Mindfulness-Based Intervention to Prevent Burnout in Healthcare Professionals

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Abstract

Background: Burnout appears to effect two thirds of providers, and has been steadily rising among healthcare providers, with more than one third of healthcare providers meeting criteria for severe burnout, with nurses that have experienced burnout being 2 to 3 times more likely to leave their positions (Vells et al., 2021). The risk of burnout in healthcare providers is high, 78% of physicians, 44.2% of medical students, 45% of residents, and 50% of nurses in the United States reporting some type of burnout in their careers (Chemali et al., 2019). ***Purpose***: The purpose of this review of the literature is to explore the current knowledge for the expected positive effects and the ability to implement a stress reduction intervention, such as mindfulness meditation, to prevent burnout in healthcare workers. ***Methods***: Key words used for the literature search included: nurses, healthcare professionals, physicians, mindfulness, meditation, burnout, burnout prevention, mindfulness based stress reduction, MBSR, and stress. Studies required both a mindfulness based intervention and the testing of outcomes to assess for the correlation between the interventions and outcomes. ***Findings***: The review of the literature showed a reduction in burnout symptoms, indicating that mindfulness-based interventions to reduce burnout among healthcare professionals in the hospital setting is promising. ***Conclusions***: Mindfulness-based stress reduction interventions can be a promising tool to better the lives of those that give direct care to patients, families, and communities. Given the positive outcomes the research has shown in preventing and reducing burnout in healthcare professionals, MBSR therapies are a potential cost saving and quality of life improving intervention that can be provided to a wide reaching group of individuals.

Keywords: nurses, healthcare professionals, physicians, mindfulness, meditation, burnout, burnout prevention, mindfulness based stress reduction, MBSR, stress

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Healthcare settings can be a busy and stressful work environment for the staff that work in these environments daily. Work related stress can be connected to impaired professional performance, reduced feelings of wellbeing and quality of life with elevated levels of depression, physical exhaustion, and anxiety, and a risk of burnout syndrome which is defined as emotional exhaustion, feelings of low personal accomplishment and depersonalization (Cascales-Perez et al., 2020). Burnout can be a result of chronic exposure to an imbalance between the demands of the occupation and the individuals ability to cope with these demands, with those suffering from burnout syndrome at a higher risk for substance use and abuse, to include caffeine, alcohol, and illicit drugs (Green & Kinchen, 2021). Pettus et al. (2022) posits that burnout is a particular hazard for the helping professions, such as healthcare, and that the COVID-19 pandemic has accentuated many systemic drivers of stress and burnout within healthcare systems. Given the potential risks that are associated with stress and burnout, prevention and relief should be considered an important endeavored.

Chmielewski et al. (2019) describes mindfulness as a process of intentionally paying attention to each moment with curiosity, openness, and acceptance of each experience without judgment. The purpose of this review of the literature is to explore the current knowledge for the expected positive effects and the ability to implement a stress reduction intervention, such as mindfulness meditation, to prevent burnout in healthcare workers. Healthcare workers can be defined for this project as physicians, advanced practice nurses, nurses, pharmacists, nursing aides, or any other profession where there is direct care for patients or interactions with clients are undertaken.

Description

For this review of the literature the question was asked, in healthcare workers does the use of self-care interventions like mindfulness and mediation, compared to no self-care intervention and/or treatment as usual, reduce the risk of burnout and/or job dissatisfaction? The risk of burnout in healthcare providers is high, with 78% of physicians in the United States reporting experiencing some type of burnout in their careers, 44.2% among medical students, 45% among residents, and 50% among nurses, with provider burnout contributing to physical and mental health problems such as anxiety, depression, mood swings, digestive problems, aches and pains, and cardiovascular risks, as well as reports of job dissatisfaction, with intentions to leave the medical profession (Chemali et al., 2019). With research showing that dissatisfaction, disinterest, and being overworked can have negative impacts on patient outcomes, with a risk of reducing quality of care and a gradual decrease in healthcare providers effectiveness (Green & Kinchen, 2021).

Burnout can also have negative and long-term effects on the facilities and organizations, with higher levels of burnout associated with increased use of sick leave and absenteeism, tardiness, increases in staff turnover, significant cost related to the hiring and training of new staff, and overtime pay related to understaffed situations, with the effects of burnout on organizations identified as one of the major contributing factors to attrition (Green & Kinchen, 2021). The impact of productivity loss from burnout can potentiate a loss of healthcare resources effecting services and wait times, with some estimates at or around $160 million loss in patient services from provider cutbacks and early retirements (Chemali et al., 2019).

Background

Healthcare professionals face many stressors in the work environment in both the inpatient and outpatient settings, such as long hours, night shifts, taking care of patients

experiencing suffering and pain, terminal illness, staffing shortages, more complex patient conditions, changing use of technology, and regulations to name a few (Chmielewski et al., 2019). Burnout appears to effect two thirds of providers, and has been steadily rising among healthcare providers, with more than one third of healthcare providers meeting criteria for severe burnout, with nurses that have experienced burnout being 2 to 3 times more likely to leave their positions (Vells et al., 2021). These losses in staff can further the risk of burnout through staff shortages and absenteeism.

There is a gap in the knowledge with how the use of mindfulness meditation can be used to prevent burnout in healthcare providers, what type of intervention is most effective, and modality presented. Connection of the topics is limited in the research and would benefit from a closer and more in-depth approach to the effectiveness and feasibility of implementing a mindfulness based program to address healthcare professional burnout and stress.

Literature Review

Search Methods

The databases of Google Scholar, APA Psych Info, CINAHL, Cochrane Database of Systematic Reviews, EBSCO, and MEDLINE were chosen for a broad search of the literature related to the PICOT question, in healthcare workers does the use of a self-care intervention like mindfulness and meditation, compared to no self-care intervention and/or treatment as usual, reduce the risk of burnout and/or job dissatisfaction? These databases were chosen due to their availability of current research of pertinent articles. Key words and terms used for the literature search included: nurses, healthcare professionals, physicians, mindfulness, meditation, burnout, burnout prevention, mindfulness based stress reduction, MBSR, and stress. The Boolean operators “and” and “or” were used to widen the search. Studies were limited to include full text

articles, in English, and published from 2018 to present. Studies required both a mindfulness based intervention and the testing of outcomes from the intervention for burnout prevention to assess for the correlation between the interventions and outcomes. Additional exclusion criteria was that the intervention was primarily conducted in the healthcare setting.

The order of the literature review is presented in order of lowest evidence to the highest. Levels of evidence for qualitative and quantitative research can be ranked on a pyramid, with the highest level of evidence at the apex and the lowest levels of evidence at the base. Ingham-Broomfield (2016) described the 7 levels of evidence, ranked from lowest or least reliable to highest or most reliable, and was used for this review of the literature. Seven studies total were selected to be included in the review of the literature. Of the 7 studies included and using Ingham-Broomfield (2016) criteria for grading of evidence, 1 study was a pilot study with a level of evidence of 6, 1 cohort study with a level of evidence 5, 2 studies were randomized controlled trials with level 4 evidence, one article conducted two separated studies consisting of a pilot study with level 6 evidence and then a randomized controlled trial with level 4 evidence, and two systematic reviews with a 1b level of evidence.

Asking the question if increasing coping skills can prevent burnout in nurse anesthetists, Vells et al. (2021) conducted a quality improvement project with a non-randomized quasi-experimental design, with the aim to assess the effectiveness of a burnout awareness and coping skills program. Forty nurse anesthetists out of an unknown number were chosen for the intervention by convenience sampling and 36 completed the entire intervention, with only 4 participants not finishing, all nurse anesthetists practicing within the hospital were invited to participate. The intervention, the Burnout Awareness and Coping Strategies Program (BACSP), was developed into an online presentation and was available for one month and provided

information about recognizing the symptoms of burnout and taught coping strategies like; mindfulness, meditation, reflection, positive thoughts and actions, aerobic activity, and being a positive role model. Pre and posttest utilized the Maslach's Burnout Inventory, included questions about coping strategies used, and if participants thought the intervention was helpful, and were given prior to the BASCP and one month after finishing the program. Pretest scores showed high emotional exhaustion (EE) and depersonalization (DP) scores and low scores for personal accomplishment (PA), indicating the presence of burnout prior to the BASCP. Posttest scores for the intervention showed a decrease in EE and DP with an increase in PA. Decreases in EE and DP and increases in PA indicate symptom relief and possible effectives of the intervention. At the end of the 1 month intervention time period, Vells et al. (2021) asked participants if the intervention was helpful in improving burnout and if the coping strategies used were helpful with burnout, with 89% of the 40 individuals responding yes to both questions. Limitations identified were a small sample size of mostly female nurse anesthetists, only one hospital site studied, the time period of the intervention was unable to measure longitudinal effects of the intervention, and the project leader held a supervisory role over some of the participants and could have influenced pre and posttest results. With the limitations in mind, Vells et al. (2021) recommends research that can determine an optimum follow up period for long term management of burnout, and posits that a burnout program, like the one tested, can be beneficial in increasing awareness and teaching coping skills.

A pre and post-test cohort analysis was done by Pettus et al. (2022) to establish the efficacy of a mantra-based meditation program that was developed by the American Meditation Institute (AMI) with the goal to reduce caregiver stress by evaluating changes in burnout and secondary traumatic stress and compassion satisfaction. The study populations and sample were

21 out of 54 nurses, physicians and other healthcare providers that attended the Heart and Science of Yoga conference and were invited to participate in the intervention by e-mail. The intervention was a mantra based AMI meditation with a guided meditation CD or MP3 for 20 minutes a day for 6 months. Mantras were self-selected by the individual and had the opportunity to be practiced before the end of the 5 day conference. Prior to the start of the intervention and at the 3 and 6 month time frames, participants completed the Professional Quality of Life : Compassion Satisfaction and Compassion Fatigue Version 5 Measure (PROQOL) survey to measure the three domains of caregiver distress: burnout, secondary traumatic stress, and compassion satisfaction. The individuals logged their daily progress for 6 months and were sent an e-mail monthly for motivation to continue the intervention. The participants daily log sheets were collected at the 3 and 6 month time frames. Of the 21 participants that completed the 6 month study, burnout scores were significantly improved at the 3 and then 6 month time frames compared to baseline assessments prior to the intervention. Scores for secondary traumatic stress and compassion satisfaction scores were significantly improved at the 3 month marker but did not show further significant improvement from the 3 to the 6 month time frame, but still showing an improvement from baseline assessments. Limitations of the study were a small number of participants in the sample, making generalizability of the intervention more difficult. Another limitation identified is that there could be a self-selected bias from practitioners that are already drawn to self-care models when choosing to participate in an intervention like the one tested. Pettus et al. (2022) study also suffered from a 55% attrition rate at the 3 month time frame and then 61% at the 6 month time frame marker and may have influenced the reliability of the results.

Walker-Seidel et al. (2021) set out to examine the short-term and sustained effects that an abbreviated mindfulness practice course can have on well-being, burnout, and mindful awareness. Two studies were conducted and reported the findings in one article, the first study was a single group pre and posttest quasi-experimental design that included 25 nurses in a hospital out of 3594, and the second study was a randomized controlled trial with 83 healthcare professionals, nurses, physicians, PA, NP, CNS, SW, PT, OT, pharmacists, psychologists, and chaplains, in the same hospital out of an undisclosed number. The intervention tested was Building a Mindful CommUnity, a brief mindfulness practice course that was 4 weeks in length, meeting once a week for 1 hour, and then daily practice 15 minutes a day for the 4 week time frame. Content for the intervention was formal and brief informal mindfulness skills training. Pre and posttest were administered, which were: the Mindfulness Attention Awareness Scale (MAAS), the Maslach's Burnout Inventory Human Services Survey (MBI-HSS), and the WHO Quality of Life-BREF Scale (WHOQOL) questionnaires. Participants were tested after the first class, the last class, and at the 3, 6, and 18 month marks for the first study, and for the second study participants were tested up to the 6 month mark. After the 6 month mark for the second study, the waitlist control group was offered the intervention.

The findings Walker-Seidel et al. (2021) reported for study 1 were that at the start of the intervention all measurements were changed in the desired direction with significant changes in quality of life. At the 6 months mark the authors noted significant improvement in mindfulness scores with the only drop in scores indicated in social relationships on the WHOQOL assessment. At the 18 month mark results for posttest showed the average mindfulness scores to be higher, however, rises in emotional exhaustion and depersonalization scores were also noted, and personal accomplishment scores were also increased. Due to the significant changes in

mindfulness and other measurements, the results of the first study indicated that the intervention was feasible and warranted rigorous empirical testing with a larger sample population.

Walker-Seidel et al. (2021) used the same intervention as first study for the second, Building a Mindful CommUnity, in a randomized controlled trial to determine the effectiveness of the intervention, with a waitlisted control group that was offered the intervention at the 6 month post-intervention mark. Steady increases in mindfulness over the course of the intervention, decreasing feelings of emotional exhaustion over time, and decreasing feelings of depersonalization, with no significant effects on feelings of personal accomplishment, and little change noted in the control group were reported (Walker-Seidel, 2021). General quality of life scores were increased from the pretest to the 6 month posttest time, with the results indicating that the intervention group showed improvement in measures over time compared to the control group. Limitations identified for the first study were a small and self-selected sample with no control group, both studies took place during a time of high census and staffing shortages in the hospital and could add to increased feelings of burnout, as evidence by high pretest levels of emotional exhaustion and depersonalization. Another possible limitation was that it was suspected that the intervention group had shared findings with the control group in study 2 due to friend groups being broken up when assigned to either the intervention or control. Walker-Seidel et al. (2021) recommend that the intervention Building a Mindful CommUnity is an effective intervention for improving QOL in hospital nurses and healthcare workers and should be investigated as a possible virtual format. The brief design of the program allows ample time for completion, and offering the program multiple times a day was supported by low attrition rates in the second study. It was recommended that more research into the effectiveness of the

intervention to reduce burnout is necessary in light of the increasing stressors from the COVID-19 pandemic.

Hilcove et al. (2021) conducted a single-blinded randomized control trial to examine the effects of a mindfulness-based (MB) yoga intervention on stress and burnout in nurses, physicians, therapists, nursing assistants, and social workers, that were at least 18 years old, and who provided direct patient care. Hilcove et al. (2021) purposed three hypotheses for the study; that a 6 week MB yoga intervention program will significantly reduce perceived stress and burnout compared to the control group; that the mindfulness-based yoga will significantly improve vitality, sleep quality, mindfulness, and serenity compared to the control group; and that a mindfulness-based yoga program will improve diurnal cortisol level patterns and blood pressures in participants compared to the control group. Eighty participants were randomly selected by computer to either the control group (n=39) or intervention group (n=41). Inclusion criteria were providing direct patient care, older than 18 years of age, and exclusion criteria was mobility limitations, already routinely practicing yoga or other mindfulness based intervention in the past 6 months, or on any medication that could have interfered with a salivary cortisol test such as steroids. All participants completed baseline measurements 2 weeks before the intervention and after, consisting of the Perceived Stress Scale, Maslach's Burnout Inventory, vitality scale, one question for global sleep quality from the Pittsburgh Sleep Quality Index, the Brief Serenity Scale, the Mindfulness Attention Awareness Scale, and biomarkers of salivary cortisol samples and blood pressure readings. The intervention consisted of yoga practices based on Hatha and Raja Yoga techniques, was at a beginners level, and utilized poses and practices that were meant to facilitate self-awareness, self-reflection, and mindfulness focus and meditative awareness. CD's and DVD's were given out for individuals to practice at home, 3-5

times a week. Significant improvements in self-reported factors of stress, burnout, vitality, sleep quality, serenity/inner haven, and mindfulness were reported. Cortisol levels and blood pressure readings were not significantly improved. Measures of perceived stress, burnout, vitality, sleep quality, serenity, and mindfulness had statistically significant improvements compared to the control group. Limitations identified were that assessment were self-reported tools and could be reflective of individual perceptions instead of objective measures and that biomarkers for chronic states of stress should be included in future studies. The study was designed to look at short-term effects of MB on a specific population and so therefore generalizations cannot be made about the greater populations (Hilcove et al., 2021). The MB yoga intervention showed improvements in measurements associated with burnout and indicated a utility in the intervention.

A quasi-experimental randomized controlled study was conducted by Cascales-Perez et al. (2020) to evaluate the effectiveness of a MBSR program to improve the health related quality of life (HRQOL) and quality of work life of primary care (PC) health professionals, as well as analyze the persistence of improvements in the intervention group at 3, 6, 9, and 12 months post intervention. The study was made of 58 out of 64 healthcare professionals identified as physicians, nurses, or other healthcare professionals from 11 healthcare centers in Alicante, Spain. The intervention was a MBSR program that was based on Kabat-Zinn's original MBSR training and consisted of 8, 2.5 hour long sessions for 8 weeks for the intervention group. The sessions focused on promoting full consciousness in daily activities and used meditation-contemplation exercises and yoga type stretching with use of guided exercises, modules, and group discussions. The intervention group filled out at the start of the intervention as well as at 3, 6, 9, and 12 months post intervention the following questionnaires: Five Facet Mindfulness questionnaire (FFMQ), SF-39 health questionnaire, Profile of Mood Sates (POMS), Maslach's

Burnout Inventory (MBI), and the Professional Quality of Life (PROQOL) questionnaire. The control group received a single 2.5 hour long information session on the benefits of mindfulness and the basic concepts of mindfulness practices, the same questionnaires that the intervention group filled out, but with no further follow up. Cascales-Perez et al. (2020) findings for the study were that the 2 hypotheses proposed were supported, first that the MBSR program improved the HRQOL and quality of work life of the PC health professionals, and second that the effects persisted at the 12 month follow up time frame. This was in line with past studies on MBSR programs. MBSR programs promote attention and self-awareness which is of value to healthcare professionals to identify their emotional state, thoughts, and behaviors, improvements in the perception of body pain with an increase in social function. With regard to burnout, the study found significant improvements in 2 of the 3 indicators of burnout, emotional exhaustion, and depersonalization, with the improvements persistent over the 12 month time frame. Recommendations were that MBSR programs are effective to increase the capacity for full attention, HRQOL, and quality of work life in PC health professionals, with improvements lasting over time. Limitations of the study are that there was a possible selection bias since all participants were healthcare professionals who voluntarily participated, there were more nurses than other healthcare professionals at 51.8% (n= 30), with n=15 nurses for both the intervention and control groups, over 50% of each group. The study was not blinded since the instructor for both the intervention and control groups was the same, and the control group was not followed after the initial 2.5 hour session. It is recommended that further research is needed to compare intervention groups with active control groups over the term.

Lomas et al. (2018) conducted a systematic review of the literature related to mindfulness meditation to improve the well-being of healthcare professionals. The review of the literature

included 81 studies out of 721 and comprised of 3805 participants, that primarily explored outcomes that reduced anxiety, burnout, distress, and depression, with 66 of the 81 studies having a mindfulness based intervention. The populations included were physicians, nurses, disability professionals, therapists, psychologists and counselors, and non-specific mental health and healthcare professionals. Inclusion criteria was; currently employed in a healthcare context; outcomes pertaining to mindfulness, well-being and job performance; and a study design that included any empirical studies that had data collection. Of the 66 intervention studies reviewed all had a form of mindfulness based stress reduction intervention for healthcare professionals. Loams et al. (2018) findings were that overall mindfulness based interventions had a positive impact on outcomes, but the findings on burnout relief were less clear. Lomas et al. (2018) suggest that there is a potential for a reduction in mental health issues and an enhancement of well-being with the use of mindfulness based interventions and that MBSR's can be applied to different healthcare roles and professions. The results showed that anxiety, depression, stress, and overall well-being were improved, however burnout symptom relief results were more ambiguous, with half of the studies (n=11) that were looking for burnout improvement showing no significant changes, and the other half (n=11) showing significant improvements (Lomas et al 2018). Regardless of the issues with the current research on the use of mindfulness interventions to promote the well-being of healthcare professionals, Lomas et al. (2018) suggests the evidence is strong for the value of mindfulness improving the well-being and job performance of healthcare professionals. Limitations identified were that the majority of the studies did not have a control group and that only 20 of the studies conducted an RCT out of the 81 studies reviewed. Another limitation identified is a lack of consistency in the mindfulness based intervention offered and how the outcomes are measured, a consistent intervention and outcomes

measurement makes the data more reliable about the effectiveness of the intervention. The authors recommended that future studies should have a RCT with larger numbers of participants and the inclusion of an active control group over an absorbing group activity, for further research into the use of mindfulness based interventions for the well-being of healthcare professionals (Lomas et al., 2018).

Green and Kinchen (2021) explored current knowledge on the effectiveness of mindfulness meditation on stress and burnout in nurses, examine gaps in the current literature, and provide recommendations for new research on this topic. Eight studies out of 823 studies were selected after inclusion criteria was applied which were peer-reviewed, between 2000 and 2020, quantitative research using Kabat-Zinn's MBSR intervention or adaptations of it, and results of the studies related to the impact that mindfulness had on nurses experiencing burnout, studies that focused on healthcare professionals other than nurses were excluded, as well as studies that were not implementing a MBSR intervention. The 8 studies Green and Kinchen (2021) reviewed represented 290 nurses in various settings and locations across the globe. The sample size for most of the studies were between 10 and 40 nurse participants, ages ranging 20 years to over 60 years old, and nursing experience levels from less than 1 year to over 30 years, with almost all participants being female, 5 studies indicating at least one male in their sample. Four studies used traditional MBSR programs and 4 studies used modified MSBR programs, and a time frame ranging between 8 weeks (n=6) or 4 weeks (n=2), and group-based (n=6). All studies reviewed examined the effects that mindfulness meditation has on stress, burnout, or both, and the effectiveness of MSBR programs for nurses. Green and Kinchen (2021) considered most of the studies (n=7) used well established assessment tools for burnout, stress, and quality of life, such as Maslach's Burnout Inventory, The Self-Compassion Scale (SCS), Perceived

Stress Scale (PSS), and the Professional Quality of Life Scale. Findings were there was evidence that practices like mindfulness meditation can be effective in significantly reducing stress and burnout in nurses, with nurses reporting increased self-compassion and satisfaction. Green and Kinchen (2021) posits that mindfulness interventions should be designed with the demographics for the specific needs of the population, suggesting nursing units offer introductory information sessions to help provide nurses with the foundation for practicing MBSR techniques on an individual basis, as well as group programs for social support, which can lead to strengthening of relationships between coworkers and improved teamwork. Limitations identified were small sample size in all of the studies, making it harder to generalize results and that the studies lacked consistency in the interventions tested, such as the time frame of the intervention in each study, required amount of practice needed each week, and the length recommended for meditation sessions. Green and Kinchen (2021) posits that mindfulness meditation has a potential as a cost effective and flexible prevention of stress and burnout by decreasing self-judgment and overidentification with experience while increasing resiliency, compassion, and emotional regulation in nurses.

In summary, the review of the literature indicated that the use of mindfulness-based interventions to reduce burnout among healthcare professionals in the hospital setting is promising, but more research is needed to assess the true effectiveness of the interventions. The findings for mindfulness-based interventions to reduce or prevent burnout in healthcare professionals were consistent and showed reduction in burnout symptoms on the small scale in short durations of 4-8 weeks in the hospital setting. The review of the literature resulted in many small sample pilot studies with inconsistent use of measurement tools, variety of healthcare professionals sampled, undisclosed populations and sample sizes, and multiple modalities of

mindfulness-based interventions used. Higher quality randomized controlled trials are needed with larger samples, consistent use of measurement tools like the MBI-HSS and WHOQOL-bref questionaries, consistent use of a mindfulness-based intervention, and a longer duration for the intervention tested to assess the effectiveness interventions have on burnout in healthcare professionals in the hospital setting, and to relate findings for more generalizability.

Project Implementation

The anticipated implementation of an education project to focus on the review of the literature on mindfulness practices in reducing or preventing burnout will include a PowerPoint presentation with a reference handout. The format of a PowerPoint with a reference handout was chosen due to the ability of conveying information in a compact design that could be discussed in a short time and so that the intended audience will be able to take the information with them. The PowerPoint presentation is a widely accepted design to present educational information to a group due to the ease of circulating information. The PowerPoint presentation will explain what burnout is, what a mindfulness based intervention is, prevalence of burnout in healthcare, and the finding of the review of the literature about prevention of burnout and stress and anxiety in healthcare professionals.

Dr. Kathrine Kolcaba's Comfort Theory can be applied to the healthcare professionals for this educational project. Dr Kolcaba's Comfort Theory starts with unmet comfort needs are assessed, and then an intervention is designed to meet the unmet needs, all intervening variables are taken into account with regard to the design of an intervention, comfort is measured before and after the intervention, then if the needs are met there will be an increase in engagement in health-seeking behaviors, and then finally when health-seeking behaviors are enhanced institution integrity is enhanced (Kolcaba, 2021).

The use of a PowerPoint presentation would be appropriate for settings like healthcare organizations, hospitals, universitiy and college healthcare professional programs like medical schools and nursing schools, nursing homes, healthcare clinics, and residential care homes like group homes and drug treatment programs. Healthcare professionals such as registered nurses, medical doctors, physician assistants, nurse practitioners, pharmacists and other professions that work in the delivery of healthcare would be the target population for the educational project.

The COVID-19 pandemic has the potential as a significant roadblock in the implementation of the project. Due to the risk of infection from the virus many healthcare organizations and nursing homes have restricted visitors from their facilities, clinics have moved to virtual appointments, and group homes have reduced census and staffing. Because of these locations having restricted access and less foot traffic, the presentation of the educational project could be hampered to allow a person to present the project and answer questions. Social distancing guidelines and recommendations may also pose a potential roadblock to the implementation of the educational project as it may make is difficult to present the information to reach a large enough audience.

With regard to the potential roadblocks to the implementation of the educational project, there are alterations that could be made to accommodate COVID-19 restrictions. One addition could be that the PowerPoint presentation is available fully online to be presented, as well as the accompanying references handout. There could be a quick response (QR) code attached to the references handout that would give the reader access to an electronic format of the information. This electronic format could also be posted on the facilities' or the presenter's social media accounts to reach a wider audience. By making the format available electronically, the audience

would have a more convenient design that could be accessed multiple times for reference and sharing.

Given the method of presenting the information in a PowerPoint presentation and that an intervention is not being tested, there would not be results to disseminate. If the information on a mindfulness-based intervention to prevent burnout in healthcare professionals is well received, as it is intended to be, then a quality improvement project could be undertaken with coordination with a facilities management structure and human resources departments about the feasibility of implementing an intervention in the facility.

Summary/Conclusion/Recommendations

In summary, mindfulness-based stress reduction (MBSR) interventions to prevent burnout in healthcare professionals can be a promising tool to better the lives of those that give direct care to patients, families, and communities. Mindful perspectives are expected to have an impact on therapeutic decision making and lead to better health effects with improved cooperation with patients (Chmielwski, et al. 2021). The review of the literature indicates that a MBSR can be effective at reducing or preventing burnout in healthcare professionals. With the expectation that the information is well received, the hope is that more MBSR intervention projects are explored to prevent burnout in healthcare professionals, with improvements anticipated in other realms beside the healthcare setting.

With the implementation of a MBSR program to prevent or reduce burnout in healthcare professionals, it would be expected to see symptoms of burnout, like reports of emotional exhaustions and feelings of depersonalization reduced while feelings of personal accomplishment increasing, which are the key identifiers of burnout syndrome. The

dissemination of the results of this review of the literature can add to the already growing body of knowledge for the use of a MBSR program to combat burnout in healthcare professionals.

The recommendation for more research on the effectiveness of MBSR interventions and therapies to reduce and prevent burnout is needed. There are unanswered questions about the length of time the intervention should be and how long the effects are beneficial before symptoms of burnout return. There should also be more research into what intervention modality works best to alleviated symptoms, such as the differences in meditation, mindfulness, and yoga poses, by themselves or a different mix of each. These questions should be answered so that a preferred intervention can be constructed. And the recommendation that all future studies should be comprised of larger sample sizes so generalizability of an intervention can be applied. Given the positive outcomes the research has shown already in preventing and reducing burnout in healthcare professionals, MBSR therapies are a potential intervention that can increase quality of life and that can be provided to a wide reaching group of individuals.

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