statement, as well as the project site's core value of excellence, this project served to improve patient care through research and implementation of new knowledge as well as setting the standard for nursing excellence.

Sample

The population that the project sample was drawn from included ED nurses employed at the project site within the timeline of project implementation. Participants were identified by the last four digits of their cell phone number. As stated in the specific aims of the project, 100% of

ED nurses in this population were provided the opportunity to participate in this project.

Participants were recruited while at work via email and the project site's employee education portal, as well as from the help of the stakeholders on the project team. Inclusion criteria was current employment as a staff nurse at the project site during project implementation. Exclusion criteria included staff without a current nursing license or who were absent throughout the entire duration of project implementation.

Context

As previously discussed, the root causes of burnout include inadequate staffing, working in a highly stressful environment, high turnover, and lack of job experience. The literature supports decreased levels of burnout leading to improved job satisfaction and decreased intent to leave.

Key stakeholders for this quality improvement project included the ED nurse director, ED nurse manager, ED nurse educators, and the ED medical director. Potential leaders of change included the charge nurses, as they were out on the floor providing patient care alongside the staff nurses and the project lead. As increasing nurse retention and nursing experience were identified as goals by stakeholders during a needs assessment, this project related to the project site's desired outcomes.

Facilitators for project implementation included support from the key stakeholders mentioned above. This project also aligned with the mission of Magnet designated hospitals, which includes continually improving patient care through leadership, scientific discovery and dissemination and implementation of new knowledge, as well as the hospital's vision, which includes leading in clinical excellence and growth (ANCC, n.d.).

Potential barriers to this project included time and access. Staff may have felt they didn't have enough time to practice mindfulness due to ED's busy and stressful environment. Strategies to address this included the weekly updated mindful moment reminders that were posted throughout the department and designed to take no longer than a few seconds to practice. Staff perception was another potential barrier. Staff may have not perceived the topic of mindfulness as useful and may have believed the mindfulness module to be a waste of time and chose not to participate. Strategies that addressed this included engaging champions such as the charge nurses to help promote staff participation. Staff were provided treats, such as pizza or candy, after completing the mindfulness module as another method to improve staff participation. Finally, due to high turnover rates in the ED, several staff completing the pre-intervention MBI scale may no longer have been employed at the time of project completion and thus were not able to complete the post-intervention MBI scale. While this was unavoidable, the QI project being proposed was ultimately a strategy to help increase nurse retention, making the project the potential solution to its own barrier.

Ethical Considerations/Permissions

This project was approved by the project site's Nursing Research Oversight Team (NROT), project site's ED nurse director, and DNP student's project chair, as displayed in Appendix G. This project proposal was also submitted to the University of Louisville IRB and was classified as Non-Human Subjects Research (NHSR) and approved to proceed as a QI project, as displayed in Appendix H.

Data collected was stored in a password protected computer. Participation in this project was voluntary, and participants were de-identified prior to dissemination of results.

Intervention Implementation

Intervention

An educational module was developed and delivered to participants via the project site's online employee education platform. The outline of content for the module was as follows:

- What is burnout?
 - “A syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people work’ of some kind” (Maslach & Jackson, p. 99,1981)
 - A gradual process that occurs after prolonged exposure to stress in the workplace
- The 3 components of burnout
 - Emotional Exhaustion: one's work depleting their emotional resources
 - Depersonalization: negative, dehumanizing, or impersonal thoughts towards patients
 - Personal Accomplishment: the feelings which one has about their level of work competence and achievement
- Effects of burnout
 - Decreased job satisfaction
 - Decreased quality of patient care
 - Decreased patient satisfaction
 - Increased work absences
 - Increased adverse events (i.e., patient falls & hospital acquired infections)
 - Increased staff turnover
- Burnout among ED nurses
 - ED nurses are at an increased risk to develop burnout

- Nurses working in the ED experience higher burnout rates than nurses working in other healthcare settings
- Up to 82% of those working in ED experience burnout
- Contributing factors
 - ED overcrowding
 - Increasing levels of violence
 - Insufficient staffing
 - No cap on patient ratios
- The vicious cycle
 - ED nurses experiencing burnout are more likely to leave their job
 - ED nurse turnover is significantly higher than the national average annually
 - Nursing turnover leads to decreased staffing and increased burnout
- Signs of burnout
 - Always feeling tired or fatigued
 - Overall dread towards going to work
 - Apathy towards patients
 - Increased anxiety and depression
 - Substance abuse, including caffeine, alcohol, and illicit drugs

(WGU, 2019).

- What can we do?

- Prevention of burnout in nurses is aimed at promoting personal well-being and development of coping mechanisms for occupational stress (Green & Kinchen, 2021)
- Mindfulness-based interventions have been found to significantly reduce nurse burnout
- Effective in decreasing nurse burnout regardless of delivery method
- Mindfulness interventions don't need to be costly or lengthy to have significant effects on ED nurse burnout
- Mindfulness education and practices to mitigate burnout
 - What is mindfulness?
 - Being present in the moment and paying attention to our thoughts, feelings, and physical sensations (mindfulness unleashed)
 - Practicing mindfulness allows us to be more aware of our thoughts and emotions, and to respond to them in a more mindful way
 - “The basic human ability to be fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us” – mindful.org
 - A technique rooted in Buddhism and meditation that involves noticing what's happening in the present moment, without judgment
 - Simply, mindfulness is being aware that you are alive
 - “There are those of us who are alive but don't know it.” -Thich Nhat Hanh

- Forgetfulness is a state of being when your body is present, but your mind is not. You are caught in the past or in the future, and you are not there in the present moment.
- Mindfulness is the opposite of forgetfulness. You are truly present, mind and body together.
- “Our true home is not in the past. Our true home is not in the future. Our true home is in the here and the now. Life is available only in the here and the now, and it is our true home.” -Thich Nhat Hanh
- Autopilot vs. Awareness
 - Mindfulness interrupts the stress cycle
 - Practicing mindfulness allows you to become aware of reactivity in your life and how to respond with intention
 - Mindfulness can interrupt patterns around being stuck and maladaptive coping
- Benefits of practicing mindfulness
 - Reduced rumination
 - Stress reduction
 - Boosts to working memory
 - Focus
 - Less emotional reactivity
 - More cognitive flexibility
 - Relationship satisfaction
 - Reduced anxiety and depression

- Health benefits, including lower blood pressure and improved sleep
- How to practice mindfulness
 - Most beneficial when you practice daily
 - Can be integrated in daily activities, such as walking or eating, as well as while interacting with others
 - The basics of mindfulness practice
 - Set some time aside
 - Observe the present moment as it is
 - Let your judgments roll by
 - Return to observing the present moment as it is
 - Be kind to your wandering mind
 - A few more mindful strategies
 - *Recognize* what you are thinking, feeling, or sensing. *Refrain* from reacting automatically. *Relax* your body and quiet your mind. *Repeat* this process to continue being mindful.
 - *Tune in* to your thoughts, feelings, and physical sensations in the present moment without judging or trying to change them. *Take a step back* and observe your thoughts, feelings, and physical sensations without getting caught up them. *Take care* of your thoughts, feelings, and physical sensations by being kind and compassionate towards yourself. *Trust* that you know what is best for you and that you can make the right decisions and respond mindfully.

- **Pay attention** and focus on things you can see, hear, smell, taste or touch. **Live in the moment** by bringing attention to everything you do. **Accept yourself** the way you would treat a good friend. **Focus on your breath** as it moves in and out of your body.
 - Whether through yoga, meditation, deep breathing, or just being in the moment, find the best mindfulness practice that works for you!

Following the educational module was six weeks of mindful moment reminders posted throughout the department. These were updated weekly, and the content was as illustrated in Appendix B.

Intervention Team

The project lead met with the key stakeholders prior to implementation of the intervention. The intervention and implementation process were described in detail and all questions or concerns were addressed. Once stakeholders were made aware of the project implementation date, flyers were posted throughout the unit and emailed to all nursing staff informing them of the upcoming project, as illustrated in appendix C. An announcement was made by charge nurses during shift huddle during the first week of each step included in the implementation phase, which are displayed in appendix D.

Implementation of the Intervention

Referring to the PDSA cycle, the do phase included measuring ED nurse burnout via MBI pre-intervention, delivery of a mindfulness module to ED nurses via employee education portal. This was followed by weekly mindful moment reminders via flyers emailed and posted throughout the unit, and lastly by measuring ED nurse burnout via MBI post-intervention. The

timeframe of each step in this phase are illustrated in appendix E. Details of each step, in order that they occurred during this phase, were as follows:

1. A pre-intervention MBI scale was sent to all ED nurses employed at the project site via their employee email. The email included a brief message, illustrated in appendix F, and a link to a Microsoft Forms page. Participants were prompted to provide demographic data, as described in the measures of this project, prior to completing the MBI. Once complete, the data collected via Microsoft Forms went directly to an Excel spreadsheet on a password protected computer.
2. A mindfulness module, as previously described above, was delivered to all ED nurses employed at the project site via the organization's employee education portal. The number of staff that completed the module was provided by the ED nurse educator.
3. Mindful moment reminders were emailed to all ED nurses employed at the project site via their employee email weekly. These flyers were also placed throughout the department, for instance, in the breakroom, employee bathrooms, nurses' station, and medication room, and updated at the same frequency. The mindful moment flyers are illustrated in appendix B.
4. A post-intervention MBI scale was sent to all ED nurses employed at the project site via their employee email. The email included a brief message, illustrated in appendix F, and a link to a Microsoft Forms page. Participants were again prompted to provide demographic data, as described in the measures of this project, prior to completing the MBI. Once complete, the data collected via Microsoft Forms went directly to an Excel spreadsheet on a password protected computer.

Implementation Resources. A considerable amount of time was required from the DNP student while developing and delivering education as well as ensuring continued forward movement of the project. Another necessary resource was ED nursing staff time, including an estimated 10-15 minutes to complete pre- and post-intervention MBI scales, as well as time taken to complete mindfulness education and continued practice, which will vary between participants.

Implementation Materials. Materials necessary for this project included paper, push pins, and ink for the flyers. One ream of 8.5"x11" paper costing \$8.00, package of push pins costing \$5.00, and 1 set of ink cartridges costing \$87.00 was sufficient for this project. Additionally, treats provided throughout the implementation phase to promote staff participation cost \leq \$250.00. These included fun size candy bars provided to staff who completed MBI scales and/or mindfulness module, as well as pizza provided during the mindful moment weeks to encourage continued mindfulness practice. This resulted in a total budget of \leq \$350.00 for this project.

Measures

Process Measures

By nature of this project, process measures were difficult to define, as the primary focus was outcome measures. Throughout project implementation and upon project completion, key stakeholders and staff provided the project lead with feedback and indicated the implementation process was effective and well-received among staff.

Outcome Measures

The outcomes specific to the aims of this project were measured by the sum of ED nurses that completed the MBI pre- and post-intervention as well as the sum of ED nurses that completed the mindfulness module within the three-week timeframe. Improvement in total MBI scores of each subscale, including EE, DP, and PA, following the 13-week implementation phase were measured using the average total scores of each subscale pre-intervention and the average total scores of each subscale post-intervention. Improvement in EE and DP were measured by the percentage decrease in scores, while improvement in PA was measured by the percentage increase in scores.

Demographic Data

The following demographic data was collected from participants at the beginning of pre- and post-intervention surveys:

- Gender
 - Male
 - Female
 - Nonbinary
 - Prefer not to answer
- Age
 - 20-29 years old
 - 30-39 years old
 - 40-49 years old
 - 50-59 years old
 - 60+ years old

- Years of total nursing experience
 - Less than one year
 - 1-3 years
 - 4-6 years
 - 7-9 years
 - 10+ years
- Years of ED nursing experience
 - Less than one year
 - 1-3 years
 - 4-6 years
 - 7-9 years
 - 10+ years

Demographic data was chosen based on correlations identified in the literature, including a higher incidence of burnout among females than males. Correlation between burnout and years of experience as well as age varied between studies, so this demographic data was chosen to be obtained to hopefully provide useful information for future statistical correlation analysis as desired.

Instruments

Maslach Burnout Inventory. Burnout was measured using the MBI, as illustrated in Appendix I, which was originally developed in 1981 by Christina Maslach and Susan E. Jackson. Maslach & Jackson first described burnout as “a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people-work’ of some kind” (p. 99, 1981). Comprised of EE, DP, and PA, the MBI measures burnout by addressing these three

subscales. EE refers to one's work depleting their emotional resources, leaving them feeling emotionally overextended and unable to "give of themselves at a psychological level" (Maslach & Jackson, p. 100, 1981). Negative, dehumanizing, or impersonal thoughts toward patients describe DP. Finally, the feelings which one has about their level of work competence and achievement are measured by PA.

The MBI is a 22-item questionnaire that is divided into three subscales and uses a Likert scale to assess frequency of which respondents experience the feelings mentioned, ranging from 0 (never) to 6 (every day). The EE subscale consists of nine items, while the DP subscale contains five items. For these subscales, a higher mean score correlates with a higher degree of experienced burnout. The eight-item PA subscale, however, has an inverse relationship with degree of burnout. That is, a lower mean score on this subscale correlates with a higher degree of experienced burnout. Maslach clarifies that the PA subscale does not correlate with the other two subscales and notes this subscale cannot be assumed to be the opposite of EE or DP. Each subscale is scored separately and then categorized as low, moderate, or high. The subscale scores are not combined into one total score, but a high score in EE and DP and a low score in PA may indicate burnout.

Reliability of the MBI was obtained by collecting test-retest data from two separate samples, one separated by an interval of 2-4 weeks and the other separated by an interval of one year. Cronbach's coefficient was used to estimate internal consistency, and results were statistically significantly beyond the 0.001 level. Internal consistency coefficients were 0.89 for EE, 0.77 for DP, and 0.74 for PA. Validity was established with the use of mental health workers who were assigned to observe and evaluate MBI participants' behavior while at work and rate their observation for each subscale. For instance, how emotionally drained the participant was

and how they reacted to clients. These ratings correlated as predicted with the MBI scores for EE and DP subscales. PA subscale scores were validated with a home setting observer, in which the participants' spouse provided the frequency of behaviors that were predicted to correlate with MBI scores. Validity was further demonstrated by Maslach's confirmed hypothesis which suggested MBI burnout scores would increase along with an increased workload, i.e., increase in the number of clients one cares for. Maslach also found a correlation between MBI scores and the desire to leave one's job, as she hypothesized.

Permission for use of the MBI scale was not necessary to be acquired as it is free within the public domain. To ensure completeness and accuracy of data collected, only MBI scales that were completed in full were included for data analysis.

Data Analysis

Statistical Package for the Social Sciences (SPSS) version 29 was used to perform descriptive and inferential statistical analysis from the data collected during this project.

As previously mentioned, burnout scores and demographic data were collected using Microsoft Forms platform and sent directly to an Excel spreadsheet contained on a password protected computer not located on the project site's campus. Participant burnout scores were calculated by adding the numbers assigned to each response, ranging from 0-6, into a total score for each separate subscale, including EE, DP, & PA. Number of participants that completed the mindfulness module was provided by the ED nurse educator via the employee education portal.

The demographic data collected during this project, including nominal and ordinal variables, is reported descriptively, representing the percentage breakdown of participants'

gender, age, years of total nursing experience, and years of ED experience. This will also provide potential baseline data for future PDSA cycles.

A quantitative analysis was conducted to determine percentage improvement of each total MBI subscale score following intervention. Mean total scores of each MBI subscale, including EE, DP, and PA, were calculated, and corresponding subscale scores were compared pre- and post-intervention.

The statistical method used to compare MBI scores was the paired sample *t*-test, which determined whether there was a statistically significant difference between pre- and post-test scores. The level of significance was set at $p < 0.5$.

Results

A total of 37 ED nurses (n=37) completed the MBI pre-intervention, a total of 24 ED nurses (n=24) completed the MBI post-intervention, and a total of 57 ED nurses (n=57) completed the mindfulness module within the three-week timeframe.

Demographics

A total of 61 (n=61) MBI surveys were completed, including both pre- and post-intervention. Of those that completed the MBI surveys, the majority of participants were female (n=52), between 30-39 years old (n=24), had 10 plus years of nursing experience (n=20), and had 1-3 years of emergency nursing experience (n=22). A complete list of participant demographics is illustrated in Table 1.

Table 1*Demographic Data*

<i>Characteristic</i>	Pre- Intervention n	Post- Intervention n	Total n	Percentage of Total %
<i>Gender</i>				
Male	7	2	9	14.8
Female	30	22	52	85.2
<i>Age Range</i>				
20-29 years old	13	10	23	37.7
30-39 years old	15	9	24	39.3
40-49 years old	6	5	11	18
50-59 years old	1	0	1	1.6
60+ years old	2	0	2	3.3
<i>Total Years Nursing Experience</i>				
Less than one year	5	3	8	13.1
1-3 years	11	8	19	31.1
4-6 years	5	3	8	13.1
7-9 years	3	3	6	9.8
10+ years	13	7	20	32.8
<i>Years of Emergency Nursing Experience</i>				
Less than one year	9	4	13	21.3
1-3 years	12	10	22	36.1
4-6 years	5	3	8	13.1
7-9 years	4	3	7	11.5
10+ years	7	4	11	18

Statistical Analysis

A total of 13 ED nurses (n=13) completed the MBI both pre- and post-intervention. These MBI score means were compared using a paired sample *t*-test to determine if there was a statistically significant improvement in scores pre to post.

Emotional Exhaustion

Average emotional exhaustion scores were 15.00 (SD=10.654) pre-intervention and 12.54 (SD=7.401) post-intervention. Although the emotional exhaustion scores did improve, a paired sample *t*-test determined this improvement was not statistically significant ($t=1.286$, $p=.223$).

Depersonalization

Average depersonalization scores were 13.92 (SD=10.364) pre-intervention and 16.46 (SD=4.737). These scores did not improve, and the change in scores was determined not to be statistically significant following a paired sample *t*-test ($t=-1.057$, $p=.311$).

Personal Achievement

Average personal achievement scores were 30.77 (SD=11.204) pre-intervention and 29.69 (SD=4.956) post-intervention. Despite the lack of improvement in personal achievement scores, a paired sample *t*-test indicated no statistical significance ($t=.419$, $p=.682$).

Discussion

Summary

The increased incidence and subsequent negative consequences of burnout among ED nurses is well-documented throughout the literature. Mindfulness-based interventions have been implemented and evaluated as possible strategies to decrease burnout. Although there was an improvement in emotional exhaustion scores following the mindfulness-based intervention implemented in this project, these improvements were not statistically significant. The key findings related to the specific aims of this project include 100% of ED nurses employed at the project said were provided the opportunity to complete the MBI pre- and post-intervention. 37% (n=37) of ED nurses completed the MBI pre-intervention, 57% (n=57) of ED nurses completed

the mindfulness module within the three-week timeframe, and 24% (n=24) of ED nurses completed the MBI post-intervention. When comparing MBI scores pre- and post-intervention, there was a 16.4% improvement in mean emotional exhaustion scores, a -18.28% improvement in mean depersonalization scores, and a -3.51% improvement in mean personal achievement scores.

Interpretation

Although there was an improvement in mean emotional exhaustion scores following the mindfulness-based intervention, these results were not statistically significant and therefore cannot be attributed as a direct result of the intervention. An unexpected finding was the worsening of mean depersonalization and personal achievement scores following the mindfulness-based intervention. These results were also determined not to be statistically significant, but still require the need for interpretation.

These findings are consistent with the current evidence as discussed in the literature review. Pospos et al. (2018) reported a reduction in burnout among healthcare professionals following an eight-week MBSR module intervention. However, these results were not statistically significant. A systematic review of eight separate studies demonstrated that different MBSR interventions may work better for different nursing environments, as some MBSR interventions were found to have insignificant results, while other interventions, or even the same intervention in a different setting, had significant effects on burnout (Green & Kinchen, 2021). The varying degrees of improved burnout following mindfulness-based interventions among separate studies support the results acquired during this project.

A randomized controlled trial found that intensive care unit staff burnout decreased significantly regardless of being assigned to the educational intervention or control group (Ricou et al., 2020). These results may demonstrate that improved burnout could be a result of staff feeling like their burnout is being acknowledged and addressed, which may have also played a role in this project's results. This may also help to explain the unanticipated increase in staff depersonalization, as staffs' awareness of their own experienced depersonalization may have become more apparent as the mindfulness-based intervention promoted more recognition of these symptoms within oneself.

Limitations

This project was conducted within a Magnet-designated hospital, which represents less than 10% of hospitals nationwide that are recognized for their commitment to nursing excellence. As these organizations are often considered more desirable workplaces for nurses, this may limit generalizability of results among nurses working in non-Magnet-designated hospitals. However, the increasing prevalence of burnout among ED nurses does not discriminate between the two, so thus some level of generalizability may be applied.

The nature of this project's design poses a threat to internal validity, as participation was completely voluntary. Those that chose to participate in this project may have characteristics that make them less vulnerable to burnout or be more susceptible to mindfulness-based interventions, and therefore may not depict an accurate representation of the ED nursing staff in entirety.

A weakness identified during project implementation was non-exclusive access to the MBI survey. All ED nurses employed at the project site were emailed a link that allowed them to complete this survey. In addition, QR codes posted throughout the department and handed out

along with candy also provided access to the MBI survey. Although the MBI survey contained nursing specific questions, such as years of nursing experience, there was no way to undoubtedly determine that all responses received were from exclusively nursing staff.

Conclusions

Despite the absence of statistical significance, the project was well-received by ED staff and prompted increased recognition of burnout symptoms and ways to practice mindfulness. ED staff provided positive feedback on both the mindfulness module and subsequent weekly mindful reminders. Many staff reported feeling more aware of their breathing during certain situations, such as driving to or from work, throughout the project intervention implementation phase and even after. While the intervention could not definitively be linked to the improved burnout scores, it was still able to provide ED nurses with education on the practice of mindfulness to mitigate burnout.

Data obtained throughout this project may provide useful information for further PDSA cycles in the future. In addition, the demographic data obtained may provide useful information for possible correlation analysis related to burnout prevalence.

Implications for practice include continued education regarding burnout recognition and the benefits of practicing mindfulness. Although weekly mindful reminders have ceased, the mindfulness module remains available to staff via the employee education portal. This education may be incorporated into new hire orientation within the ED.

Suggestions for further study include evaluating mindfulness-based interventions, whether it be the same intervention implemented among separate EDs, or separate interventions implemented within the same ED. Due to the wide range of mindfulness-based intervention

delivery, further research is needed to indicate the most effective method in improving ED nurse burnout.

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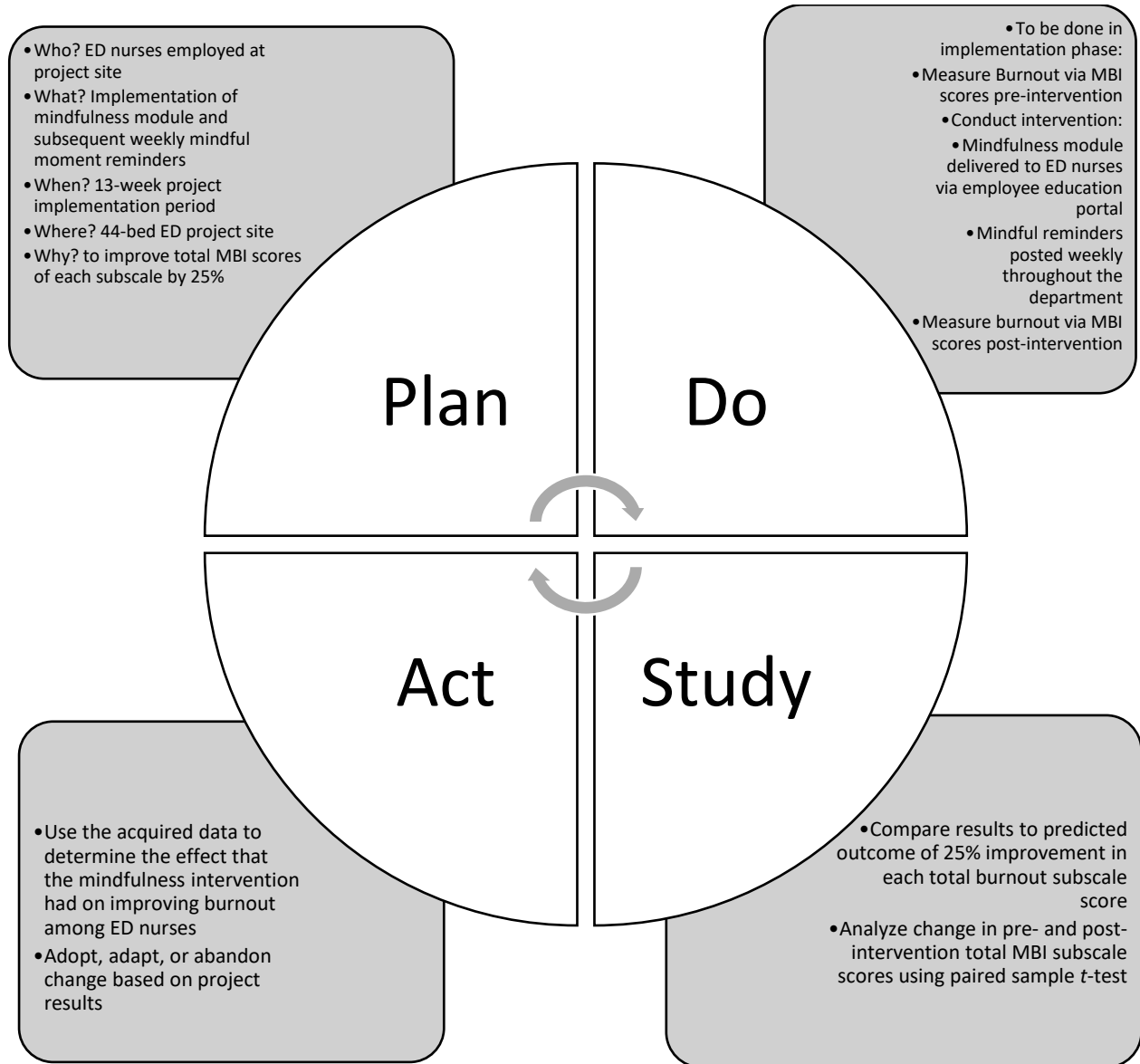
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Appendix A

PDSA Cyle



Appendix B
Weekly Mindful Moment Reminders

Figure B1

S.T.O.P.

Use this practice to get out of auto pilot mode and into the present moment:

S- STOP what you're doing.

Put things down for a minute.

T- TAKE a few deep breaths.

Direct your awareness to your breathing, follow each breath in through your nose and out through your mouth.

O- OBSERVE what you are experiencing.

Expand your awareness to your thoughts, feelings, and emotions, and notice how your body may be expressing them through posture, tension, jaw clenching, etc.

P- PROCEED without expectation.

Let your attention move outward to sense how things are around you right now. Be open and respond naturally rather than mechanically.

Figure B2

Mindful Walking

Feel the ground beneath your feet, supporting you.

Sense the weight of your body at your feet, your muscles stabilizing
you.

As you walk, notice the sensations in your feet and legs.

Feel the ground beneath your feet with each step you take.

Notice the earth under your feet with each step you take.

Enjoy the effortless with which you walk.

With mindful walking, every step is enjoyable.

Every step helps you touch the wonders of life.

Every step is joy.

*“The miracle is not to walk on water. It is to walk on
this earth with awareness.” - Thich Nhat Hanh*

Brach, T. (2014). *Walking meditation instructions*. Palousemindfulness.com

Hanh, T. N. (n.d.). *Five steps to mindfulness*. www.mindful.org

Figure B3

Take some deep breaths

Breathe in through your nose to a count of 4

Hold for 1 second

Exhale through your mouth to a count of 5

Repeat often

National Institutes of Health. (2021). *Mindfulness for your health: The benefits of living moment by moment*. Department of Health and Human Services. [Newsinhealth.nih.gov](https://www.newshealth.nih.gov)

Figure B4

Body Scan

Become aware of your body.

Bring your attention to how each part of your body is feeling.

Start at the top of your head and make your way down to the bottom of your feet.

Notice any areas of tension.

Breathe in, aware of your body.

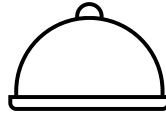
Breathe out, releasing the tension in your body.

Practice releasing the tension in yourself throughout the day.

National Institutes of Health. (2021). *Mindfulness for your health: The benefits of living moment by moment*. Department of Health and Human Services. [Newsinhealth.nih.gov](https://www.nhs.uk/news/2021/04/21-mindfulness-for-your-health)

Figure B5

Mindful Eating



Be aware of the **taste**, **sight**, and **textures** in each bite.

Pay **attention** to when your body is hungry and when it is full.

Focus on the **temperature** of your beverage,
how the liquid **feels** on your tongue,
how **sweet** or **flavorful** it tastes.

National Institutes of Health. (2021). *Mindfulness for your health: The benefits of living moment by moment*. Department of Health and Human Services. [Newsinhealth.nih.gov](https://www.newshealth.nih.gov)

Figure B6

Mindful Breathing

Focus your attention to your breath.

Recognize your in-breath as you inhale.

Recognize your out-breath as you exhale.

Don't interfere with your breathing.

If your in-breath is short, allow it to be short.

If your out-breath is long, allow it to be long.

This simple practice stops mental discourse.

Bringing your awareness to your breath effortlessly stops your thoughts of the past or future, focusing your attention on the present moment.

Hanh, T. N. (n.d.). *Five steps to mindfulness*. www.mindful.org

Appendix C

Project Flyer

ATTENTION EMERGENCY DEPARTMENT NURSES

You're invited to participate

Implementation of Mindfulness Module to Reduce Burnout among Emergency Department

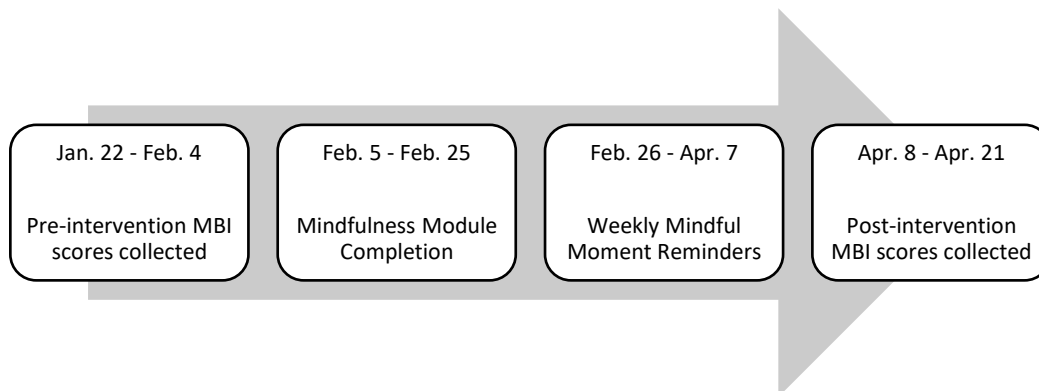
Nurses: A Quality Improvement Project

Beginning January 22nd, 2024

Learn about the consequences of burnout and the effect of practicing mindfulness.

In the following weeks, the opportunity to participate in this QI project will be made available to all staff nurses currently employed at BHL via employee email.

To be included, please complete any or all steps of the project, illustrated below:



More detailed information to be included at the start of each step.

Participation will be voluntary and will remain anonymous.

For questions or concerns please contact:

Katie Waltrip, University of Louisville Doctor of Nursing Practice student, 859-227-3948

Approved by University of Louisville Institutional Review Board # (pending) & Baptist Health Louisville Nursing Research Oversight Team # (pending)

Appendix D

Shift Huddle Announcements

Step One Announcement

“Nurses, if you would like to participate in a quality improvement project aimed at decreasing burnout through mindfulness practice, please complete the survey that was emailed to you by February 4th. See Katie Waltrip for more information.”

Step Two Announcement

“Nurses, if you would like to participate in a quality improvement project aimed at decreasing burnout through mindfulness practice, please complete the mindfulness module via DevelopYou by February 25th. All staff are invited to view the module if they are interested in learning more about the consequences of burnout and the effect mindfulness plays in decreasing burnout, regardless if you are able to participate in the quality improvement project or not. See Katie Waltrip for more information.”

Step Three Announcement

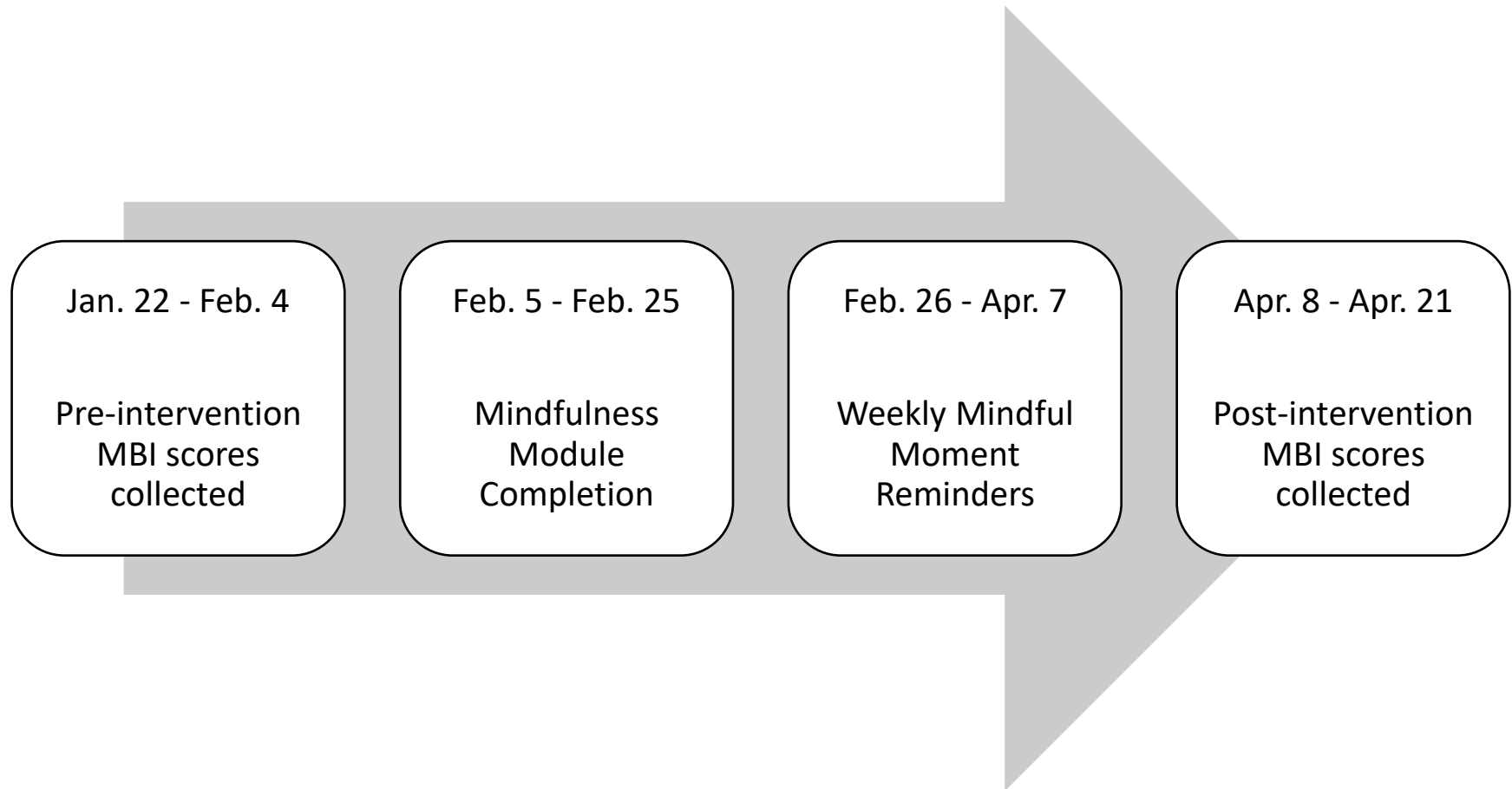
“Over the next 6 weeks, you will notice weekly mindful moment reminders displayed throughout the department as part of a quality improvement project in which all ED staff nurses are invited to participate. See Katie Waltrip for more information.”

Step Four Announcement

“Nurses, if you would like to participate in a quality improvement project aimed at decreasing burnout through mindfulness practice, please complete the final survey that was emailed to you by April 21st. See Katie Waltrip for more information.”

Appendix E

QI Project Implementation Timeline (2024)



Appendix F

Pre- and Post-Intervention MBI Scale Email

Emergency Department Nurses: If you would like to participate in the quality improvement project entitled “Implementation of Mindfulness Module to Reduce Burnout among Emergency Department Nurses”, please complete the survey by clicking the link below or scanning the QR code with your smartphone.

Participation is voluntary and will remain anonymous. Please see Katie Waltrip for more information.

Appendix G

Project Approval

Figure G1

Dear Katie,

The Nursing Research Oversight Team (NROT) has reviewed and approved your project proposal. Congratulations! **Before starting any part of your project, we require additional documentation.**

Please send us a copy of your Institution's IRB approval letter as soon as you receive it. Please send the NROT a letter of support/ project approval from the following:

1. The manager or director of the unit where your project will take place.
2. Your Institutional project committee chairperson.

Once you receive an email from the NROT confirming receipt of 1) the IRB approval letter 2) manager or director of the unit where your project will take place, and 3) your institutional project committee chairperson approval, you may begin your project and start collecting data.

Please also follow the Baptist Health – Louisville policy, *Nursing Project Proposal Submission for Review / Approval (includes nursing research, evidence-based practice and quality / performance improvement projects)*, [attached] especially the three subsections, "Project Tracking and Oversight", "Review and Approval of External Dissemination of Project Results", and "Requirements for Completed Projects". You are responsible for following all the policy guidelines applicable to your project.

Thank you,

Nicky Wright DNP RN

Orthopedic Program Coordinator
BHL Co-Chair Nursing Research Council
Baptist Health Louisville
4000 Kresge Way
Louisville, KY 40207
Office Number: 502-259-4722
Necholyia.Wright@bhsi.com
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Figure G2

Yes ma'am. Confirmed.



[Cheryl Freudenberger, MSN, RN, NE-BC](#)

Executive Director Emergency Services & Observation

Baptist Hospital Louisville

4000 Kresge Way

Louisville, Ky, 40207

502-928-8710 office

502-619-4338 cell

cheryl.freudenberger@BHSI.com

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From: Waltrip, Katie <katie.gerring@louisville.edu>

Sent: Wednesday, November 15, 2023 11:24 AM

To: Freudenberger, Cheryl (BHE) <Cheryl.Freudenberger@bhsi.com>
Subject: DNP Project

Good morning, Cheryl,

I just wanted to confirm our previous conversations regarding my DNP project entitled 'Implementation of Mindfulness Module to Reduce Burnout among Emergency Department Nurses: A Quality Improvement Project'. Do I still have your permission to complete this in our department next semester?

Thanks so much and hope you're having a great week!

Katie Gerring Waltrip

Figure G3



November 24, 2023

Dr. Nicky Wright

BHL Co-Chair Nursing Research Council

Dear Dr. Wright,

Please accept this as my letter of support and project approval for Katie (Gerring) Waltrip's Doctor of Nursing Practice (DNP) project titled, Implementation of Mindfulness Module to Reduce Burnout among Emergency Department Nurses: A Quality Improvement Project.

As Katie's DNP Committee Chair, I have discovered that she is an excellent student, has a very commendable knowledge base, and is quite dedicated. Over the past few semesters, I have enjoyed the mutual learning environment that has naturally developed.

My commitment to this project will extend through completion in August 2024.

On a side note, I would like to warmly thank the Baptist Health Louisville Nursing Research Council for their continued support of UofL DNP students. This is the third project I have chaired in your facility. Your

commitment to evidence-based practice and elevation of advanced practice registered nurses is refreshing.

Please reach out to me at any time with questions and comments.

Leann Baker, DNP, APRN, NNP-BC, C-ONQS

Assistant Professor
Neonatal Nurse Practitioner Lead/Program Coordinator

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Appendix H

IRB Outcome Letter

University of Louisville

Human Subjects Protection Program Office
 300 East Market Street, Suite 380
 Louisville, Ky 40202
 P: 502. 852.5188 E: hsgpofc@louisville.edu

DATE:	January 23, 2024
TO:	Lela Ann Baker
FROM:	The University of Louisville Institutional Review Board
IRB NUMBER:	23.0941
STUDY TITLE:	Implementation of Mindfulness Module to Reduce Burnout among Emergency Department Nurses: A Quality Improvement Project
REFERENCE #:	776274
DATE OF REVIEW:	01/22/2024
CONTACT FOR QUESTIONS:	Sherry Block 852-2163 slbloc04@louisville.edu

The IRB Chair/Vice-Chair (or An IRB member) has reviewed your submission. The project described does not meet the "Common Rule" definition of human subjects' research. The IRB has classified this project as Non-Human Subjects Research (NHSR). The project can proceed.

This submission has been determined to be quality improvement, and not human subjects research, based on the goal(s) stated in the protocol.

Institutional policies and guidelines on participant privacy must be followed. If you are using protected health information, the HIPAA Privacy rules still apply.

Any changes to this project or the focus of the investigation must be submitted to the IRB to ensure that the IRB determination above still applies.

Amendments for personnel changes or study closures are not required.

Sincerely,



Paula Radmacher, Ph.D., Vice Chair,
 Biomedical Institutional Review Board
 PR/slb

We value your feedback; let us know how we are doing: <https://www.surveymonkey.com/r/CCLHXRP>

Appendix I

Maslach Burnout Inventory (MBI)

Burnout Self-Test

Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory (MBI) is the most commonly used tool to self-assess whether you might be at risk of burnout. To determine the risk of burnout, the MBI explores three components: emotional exhaustion, depersonalization, and personal achievement. While this tool may be useful, it must not be used as a scientific diagnostic technique, regardless of the results. The objective is simply to make you aware that anyone may be at risk of burnout.

For each question, indicate the score that corresponds to your response. Add up your score for each section and compare your results with the scoring results interpretation at the bottom of this document.

Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Everyday
SECTION A	0	1	2	3	4	5	6
I feel emotionally drained by my work.							
Working with people all day long requires a great deal of effort.							
I feel like my work is breaking me down.							
I feel frustrated by my work.							
I feel I work too hard at my job.							
It stresses me too much to work in direct contact with people.							
I feel like I'm at the end of my rope.							
Total score - SECTION A							
Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
SECTION B	0	1	2	3	4	5	6
I feel I look after certain patients impersonally, as if they are objects.							
I feel tired when I get up in the morning and have to face another day at work.							

I have the impression that my patients make me responsible for some of their problems.							
I am at the end of my patience at the end of my work day.							
I really don't care about what happens to some of my patients.							
I have become more insensitive to people since I've been working.							
I'm afraid that this job is making me uncaring.							
Total score - SECTION B							
Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
SECTION C	0	1	2	3	4	5	6
I accomplish many worthwhile things in this job.							
I feel full of energy.							
I am easily able to understand what my patients feel.							
I look after my patients' problems very effectively.							
In my work, I handle emotional problems very calmly.							
Through my work, I feel that I have a positive influence on people.							
I am easily able to create a relaxed atmosphere with my patients.							
I feel refreshed when I have been close to my patients at work.							
Total score - SECTION C							

SCORING RESULTS - INTERPRETATION

Section A: Emotional Exhaustion

Emotional Exhaustion: Testifies to fatigue at the very idea of work, chronic fatigue, trouble sleeping, physical problems. For the MBI, as well as for most authors, "exhaustion would be the key component of the syndrome." Unlike depression, the problems disappear outside work.

- Total 17 or less: Low-level burnout
- Total between 18 and 29 inclusive: Moderate burnout
- Total over 30: High-level burnout

Section B: Depersonalization

"Depersonalization" (or loss of empathy): Rather a "dehumanization" in interpersonal relations. The notion of detachment is excessive, leading to cynicism with negative attitudes with regard to patients or colleagues, feeling of guilt, avoidance of social contacts and withdrawing into oneself. The professional blocks the empathy he can show to his patients and/or colleagues.

- Total 5 or less: Low-level burnout
- Total between 6 and 11 inclusive: Moderate burnout
- Total of 12 and greater: High-level burnout

Section C: Personal Achievement

The reduction of personal achievement: The individual assesses himself negatively, feels he is unable to move the situation forward. This component represents the demotivating effects of a difficult, repetitive situation leading to failure despite effort. The person begins to doubt his genuine abilities to accomplish things. This aspect is a consequence of the first two.

- Total 33 or less: High-level burnout
- Total between 34 and 39 inclusive: Moderate burnout
- Total greater than 40: Low-level burnout

A high score in the first two sections and a low score in the last section may indicate burnout.