

**Mindfulness-Based Intervention Help New to Practice Nurses Cope with Stress: An
Evidence-Based Practice Project**

Presented in Partial Fulfillment of the Requirements for the Degree of
Doctor of Nursing Practice in The Graduate School at The Ohio State
University

Jeanette Palermo MSN, NPD-RN, PCCN-K

Graduate Program in Nursing

The Ohio State University

2021

DNP Project Committee

Cindy M. Anderson, PhD, APRN-CNP, ANEF, FAHA, FNAP, FAAN
Sharon Tucker, PhD, APRN-CNS, NC-BC, EBP-C, FNAP, FAAN,
Catherine Levonian MPH, PhD, RN, NPD-BC

Abstract

Occupational stress is a safety concern, affecting individual and organizational performance. Nurses at an academic medical center steadily reported increased stress scores over a year-long nurse residency program (NRP). Evidence shows that Mindfulness-Based Interventions (MBIs) improve self-awareness, enhance patient safety, and increase nurses' ability to be present. The PICOT question for this project was, in new to practice nurses (P), how does the revising stress curriculum (I) to an established self-care/coping nurse residency curriculum (C) affect the perceived level of stress, job satisfaction, intention to leave one's position, and quality of mindfulness (O) over 6 months (T)? An MBI of mindful breathing was delivered March 2020 NRP cohort (n=29). Nurses received 3 MBI techniques over 6 months. Implementation strategies included discussion on mindfulness, brief technique instruction, and access to the recorded techniques. Surveys evaluating perceived stress, job satisfaction, and intention to leave position were completed at the time of hire and 6 months after employment. Internal surveys provided qualitative feedback about MBI techniques. The Cognitive Affective Mindfulness Survey-Revised (CAMS-R) was given at seminars 1 and 3 to assess the quality of participants' mindfulness. Perceived stress scores and intention to leave position did not significantly differ from benchmark data at 6 months. Internal seminar surveys indicated a positive response to the MBI. CAMS-R showed no significant change in the level of mindfulness. The project occurred during the pandemic, requiring adaptations to implementation, including delivery and duration. Continued evaluation over time within the NRP is recommended.

Keywords: "nurses" or "nurse residents," or "new to practice nurses," "mindfulness," and "occupational stress."

Mindfulness-Based Intervention Help New to Practice Nurses Cope with Stress: An Evidence-Based Practice Project

Section 1a: Problem Identification

Statement of the Problem

Nursing is a high-stress occupation. According to the American Nursing Association (ANA), occupational stress and the effects on healthcare workers are a top safety concern (Dawson, 2012; Nursing Solutions, 2019). The ANA created a program entitled "Healthy Nurse, Healthy Nation" as a call to action after a 2011 survey showed 74% of nurses were concerned about the effect of stress and being overworked (American Nurses Association, 2011). The focus of the program is to provide educational programming for nurses to help promote wellness. The ANA proposes that if a nurse is healthy, they will create a healthier nation through their personal and professional lives. Programs like this show occupational stress in nursing is an issue on a national level.

Causes of occupational stress in nursing include heavy workload, understaffing, rotating shifts, patient acuity, mandated reporting, reimbursement models, emerging technology, complicated interpersonal relationships, compassion fatigue, second victim trauma, and physical harm (Myers, 2017). Nurses must provide high-quality care despite multiple interruptions, heavy workloads, and interpersonal conflicts. A nurse must learn to navigate environments of high occupational stress early in their career or risk burnout (Penprase, Johnson, Pittiglio, & Pittiglio, 2015).

Impact of Problem

It is expected that by 2030, the United States will experience a significant shortage of nurses due to retirement and turnover (Meyer & Shatto, 2018; Wang et al., 2017). Retirement is a factor that organizations cannot control. However, the underlying modifiable reasons for voluntary and involuntary nurse turnover in healthcare organizations will worsen the predictive shortage (Meyer & Shatto, 2018). The underlying reasons for nursing shortages due to turnover provide opportunities to mitigate challenges in the nursing workforce (Meyer & Shatto, 2018). Nursing is also encountering an "experience complexity gap," which occurs as the experienced nurses are retiring or leaving their position while

patient care is more complex (Virkestis, Herleth, & Rewers, 2019). Hospitals' national turnover is approximately 19.1%, with 92.7% of that number consisting of voluntary terminations (Nursing Solutions, 2019). One of the top 10 reasons stated for nurses voluntarily leaving their positions is workload and staffing issues that negatively affect reported occupational stress levels (Myers, 2017; Nursing Solutions, 2019).

Affected Population

New to practice nurses are at a higher risk for occupational stress. Work stressors experienced by new to practice nurses steadily increases over their first year of employment (Halpin, Terry, & Curzio, 2017). When new to practice nurses start working, the most significant stress is tasks and unit socialization. By the end of the first year, the most significant reported stress is the complexity of work or workload and workplace culture (Fink, Krugman, Casey, & Goode, 2008). As nurses leave the workforce through attrition or termination, healthcare organizations are increasing the number of new to practice nurses who are onboarded. Healthcare organizations offer supportive programs such as Nurse Residency Program (NRP) and Specialty Pathway programs to provide additional support to new to practice nurses (Wang et al., 2017). The goal of these types of programs is to provide professional and skills development with the focus on retaining the new to practice nurse within the organization (Wang et al., 2017).

Organizations must consider that employed Millennials and Gen Zs are more likely to be critical about workplace practices, culture, and procedures. Approximately 31% of Millennials and Gen Zs leave their first position within the first two years of employment (Dyess, Pratt, Chiang-Hanisko, & Sherman, 2016). NRPs are designed to help new practice nurses adjust to their new role within the nursing workforce and support the new to practice nurse in learning how to influence practice changes through evidence-based practice projects (Cline, La Frenz, Fellman, Summers, & Brassil, 2017). NRPs can enable new to practice nurses to adjust to the stress of working at the bedside. Without proper preparation of how to cope with occupational stress, nurses will likely continue to report high occupational stress levels that lead to voluntary termination (Fink et al., 2008).

Quality and Safety Issues

Nurses do not suffer alone. Patients experience the effect of their caregiver's stress manifested by increased errors, poor insight or judgment, and lack of quality care provided (Myers, 2017). Nursing is a caring and relationship-based profession; occupational stress can interfere with that relationship through the nurses' inability to actively listen, empathize, and connect with their patients (Myers, 2017).

Organizations that value employees' well-being and provide support in the form of coping techniques and reflective practices show positive outcomes in the areas of improved patient outcomes, increased patient satisfaction, reduced mortality and length of stay, and overall improved quality of care (Braithwaite, Herkes, Ludlow, Testa, & Lamprell, 2017).

Economic Impact

The estimated cost of nursing burnout is \$8,872 due to missed days of work and lack of engagement on the unit, and on average, a nurse spends 2.8 to 10 years in some state of burnout (Muir & Keim-Malpass, 2020). Stressed workers are 46% more costly than their non-stressed counterparts (Duarte & Pinto-Gouveia, 2016). Healthcare organizations are already struggling with a reduced workforce, increasing complexity of care, decreasing reimbursement, and high operational costs. Occupational stress and burnout are a financial burden to healthcare organizations, and it is crucial for healthcare organizations to find creative ways to retain the nursing workforce (Muir & Keim-Malpass, 2020; Nursing Solutions, 2019; Penprase et al., 2015).

Organizational Assessment of Problem

The organization associated with this DNP project started an NRP in 2007. The organization contracts with Vizient for the use of the Vizient/AACN Nurse Residency Program product. Vizient supplies evidenced-based curriculum guidelines, a networking support system for NRP Coordinators, and surveys specifically to evaluate new to practice nurses as they transition into their professional role. There are over 500 hospitals within the Vizient network. Vizient defines a nurse resident as any new to practice nurse employed in their first nursing role (Vizient, 2019). In 2018 the organization changed nursing leadership as the Chief Nursing Officer of 35 years announced her retirement. The new CNO launched a new initiative to become the "destination" for new to practice nurses. In 2019, the organization hired 235

new to practice nurses, compared to 180 new to practice nurses hired in 2018. The organization also experienced an increase in the number of nurses retiring. Employee longevity is typical in the organization, with many nurses starting their careers and never leaving. With that longevity comes the price of high rates of attrition due to retirements. The CNO prioritized new positions lost to attrition, focusing on new to practice nurses. Other changes included hiring new to practice nurses directly into specialty units, such as the intensive care unit. Another change included hiring new to practice nurses 3 times a year in March, August, and November, to provide more focused education, especially for nurses hired into specialty units. NRP class sizes range from 30 to 130 new to practice nurses in each seminar.

Even with a large workforce, the organization offered limited self-care and wellness programs through the health insurance carrier and the Employee Assistance Programs. While these are excellent programs, they did not help with an immediate need for high stress felt by new to practice nurses on the unit. With the influx of new to practice nurses and increase in the possible experience complexity gap that some units already felt, the organization started to examine strategies to decrease nursing stress, including respite rooms, code lavender, and stress management programs. An obstacle the organization faced was financing stress reduction projects.

Data to Support Problem

New to practice nurses in the nurse residency program complete surveys through Vizient. One survey that the new to practice nurses complete is the Casey-Fink Graduate Nurse Experience (Casey-Fink) survey. The Casey-Fink survey elicits data regarding the transition to practice and professional issues that arise, such as stress and job satisfaction at 3-time points; the start, midpoint (6 months), and end of the yearlong NRP. Additionally, NRP participants receive a seminar survey by email after each seminar to provide feedback on seminar content. Of importance to this project are two comments sections that ask, "What information from today can you use in developing your practice?" and "Comments," allowing for open-ended responses. The subjective responses provide essential information about specific content instructed during the seminars.

Data from the surveys are monitored to inform changes or assess areas of opportunity within the NRP curriculum. One area of opportunity noted in 2017 was the reported level of perceived stress, reported as overall stress in the Vizient database. Data from year-end 2015 and 2016 showed that new to practice nurses in the NRP reported more perceived stress ("overall stress" reported by Vizient) than their national counterparts. Perceived stress increased across the previous two years, with average mean scores (SD) of 2.38 (0.75), 2015 and 2.69 (0.76) in 2016. The national benchmark average mean scores in 2015 were 2.37 (0.82), and 2.38 (0.82), in 2016 (Figure 1).

Figure 1

Casey-Fink-Perceived Stress (Overall Stress) 2015 & 2016 outcomes

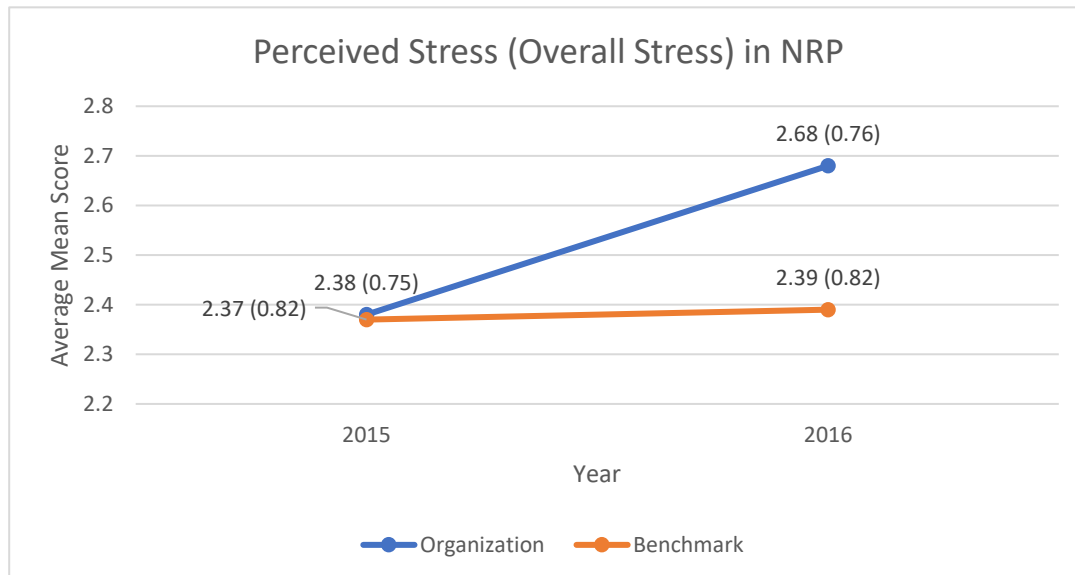


Figure 1: Perceived stress scores in NRP: A lower score indicates lower perceived stress (Likert scale 1-5). Organizational perceived stress scores increased and exceeded national benchmark among new to practice nurses. Data presented as mean, (SD).

The organizational data prompted a revision of the stress curriculum from 1, 45-minute discussion of stress to 6, 15-minute "self-care" activities. This change was the outcome of a self-selected quality improvement project conducted annually. The organization used the Plan-Do-Study-Act (PDSA) method for quality improvement projects. The PDSA is the most common practice change process used at the project organization (Agency for Healthcare Research and Quality, September 2020). PDSA is a cyclical model. Through evaluating outcomes, the practice change is improved further and tested again.

Using the PDSA cycle, the new curriculum included six coping/self-care techniques entitled, using laughter to de-stress, 1-minute meditation, 4-7-8 breathing, mandala art, chair yoga, and a 10-minute meditation. The curriculum revision did not significantly change the Casey-Fink survey data for perceived stress in 2017 than the prior two years. Findings from the 2017 internal seminar survey were informative. New to practice nurses made statements such as, "I will incorporate the stress management into my practice. As nurses, we often focus on our patients and forget that stress affects our lives, too." and "My stress-relieving exercises will be used during my career to help maintain my stress levels." There was evidence of increased interest in new to practice nurses completing evidenced-based projects (EBP) on coping with stress, providing further impetus to consider methods to improve the stress curriculum.

Section 1b: PICOT

Significance of the Problem

Occupational stress leads to physical and psychological illnesses such as decreased immune function, increased self-report of aches and pains, depression, and dependence on unhealthy coping practices (Burton, Burgess, Dean, Koutsopoulou, & Hugh-Jones, 2017; Myers, 2017). Occupational stress affects the individual and organizational performance in emotional exhaustion, cynicism, lack of personal accomplishment, burnout, poor patient outcomes, and can decrease patient satisfaction (Penprase et al., 2015).

With over four million registered nurses in the United States and expected job growth of 30% in the next five years, one assumes that nursing is a great career choice (Bureau of Labor Statistics, U.S. Department of Labor, 2018; Dawson, 2012). However, a 2019 report shows that 55.3% of all hospitals surveyed reported a 7.5% nurse vacancy rate; this is a 15.4% increase from 2015 (Nursing Solutions, 2019). Healthcare organizations are striving to cut costs while simultaneously improve patient outcomes, facing a difficult labor market and higher rates of attrition due to retirement. These factors require healthcare organizations to offer overtime, hire travel staff at a higher cost, and expand per diem staff (Nursing Solutions, 2019; Penprase et al., 2015).

PICOT

In light of the significance of the problem, the following PICOT question was developed: In new to practice nurses (P), how does the revising stress curriculum (I) into an established self-care/coping nurse residency curriculum (C) affect the perceived level of stress, job satisfaction, intention to leave one's position, and quality of mindfulness (O) over 6 months (T)?

Section 1c: Search Strategy

The PRISMA checklist and flow diagram were used to organize the search and evaluation of literature (Mohr, Batalden, & Barach, 2004). Databases utilized included PubMed, CINAHL, Cochrane, PsycINFO, and OVID. Keywords searched were "nurses" or "nurse residents," or "new to practice nurses," "mindfulness," and "occupational stress." Keywords were searched individually and combined. Additionally, a Boolean strategy with the following parameter enhanced the search; nurses or nurse residents or new to the practice and mindfulness or occupational stress or intention to leave a position. Parameters for inclusion criteria included practicing nurses within the hospital setting and mindfulness-based intervention (MBI). Exclusion criteria included journal articles older than five years, not in English, and studies that pertained to students.

Search Results

The initial PubMed search yielded over 276 articles. The following Medical Subject Heading (MeSH) search, ((“Mindfulness” [MeSH] AND “Stress, Psychological” [MeSH]) AND “Nursing” [MeSH]), yielded 23 articles. The keyword search and inclusion and exclusion criteria in CINAHL yielded 20 articles. The same search in Cochrane revealed 17 trials. All 17 trials were excluded due to focus on a patient population, not nursing. PsychINFO yielded 11 articles, and OVID yielded 29 articles. The review of the literature search yielded a total of 83 articles. PRISMA flow diagram is in Appendix A. After careful review of the 29 articles, 19 were selected to support the project. The evidence levels included two-level I systematic reviews or meta-analyses; and five-level II quasi-experiments; eight-level III non-experimental, qualitative, or meta-synthesis; and four-level V opinion of individual expert based on non-research evidence (QI, Financial data, personal experience). Reference literature, outcomes synthesis, and level of evidence tables are located in Appendix B.

Limitations

Limiting only nurses decreased the number of articles for critical appraisal. This review also eliminated any articles published in another language and any unpublished DNP projects.

Section 1d: Critical Appraisal of the Literature

Critical Appraisal Tool

The evidence-based tool used for this project was The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model. The JHNEBP model provides the means to evaluate and synthesize the literature review (Dang & Dearholt, 2018). The JHNEBP model has three interrelated components: inquiry, practice, and learning. It is the spirit of inquiry that sets the model into motion. It is in the spirit of inquiry that sparks questioning and motivates innovative, evidence-based solutions. The next steps are PICOT, evidence, and translation. Nursing practice and learning encircle the PICOT process and guide the literature search.

Synthesis of Literature

Nurses work in unusually high-stressed environments, as evidenced by increased workload, lack of resources, long hours, short staffing, lack of administrative support, and perceived incivility (Happell et al., 2013). Increased occupational stress decreases attention, increases the risk of errors, and affects patient satisfaction and patient outcomes (Myers, 2017).

Nursing is a caring professional that is also heavily tasked based. Nurses' state causes of their stress include heavy workload, patient acuity, lack of leadership, peer incivility, complicated interpersonal relationship, risk of personal harm, and compassion fatigue (Myers, 2017). The research found a positive relationship between job demands, occupational stress, and employees' intention to leave their position (Lo, Chien, Hwang, Huang, & Chiou, 2018). These findings are vital to healthcare organizations because it provides an opportunity to mitigate voluntary turnover.

The level of perceived stress for new to practice nurses increases over the first year of practice due to role transition and task acquisition (Happell et al., 2013). Turnover of new to practice nurses ranges from 20% to 40%, which has a financial impact on both the new nurse and the organization where

they are employed (Fink et al., 2008; Meyer & Shatto, 2018). Millennials and Gen Z are the new generations entering the workforce, and they desire a positive work environment that focuses on and values self-care, community, and teamwork (Christensen, Wilson, & Edelman, 2018). Three themes emerged when evaluating the literature to identify methods to mitigate perceived stress and turnover: self-care in nursing, Mindfulness-Based Stress Reduction (MBSR), and MBI.

Theme 1: Self-Care in Nursing

The definition of self-care includes actions taken by people to maintain health and prevent disease (The World Health Organization, 2018). Organizations promote self-care through offering worksite wellness or workplace health promotion programs. These types of programs are associated with decreased absenteeism and turnover, which can potentially save money, increase productivity and revenue (Jarman, Martin, Venn, Otahal, & Sanderson, 2015). A barrier to worksite wellness or health promotion programs is the time commitment. Evidence shows that nurses report a lack of time as a barrier in performing self-care (Kemper, 2017). In response to the time barriers, some organizations moved to web-based platforms to deliver and track self-care programming. The benefit of a web-based approach is that it makes the program accessible anytime and from anywhere. A web-based program called *Breath: Stress Management Program for Nurses* was implemented and showed significant improvement with nurses' reported perceived levels of stress (Hersch et al., 2016). Another study showed small but significant increases in healthcare professionals' mindfulness scores after implementing a web-based program, Mind-Body, Skill Training for Resilience, Effectiveness, and Mindfulness (STREAM) (Kemper, 2017).

Additionally, the STREAM research found evidence that nurses were interested in self-care and mindfulness programs and especially liked the flexibility that web-based programs offer (Kemper, 2017). Web-based programming is usually part of work wellness or health promotion programs offered by the organization. A benefit is they are offering inexpensive programs to the employee and easily accessible. The downside is that the employee must be engaged enough and have the time to complete the activity.

Theme 2: Mindfulness-Based Stress Reduction (MBSR)

In the 1970s, Jon Kabot-Zinn, a professor of medicine at the University of Massachusetts Medical School, developed a secular program focused on Zen Buddhist teaching entitled MBSR. Kabot-Zinn (2013) defines mindfulness as "paying attention in a particular way: on purpose, in the present moment, and in a non-judgmental way." There is a vast amount of research on MBSR programs that show the stress reduction programs that help patients with pain, anxiety, and stress due to disease processes (Kabat-Zinn, 2013). Research shows when nurses completed an MBSR program that they saw improvements in positive patient interaction, decreased errors, better patient safety, and improved perceived levels of empathy towards their patients (Halm, 2017).

The standardized structure of MBSR is one of its benefits and one of its most significant deterrents. The course is a highly participatory 8-week program requiring 2-hour sessions once a week for the eight weeks, a 6-hour retreat, and 30-45 minutes of daily practice. MBSR focuses on the four formal practices of mindfulness: mindful movement, body scan, cultivating awareness of the body, and sitting meditation (Kabat-Zinn, 2013). The time commitment of the program is the most significant barrier for nurses. Many work 12-hour shifts, some rotate day and night shifts, making attending a class for eight weeks very challenging (Penprase et al., 2015).

Theme 3: Mindfulness-Based Interventions

MBIs derive from the philosophy of MBSR but decrease the amount of face-to-face time, reduce practice time, and have varying delivery methods. A systematic review and meta-analysis on the effectiveness of MBIs found that regardless of delivery method, length of the program, or technique, MBIs had some positive effect on reducing stress in nurses (Burton et al., 2017). Research states that MBIs can improve self-awareness, help the individual maintain the in the moment presence, decrease the fight-or-flight response, and enhance patient safety through improved nurse cognition (Duarte & Pinto-Gouveia, 2016; Halm, 2017). An intensive care unit at an academic medical center implemented an MBI of mindful movement and found reported resiliency levels, work engagement, and vigor increased (Klatt, Steinberg, & Duchemin, 2015). Another study implemented a two-minute breathing meditation for night-shift staff at the beginning of their shift. They found that the participants that received the intervention

provided more empathic care, and many used techniques at home when interacting with their family (Resnicoff & Julliard, 2018). A group of researchers implemented an MBI to nurses at two hospitals in China and found significant improvement in perceived stress, negative affect, and positive affect (Lin, Liu, He, & Lin, 2020). The ability to modify the MBI to fit the organization and still produce a benefit to the participants makes them an ideal tool to combat perceived stress, compassion fatigue, and possible turnover. An additional benefit is that MBIs are affordable. Many are simple techniques that do not require extensive training to facilitate.

Recommendations

Based on the literature findings, the following recommendations were shared with key stakeholders at the project organization. According to the NRP survey data, new to practice nurses experienced higher perceived stress than their counterparts, as benchmarked by the Vizient NRP network, across 500 hospitals. The current NRP curriculum of 6 self-care techniques did not decrease the reported levels of perceived stress, according to Casey-Fink survey data. The qualitative data from the seminar surveys provided evidence of a need for tools to help new to practice nurses cope with stress. The NRP serves as a foundational platform to support nurses as they transition into professional practice because it already has a self-care curriculum that can be easily adjusted. Additionally, nursing leadership has a new initiative to increase the number of new to practice nurses hired within the organization and learning ways to retain them.

Evidence of reduced stress with the use of MBIs, regardless of delivery style and length of the program (Burton et al., 2017), provides the basis for incorporation in NRP. The recommendation is to create an MBI of mindful breathing techniques that the new to practice nurses can learn during the NRP.

Section 2: Project Planning

Purpose Statement

The purpose of this project is to introduce the MBI of mindful breathing to the new to practice nurses during the NRP to assess if the technique affects perceived stress, job satisfaction, and intention to leave their position. The MBI focuses on a technique the new to practice nurses can apply during their

shift to help bring them back to the present moment and help cope with bedside nursing's day-to-day stress.

Project Objectives

Perceived stress and intention to leave one's position, as reported on the Casey-Fink survey and Progression survey administered during the NRP at the organization, are expected to improve after implementing an MBI over 6 months. The NRP is a series of seminars that start around week 4 or 5 of the orientation process and occur throughout the first year of practice, totaling seven seminars. An MBI of mindful breathing techniques replaced the "self-care" curriculum that included various activities like adult coloring, meditation, and the use of laughter. The MBI techniques took 30-60 seconds to complete. Keeping the techniques easy to use and brief was a crucial strategy. Data points measuring perceived stress, intention to leave their position, and satisfaction were taken at initial (4-8 weeks), 6 months, and one year. Data was to be compared to prior cohorts and Vizient NRP national benchmarks.

Additionally, internal seminar surveys were reviewed to obtain qualitative feedback about MBI techniques. Finally, the Cognitive Affective Mindfulness Survey-Revised (CAMS-R) was utilized to determine any changes in mindfulness quality. Specific, measurable, achievable, relevant, and time-bound (SMART), as seen in Figure 2, was used to ensure the project had clear and measurable goals.

Figure 2

MBI EBP Project Smart Goals

<i>S</i>	<i>Specific</i>	Reduction in the perceived stress among new to practice nurses can impact job satisfaction and intention to leave their position, as reported on the Casey-Fink survey and Progression survey.
<i>M</i>	<i>Measurable</i>	Determine perceived stress score and job satisfaction (Casey-Fink, Progression). Determine changes in the quality of self-reported mindfulness (CAMS-R) and use the internal seminar survey to access any qualitative data about techniques.
<i>A</i>	<i>Achievable</i>	Organizational support and resources to complete this project.
<i>R</i>	<i>Relevant</i>	Literature shows MBIs help reduce perceived stress.

T *Time-Bound* Set timepoints to measure data: initial, 6 months, and 12 months.

Framework: Change Model

The 3 facets of burnout, according to Maslach and Leiter (2016), are emotional exhaustion, depersonalization expressed as feelings of cynicism and detachment, and lack of personal accomplishment. The cycle of burnout is prevalent in the human service industry. Burnout is a crucial feature of the job demands-resource (JD-R) model (Bakker & Demerouti, 2007). The JD-R model helps explain how work conditions, such as job demands and job resources, influence employees (Guidetti, Viotti, Badagliacca, Colombo, & Conerson, 2019).

Job demands are those factors that negatively affect an employee. In the field of nursing, these demands can include but are not limited to patient acuity, heavy workloads, emotional strain, multi-tasking, poor unit layout, shift work, and time pressures (Bakker & Demerouti, 2007; Grover, Teo, Pick, & Roche, 2017). Job resources help with employee motivation. These resources are personal factors that contribute to and control the impact of one's environment, such as coping mechanisms. Demands can increase stress and risk of burnout, while job resources promote resilience and help combat job demands' adverse effects. The JD-R model is a cyclical process, and if job resources are not able to effectively combat job demands, the nurse will disengage, and burnout can occur.

Mindfulness trains a person to focus on the present moment and not on things that are not in their control, such as workload. Mindfulness, in this respect, is seen as a personal resource that can help nurses cope with the high demands of the occupation. Examples of other personal resources that can help mitigate demands are optimism, perceived control, and autonomy (Bakker & Demerouti, 2007; Grover, S. L., Teo, Pick, & Roche, 2017). According to the JD-R model, mindfulness can decrease the nurse's awareness of extraneous job demands, help the nurse remove themselves from the emotional experience, and acknowledge their feelings without allowing those emotions to influence the decision-making process (Grover et al., 2017). Mindfulness and techniques that harness a mindfulness practice can critically

decrease the perception of job demands and enable a nurse to utilize job resources that are available to them.

Context

The organization is developing new methods to recruit and retain nursing staff. Some methods already practiced are increasing wages and increasing the number of new to practice nurses hired by directly hiring them into specialty areas, such as the Emergency Department. One initiative within the Department of Nursing is identifying causes of nurse burnout that may lead to turnover. The Nurse Recruitment and Retention Committee is a high-level group that examines how to reduce turnover and retain nursing staff. Nursing Shared Governance underwent a restructure in the past year and now includes a wellness committee to focus on how to provide relief to nurses experiencing stress. The NRP started in 2007 and is Commission on Collegiate Nursing Education (CCNE) accredited since 2018. As a member of the Vizient NRP, the organization's NRP is focused on retaining new to practice nurses beyond year one and developing evidence-based strategies to combat nurses' occupational stress and enhance their professional development.

Key Stakeholders

The benefit of providing an MBI of mindful breathing to new to practice nurses is portraying that the organization cares, values, and is invested in their well-being. MBIs give the new to practice nurses tools to manage and enhance their physical, emotional, and financial health. This sense of self-control spills over into other facets of their life, thus creating a happier, healthier, and more engaged employee and community member. By participating in an MBI, the employee can understand personal awareness and learn how that awareness can improve focus, communication, and overall well-being. MBIs can expand beyond the intended project if deemed successful by key stakeholders. Table 1 identifies key stakeholders and their stake in this project.

Table 1

Key Stakeholders and Stake at Project Organization

Stakeholder	Stake
-------------	-------

New to Practice Nurse	Decreases stress levels, improves coping, improves health, and improves overall sense of well-being (Myers, 2017).
NRP Coordinator	MBI can increase the level of engagement and decrease peer incivility. Improve cohort cohesion.
Nursing Leadership	MBIs increase job satisfaction and reduce turnover (Lo et al., 2018)
Nurse Recruitment	It can highlight that the NRP teaches MBIs to nursing residents as a recruitment tool.
Nursing Finance	NRP at project organization is part of the nursing budget, and the contact with Vizient is in good standing for this fiscal year. The MBI offering has no additional cost.
Peers	MBIs improve peer-to-peer interaction and communication (Halpin et al., 2017).
Customers/Patients	Nurses who are mindful and aware are better equipped to show compassion, attentively listen, and communicate with patients (Halm, 2017).

Table 1: This table identifies the key stakeholder and the stake that they have in the MBI of mindful breathing within the NRP.

Clinician Expertise-Facilitator

The Myrna Brind Center for Mindfulness Associative-Director, Dr. Aleeze Moss, is a doctorally prepared mindfulness teacher. Dr. Moss is a senior MBSR instructor with a focus on healthcare professionals, students, and employees. Additionally, she is a qualitative researcher studying the effects of MBSR on physical and psychological health. Dr. Moss was willing to provide technical guidance and support throughout the project. The lead facilitator who provided seminar instruction has 20-years' experience with mediation and completed the MBSR program twice.

Evaluation Plan

This project utilized benchmarking data from Vizient Nurse Residency Program to assess for changes in perceived stress, intention to leave their position, and job satisfaction. The Vizient surveys reviewed included the Casey-Fink survey (perceived stress) and Progression survey (job satisfaction and intention to leave their position), at two-time points, initial and 6 months from hire (See Appendix C). For this project, the initial collection occurred during orientation. The Casey-Fink survey has an overall

Cronbach alpha of 0.89, confirming the reliability (Fink et al., 2008). Reliability information is not available for the Progression survey. Both the Casey Fink and Progression surveys are considered valid tools as experts from both academic and hospital settings have reviewed them.

The Cognitive Affective Mindfulness Survey-Revised (CAMS-R) was used to measure the degree of mindfulness at seminars 1, 12 weeks from hire and seminar 3, 6 months from hire (See Appendix D). The total score of CAMS-R has acceptable internal consistency for a brief measure according to its creators (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2006). Finally, qualitative data from the seminar survey gathered information on how the new to practice nurse used the techniques or subjective feedback.

Methods of Evaluation

Casey-Fink Graduate Nurse Experience Survey. The Casey-Fink Graduate Nurse Experience (Casey-Fink survey) survey measures new to practice nurses' transition into professional practice (Vizient, 2019). The Casey-Fink survey measures professional comfort and confidence, thus evaluating the concept of 'reality shock' that new to practice nurses feel as they transition into their professional role (Fink et al., 2008).

The Casey-Fink survey consists of five sections: demographics (four-open ended questions), skills/procedures (21 Likert-scaled questions), comfort/confidence (23 Likert-scaled items), job satisfaction (9 Likert scaled questions), and transition to practice (5 open-ended questions). There are two questions of particular interest in this project. Question #22 I am experiencing stress in my personal life (Likert scaled question) and a follow-up question that asks what is causing your stress (finances, childcare, student loans, living situation, personal relationships, job performance, a write-in response).

Progression Survey. The Progression survey evaluates new to practice nurses' autonomy, collaboration, unit engagement, unit leadership, satisfaction, commitment, patient safety, and advocacy outcomes. The Progression survey has five sections: current work (18 Likert scaled questions), work integration (6 Likert scaled questions), active involvement at work (16 Likert scaled questions), job perspectives (14 Likert scaled questions), and competency progression (3 open-ended questions).

Section IV of the Progression survey provided information about job perspective and asked specific questions about job satisfaction and thoughts of quitting or leaving the profession and dissatisfaction. Under the subsection, Satisfaction, and Commitment, nine items focus on job satisfaction and intention to leave the profession/position, and 5 questions focus on dissatisfaction.

Internal Seminar Survey. The internal seminar surveys provide feedback about seminar content. The seminar survey is administered through a program, Class Climate, contracted by the organization for accessing the survey tools. The seminar survey information of importance to this project is "What can you apply to your practice?" and "Comments."

Cognitive Affective Mindfulness Survey-Revised (CAMS-R). The CAMS-R served as a tool to measure the new to practice nurses' self-report of mindfulness. The CAMS-R is a 12-item self-questionnaire that asks about several aspects of mindfulness, including the ability to regulate attention, an orientation to present or immediate experience, awareness of experience, and an attitude of acceptance non-judgment towards understanding (Feldman et al., 2006). The new to practice nurses completed the CAMS-R at two-time points, 8 weeks and 6 months. Comparing initial results with 6 months results can determine if there are any changes in self-report mindfulness occur.

Data Collection

The Casey-Fink Survey and Progression survey data were collected at two-times, during orientation and 6 months in the NRP. Initial data were collected earlier in response to organizational response to COVID19. The data were accessible on the Vizient Nurse Residency Dashboard with a secure login. The CAMS-R was sent out to the new to practice nurses via email at seminar 1 and was an electronic link posted in the virtual seminar's chat at 6 months. Internal seminar surveys were emailed out after each seminar.

Financial Implications

By design, this project did not require additional financial resources for the organization. The NRP is already an established program at the organization. The MBI of mindful breathing replaced the

"self-care" activities that were in the curriculum. The MBI facilitator already participated in the NRP and has experience with mindful breathing.

Barriers

The most significant obstacle to an MBI of mindful breathing is the new to practice nurses taking the time to practice and self-motivation. Attending the NRP is a requirement of employment, but nurses are not required to practice the mindful breathing technique.

Sustainment

The seminar survey data was used to evaluate the MBI of mindful breathing and effectiveness and inclusion in the curriculum. Breathing techniques are easy to teach and do not require special training. This allows anyone to teach them. Like the ANA initiative, "Health Nurse, Health Nation," the hope was that new to practice nurses use the techniques on the unit and then, in turn, train their peers to use the techniques.

Approvals

Project approval at the organization included submission of the proposed project to the VP of Patient Service and Professional Practice and the CNO. After approval from the VP and CNO, the project outline was sent to the Director of Nursing Research to ensure no duplicate project was planned. The Director of Nursing Research supplied a letter of support submitted as part of the organization's IRB submission. There is an organizational requirement for expedited IRB for Quality Improvement (QI) projects. An additional requirement is that a student is not allowed to submit IRB paperwork. Catherine Levonian, the NRP Coordinator, was listed as the sponsor for the IRB submission. IRB paperwork was submitted in April of 2020, and IRB approved the project as exempt on May 27, 2020 (See Appendix E for IRB approval and subject recruitment letter). Vizient requests an email detailing the project to be sent to Vizient for approval. Part of the Vizient contract stipulated that all content is reviewed for appropriate use of Vizient data and trademark before dissemination (See Appendix F for Vizient approval process).

The Ohio State University requires DNP students to complete an online form, Human Subject Research Determination (HSRD), to determine if the project meets the definition of research and needs

OSU IRB approval. According to the HSRD, this project was deemed QI and did not require further IRB action. The student's advisor at OSU reviewed and signed the HSRD form. (See Appendix G for HSRD approval).

Resources and Timeline

No resources were needed to implement this project. The MBI replaced the current offering of self-care techniques in the NRP. Recordings and written instructions are posted on the NRP community site within the intranet. Data were obtained through surveys the new to practice nurses complete as part of the Vizient NRP. A timeline was developed to help guide the project and ensure SMART goals were met. Figure 3 illustrates the projected timeframe of the project from inception, implementation, and completion.

Figure 3

Timeline for MBI EBP project

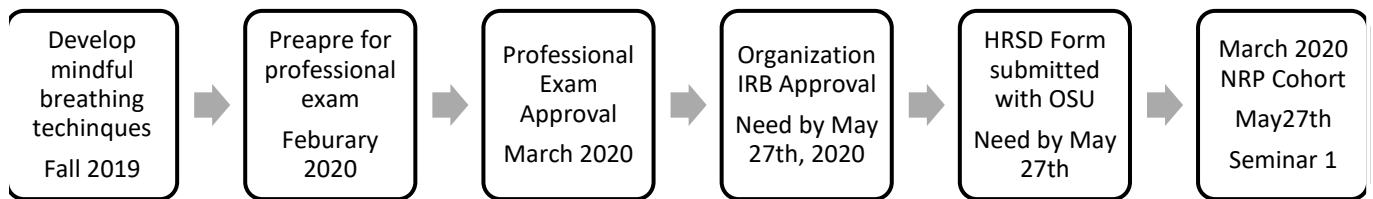


Figure 3: Timeline changes occurred due to COVID19 pandemic. Changes were reviewed and approved by project team.

Section 3: Implementation

Practice Change Implementation

The intervention implemented was an MBI of mindfulness breathing techniques among new to practice nurses during a yearlong NRP. A fundamental teaching in MBSR and mindfulness practices is to focus on the breath. By focusing on the breath, an individual can quiet the mind and center their perspective to the present moment. A key benefit of mindful breathing is the learner can use the technique anywhere and anytime. Working with Dr. Moss, seven breathing techniques were developed for this project. Each technique took less than 5 minutes to instruct and less than 1 minute to perform. This 'in the

moment' design was a crucial feature of the implementation strategy. The March 2020 NRP cohort (n=29) received an MBI of mindful breathing techniques. Table 2 outlines the seven breathing techniques utilized in this project.

Table 2

Description of MBI of 7 mindful breathing techniques taught in the March 2020 NRP

Seminar	Theme	Mindful Breathing Technique	Homework
1 (Month 1)	Focus on the breath	Focus on the inhale and exhale	Practice bringing awareness to the breath
2 (Month 2)	Breath from the belly	Relaxing Sighs	Use cues (sticker, call light) to remind yourself to take 3 to 6 relaxing sighs
3 (Month 3)	Calm the mind focus the mind	Boxed breathing	During a stressful situation, do 3-5 cycles of boxed breathing
4 (Month 4)	Mindful emotional management	The Soles of the Feet	Practice by playing scenarios from the past (or future) in your imagination and work with body sensations and emotions.
5 (Month 6)	Bring yourself to the present moment	The Three Minute Breathing Space	When you feel like you are on autopilot, take a pause and focus on your inhale and exhale, acknowledge what you are feeling emotional states or bodily sensations.
6 (Month 8)	Fight-or-Flight	4-7-8 Breath	Practice two times a day, no more than four cycles. Try before going to sleep.
7 (Month 12)	Body Connection	Anchor Breath	Use 2-3 belly breaths when you are feeling stressed

Table 2: Techniques selected with assistance from Dr. Aleeza Moss at the Myrna Brind Center for Mindfulness

Implementation Strategies

The key to success was to keep the MBI techniques to less than one minute with the expectation that new to practice nurses can access them quickly while on the unit. Other implementation strategies

include recording all techniques and having written instructions with a list of additional resources accessible on the NRP community page of the organization's learning management system.

Changes to Project Plan

In the Spring of 2020, the organization faced many challenges due to COVID19. One challenge was delayed submission and completion of pre-employment paperwork among new to practice nurses hired for March. A second hire date was added to the March cohort to give applicants more time to get paperwork completed. The first orientation date was March 16, with 23 new to practice nurses hired. The second orientation date to accommodate late compliance paperwork begun on March 30, with another 8 new to practice nurses. Due to COVID19 infection rates, the March 30 orientation was conducted on a virtual platform.

New to practice nurses usually complete the Casey Fink and the Progression surveys at 1, 6, and 12 months. Due to COVID, NRP seminars moved from in-person to a virtual platform, and the first seminar was delayed and did not occur until the 8-week point. The March cohort seminar was adjusted to reflect a delayed start, and the overall schedule went from 7 seminars to 6 seminars to ensure completion in the one-year timeframe. Also modified were the survey completion dates to accommodate the timeframe. Instead of completing the initial Casey-Fink and Progression survey at 4-8 weeks, the new to practice nurses completed both surveys during orientation in March 2020.

In September 2020, the project team reviewed the timeline and project implementation, considering the organizational changes in response to COVID19. With project team approval, the implementation period was adjusted from 1 year to 6 months. The new to practice nurses completed 3 of the 6 mindfulness breathing techniques: Focusing on the Breath, Relaxing Sighs, and Boxed Breathing.

Post-Implementation Data Collection

Data collection included the Casey-Fink survey and Progression survey at initial (orientation) and 6 months (October 07, 2020). Collection of CAMS-R data was completed at seminar one (May 27, 2020) and at the 6-month time mark. Internal seminar survey data were available for each of the 3 seminars completed. A PDF copy of the results was downloaded and securely stored on a shared drive at OSU.

Results from CAMS-R and internal seminar surveys were downloaded and stored on the secure OSU drive.

Section 4: Evaluation

Results

Demographics

The purposed goal of this DNP project was to determine if the intervention of mindful breathing techniques affected the level of perceived stress, job satisfaction, intention to leave their position and degree of mindfulness among a cohort of new to practice nurses in an NRP. The March cohort had two hire dates, March 17, 2020 (n=9) and March 30, 2020 (n=22). New to practice nurses completed initial surveys during orientation. The project was implemented on May 27, 2020, and was completed at the 6-month time point (October 07, 2020). The delayed start was due to COVID19, and final data collection occurred at the 6-month point. The final number of participants in this project totaled 29. 2 nurses hired as part of the March cohort were not new to practice nurses (had previous experience as a nurse greater than 6 months) and were not formally part of the NRP.

Additionally, 1 new to practice nurse was terminated in July after receiving only 2 interventions. The survey data for new to practice nurses (n=29) is included in the initial data, with 6-month data available for 28 new to practice nurses. Table 3 describes the demographic data of the March NRP cohort.

Table 3
Demographics of March 2020 NRP Cohort

Characteristic	n	%
Age		
20-25	20	68.8%
26-30	5	17.2%
31-40	4	14%
Gender		
Female	28	96.5%
Male	1	3.5%
Degree Type		

Bachelor of Science in Nursing	14	48.25%
Accelerated Bachelor of Science in Nursing	14	48.25%
Master of Science in Nursing	1	3.5%
GPA		
3.0-3.49	11	37.9%
> 3.50	18	62.1%
Ethnicity		
Caucasians/White	19	65.5%
African American/Black	3	10.3%
Asian	6	20.7%
Hispanic	1	3.5%

Perceived Stress

The Casey-Fink survey measured perceived stress in new to practice nurses. Vizient reports this as overall stress. The overall stress score encompasses question #22, "I am experiencing stress in my personal life." Figure 4 displays the overall stress scores for March 2020 as compared to the mean of all NRPs (national benchmark). The overall stress score is based on a Likert scale (1-3), with a lower score rated as lower overall stress. The initial survey mean score (standard deviation) of 1.86 (SD=0.58) compared to the national average mean score (benchmark) of 2.46 (SD=0.79). The 6-month overall stress score was 2.41 (SD=0.79) compared to the national benchmark of 2.54 (SD=0.81). Perceived stress for the March 2020 NRP new to practice nurses at 6 months was better than the national average mean but increased despite the MBI intervention. A follow-up question to #22 asks, "what is causing your stress" (finances, childcare, student loans, living situation, personal relationships, job performance, a write-in response) was not available due to a response rate less than 5.

Figure 4

Perceived stress (Overall Stress) as reported on the Casey-Fink survey.

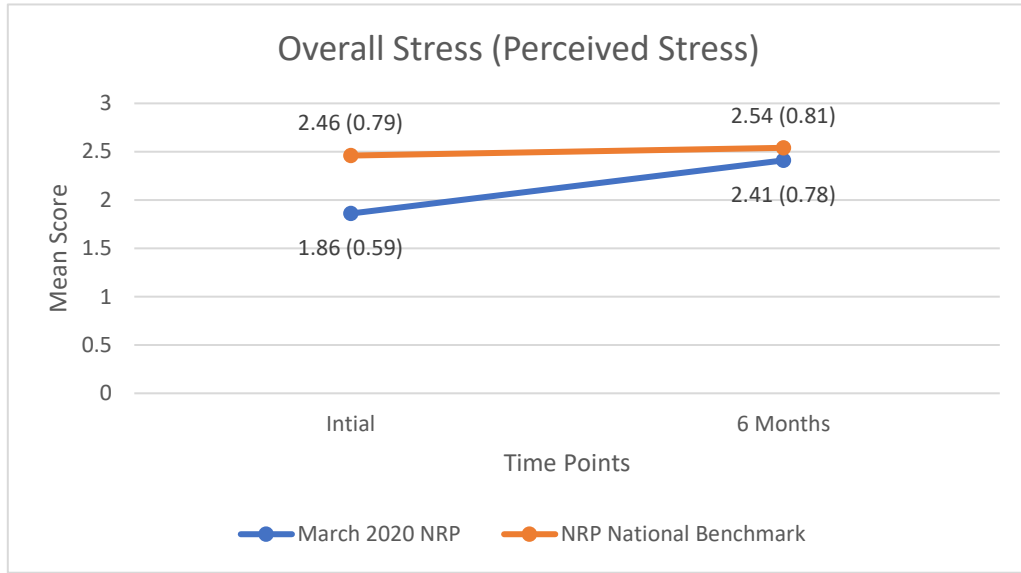


Figure 4: Stress at initial and 6-month below benchmark. Stress was better than other new to practice nurses with the Vizient NRP network. Data presented as mean, (SD)

Job Satisfaction

Progression survey data provided information about job perspective and asked specific questions about job satisfaction and thoughts of quitting or leaving the profession and dissatisfaction. In section IV, satisfaction, and commitment, are measured by nine items focus on job satisfaction and intention to leave the profession/position, and 5 questions focus on dissatisfaction. Figure 5 provides outcomes of overall job satisfaction. Data for satisfaction and commitment show that the new to practice nurses rank above the national average mean when asked, "Overall, I am satisfied with nursing as a career." However, scores declined in both March NRP and national average mean over time.

Figure 5

Progression survey-Overall Job Satisfaction

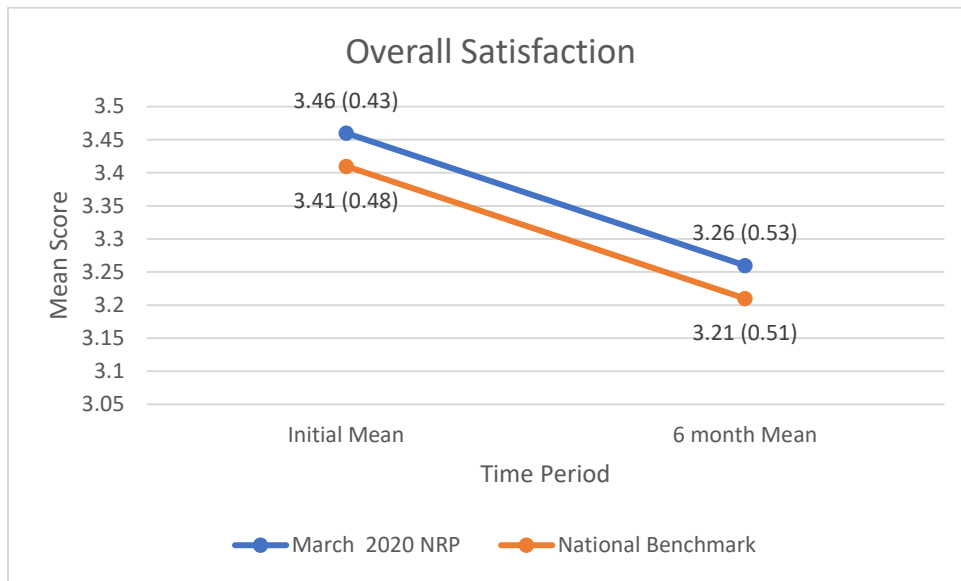


Figure 5: New to practice nurse at the organization were above the national benchmark, indicating they are more satisfied with their job. Data presented as mean, (SD)

Intention to Leave Position

The Progression survey also provides information on dissatisfaction. Of particular interest for this project are questions related to the job or position. The initial data showed new to practice nurses at the organization were at or better than the national average mean for intention to leave position. Figure 6 provides the outcome for Progression survey question IV 12, "I intend to remain in my current position for the immediate future." Figure 7 describes the outcomes for question IV 6, "Taking everything into consideration, "I will make a genuine effort to find a new job with another employer within the next year." The March 2020 cohort data shows that new to practice nurses do not intend to leave their position or the organization. The data points for both questions for the MBI group remained relatively unchanged between time points, while the national benchmark at the two-time points shows a small change in the intent to leave position and or the organization.

Figure 6

Progression survey-Question IV 12, "I intend to remain in my current position for the immediate future."

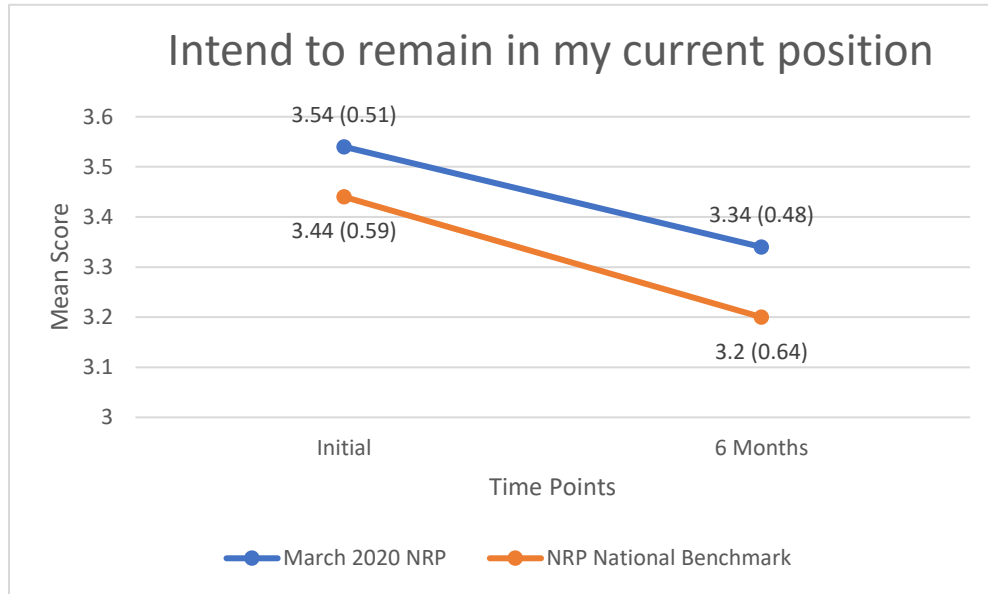


Figure 6: Figure: New to practice nurses at organization were below benchmark, indicating that they do not intend to leave current position. Data presented as mean, (SD)

Figure 7

Progression survey- Question IV 6, "Taking everything into consideration I will make a genuine effort to find a new job with another employer within the next year."

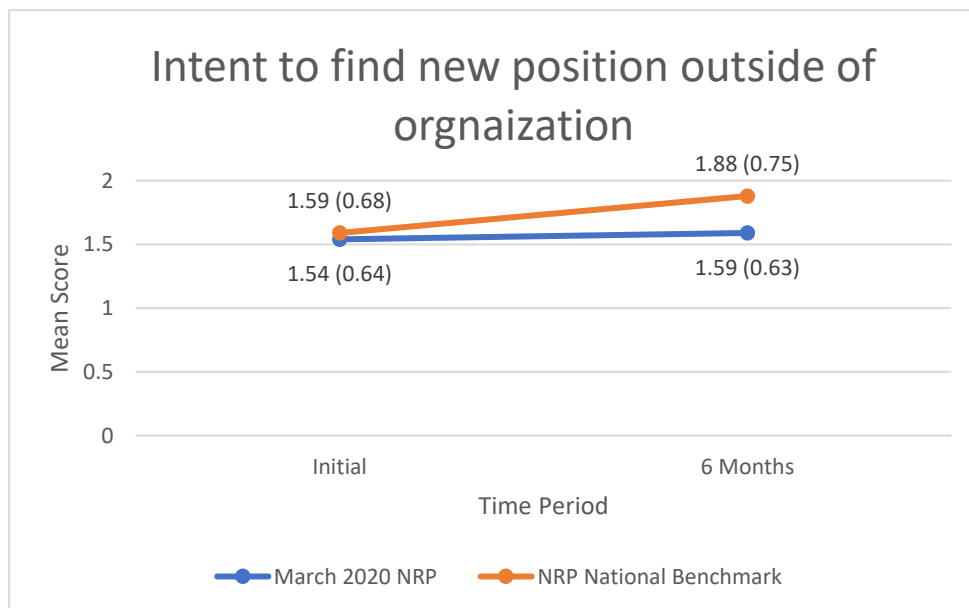


Figure 7: New to practice nurse at the organization were below the national benchmark, indicating they are less likely to leave the organization in the next year. Data presented as mean, (SD)

Quality of Mindfulness

The CAMS-R is a 12-item questionnaire that measures several aspects of mindfulness, including the ability to regulate attention, an orientation to present or immediate experience, awareness of experience, and an attitude of acceptance non-judgment towards understanding (Feldman et al., 2006). The CAMS-R includes response options of never (1), sometimes (2), often (3), and always (4). A score of 40 indicates that the participant has a high level of mindfulness; 10 indicates a low mindfulness quality. The new to practice nurses completed the surveys at seminar 1 and seminar 3. Only 8 new to practice nurses responded to the survey for seminar 1, and 27 responded at seminar 3. At baseline, new to practice nurses had a mean score of 28, which indicates an average quality of mindfulness. At 6 months, the mean score was 26.1, indicating an average quality of mindfulness. There was no significant change in the reported level of mindfulness over-time.

Qualitative Feedback

Seminar surveys provided feedback about seminar content and presenters. The completed seminar survey data of importance to this project included "What can you apply to your practice?" and "Comments." Below is the feedback received from new to practice nurses on the mindful breathing techniques from seminar 1, 2, and 3.

- I will be using my knowledge on mindfulness to better handle stressful situations. For example, I will practice mindfulness when I find myself in the middle of conflict with a patient or coworker. Focusing on my breathing will allow me to approach my fellow coworkers with a clear head.
- I will try to use the mindfulness breathing techniques when I am feeling anxious or stressed.
- As a new nurse I am finding it difficult to manage the other stressors in my life. I am going to practice mindfulness in my life and my new practice.
- I really enjoy how mindfulness is incorporated to our program. This is something I am trying to practice while dealing with the stress of being a new grad nurse.
- I am going to practice mindfulness, boxed breathing during stressful times at work.

- I can use the information presented in my daily nursing career. Nursing can be stressful, and I have another tool of how I try to relax/stay calm during a stressful situation.
- I will definitely use mindful breathing as a stress reduction technique; its quick and effective and can be implemented during a stressful shift.
- Mindfulness- using the boxed breathing technique will help get me through the stressful/emotional-filled days on the job.

This feedback provides evidence that new to practice nurses planned to use mindfulness techniques to cope with stress on the unit and personal life.

Discussion

Perceived stress increased over the first 6 months, consistent with findings reported in the literature and with the national benchmark data. Literature suggests that new to practice nurses' stress increases over the first 6 months due to the rise of task difficulty and the profession's reality shock (Halpin et al., 2017). Additionally, the new to practice nurses completed the initial Vizient surveys during orientation, a change from the standard procedure due to organizational response to COVID19. It could be that new to practice nurses did not have any occupational stress because they were in orientation.

The follow-up question in the Casey-Fink survey that measures the cause of stress and provides an opportunity for a write-in response was not available for review due to a response rate <5 to protect confidentiality. A request was made to the Data Manager at Vizient to release the data. Vizient was not able to grant because of the response rate of less than 5.

Responses indicating intent to leave their position showed that the new to practice nurses at the organization outperformed the national baseline average mean for intent to stay in the current position and intention to leave the organization within the next year. This finding is important to key stakeholders because it shows that the nurses intend to stay in their position and with the organization, associated with significant cost savings of \$33,000-56,000 for each nurse who does not need to be replaced (Nursing Solutions, 2019). This is particularly relevant as 31% of Millennials and Gen Z leave their position within

the first two years of employment (Dyess et al., 2016). These findings suggest that the MBI intervention is a useful tool in reduced turnover within the first two years of nursing practice.

A low return rate of the CAMS-R survey in seminar 1 was likely due to the organization's IRB requirement that the survey be disseminated through internal email. New to practice nurses do not regularly check internal emails. The 6-month survey was distributed through a Qualtrics link during the seminar, resulting in a 96.4% return rate. The CAMS-R showed no significant change in the four domains of mindfulness, possibly due to the small sample, nature of mindfulness, and the short period, 6- months between evaluations. A limitation was that the participants were not asked about familiarity with MBIs and whether they practiced. Mindfulness is not a skill developed by a few interactions but is developed over time with practice.

Sustainment Plan

This project ended at seminar 3 (6-months from hire). Based on feedback on the internal seminar survey, the NRP Coordinator requested that the mindful breathing technique continue. Each technique was recorded and is accessible to use if the facilitator is not available. The Casey-Fink and Progression surveys will continue to be monitored for the March cohort and two additional cohorts, August and November, to determine if there is a continued benefit of the MBI of mindful breathing. With the heightening tension and risk of burnout due to COVID19, providing MBI techniques of mindful breathing for new to practice nurses in the NRP will continue.

Section 5: Dissemination

The nursing profession implements evidence-based practice to influence the standards of safe, high-quality, and patient-focused care. There continues to be a need to disseminate EBP projects more broadly. Through dissemination, we can overcome the gap in translation findings into practice.

Traditional

For this project, dissemination will occur at three levels. First and foremost, the results will be shared with the organization. This level of dissemination will occur at the organization's research conference or department-based meetings. The next level is at a local level meeting or conference. One

such forum is the Pennsylvania Nurse Residency Collaborative (PA-NRC) meeting, representing an ideal platform because the audience has a crucial stake in the project. The final opportunity is to submit an abstract for presentation at a national conference, such as the Vizient Nurse Residency conference. Attendees of the Vizient NRP conference have a vested interest in the project due to the intervention occurring with new to practice nurses.

Non-traditional

A non-traditional method to disseminate the project findings is to produce a video recording through adobe spark of the project. Dissemination can then occur to key stakeholders within the organization. The video could also be utilized as an example of an evidence-based project example for students in the OSU DNP program. The video could even be accessed on the organization's NRP community page for future new to practice nurses to view.

DNP Essentials

According to American Association of Colleges of Nursing (AACN), the Doctoral of Nursing Practice (DNP) is a terminal degree designed to support nurses who want to be leaders in their specialty (American Association of Colleges of Nursing, 2006). The DNP Essentials I, II, III, VI, VII, VIII guided this project.

Essential I: Scientific Underpinnings for Practice

It was essential to the success of implementation to ensure that science-based theories provided a framework. Part of the DNP is to ensure research findings are the basis for practice change. Research shows that occupational stress can cause adverse health outcomes to the individual, and it is essential to provide tools to the individual to mitigate those adverse outcomes (Halpin et al., 2017).

Essential II: Organizational and Systems Leadership for Quality Improvement and System Thinking

Implementing an MBI of mindful breathing techniques for new to practice nurses during the NRP is a quality improvement project. The NRP Coordinator identified that the perceived stress scores of new to practice nurses at the organization were higher than the national benchmark provided by the Vizient NRP database. This was not a new trend. In 2017, the stress curriculum was revised from 1, 45-minute

session to 6, 1-minute self-care techniques. The NRP Coordinator wanted to change again with the intervention's focus on something residents can do "at the moment" on the unit in the time of greatest need. This aligned with the CNO's philosophy that the organization needed to support the nurses at the bedside. Using the PDSA cycle, the intervention was planned, implemented, and evaluated.

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

A PICOT question was generated, and a literature search provided an evidence-based solution for implementation. The translation of research in practice is an essential feature of the DNP. As a DNP, this student can close the research to practice gap that currently exists in nursing. Understanding how to assess a situation analytically and implement evidence-based practice strategies helped the project go from a practice problem to a solution.

Essential VI: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

An essential feature of this implementation process was guidance from Dr. Moss at the Center for Mindfulness. In our culture, "mindfulness" is a new catchphrase, and it was important to the project to make sure that Mindfulness, the philosophy of being present, "in the moment," without judgment, was taught with each technique. Developing breathing techniques was a collaborative effort between the student and Dr. Moss. Additionally, the student attended a week-long Mindfulness retreat that helped create the skill set and understanding of Mindfulness practice.

Essential VII: Clinical Prevention and Population Health for Improving the Nation's Health

This project examined how to influence new to practice nurses' well-being in the NRP by instructing a mindfulness breathing technique. The population in question is new to practice nurses in their first year of nursing. Similar to ANA's "Health Nurse, Health Nation" program, the goal is to improve the new to practice nurses' health and well-being by teaching and practicing mindful breathing.

Essential VIII: Advanced Nursing Practice

Over the past 3 years, this student learned to look at problems differently. Solutions are found in a step-by-step process. First, it is necessary to assess the situation, base the intervention on research, and analyze the data based on identified outcomes. It is also imperative to work with others, identify key

stakeholders, evaluate outcomes, and establish goals that are specific, measurable, achievable, realistic, and time-bound. As a DNP-prepared nurse, it is important to mentor others in the steps of EBP and help improve outcomes.

References

- Agency for Healthcare Research and Quality. (September 2020). Plan-do-study-act (PDSA) directions and examples. Retrieved from <https://www.ahrq.gov/health-literacy/improve/precautions/tool2b.html>
- American Association of Colleges of Nursing (Ed.). (2006). *The essentials of doctoral education for advanced nursing practice (2006)*. Washington D.C.:
- American Nurses Association. (2011). *2011 ANA health & safety survey hazards of the RN work environment*. (Press Release).ANA. Retrieved from Backgrounder Retrieved from https://www.nursingworld.org/~48dd70/globalassets/docs/ana/health-safetysurvey_mediabackgrounder_2011.pdf. (Nurses face many hazards on the job)
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: Stat of the art. *Journal of Managerial Psychology*, (22), 309.
- Braithwaite, J., Herkes, J., Ludlow, K., Testa, L., & Lamprell, G. (2017). Association between organisational and workplace cultures, and patient outcomes: Systematic review. *BMJ Open*, 7(11) doi:10.1136/bmjopen-2017-017708
- Bureau of Labor Statistics, U.S. Department of Labor. (2018). Occupational outlook handbook, registered nurses. Retrieved from <https://www.bls.gov/ooh/healthcare/registerednurse.htm>
- Burton, A., Burgess, C., Dean, S., Koutsopoulou, G. Z., & Hugh-Jones, S. (2017). *How effective are Mindfulness-Based interventions for reducing stress among healthcare professionals? A systematic review and Meta-Analysis* doi:10.1002/smi.2673
- Christensen, S. S., Wilson, B. L., & Edelman, L. S. (2018). *Can I relate? A review and guide for nurse managers in leading generations* doi:10.1111/jonm.12601

- Cline, D., La Frenz, K., Fellman, B., Summers, B., & Brassil, K. (2017). Longitudinal outcomes of an institutionally developed nurse residency program. *JONA: The Journal of Nursing Administration*, 47(7-8), 384-390. doi:10.1097/NNA.0000000000000500
- Dang, D., & Dearholt, S. (2018). *Johns hopkins nursing evidence-based practice : Model and guidelines*. (Third ed.). Indianapolis, IN: Sigma Theta Tau International.
- Dawson, J. M. (2012). ANA releases 2011 health and safety survey results. *American Nurse Today*, 7(2)
- Duarte, J., & Pinto-Gouveia, J. (2016). Effectiveness of a mindfulness-based intervention on oncology nurses' burnout and compassion fatigue symptoms: A non-randomized study. *International Journal of Nursing Studies*, 64, 98-107. doi:10.1016/j.ijnurstu.2016.10.002
- Dyess, S. M. (. 1.), Pratt, B. A. (. 1.), Chiang-Hanisko, L., & Sherman, R. O. (. 2.). (2016). *Growing nurse leaders: Their perspectives on nursing leadership and today's practice environment* American Nurses Association. doi:10.3912/OJIN.Vol21No01PPT04
- Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. (2006). Mindfulness and emotion regulation: The development and initial validation of the cognitive and affective mindfulness scale-revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment*, 29(3), 177-190. doi:10.1007/s10862-006-9035-8
- Fink, R., Krugman, M., Casey, K., & Goode, C. (2008). The graduate nurse experience: Qualitative residency program outcomes. *JONA: The Journal of Nursing Administration*, 38(7-8), 341-348. doi:10.1097/01.NNA.0000323943.82016.48
- Grover, S. L., Teo, S. T. T., Pick, D., & Roche, M. (2017). Mindfulness as a personal resource to reduce work stress in the job demands-resources model. *Stress and Health; Stress Health*, 33(4), 426-436. doi:10.1002/smi.2726

Grover, Teo, Pick, & Roche. (2017). Mindfulness as a personal resource to reduce work stress in the job demands-resource model. *Stress and Health*, (33), 426. doi:<https://doi.org/10.1002/smi.2726>

Guidetti, G., Viotti, S., Badagliacca, R., Colombo, L., & Converson, D. (2019). Can mindfulness mitigate the energy-depleting process and increase job resources to prevent burnout? A study on the mindfulness trait in the school context. *Plos ONE*, 14(4)
doi:<https://doi.org/10.1371/journal.phon.0214935>

Halm, M. (2017). The role of mindfulness in enhancing self-care for nurses. *American Journal of Critical Care*, 26(4), 344-348. doi:10.4037/ajcc2017589

Halpin, Y., Terry, L. M., & Curzio, J. (2017). A longitudinal, mixed methods investigation of newly qualified nurses' workplace stressors and stress experiences during transition. *Journal of Advanced Nursing*, 73(11), 2577-2586. doi:10.1111/jan.13344

Happell, B., Dwyer, T., Reid-Searl, K., Burke, K. J., Caperchione, C. M., & Gaskin, C. J. (2013). Nurses and stress: Recognizing causes and seeking solutions. *Journal of Nursing Management*, 21(4), 638-647. doi:10.1111/jonm.12037

Hersch, R. K., Cook, R. F., Deitz, D. K., Kaplan, S., Hughes, D., Friesen, M. A., & Vezina, M. (2016). Reducing nurses' stress: A randomized controlled trial of a web-based stress management program for nurses. *Applied Nursing Research*, 32, 18-25. doi:10.1016/j.apnr.2016.04.003

Jarman, L., Martin, A., Venn, A., Otahal, P., & Sanderson, K. (2015). Does workplace health promotion contribute to job stress reduction? three-year findings from partnering Healthy@Work.(report). *BMC Public Health*, 15(10896) doi:10.1186/s12889-015-2625-1

Kabat-Zinn, J. (2013). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness* (2nd ed.). New York: Bantam Books.

- Kemper, K. J. (2017). Brief online mindfulness training: Immediate impact. *Journal of Evidence-Based Complementary & Alternative Medicine*, 22(1), 75-80. doi:10.1177/2156587216639199
- Klatt, M. D., Steinberg, B. A., & Duchemin, A. M. (2015). Mindfulness in motion (MIM): An onsite mindfulness based intervention (MBI) for chronically high stress work environments to increase resiliency and work engagement. *Journal of Visualized Experiments : JoVE*, doi:10.3791/52359
- Lin, L., Liu, X., He, G., & Lin, L. (2020). Mindfulness and job satisfaction among hospital nurses: The mediating roles of positive affect and resilience. *Journal of Psychosocial Nursing and Mental Health Services*, 58(6), 46-55. doi:10.3928/02793695-20200406-03
- Lo, W., Chien, L., Hwang, F., Huang, N., & Chiou, S. (2018). From job stress to intention to leave among hospital nurses: A structural equation modeling approach. *Journal of Advanced Nursing*, 74(3), 677-688. doi:10.1111/jan.13481
- Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103-111. doi:10.1002/wps.20311
- Meyer, G., & Shatto, B. (2018). Resilience and transition to practice in direct entry nursing graduates. *Nurse Education in Practice*, 28, 276-279. doi:10.1016/j.nepr.2017.10.008
- Mohr, J., Batalden, P., & Barach, P. (2004). Integrating patient safety into the clinical microsystem. *Quality & Safety in Health Care*, 13(2), ii34-8.
- Muir, K., & Keim-Malpass, J. (2020). Pns37 assessing the economic impact of registered nurse burnout-attributed turnover. *Value in Health*, 23, S290-S290. doi:10.1016/j.jval.2020.04.1047
- Myers, R. E. (2017). Cultivating mindfulness to promote Self-Care and Well-Being in perioperative nurses. *AORN Journal*, 105(3), 259-266. doi:10.1016/j.aorn.2017.01.005

Nursing Solutions, I. (2019). *2019 NSI national health care retention & RN staffing report*. (). Retrieved from

https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf

Penprase, B., Johnson, A., Pittiglio, L., & Pittiglio, B. (2015). Does mindfulness-based stress reduction training improve nurse satisfaction? *Nursing Management*, *46*(12), 38.

doi:10.1097/01.NUMA.0000470772.17731.e6

Resnicoff, M., & Julliard, K. (2018). Brief mindfulness meditation with night nursing unit staff: A qualitative study. *Holistic Nursing Practice*, *32*(6), 307-315. doi:10.1097/HNP.0000000000000293

The World Health Organization. (2018). The world health organization: Health promotion-benefits.

Retrieved from http://www.who.int/occupational_health/topics/workplace/en/index1.html

Virkstis, K., Herleth, A., & Rewers, L. (2019). Closing nursing's experience-complexity gap. *The Journal of Nursing Administration*, *49*(12), 580-582. doi:10.1097/NNA.0000000000000818

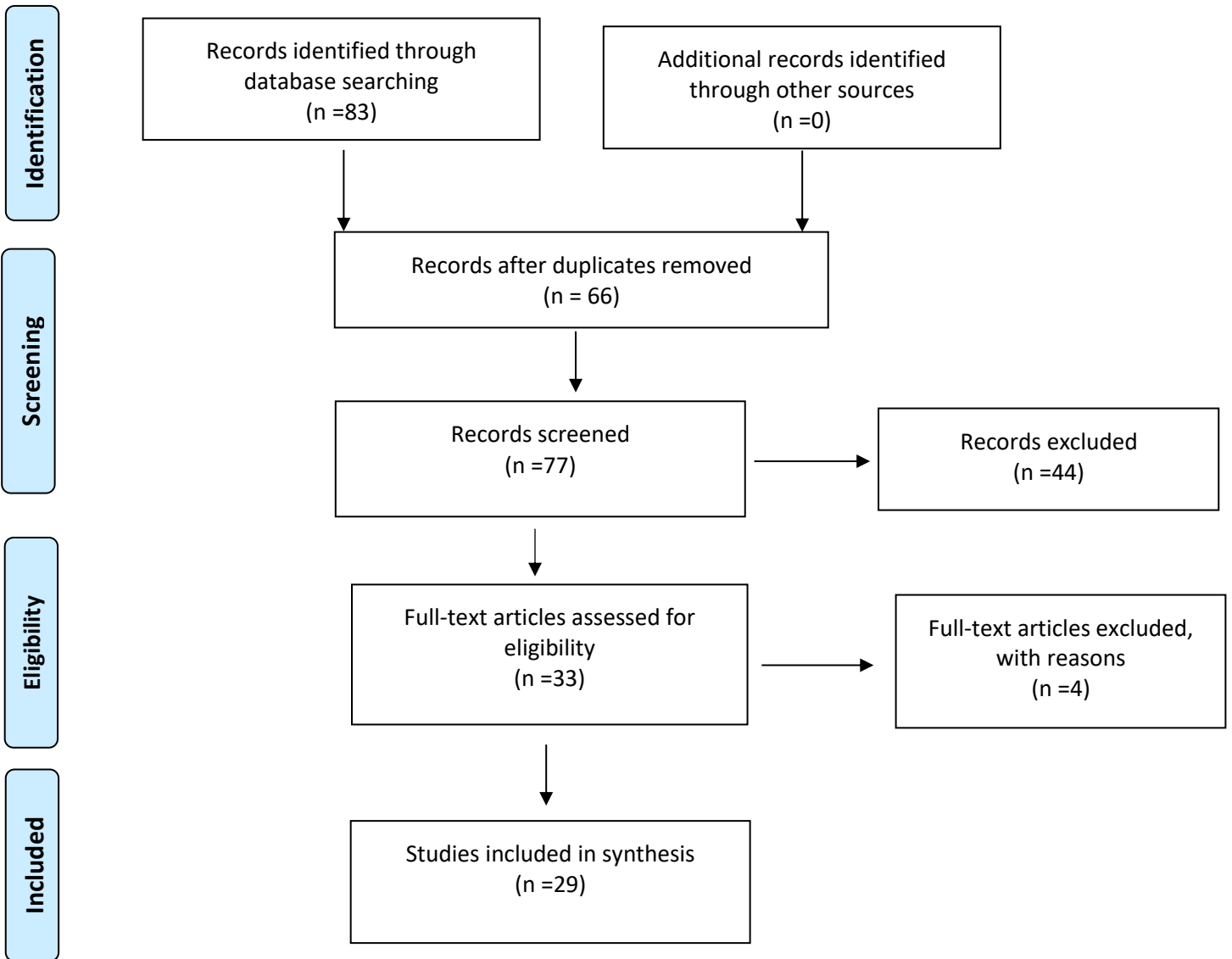
Vizient. (2019). AACN nurse residency program. Retrieved from <https://www.vizientinc.com/our-solutions/clinical-solutions/vizient-aacn-nurse-residency-program>

Wang, S., Wang, L., Shih, S., Chang, S., Fan, S., & Hu, W. (2017). The effects of mindfulness-based stress reduction on hospital nursing staff. *Applied Nursing Research; Applied Nursing Research*, *38*, 124-128. doi:10.1016/j.apnr.2017.09.014

Appendix A

PRISMA Flow Diagram

Modified PRISMA



PRISMA flow diagram: 83 articles identified through database search; duplicates removed along with articles not pertaining to nurses. Final articles reviewed for project n=29

Appendix B

Literature Review Tables

Johns Hopkins: Evaluation and Synthesis Table

Date: March 1, 2020		PICO: For new to practice nurses at an academic medical center (P), how does offering mindfulness-based intervention (I), compare to offering no programs (C), affect perceived stress, job satisfaction, and intention to leave their position (O)? Keywords: (nurses or nurse residents or new to the practice) and (mindfulness) and (occupational stress) or (intention to leave position)				
Article Number	Author and Date	Sample, Sample Size, Setting	Study Design	Intervention	The significant finding that addresses your question	Is it helpful
1	Abdelmotaleb, S. (2018)	Employees at two textiles companies, N=250, Egypt, manufacturing	non-experimental, longitudinal	Measured job satisfaction, job stress, organizational commitment	Job stress correlates to job satisfaction and organizational commitment	Found a relationship between job stress, job satisfaction, and organizational commitment. As job stress increases, job satisfaction, and organizational commitment decrease.
2	Aiken, L., Clarke, S., Douglas, S., Sochalski, J., Silber, J. (2002)	N=10,184 nurses, N=232,342 discharged patients (general, orthopedic, and vascular surgery), N=168 nonfederal general hospitals in PA (administrative data)	Cross-sectional analyses	Risk-adjusted patient mortality and failure-to-rescue within 30 days of admission, and nurse-reported dissatisfaction and job-related burnout	Found with each additional patient per nurse associated with 7% likelihood of patient mortality and a 23% increase in odds of burnout, and a 15% increase in odds of job dissatisfaction	Nurses in hospitals with the highest patient-to-nurse ratios are twice as likely to experience job-related burnout and twice as likely to be dissatisfied. Burnout and dissatisfaction predict intention to leave their position.
3	Belton, S. (2018)	none	Expert opinion	Effects of nurse turnover on healthcare and how mindfulness-based	States findings from researchers that support the claim: mindfulness-based	It helps support my project by providing why vital to stakeholders

				intervention may help	interventions have positive outcomes on employees	
4	Braithwaite, J., Herkes, J., Ludlow, K., Testa, L., Lamprell, G. (2017)	62 articles reviewed to assess the extent of organizational and workplace cultures on patient outcomes	Systematic Review-Meta Analysis	84% of studies were from the United States, four interventional studies identified, no randomized controlled studies reviewed	There is a relationship between workplace culture and patient outcomes	Supports that establishing a positive work environment can affect patient outcomes
5	Burton, A., Burgess, C., Dean, S., Koutsopoulos, G. (2017)	one Level I B, two Level II A/B, three-level III A/B, two Level III C, and one Level V B.	Systematic Review-Meta Analysis	Meta-Analysis	Eight of the nine studies reported significant positive effects of MBI among HCP.	8 of 9 articles reported positive effects regardless of delivery, length, and technique.
6	Cline, D., La Frenz, K., Fellman, B., Summers, B., Brassil, K. (2017)	N=1,638 new to practice nurses, nurses in a residency program at a comprehensive cancer center	Retrospective analysis of 10 years of residency	Casey-Fink Survey analysis	Regardless of homegrown or purchase residency program, findings show a benefit to comfort, confidence level, and role transition	This supports why the project can focus on new to practice nurses in a nurse residency program
7	Duarte, J., & Pinto-Gouveia, J. (2016).	N=92, those that completed full data n=48, located in 2 once. Hosp. in Portugal	Non-randomized study	They are modified MBI-6 weeks.	For the primary outcome variables, we found that nurses in the experimental condition reported a significant reduction in compassion fatigue after	Reduction of compassion fatigue, stress, and burnout

					the intervention compared with individuals in the comparison condition. Used a Modified MBSR.	
8	Fink, R., Casey, K., Krugman, M., Goode, C. (2008)	n=434 new-to-practice nurses	Qualitative Study	Measure if qualitative data could enrich the quantitative data in the Casey-Fink survey. To determine if themes derived from qualitative data could be converted into quantitative data for easier administration	Found that new-to-practice nurse do experience stress related to role transition	It helps identify why the focus of the project is new to practice nurses
9	Gilmartin, H., Goyal, A., Hamati, M. C., Mann, J., Saint, S., & Chopra, V. (2017).	n=14 articles	Review of Literature	ROL	The research reviewed a total of n=14 articles, quantitative and qualitative. While they found limitations with their review, they did find that brief mindfulness programs did provide benefit to health care providers and	All studies found improvement in stress, anxiety, resiliency, and burnout

					that possible that the type of mindfulness program is not as important as adapting to the healthcare providers' schedule.	
10	Halm, M. (2017)	N=11, 5=RCT, 1=CT, 5=Observations	Review of Literature	ROL	Many of the studies stated that mindfulness practice is associated with benefits such as relaxation, reports of fewer physical and psychological symptoms.	Improvements in physical and psychological well-being
11	Herseh, R. K., Cook, R., Deitz, D. D., Kaplan, S., Hughes, D., Friesen, M.A., & Vezina, M. (2016)	N=105; six hospitals (five suburban Virginia hospitals and one located in New York City)	RCT	Web-based stress management program	Significantly improve perceived levels of stress.	Found positive results in perceived levels of stress but, a researcher is also the owner of the product
12	Hevezi, J. (2015)	N=17, nurses on a single unit	Nonrandomized, pre-post intervention	4-minute mindful breathing technique, 8-minute meditation	Improvement of reported levels of compassion fatigue, burnout, and secondary trauma	Use of mindful breathing positive effect on stress

13	Kemper, K. J. (2017)	N=178 Offered to employees and students of The Ohio State University and Medical Center for free. Outside applicants paid a small fee.	Non-randomized Cohort	Web-based stress management program	Results support findings that even brief training can lead to small but significant benefits for health professionals.	Supports used of modified stress program
14	Lin, L., He, G., Yan, J., Gu, C., Xie, J. (2018)	N=55, Two hospitals in Southern China, Full-time nurse	RCT	Modified MBI	Significant improvement in perceived stress, negative affect, and positive affect	Supports positive outcomes of modified MBI
15	Meyer, G., Shatto, B. (2017)	N=21 newly graduated second-degree nurses	The quantitative descriptive pilot study	Evaluated Caey-Fink Data	Importance of building resilience in new to practice nurses	Provided evidence of why to focus the project on stress and the new to practice nurse
16	Myers, R. E. (2017).	none	Expert opinion	n/a	Provided a great background of MBSR and the benefits. Also, review clinical occupational stress	Found positive effect in the level of mindfulness
17	Resnicoff, M., & Julliard, K. (2018).	N=10, 1 nursing unit (rehab)	Qualitative Study	Meditation moment on the night shift	Many also expressed that teamwork and a sense of camaraderie improved, and they realized that as they felt better, they became better caregivers to their patients	Staff enjoyed the process, built teamwork, and staff used outside of work
18	Penprase, B., Johnson, A., Pittiglio,	Pilot on undergraduate nursing students, Offered to	Qualitative Study	The modified version of MBSR	Employed a modified MBSR	Even with small sample size saw positive outcomes

	L., Pittiglio, B. (2015)	N=14 nurses on critical care unit.				
19	Wang, S.C., Wang, L.Y., Shih, S.M., Fan, S.Y., Wen-Yu, H. (2016)	N=31, newly graduated nurses at 1000 bed hospital in rural Taiwan	Quasi- experime ntal	MBSR vs. humanities class	Measure if MBSR program helps stress levels in newly graduated nurses	MBSR is better able to maintain the effects of reduced stress better at the six- month point.
KEY	RCT: Randomi zed Controlle d Trial, MBI: mindfuln ess-based interventi on, MBSR: mindfuln ess-based stress reduction, ROI: a review of literature					

Johns Hopkins: Level of Evidence Table

Level of evidence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Level I: Systematic review or meta-analysis or randomized trials											X			X					
Level II: Quasi-experiments							X					X	X		X				X
Level III: Non-experimental, qualitative or meta-synthesis	X	X		X	X	X		X		X								X	
Level IV: Opinion of nationally recognized experts based on evidence																			
Level V: Opinion of individual expert based on non-research evidence (QI, Financial data, personal experience)			X						X							X		X	

Appendix C

Casey Fink & Progression Surveys

The Vizient/AACN Nurse Residency Program™
- Casey-Fink & Progression Survey

Surveys are available with written permission to Vizient Inc.

2018 Vizient, Inc. All Rights Reserved

Appendix D

Cognitive Affective Mindfulness Survey-Revised

Cognitive Affective Mindfulness Survey-R (CAMS-R)

The CAMS-R is a 12-item measure designed to capture a broad conceptualization of mindfulness with language that is not specific to any particular meditation training type.

CAMS-R is a public survey. Permission is not needed for use.

Instructions: People have a variety of ways of relating to their thoughts and feelings. For each of the items below, rate how much each of these ways applies to you.

Please respond to each item by marking <u>one</u> box per row	Rarely/Not at All	Sometimes	Often	Always
CAMS-R1 It is easy for me to concentrate on what I am doing	1	2	3	4
CAMS-R3 I can tolerate emotional pain.	1	2	3	4
CAMS-R4 I can accept things I cannot change	1	2	3	4
CAMS-R5 I can usually describe how I feel at the moment in considerable detail.	1	2	3	4
CAMS-R6 I am easily distracted. (R)	4	3	2	1

CAMS-R8 It's easy for me to keep track of my thoughts and feelings.	1	2	3	4
CAMS-R9 I try to notice my thoughts without judging them.	1	2	3	4
CAMS-R10 I am able to accept the thoughts and feelings I have.	1	2	3	4
CAMS-R11 I am able to focus on the present moment.	1	2	3	4
CAMS-R12 I am able to pay close attention to one thing for a long period of time.	1	2	3	4

Scoring: Survey sent out through Qualtrics: calculation completed within Qualtrics.

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment*, 29(3), 177-190.

Appendix E

IRB Approval & Subject Recruitment Letter



Office of Human
Research Institutional
Review Board

Jefferson Alumni Hall
1020 Locust Street, Suite M-
34 Philadelphia, PA 19107
T 215-503-8966
F 215-503-5738

May 27, 2020

Catherine Levonian, PhD
Department of Nursing

Dear Dr. Levonian:

The **Institutional Review Board (IRB)** has evaluated the involvement of human subjects in the proposed research study entitled:

"Mindfulness-Based Intervention Help New to Practice Nurses Cope with Stress: An Evidence-Based Practice Project" (Departmental) 45 CFR 46.101 (1-Classroom, no IDs) Control #20E.436

PURSUANT TO TITLE 45 CODE OF FEDERAL REGULATIONS PART 46.116 (D), THE IRB HAS GRANTED A WAIVER OF INFORMED CONSENT.

In accordance with Federal-Wide Assurance #00002109 to the U.S. Department of Health and Human Services, I am pleased to inform you that your study was determined to be **EXEMPT** from IRB review on **05/01/2020** pursuant to Title 45 Code of Federal Regulations Part 46.101(b) governing exempted protocol declarations. Board #152 was notified of this exemption status at its 05/07/2020 meeting.

No further review and approval by the Board will be required if the study is to be conducted as proposed. Any proposed revision in this protocol will necessitate submission of an OHR-12 to the IRB for further consideration prior to final implementation.

Please notify the IRB by letter when the study has been completed.

This approval verifies that the IRB operates in accordance with applicable federal, local and institutional regulations that govern IRB operations.

Thank you for your cooperation in the institutional review process. Sincerely yours,

Walter Kraft, MD Director
Office of Human Research
WK/pds



Subject Recruitment Letter

Dear March 2020, Nurse Residents:

Hello, my name is Cathy Levonian. I'm from the Thomas Jefferson University Hospital's Department of Nursing.

We are excited that you are part of our Nurse Residency Program. Part of our 6-seminar program is an evidence-based project (EBP) that focuses on a mindfulness-based intervention (MBI). MBIs are shown to help reduce stress.

Our Evidence-based project consists of six 15-minute mindful breathing techniques. We estimate that this will take about 3 hours of your time over the year to complete. Your participation in this project will contribute to advancing our understanding of the effectiveness of MBI to reduce stress.

Your participation in this study is entirely voluntary, and you can end your participation, if you wish, at any time. Your position/care at Jefferson will not be affected if you choose not to participate in this study.

The EBP project will be evaluated through the Vizient Casey-Fink Graduate Nurse, Progression, End of program Surveys, Class Climate seminar surveys, and the Cognitive Affective Mindfulness Survey-Revised. Time is allotted during seminars to complete the surveys, and all surveys are voluntary and confidential. To maintain confidentiality in the open-ended questions, don't include anything that would identify you as the respondent.

Please click the link below to fill out the enclosed questionnaire.

https://jefferson.co1.qualtrics.com/jfe/form/SV_01IdxFZG9E2fcIB

This should take about 5 minutes of your time to complete. If any question makes you feel uncomfortable, you don't have to answer it. I also want to assure you that any information you provide will remain strictly confidential. Your name will not be identified or associated with any specific responses, and it will not appear in any published materials which result from this research.

Thank you for volunteering to participate in this study.

Sincerely,

Cathy Levonian

Catherine.levonian@jefferson.edu

215-955-5455

Appendix F

Vizient Data Approval Process

Vizient Permission for Presenting and Publishing



Good Afternoon,

I hope this email finds everyone well. We are excited to see that many of our members are presenting, publishing and sharing their outcomes and innovative nurse residency program practices. As a reminder, when publishing, presenting and sharing best practices please connect with the Vizient team at NRPinfo@vizientinc.com prior to final submissions or presentations as outlined in your contract. The Vizient team asks that we review the material to ensure that it aligns with our marketing standards, items such as name (properly listed and providing credit to the correct organizations) and data guidelines (in regards to sharing benchmarking organizations names) as well as any business details proprietary to Vizient and AACN need to be reviewed before publishing. The marketing standards can be found in [Marketing/Publication](#) section of the website.

If you do have any questions, please do not hesitate to reach out the Evy.Olson@vizientinc.com

Thank you,

Angela Renkema MPH, BSN, RN, NPD-BC, RN-BC, CPH
NRP Programmatic Advisor Director

T (312) 775-4556
angela.renkema@vizientinc.com

Vizient
155 N. Wacker Drive
Chicago, IL 60606
vizientinc.com

Appendix G
OSU QI Form

Human Subject Research Determination Form

Please complete the survey below.

Thank you!

Response was added on 04/23/2020 6:19 pm.

Instructions:

1. Please complete the requested project information, as this form may be used for documentation that neither IRB review nor an exemption is required.

2. Please select the appropriate answers to each question in order as they appear. If all of the questions are answered without receiving an error message, the form must be printed AND signed as certification that the project is "not human subjects research," and does not require IRB review or exemption.

If you are unsure how to answer any of the questions, please contact ORRP for additional guidance at ORRPDeterminations@osu.edu.

PROJECT INFORMATION

Name of PI, advisor, or mentor Cindy Anderson

Advisor Email anderson.2765@osu.edu

Student Name: Jeanette Palermo

Project Title Mindfulness-Based
Intervention Help New
to Practice Nurses Cope
with Stress: An
Evidence-Based
Practice Project

Brief Description of Project/Goals: New to practice nurses may
be at a higher risk for
occupational stress with the
potential to increased
perceived stress and
intention to leave their

positions. Mindfulness-based interventions (MBIs) are beneficial in combating the toxic effects of occupational stress. The objective of this project is to introduce MBI to the established nurse residency current self-care curriculum to include 7 mindful breathing techniques in order to improve outcomes to reduce stress and intention to leave their position. MBI will be added to the nurse residency program delivered in 7 seminars across the year-long residency to supplement standard topics including information on professional development, skill acquisition, patient safety, and evidence-based practice. The MBI skills that the nurse residents can use 'in the moment' when stress is high are expected to result in reduced stress and intention to leave their position at the end of the year-long residency program. The participants (n=34) in this project include new to practice nurses participating in a nurse residency program at an academic medical center in the northeast. New to practice nurses enrolled in the nurse residency program complete an online Vizient, Casey-Fink survey that examines the transition to practice and professional issues such as stress at the start, midway, and end of the yearlong program. Additional data is collected on intention to leave and job satisfaction on Vizient Progression survey and

End Of Program Evaluation.
Progression survey information is measured at 3 data points, start, midway, and end of the yearlong program. The End of Program Evaluation is collected at the end of the NRP. Data collected on the surveys will be compared to 2017 and 2018 cohorts and other Vizient NRPs in the network to determine effectiveness of MBI on reduced stress and intention to leave their position.

Internal Surveys (Class Climate) rate the effectiveness of the content and speaker using a 5-point likert scale. Additionally, there are two open text questions, "How will you apply content to your practice?" and "Comments"

Cognitive Affective Mindfulness Scale (CAMS-R) 12-item measure designed to capture a broad conceptualization of mindfulness with language that is not specific to any particular type of meditation training.

Differences in perceived level stress, job satisfaction, and intention to leave their position over the one-year nurse residency program among the nurse residents will be compared to national level data for progression, end of program and Casey-Fink, survey measures will be determined by t-test (significance $p < 0.05$)

(This information is important

and provides the necessary information to determine if the project requires IRB review.)

QUESTIONS

1. Will the project involve testing an experimental drug, device (including medical software or assays) or biologic?

Yes
No
(This question determines if additional federal regulations, like FDA regulations, apply to the project. This information is based on the Common Rule (45 CFR 46.102(d)) that states "Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge." If the answer to this question is 'YES' - IRB review is likely required.)

2. Has the project received funding (e.g., federal, industry) to be conducted as a human subject research study?

Yes
No
(This question is to determine if the project received funding to be conducted as a research study, quality improvement, or program evaluation. If the funding source requires a specific level of IRB review and oversight or considers the project to constitute human subjects research, you may be required to submit an IRB application.)

3. In addition to any other purposes, is the project intended to develop or contribute to generalizable knowledge (e.g., testing a hypothesis) AND/OR has the project been designed in such a way that the design plays a key role in findings that will be generalizable (e.g. randomization) project uses

Yes
No
(This question is to determining intent. If the

of subjects; comparison of case vs. control)?
like testing a

standardized research methods

hypothesis or randomization to determine results, then it is research. If the intended outcome is simply to report on what happened at the institution/program, even if another site does something similar and sees benefit, this does not indicate research design or intent.)

4. Will the results of the project be published, presented or disseminated outside of the institution conducting it?

Yes

No

(The purpose of this question is to determine if and how project results will be disseminated. Note that program evaluation and QI projects can be published or presented without being considered research projects; not all information that is published or presented represents generalizable knowledge. Lack of intent to disseminate the information is generally a strong indicator that a project does not constitute research.)

5. Will the project occur exactly as proposed regardless of whether individuals conducting it may benefit professionally from it?

Yes

No

(This question is not focusing solely on whether an individual will professionally benefit, but rather whether they would conduct the project (or conduct it in the exact same way) regardless of the potential for professional benefit (e.g. adding it to a CV or getting funding based on the results).)

6. Is the project intended to improve or evaluate the practice or process within a particular institution or a specific program?

Yes

No

(If the intention upon

designing and conducting the project is not to improve or evaluate a specific practice/program, then the answer should be "No" indicating research intent and IRB review is likely required. If the project is intended to create knowledge or draw conclusions applicable beyond the particular institution or specific program, then the project is likely research as defined by the federal regulations and IRB review or exemption is required.)

If no message appears above indicating the certification is not valid, IRB Review is not required because, in accordance with federal regulations, the project does not constitute human subjects research as defined under 45 CFR 46.102(d).

Student: Sign this form below attesting to the accuracy. Download and save a copy of the completed form, print or email the form to your advisor for signature. This serves as record that IRB review is not required for this project.

Student: I certify that the information provided is accurate.



Student Signature date:

04-23-2020

The following information is to be completed by the student's advisor once the student has completed and submitted the form. Please note - once the form is formally 'Submitted' the student should save a PDF copy of the form and forward the PDF to their advisor for review and signature.

Advisor: I have reviewed the student project and agree to the information provided.



Advisor Signature date:

4/24/2020