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Nurses are a critical part of healthcare and make up the largest section of healthcare professionals in the United States. According to the World Health Organization (2020), there are approximately 29 million nurses and midwives globally. The increasing need for nurses is not a new discovery. According to the American Association of College of Nurses, more registered nursing jobs will be available through 2022 than any other profession in the United States. The number of nurses leaving the workforce each year has been growing steadily from around 40,000 in 2010 to nearly 80,000 in 2020. Nursing burnout is a known issue contributing to nursing turnover and the quality of patient care including metrics such as readmission rates, increased urinary tract infections, and surgical site infections. The persistent question of how to reduce burnout in nursing is an important one whose answer could solve significant problems in healthcare.

Focus groups and other similar interventions have been shown to improve feelings of burnout, coping, and stress. In the oncology population, end of life is a common theme. With nurses at the frontlines, feelings of distress are carried day in and day out. Interdisciplinary debriefs after difficult end of life situation that include healthcare workers from different specialties could decrease feelings of burnout.

The hospital resources necessary complete this project include a team from the Office of Performance Improvement, adequate staffing guarantees to relieve nurses during the debriefs, and support from the interdisciplinary team in the critical care unit, and support from executive nursing leadership. The resources needed to complete the project are minimal and will not require extensive expenditure.

Nurses strive to provide the best care to their patients. According to U.S. Census Bureau, by 2030, the number of residents in the United States aged 65 and over is projected to be 73.1 million,

which means there will be an increased need for nursing care. It is necessary to retain nurses by assisting with professional wellbeing and job satisfaction.

Rationale

The inpatient oncology population can be difficult to care for leading to emotional dissatisfaction for nurses in this specialty. It is important to recognize the effects of burnout and compassion fatigue. Researchers have shown compassion fatigue can impact the caregiving professional as well as the workplace, causing decreased productivity, more sick days used, and higher turnover (Pfifferling & Gilley, 2000, as cited in Potter et al., 2016). As a result of burnout, nurses become resistant to change, patient care declines, and turnover increases, further leading to inexperienced staff and staffing issues. The cascading effects of nursing burnout are substantial. Caring for patients with cancer generates substantial work-related stress that can lead to employee dissatisfaction and mental exhaustion (Ferrans, 1990, as cited in Potter et al., 2016).

The global demand for highly skilled, experienced oncology nurses continues to grow because of increased disease incidence and improved cancer survivorship (Wentzel & Brysiewicz, 2017). It is important to maintain the mental health of nursing in the oncology specialty to provide patient-centered care as defined by the Institute of Medicine: “Providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions” (Institute of Medicine, 2001, as cited in Calisi et al., 2016). Studies have shown potential effects of a nurses’ work environment on patients’ health outcomes. It has been shown that a positive working environment for nurses can be associated with a reduction in the frequency of pressure ulcers, pneumonia, and medicine errors (Manojlovich et al, 2009, as cited in Copanitsanou et al., 2017).

Organizations can promote better patient care if they equip nurses with resources to cope with death and dying. It is important to develop a balance that addresses nurses’ time constraints on the job

with easily accessible resources to best support their needs. Researchers have studied mindful-based interventions, interprofessional debriefs, technological-based interventions, and other compassion fatigue preventing programs which have had success and limitations in preventing nursing burnout. Interdisciplinary debriefs will provide nurses with a structured outlet to discuss emotional strain caused by providing end of life care and allow nurses to establish a unique connection with colleagues.

Literature Synthesis

The objectives of the literature review were to find existing evidence on interventions that prevent or reduce burnout in nurses working with end-of-life patients and to determine the most effective workplace-based interventions to prevent burnout. Debriefing as an intervention was used in the search strategy to assess effectiveness of reducing burnout. Health care workers were the population included in all articles reviewed. Including valid and reliable external evidence is an important component of practice to make change. Rapid critical appraisal checklists and general appraisal overview forms were completed to confirm all studies were relevant, valid, and applicable. Psychosocial stress in the workplace, including burnout, is often used as an umbrella term to encompass other constructs including compassion satisfaction, stress, anxiety, empathy, self-confidence in end-of-life care (Phillips & Becker, 2019). Interventions addressing these variables were reviewed.

Gillman et al. (2015) conducted a systematic review to explore personal and organizational methods to promote nursing resilience and coping in nurses working with oncology patients including debriefing. Although it was determined that more research was needed, the systematic review demonstrated the importance of organizational support for nurses to prevent increase levels of stress in nurses working with oncological patients. The systematic review was slightly dated but included important recommendations for future research and showed decreased in burnout, stress, and anxiety. Wentzel & Brysiewicz (2017) conducted a systematic review to study various interventions including

yoga, mindful-based interventions, and music therapy which all demonstrated reduction in burnout and compassion fatigue. Phillips & Becker (2019) showed statistically significant improvements in burnout and stress using art and music-based interventions. Alghamdi (2021), Zhang et. al. (2020) and Zheng et. al. (2018) used debriefing with various techniques such as simulation as an intervention. The studies showed decreases in burnout, stress, and improvement in confidence with end-of-life care. Chua & Shorey (2021) explored end-of-life educational programs and discussions which could be translated to debriefing sessions that all showed a statistically significant improvement in confidence in caring for end-of-life patients.

In Pehlivan et al. (2020), a randomized control trial was described that used a compassion fatigue resiliency program to assess the programs impact on oncology nurses' resilience, perceived stress, and professional quality of life. The program improved compassion satisfaction scores in oncology nurses. El Khamali et.al. (2018) conducted a randomized control trial using debriefing with simulation as an intervention. The study had statistically significant improvements in levels of stress and job strain after six months.

Lehto et al. (2018) used focus groups in a qualitative study to evaluate the perceptions of users who utilized app-based meditation programs to improve compassion fatigue and professional quality of life. The study showed decreased stress, increased empathy, and statistically significant improvement in compassion satisfaction. Zajac et. al. (2017) was a mixed methods study that used debriefings to improve burnout and compassion fatigue. The study reported showed higher levels compassion satisfaction and most participants (60%) felt the debriefings were helpful. Cantu & Thomas (2020) explored the perceptions of health care workers in using debriefs after stressful incidences. The study found health care workers have an interest in participating in debrief sessions after participating a stressful incident such as mass casualty events and death of a patient.

Limitations varied amongst the studies. Multiple studies mention limited empirical evidence. Sample type included in the studies was also mentioned as a limitation. Many study samples consisted of experienced staff and small sample size. Input may have been hampered by "group think" in certain studies. In two articles, nursing turnover occurred during the study. It is difficult to draw a conclusion from small studies that report on outcomes with many confounding variables like turnover rate (Wentzel & Brysiewicz, 2017). Interviews were conducted during short periods and long-term effects were not explored in most studies. Heterogeneity of intervention characteristics and outcome measures used made it difficult to synthesize the findings. It was not possible to compare relative statistical impact of interventions and the relative effectiveness of the different outcome measures used.

Stakeholders

The stakeholders of the project include those directly and indirectly affected by the reduction in nursing burnout. Nurses are the primary focus of the project. Their buy in and support is essential to making the project work. The debriefs would include various members of the multidisciplinary team. Although nurses are the primary focus of the debriefs, including other healthcare workers may improve morale of the team and provide benefits that will improve companionship. Multidisciplinary team members that would be invited include social workers, case managers, physicians, rehabilitation staff, respiratory therapists, and nursing assistants. Unit leadership plays an important role in the implementation and also directly benefits from the improvement in burnout on their unit. The unit leadership includes a group of one director, four nurse managers and two clinical nurse leaders. The unit leadership is essential to the success of the project. The executive hospital leadership would also play a role in the project as their buy in would be necessary to move forward. The hospital has a group for quality improvement projects called the Office of Performance Improvement (OPI). OPI would assist with organization of the project, evaluation of the project, and measuring outcomes. The executive leadership would indirectly benefit from the project as the hospital may see a decrease in nursing

turnover, decreases in incidence of pressure injuries, reduction in healthcare associated infections, and fewer medication errors. These benefits would all result in improved finances for the organization. Patients would also indirectly benefit from improved emotional state of the nurses and reduced turnover.

Implementation Plan

Project implementation is focused on reducing nursing burnout through interdisciplinary debriefs. The debriefs will focus on caring for end-of-life patients who spend at least a week one the critical care unit. The goal is to capture enough staff with sufficient involvement in the patient's care.

During the planning time (protocol development, facilitator training, and stakeholder meetings), debriefing will be socialized to staff via unit huddles and staff meetings. The project manager will organize meetings with the staff wellness committee, stakeholders, and designated facilitators to outline debrief structure. During this time, the staff will complete a pre-intervention Maslach Burnout Inventory survey electronically which will be sent to all staff offering voluntary participation. The Maslach Burnout Inventory will be sent to all critical care staff and ancillary staff two weeks before the first debrief with a hard deadline. A small group of nurse leaders and social workers with a master's degree will attend ICISF debriefing training (International Critical Incident Stress Foundation Inc., n.d.). All planning and decisions will be documented in the critical care archives on the institutional website. This should last no more than six weeks.

The debriefs will begin after all planning and training is completed. The patients included will be oncology patients cared for in the intensive care unit who were being cared for on the unit for at least a week. The patient's expiration also must occur on the unit. Within two weeks of the patients passing, the debriefs will be organized and will include all involved disciplines who cared for the patient. The process includes recruiting an available, trained facilitator and setting up a time and location. These debriefs, no longer than 60 minutes, will be led by a trained facilitator to provide structure. The

structure will include specific elements. Pre-debriefing will include an introduction of participants and their involvement in the patient's care. The patient care encounter review will allow the facilitator to spend time reviewing the patient's hospital course. Verbal debriefing is the step in which the facilitator will gather information from the participants by inviting them to share their thoughts about the patient's care. Open-ended questions will be used to elicit information. Afterwards, the facilitators will assist the participants to analyze and reflect. One week prior to the selected date, the staff will receive the location, time, and patient information for the debrief. This will be sent via email and reviewed during unit huddle. The sessions will occur on the nursing unit. The nurses participating will have guaranteed coverage while they are away from the unit. If they are joining the debrief on a scheduled shift, the first relief will be the resource nurse. If the resource nurse is unable to relieve or no resource nurse is scheduled, the chain of contact will go as follow: rapid response nurse→clinical nurse leader→nurse manager. The staff will have guaranteed relief from someone other than a pod mate who has their own patients to manage. Nurses will be compensated if they attend outside of their scheduled work week.

During the sessions, the facilitator will guide the conversation with key components of debriefing including feelings on the patient care situation, reflection on interventions, and potential improvement in future cases. Although the leader will generally guide the conversation, the debrief should be focused on the participants' thoughts and feelings, leading with open-ended questions. The participants will complete the Maslach Burnout Inventory after a three-month period. Over three months, the goal would be to see improved feelings of emotional exhaustion or burnout in healthcare workers, primarily the nurses.

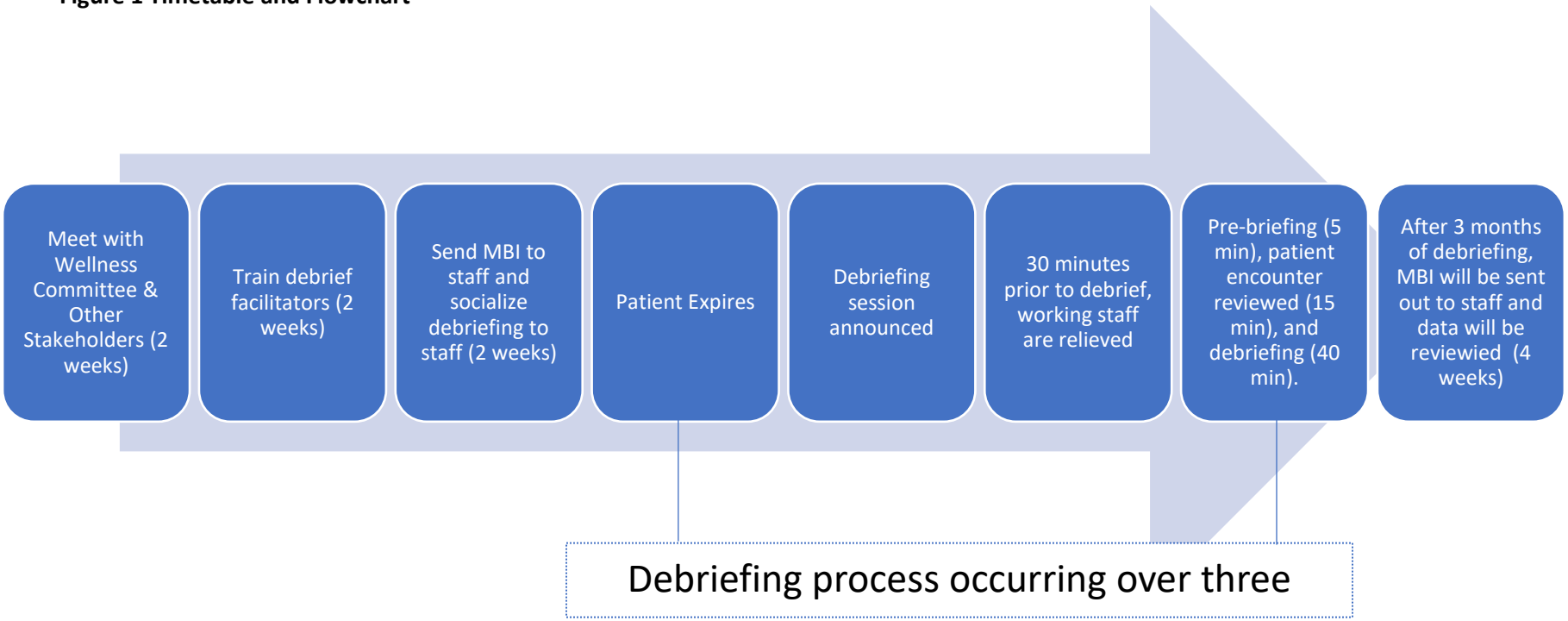
The Johns Hopkins Nursing Evidenced-Based Practice (JHNEBP) Model would be used to guide this evidenced-based project. The JHNEBP Model was developed on the basis that bedside nurses play a key role in translating research into practice. At the initiation of interdisciplinary debriefs, the project

team will recruit bedside nurses to champion the project and gain buy in from their colleagues. The bedside nurse champions involved in the project can use the model to answer important questions and locate best available evidence to expand the project implementation.

Timetable and Flowchart

Figure 1 shows the outline of the debrief implementation process. The planning process includes meeting with the appropriate stakeholders, training facilitators, and collecting pre intervention data. One the planning process is completed the debriefs will begin and occur regularly over three months. During this time, staff will attend at least three debriefs. After the completion of the three-month period. Staff will complete their post intervention Maslach Burnout Inventory. The Office of Performance Improvement will assist the project manager in organizing the data and planning for a second cycle.

Figure 1 Timetable and Flowchart



Data Collection Methods

Th project leader will collect nursing turnover rates for the critical care unit from 2021. The turnover data is kept by the departmental business manager. Secondary outcomes include pressure injury prevalence, health care associated infections, and medication errors. The project leader will collect data from 2021 for those unit metrics. The information is accessible from the institutional quality department. Nurses will participate in the Maslach Burnout Inventory (MBI) prior to the start of the debriefing sessions. MBI is the most used tool to measure burnout and it measures emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA) which all have differential relationships with turnover intentions, job satisfaction, and organizational commitment (Doherty et. al., 2021). Individuals will be considered to present with burnout if they have high scores on either the EE (total score of 27 or higher) or DP (total score of 10 or higher) subscales. The MBI will be sent virtually, scores will be anonymous, and nursing responses will be separated from other staff responses. To collect sufficient data, the debriefing sessions will occur over three months. After three months, the nurses will again complete the MBI tool.

The information collected from the survey will serve as the evaluation method for burnout. Statistical analysis will be completed using SPSS (IBM). Descriptive analysis will be performed to understand the specific characteristics related to burnout including shift worked (day vs. night), years of experience in oncology, years of experience in critical care, age (millennials 18-34 years; gen X 35-50 years; baby boomers 51-69 years; the silent generation 70-87 years). Paired sample t-tests will be used to compare mean scores obtained before and after the intervention. Results yielding a P-value of <0.05 will be considered statistically significant (Statistics Solutions, 2022). The secondary outcome data will be collected from the business manager and the quality department. The data will also be statistically analyzed using SPSS (IBM).

The project will involve PDSA cycles. If there is no improvement in burnout scores, participants will be asked for feedback and the process will be restructured to complete another cycle of debriefing sessions. The feedback will be an important step to understand successes or failures of implementation. The detailed knowledge of the results and why they occurred will improve the quality of patient care (Alexandrov et al., 2019).

Cost/Benefit Discussion

According to the 2019 National Healthcare Retention & RN Staffing Report, nursing turnover costs a hospital between $3.6 million and $6.5 million dollars per year. Although all turnover is not related to burnout, nursing leaders need to enact change through evidenced based initiatives to reduce burnout and improve job satisfaction. Debriefing as an intervention to ease burnout can support a healthy work environment for nurses (Gillman et al., 2016). Other important data focused on quality patient care is indirectly related to nursing burnout. Pressure injuries cost as high as $70,000 for the treatment of a single instance and healthcare associated infection rates cost hospitals an estimated $28.4 billion each year (Healthcare Financial Management Association, 2021; Centers for Disease Control, 2021). High harm safety events related to inexperienced staff or staffing issues including medication errors, improper equipment usage, and delays in care can also be related to nursing burnout.

Resources needed for the change project include the institution's quality performance improvement department to assist with data collection. Resources to relieve staff during debrief sessions and a designated location to hold debriefs will also need to be considered. Financially, there would not be notable costs as the resources already exist at the institution.

The project will focus on oncology nurses in a 52 bed Intensive Care Unit (ICU). Collection and presentation of nursing turnover data is a primary driving force to initiate practice change. Turnover has important financial impacts and leads to poor staffing ratios in addition to inexperienced staff.

Overall Discussion/Results

The inpatient oncology population can be difficult to care for leading to emotional dissatisfaction for nurses in this specialty. It is important to recognize the effects of burnout and compassion fatigue. Nurses become resistant to change, patient care declines, and turnover increases, further leading to inexperienced staff and staffing issues. The cascading effects of nursing burnout are substantial. Caring for patients with cancer generates substantial work-related stress that can lead to employee dissatisfaction and mental exhaustion (Ferrans, 1990, as cited in Potter et al., 2016).

The literature reviewed is inconclusive as to what can provide nurses with the most effective way to cope with end of life and prevent burnout. A common theme in the literature is that burnout has worsened and continues to be a major issue in health care. Debriefs and similar interventions have shown to decrease burnout, stress, and compassion fatigue. Research that has been conducted has faced many limitations including staff attrition during studies, low staff participation during work hours, and small sample sizes. By bringing a group of people together with commonalities and utilizing important available resources, debriefing may help reduce nursing burnout in the oncological specialty.

With increasing patient acuity and challenging assignments, organizational strategies are needed to strengthen all healthcare providers' capacity to manage complex and stressful challenges associated with delivering care (Gomez-Urquiza et al., 2016 as cited in Lehto et al., 2018). Researchers are making great progress and the small successes in each of the studies reviewed show there is hope for improving this aspect of nursing through debriefs. The nursing field could be greatly changed with adequate programs that support the emotional needs of nurses through their careers. Far more research needs to be done to discover the best ways to support nurses.

Recommendation

End of life in the cancer population is an important topic to address for nurses. Organizations can promote better patient care if they equip nurses with resources to cope with death and dying. Mindful-based intervention, interprofessional debriefs, technological-based interventions, and other compassion fatigue preventing programs have been discussed. It is important to develop a balance in these programs that addresses nurses' time constraints on the job with accessible resources to best support their needs. Debriefing has been shown to provide benefits, including reduced feelings of burnout, in the nurses. Utilizing the available resources at a large teaching hospital to minimize cost for conducting debriefs, will encourage support of organizational leadership. Therefore, it is recommended debriefing is implemented in the critical care environment to promote the emotional health of nurses.

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