Supporting the Nursing Workforce and Addressing the Phenomena of Nursing Burnout with Evidence-Based Mental Health Interventions

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Supporting the Nursing Workforce and Addressing the Phenomena of Nursing Burnout with Evidence-Based Mental Health Interventions

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Abstract

**Problem:** Burnout within healthcare has been an existing phenomenon, contributing to increased hospital staff turnover rates and the nationwide nursing shortage. The COVID-19 pandemic has exacerbated this issue leading to a decrease in the quality of patient care, nurse satisfaction, and organizational financial security.

**Context:** At a South Bay Area public healthcare system, staff were displaced throughout the community to support the overflow of COVID-19 patients at ambulatory clinics. Due to the nature of COVID-19, this healthcare system has experienced barriers in maintaining available staff for the demand of work. Studies indicate that signs of increased stress and burnout observed in the microsystem should be targeted with mental health interventions implemented by supportive team members.

**Interventions:** The project aimed to reduce COVID-19 nurse burnout scores and address mental health crises among the nurse workforce by implementing evidence-based strategies that incorporate Mental Health Champions (MHC) and mid-shift huddle temperature checks.

**Measures:** The team utilized a mixed-methods data collection tool. A microsystem needs assessment was conducted to explore the areas of feelings of perceived stress and burnout within the organization. Data collection consisted of an anonymous, modified Copenhagen Burnout Inventory (CBI) survey and semi-structured staff interviews for pre-and post-intervention measures of burnout.

**Results:** Post-intervention results showed a decrease in the overall rate of burnout for four out of five measures within the intervention group. Three of the measures met the project’s goal of reducing burnout scores by 15% or more. All participants reported the benefits of having a temperature check during a shift.
Conclusions: The intervention had positive effects on improving burnout scores in the staff studied. Utilizing these interventions could reduce nurse turnover spending and increase the overall quality of care. Strong management support is essential to the psychological wellness of nurses and should continue to prioritize improving conditions and recognizing burnout.

Keywords: nurse burnout, COVID-19 pandemic, turnover rates, mental health champion, wellness check, team temperature check
Supporting the Nursing Workforce and Addressing the Phenomena of Nursing Burnout with Evidence-Based Mental Health Interventions

In the 1970s, American psychologist Herbert Freudenberger used the term “burnout” to describe the consequences of severe stress resulting from occupational demands (Freudenberger & Richelson, 1980). Currently, the World Health Organization (WHO) identifies burnout as an occupational phenomenon – “a syndrome resulting from chronic workplace stress characterized by three areas: exhaustion or feelings of energy depletion, isolation from activities including negativism related to one’s job, and reduced (professional) performance” (WHO, 2019).

The symptoms of feeling drained and emotional exhaustion leading to diminished workplace performance has been a widespread sensation among healthcare workers. When burnout occurs, the individual may exhibit physiological and psychological signs of depression, anxiety, insomnia, substance abuse, and mortality (Afulani et al., 2021). In the face of these symptoms, the individual may be distracted, absentminded, or uninvolved resulting in poor quality of care and risks to patient safety. In addition, burnout among healthcare providers leads to high staff turnover and absenteeism, leading to increased costs for the healthcare system.

As unprecedented conditions continue to arise in the healthcare domain, the recent COVID-19 pandemic has placed nurses at the frontlines caring for a complex and infectious disease. Between January 2020 and May 2021, an estimated 115,000 healthcare workers have died due to COVID-19 (WHO, 2021). Nurses have been challenged with higher acuity patients, longer shifts, lack of resources, and staff shortages. During the COVID-19 pandemic, one-fifth of nurses suffered from depression disorders, and almost one-third experienced anxiety symptoms (Ślusarska et al., 2022). One in ten nurses globally has reported experiencing burnout
These unexpected demands and challenges have impacted nurses’ psychological well-being and functioning.

Nursing burnout has been a prevailing experience, contributing to increased nurse turnover rates and the nationwide nursing shortage. The COVID-19 pandemic has exacerbated this issue across global healthcare systems. Despite resiliency and adaptation to repeated surges of COVID-19, nurses continue to leave the workforce at an exponential rate. A recent survey shows that more than one-third of nurses plan to leave the profession by the end of 2022, with 44% attributing reasons to burnout and a high-stress environment (Incredible Health, 2022). Since 2020, the turnover rate for nurses has increased by 2.8% from the previous year (Nursing Solutions, Inc., 2021). The International Council of Nurses (ICN) reports that an estimated 13 million nurses will be needed to fill the nationwide nursing gap by 2030 (ICN, 2021). To support the COVID-19 crisis, there is an increased demand for nurses to fill vacancies in healthcare systems, yet these systems fail to implement solutions to retain the nurses they hire. The incidence of burnout and turnover shows the need for prompt recognition to develop personal and organizational strategies to support the nursing workforce.

The purpose of this Quality Improvement (QI) project was to identify and measure burnout impacting the nursing workforce within a public healthcare system. Following an analysis of a microsystem, a cost-effective pilot program was proposed to improve staff retention rates, alleviate perceived burnout, and enhance team morale. Nurses incorporated two mental health tools in daily nursing practice: (1) “Team Temperature Checks” led by assigned (2) Mental Health Champions during mid-shift huddles.
Problem Description

In 2021, the 731-bed public hospital established mass COVID-19 vaccination sites amplifying the request for staff placements. The exacerbation and unparalleled demands of COVID-19 displaced nurses throughout the county to support the surge of cases. In the event of the rising cases, travel nurses were authorized to use Emergency Medical Services Authority (EMSA) licenses, but contracts were not offered for renewal. As a public healthcare system, the workload continued to increase as demands for vaccinations arrived from county and neighboring hospital patients. The county continued to meet community needs and established nine outpatient ambulatory clinics to provide services. But as COVID-19 cases decreased and vaccination rates increased, several clinics were proposed to be shut down. Due to the nature of COVID-19, Hospital X has experienced barriers in maintaining available staff for the demand of work.

The healthcare system reported levels of high turnover rates, sick calls, and staff taking a leave of absence. Several contracts had been canceled before designated end dates upon the staff’s choice, further contributing to stress on the staffing shortage. With decreased nurse retention rates, the organization is affected by the costs of replacing staff to meet patient loads. After assessing the microsystem data and surveying the nursing staff, potential factors contributing to burnout were discovered. This represented a gap that needed to be addressed. This project used existing resources and highlighted the need for evidence-based mental health interventions to alleviate nurse burnout and improve nurse retention at this healthcare system.

Available Knowledge

To guide the literature search for evidence-based practices surrounding nurse burnout and organize the quality improvement project, a PICOT (population, intervention(s), comparison
intervention, outcome, time) question was developed as follows: “Among the nurses assigned to Clinic A, how does implementing Mental Health Champions and daily mid-shift huddle “team temperature checks” compared to no intervention among nurses at Clinic B contribute to the reduction of perceived burnout following a one workweek pilot program implementation?”. The collection of literature was consolidated with a broad search of CINAHL and PubMed databases. Keywords searched to address the topic of study include: nurse burnout, COVID-19 pandemic, turnover rates, mental health champion, wellness check, team temperature check.

**Nurse Burnout and Factors**

High levels of burnout are common among nurses due to the demands of the occupation. Nurses are required to provide complex care to patients under adverse job conditions. With high workloads, inadequate resources, and administration issues, there is an increased risk of causing patient harm and providing decreased quality of care (Liu et al., 2018). Burnout harms a caregiver’s physical, emotional, and mental health, leading to undesirable consequences in the work environment (Salvagioni et al., 2017).

Burnout has been associated with increased risks to patient safety and quality of care. A study measuring nurse burnout and its impact on patient satisfaction was conducted due to a similar concern about high nurse burnout adversely affecting patient outcomes. After measuring working environments and nurse burnout scores, patients reported satisfaction using the La Monica-Oberst Patient Satisfaction Scale (LOPSS) (Vahey et al., 2010). Patients with poor nurse work environments were only half as likely to be satisfied compared to care without burnout factors (Vahey et al., 2010). The findings from this study reinforce the need to reduce nurse burnout in the workplace to provide patient-centered care.
A meta-analysis identified the association between adverse patient events due to outcomes of burnout (Lake et al., 2018). In another study, the patients' length of stay was negatively related to nurses who experienced burnout (Rios-Risquez & Garcia-Izquierdo, 2016). To prevent burnout within a population, there needs to be efficient management of the sources of stress. Work conditions that are supportive and have adequate staff and resources can have a 28% opportunity to lower the chance of developing burnout (Lake et al., 2018). The study by Lake et al., 2018 shows that better work environments are associated with a lower possibility of negative outcomes.

The recent COVID-19 pandemic has exacerbated nursing burnout, and evidence suggests a severe concern in correlation with negative outcomes. Nurses are experiencing higher rates of burnout due to unstable working environments. Sullivan et al. (2021) found that factors contributing to burnout include occupation stress, inadequate staffing, and insufficient pay for work performed. Health care organizations can address these factors and create policies to support their staff (Sullivan et al., 2021). Additionally, several studies recommend ongoing monitoring for the risk of burnout and implementing prevention strategies to protect nurses’ well-being (Bruyneel et al., 2021; Ross, 2020).

**Issues within the Systems**

Stress to the body can cause physical, emotional, or psychological strain. The nursing profession is demanding, and nurses deal with high stress levels in everyday practice. The COVID-19 pandemic has exposed nurses to additional stressors that threaten their well-being, health, and ability to care (Arnetz et al., 2020). Burnout is a response to chronic stress and has remained a critical issue that contributes to poor quality of patient care, intent to leave, and
negative consequences for nurses’ health (Sullivan et al., 2021). The literature shows the association between burnout and high costs to healthcare institutions.

Nurse turnover directly leads to financial stress for healthcare systems. Since 2021, hospital turnover has increased by 6.4% due to RNs leaving the bedside at a shocking rate (Nursing Solutions, Inc., 2021). By replacing a single bedside RN, hospitals lose between $5.2m to $9.0m (Nursing Solutions, Inc., 2021). With the growing number of nurses leaving the workforce, these systems have the opportunity to save or lose an additional $262,300 per year (Nursing Solutions, Inc., 2021).

Nursing leadership has the ability to address burnout by supporting the well-being of staff. Marufu et al. (2021) found several areas influencing retention rates of nursing staff. These factors include: “nursing leadership and management, work environment, staffing levels, work support, educational pursuits, personal influences, demographic matters, and financial compensation.” The lack of leadership support leads to job dissatisfaction and increases nurses’ intent to leave the workforce (Hung & Lam, 2020).

**Burnout Inventory Tools**

Two burnout assessment tools were researched for this project: the Maslach Burnout Inventory (MBI) and the Copenhagen Burnout Inventory (CBI). Both instruments utilize a Likert scale to measure items based on selected dimensions of burnout. The CBI was modified for this quality improvement project to evaluate the perceived levels of nurse burnout in this healthcare system (see Appendix G).

According to various studies on nursing burnout, the MBI has been the most commonly used tool to measure burnout scores. Maslach (1982) outlined three significant aspects of burnout: emotional exhaustion, depersonalization, and a low sense of personal accomplishment.
The tool was designed for healthcare workers, like nurses, who have increased stress and workload contributing to burnout (Maslach et al., 2001). A study utilizing the MBI found consistent correlated scores related to Maslach's characterization of burnout as high emotional exhaustion and high depersonalization (Williamson et al., 2018). Lasalvia et al. (2021) found that 49% of nurses were at higher risk of burnout than other health care workers (Sullivan et al., 2022).

As an alternative measurement tool for burnout, the CBI distinguishes three domains of burnout based on: personal, work-related, and client-related items (Montgomery, 2021). With 19 items, the personal burnout domain provides a measure of overall burnout, and the work-related and client-related scores allow the researcher to measure specific sources of burnout (Kristensen et al., 2005). The research done by Kristensen et al. (2005) analyzed the validity and reliability of measuring burnout among employees in the human services sectors. In 2020, with the CBI, Chor et al. found that 53.3% of nurses were experiencing burnout because of the pandemic.

**Mental Health Champions**

A “nurse champion” is defined as a practitioner within an organization who supports improving the quality of care by promoting innovation and its adoption into practice (White, 2011). Alternative terms for “champion” include “change leader, liaison, key influencer, cheerleader, advocate, and key stakeholder” (Miech et al., 2018). The role of nurse champions has been implemented in various organizations, with evidence supporting the positive effects of implementing evidence-based practices (Miech et al., 2018). In the role of a nurse, the integration of evidence-based practices allows for better patient outcomes and enhances healthcare safety (Li et al., 2019).
The feasibility of implementing a nurse champion role has also been positive and attributed to organization success (Bonawitz et al., 2020). Research has found that 67% of nurses prefer to learn about evidence-based practices from colleagues instead of conducting self-database searches and reading journal articles (Pravikoff et al., 2005). Semi-structured interviews among 78 members of a healthcare system supported the role of a unit champion for contributing to promoting change success (Bonawitz et al., 2020). In the presence of a team champion, 80% of studies have shown a focus on patient satisfaction contributing to levels of success, including interdisciplinary team involvement (Miech et al., 2018).

To become a champion to implement evidence-based practices, Gutierrez & Smith (2008) found that changes were better for falls and impacted unit culture once undergoing a specific training session to serve the role. When included in the work environment, attributes of the champion involve serving as a team leader, advocating, engaging staff, and facilitating team reflections for healthcare change efforts (Bonawitz et al., 2020).

The champion role can be adaptative to a microsystem’s needs. In a study by Laur et al. (2021), champions were trained to improve patient nutrition care initiatives and demonstrated the impact of improving patient care. When implementing a cancer care toolkit, champions were strong enablers for implementing practice (Bowman et al., 2015).

Champions can facilitate changes in organizations and support the well-being of their peers by creating a healthier work environment. This project aims to adapt the champion role to the needs of the microsystem with a “Mental Health Champion” (MHC). With evidence supporting the need to promote mental health in workplaces, the MHC can serve as an advocate in identifying nursing burnout amongst their colleagues (Robinson et al., 2013). When applying champions within a community, the promotion of wellness reduces distress to members (Shields-
Zeeman et al., 2017). This role allows for the elimination of possible communication barriers when addressing issues to leadership and raising awareness of the importance of psychological health and safety.

“Team Temperature Checks”

Depression, stress, and anxiety negatively influence the well-being of nurses and continue to be a growing concern in occupational settings. With about 39% of nurses currently dissatisfied with their occupation, these high levels of dissatisfaction present the need for interventions (Bugajski et al., 2017). A lack of social support has been indicated among burnt out nurses (Galanis et al., 2021). Developing intervention strategies to identify signs of burnout can be a method of early support before the possibility of adverse events.

To offer a solution, wellness checks can be incorporated into the workforce to assess the perceived stress levels amongst colleagues. A study by Zoorob et al. (2021) utilized two validated questionnaires to evaluate the well-being of residents due to potential stress during the COVID-19 pandemic. The participants were favorable to the wellness check and endorsed the creation of additional institutional resources (Zoorob et al., 2021).

Mindfulness strategies and psychological support have effectively reduced job stress and improved focus on patient care (Bruette et al., 2020). Mindfulness involves intentional awareness of the current moment and acceptance of one’s feelings without judgment. With mindfulness strategies, a nurse can enhance attention and reduce distractions in the work environment, allowing the nurse to become a stronger advocate for patients and colleagues (Pipe et al., 2016). Being self-aware of one’s moods provides better communication when asking for help. Furthermore, combining a tool like “Team Temperature Checks” can allow teams to check in with one another with a simple, “On a scale of 1 to 10, how are you doing this week?” The 3 to
3.5-question tool gathers insight on potential factors affecting morale and allows for solutions to be provided without blame (Choose People, n.d).

**Mid-Shift Huddles**

Brief daily meetings, also known as huddles, allow members to communicate and interact between the interprofessional team. A vital factor in minimizing adverse patient outcomes is efficient communication. There has been a link between poor communication and the cause of unwanted events (Ginsburg & Bain, 2017). Huddles improve team communication and allow staff to speak up about concerns.

Huddles can be held multiple times a day to discuss patient demands and workflow. At Johns Hopkins (2017), a surgical unit established an additional mid-shift huddle to promote team building and reinforce system values to deliver the best patient care. By using a huddle mid-day, the team had found improvements in safety scores, including increased staff engagement, patient falls, and hand hygiene (Buckingham & Gutierrez, 2017). The mid-shift huddles allow teams to discuss real-time performance, enable active partnership for patient-centered care, and develop trust and respect towards colleagues.

**Rationale**

**Lewin’s Change Theory**

A change theory can provide a framework to increase the likelihood of success when implementing, managing, and evaluating transitions into practice. Lewin’s three-phase model of change proposes: unfreezing, change, and refreezing to create a balance for contrasting forces systems may face (Harris et al., 2018). In the first stage of unfreezing, Lewin recognizes that a microsystem should recognize a gap in the current state to learn new and favorable behaviors. The second stage of change may cause discomfort as individuals adjust from past behaviors and
feelings to support the new direction. After completion, the refreezing stage follows by embracing the change as the usual routine. Furthermore, the success of a change requires leadership support and efficient communication throughout the adaption to the improved culture.

Lewin’s Change Theory was appropriate to guide this QI project to implement the proposed changes. After assessing the needs of the microsystem, the unfreezing stage included informing the nurses about the barriers within the system contributing to burnout and stress. By understanding the significance of the mental health interventions, the nurses were more likely to overcome any discomfort associated with adopting the changes. By providing elevator speeches, educational flyers, and Q&A sessions for staff, feedback was incorporated before implementation. The role of the Mental Health Champions and “Team Temperature Checks” were educated and supported throughout staff participation in the pilot program. Ultimately, the final refreezing stage will be accomplished as current staff adopt the interventions into routine nursing practice and therefore support the aim of this project.

**Specific Project Aim**

The specific aim of this quality improvement project was to reduce nurses’ perceived burnout scores amongst the COVID-19 response nurses at the outpatient clinics. Using a modified Copenhagen Burnout Inventory (CBI) tool, sources of burnout would be established to construct a one-week pilot program. During daily mid-shift huddles, nurses would incorporate the two mental health interventions: Mental Health Champions (MHCs) and “Team Temperature Checks.” After the program, the project hoped to see a 15% reduction in each measurement question. Achieving this goal raises awareness of the consequences of nursing burnout and provides a cost-effective solution that addresses mental health crises. These interventions aim to alleviate nursing burnout and improve nurse retention within this healthcare system.
Methods

At this microsystem, a collaborative effort with staff was maintained to address the gap in the microsystem. A variety of assessment tools were used to implement the proposed changes.

Context

In the event of COVID-19, nine outpatient ambulatory clinics were established by the system to serve patients seeking interventions related to COVID-19 services and resources. These interventions include PCR testing, vaccinations, and booster shots. For this project, two clinics were involved and will be referred to as Clinic A, which received the project’s interventions, and Clinic B, which served as a control group. Those directly impacted by this project included registered nurses (RNs), licensed practical nurses (LPNS), and travel nurses with experiences such as skilled nursing care, primary care, and other COVID-19 response team employments. Other key stakeholders include the nursing management and administration.

Microsystem Assessment

A microsystem assessment was performed at the ambulatory COVID-19 clinics to offer a framework for evaluating areas for improvement. Using the 5P model (see Appendix A), change was able to meet the microsystem’s needs when identifying and analyzing each “P” (Nelson et al., 2007).

Purpose. The overall purpose of the ambulatory clinics is to provide free or low-cost resources and interventions against COVID-19, including options for COVID-19 PCR testing, vaccinations, and booster shots. Testing for COVID-19 allows patients with or without symptoms to help control the spread of the virus, receive medical help as needed, and contribute to public health safety.
Patients. The patients utilizing the resources of these ambulatory clinics include low-income, Medicare, and Medicaid patients primarily and can serve county residents with no medical coverage. The patient population consists of a wide variety of ages, starting from the age of 5 and older. Overflow patients from neighboring hospitals in the community also are accepted if seeking interventions to combat COVID-19.

Professionals. The microsystem staff consists of COVID-19 response team nurses and physicians who refer patients to clinics. For each shift, there are five nursing staff working at the clinic. The nursing staff includes registered nurses (RNs), licensed practical nurses (LPNs), and travel nurses on a temporary contract with the county.

Processes. With multiple clinics at various locations within the community, standardized training for COVID-19 interventions is provided to staff for best practices for patients. Continuous workflow evaluation is established through daily huddles at the beginning of each shift. Morning huddles offer the opportunity for peer-to-peer feedback and the ability to communicate shift assignments and relevant patient information.

Patterns. Various patterns exist in the microsystem that have caused staff and patient adaptability and flexibility. These patterns include variations in the influx of patients due to modifications to the COVID-19 vaccine eligibility, upward trends of COVID-19 cases during surges, increased nurse turnover rates compared to the year before COVID-19, and high call-out rates from staff.

Description of Additional Surveying Hospital(s)

As research supported the phenomenon of nurse burnout ensuing across healthcare systems, additional institutions were initially observed. The project extended surveys to neighboring Bay Area hospitals within a 50-mile radius, but data from these sites were not
included as the project continued. To address the need for quality improvement at the chosen microsystem, the collected data were analyzed only from nurses at the organization’s COVID-19 clinics. The results from neighboring facilities serve only as supplementary information that nurse burnout is occurring throughout healthcare settings.

**Nurses Burnout Survey**

A modified Copenhagen Burnout Inventory (CBI) survey was created to identify factors contributing to perceived nursing burnout within the microsystem (see Appendix G). A convenience sampling method was utilized to define the population group and obtain input about feelings of perceived stress by disseminating the survey via e-mail and on-site. The anonymous pre-intervention survey contained questions focusing on work, patient, and personal areas of burnout. The answers provided quantitative and qualitative data for demographic information and baseline data. Quantitative answers were scored on a Likert scale of 0 to 100% to measure scores of burnout from 0% = never, 25% = rarely, 50% = sometimes, 75% = frequently, and 100% = always. A select all that apply question was included to address factors of burnout. Short answer questions served to gather qualitative data and allow staff to express personal reasons for feelings of burnout and ways management could contribute to fixing the issue. Responses from nurses were recorded between March 14 to April 2, 2022. Findings of the survey (see Appendix H) identified burnout causes including: (1) shift workload, (2) unsafe staffing, (3) work-life balance, (4) high-stress environment, and (5) emotional strain.

**SWOT Analysis**

After assessing the microsystem, a SWOT analysis was performed to determine the readiness of the microsystem to implement a change (see Appendix B). This analysis involves identifying a number of strengths, weaknesses, opportunities, and threats of the microsystem that
A fishbone diagram was created to analyze the stated problem further and display the causes and effects impacting the well-being of these COVID-19 response nurses (see Appendix C). Potential causes were established through initial observations and interviews with staff. Several causes identified include: (1) lack of leadership, (2) transition or closure of vaccination and testing sites, (3) increased workload, and (4) staffing issues. Evaluating these potential causes shows that increasing awareness of burnout to management and applying intervention tools may decrease job dissatisfaction and turnover rates.

PDSA Cycle

A Plan-Do-Study-Act (PDSA) model was developed to allow for a repeatable, comprehensive plan of action to implement the change (see Appendix D). During the Plan phase, a literature review was conducted to support interventions to support nurse retention rates and decrease nurse burnout. The Plan allowed for assessing the needs of the microsystem and
established the Specific Aim of the project. During the Do phase, interviews with clinic nurses and distribution of a modified Copenhagen Burnout Inventory survey (see Appendix G) were conducted. This survey provided the baseline data on perceived stress and burnout within the microsystem. The survey results were reported to the staff, and the team was given an elevator speech and education on the significance of implementing Mental Health Champions and “temperature checks.” The project conducted a pilot program with both tools for one week. A one-page flyer (see Appendix I) was created and taped to workstations as a resource during the pilot program. After the intervention, a post-survey was distributed to staff, and feedback was retrieved. The Study phase involved reviewing the post-survey results to remeasure burnout scores after the mental health interventions. Finally, post-intervention results were reported to staff during the Act phase, and the plan to continue both tools within the microsystem was promoted.

**Cost-Benefit Analysis**

A cost-benefit analysis (CBA) was conducted to compare the projected costs and advantages of the intervention to the organization (see Appendix E). Costs associated with this project involve nurse training, software license, annual wage, and non-cash morale boosts. The costs are compared to the benefits of decreasing nurse turnover. With the rate of turnover at 27.1%, the total cost for the organization is $262,300. The orientation and hiring costs for staff nurse replacement contributes to significant preventable expenses. The CBA shows these interventions offer the healthcare system a cost-effective tool with a total benefit of $167,500.

**Gantt Chart**
A Gantt chart (see Appendix F) was created to monitor the project's overall progress and provide an overview of tasks on a timeline. The Gantt chart provides a timeline of the project beginning in January of 2022 and follows the progress until May of 2022.

**Interventions**

After analyzing the data obtained from the assessment tools, implemented interventions focused on supporting the improvement of mental health. From April 4 to April 8, 2022, the project planned to conduct a pilot study to implement the role of Mental Health Champions (MHCs) and daily, mid-shift huddle temperature checks during one week of work with Clinic A. Clinic B would not be given the interventions and serve as a control group. A post-intervention survey would be given to Clinic A and Clinic B via e-mail.

Staff was educated about the pre-intervention survey results identifying moderate to high emotional and physical exhaustion levels related to their increased work demands. The proposed interventions were then shared to gather feedback. An elevator speech was given to provide explanations of the role of MHCs and how to conduct temperature checks to facilitate a change. It was explained that MHCs “can serve as nurse advocates that can engage their colleagues to promote mental health and well-being activities. In addition, MHCs can assist with identifying signs of burnout among their colleagues”. Education on “Team Temperature Checks” included using a staff engagement tool to allow nurses to assess their colleagues’ perceived stress levels. A mid-day huddle before lunch would be incorporated to allow an opportunity for the wellness checks to be initiated with the 3 to 3.5-question tool guiding the conversation (Choose People, n.d). The MHC would log the response of each staff member with the provided collection form (see Appendix J). Education about the proposed guidelines was provided to Clinic A through informational pamphlets and an elevator speech about the importance of these evidence-based
interventions (see Appendix I). After education, two MHCs were elected to perform a “Team Temperature Check” during the week as staffing per shift averaged about five nurses. Following staff recommendation, a QR code was created and given to the staff to allow for the input of anonymous responses to be placed from individual phones during the mid-shift huddle.

The final guidelines for the MHCs and “Team Temperature Check” questions were made into informational pamphlets providing the project's aim, intervention, instructions, a wellness log, and the QR code for anonymous responses. The finalized data collection tools allowed for electronic or hand-written sheets in the preference of the MHC. The educational pamphlets were then placed at each working station as a reference tool for participants. Furthermore, members leading the project attended several randomized morning sessions to assess staff engagement, questions, or concerns to raise awareness around the implemented check-ins.

**Study of Interventions**

To study the outcome of the interventions, an anonymous post-survey was distributed to both Clinic A and Clinic B. All questions consisted of multiple-choice answers. The post-survey was formulated using five of the same modified Copenhagen Burnout Inventory Survey questions as the pre-intervention survey. Five additional questions were included in the post-survey to directly study the impact of the role of a Mental Health Champion and the use of “Team Temperature Checks” (see Appendix K). From April 11 to April 15, 2022, responses to the post-intervention survey were collected.

**Measures**

The team conducted a quasi-experimental study and collected data using mixed methods. Both pre-and post-intervention survey questions were adapted using the Copenhagen Burnout Inventory (CBI) to be given to both clinics. There were five measurement questions about work-
related and patient-related burnout. The responses collected were scored on a Likert scale of 0 to 100% to measure five scores of burnout from 0% = never, 25% = rarely, 50% = sometimes, 75% = frequently, and 100% = always. Collection of baseline measures was received using the pre-intervention survey. Since only Clinic A received the interventions, a reduction in feelings of burnout on each measurement question post-survey was used to measure the success of the intervention as compared to Clinic B’s response. Questions 7 to 11 were used to assess reactions to the intervention tools (see Appendix K).

**Ethical Considerations**

Data collection consisted of anonymous, modified Copenhagen Burnout Inventory (CBI) surveys and voluntary staff interviews. The University of San Francisco (USF) approved this quality improvement project as an evidence-based change in practice project, exempt from IRB approval. This project completed a Statement of Determination and Evidence-based Change of Practice Project Checklist (see Appendix M).

**Results**

Baseline measures were collected between March 14 and April 2, 2022, gathering a total of 13 responses from present and former nurses of the healthcare system. After the intervention, post-survey results were received for a total of five responses from staff members of Clinic A and Clinic B to remeasure burnout (see Appendix L). The intervention group had higher scores of burnout across three measures compared to the control group.

When viewing the post-survey results, measure one, “do you feel burnout because of workload?” there was a 15.4% decrease in burnout score for Clinic A. Clinic B stated “rarely” and “never” to the question. Compared to the initial baseline data collected, measure two, “are you exhausted in the morning at the thought of another day at work?” Clinic A scores decreased
by 21.8%. When assessing responses from Clinic B for measure two, there is a 1% decrease.

Analyzing Clinic A, a 39.7% decrease was found in measure three, “is work emotionally and/or physically exhausting?”. However, a 12.1% increase was found when asked in measure four, “do you have enough energy for your family and friends during non-working hours?”. Finally, measure five shows a decrease of 10.9% for Clinic A compared to baseline data for “do you find it hard to work with your patients?”. Clinic B’s response to measure five decreased by 6.7%.

There was a 100% response rate from all participants to the benefits of having a temperature check during a shift. While 66.67% of Clinic A reported it would be beneficial to have access to a MHC, 33.33% said no to the question. Clinic B had an average of 50% when asked the same questions. Out of the responses from Clinic A, an average of 33.33% state “extremely likely,” “somewhat likely,” and “unlikely” to utilize a MHC. Overall, there is an average decrease in pre-intervention burnout scores compared to post-intervention.

**Discussion**

**Summary**

During the initial assessment of the microsystem, it became apparent that nurse morale was low as different guidelines to care for COVID-19 was constantly evolving at the clinics. When mask mandates were lifted, there was a concentration of patients at Clinic A due to the closure of other sites. Some nurses reported to leadership the need to end travel contracts early as COVID-19 directly impacted personal lives. Discussion with leadership disclosed that retention rates for nurses were being negatively affected within this system and in many hospitals. Several lessons were learned through this study, including the need for extra time for a more thorough microsystem assessment and process change. Job satisfaction is positively related to patient outcomes, but COVID-19 has contributed to dissatisfaction and nursing burnout. There needs to
be an intervention to reduce feelings of burnout, stress, and anxiety, which could increase retention rates. Additionally, this project reveals that the phenomenon of nurse burnout arises due to numerous factors, including strain on shift workload, short staffing, high-stress environment, work-life balance, lack of support, and emotional or personal complications.

The results of this QI project indicate that the implemented interventions were successful in reducing the nurses’ perceived stressors. The project hoped to see a 15% reduction in each measurement question. Burnout scores across four of the five measures presented positive changes toward feelings of burnout. Three of the measures met the project’s goal for scores reduced by 15% or more. After analyzing the post-survey, a single individual matter of emotional strain affected the increase of 12.1% for measure four. Findings show that the intervention group had higher burnout scores across three measures than the control group. Since the intervention group has work shifts across five weekdays and the control group works the weekend, this difference in scores may be indicated due to workload. Staff acknowledged the feelings of burnout and the consequences that may arise for work and personal issues.

Throughout the project, staff feedback was acquired to adjust to microsystem needs. The education about MHCs and “Team Temperature Checks” was met with little resistance, and responses during the pilot week were 80% recorded. While education and implementation marked improvements across burnout scores, answers to the wellness check were not logged by staff for the final day of the pilot program. The goal for 100% participation was not received. Before the post-survey, Clinic B did not receive the intervention but was given education on the definitions of MHCs and “Team Temperature Checks.” The 100% response rate about the benefits of a wellness check from both clinics indicates that a check-in tool can be evaluated and
managed to support this staff. Overall, these findings suggest that nurses benefitted from the interventions and felt more support in the work environment.

**Limitations**

A limitation of this project included participation when gathering survey data. The pre-intervention survey was sent to 52 employees who were presently or previously employed by Hospital X. The survey accomplished a 25% response rate, but responses were taken from a convenience sampling method. Baseline data collected did not account for responses taken from a specific site of employment within Hospital X. As the project progressed, the interventions were chosen to be studied for only Clinic A and Clinic B, but baseline data was used to measure outcomes. When assessing the post-intervention survey, there was a response rate of three for Clinic A and two for Clinic B. While the experimental sample averaged five nurses per shift, a higher participation rate would have been beneficial to measure the validity of interventions.

Another limitation this project faced was time constraints. After gathering baseline data and assessing microsystem needs, the time allowed for only a one-week pilot program to implement the interventions. The goal would be to establish an extended pilot program involving multiple sites. Furthermore, an education workflow toolkit was unable to be created, and the responses to the check-in tool were not analyzed during this project. With more time to develop the project, evaluation of success could be expanded and assemble greater staff compliance.

**Future Recommendations**

Management has the opportunity to create comfortable work environments by using these mental health tools to support the nursing workforce. This project hopes to contribute to cost-effective strategies healthcare systems use towards the growing issue of burnout. Raising awareness of the consequences of nursing burnout can lead to a cascade of other mental health
interventions, including mental health days, proper staffing ratios, and management support. These findings justify the creation of standardized work for MHCs with outline protocols and workflows when presented with colleague needs after “Team Temperature Checks.” The role of the MHC is adaptive and allows for the integration to be continued and utilized throughout other microsystems. The project suggests the continual monitoring of nurse retention rates and employee job satisfaction for future implications. Continuing the PDSA cycle (see Appendix D) in this quality improvement project can meet the global aim of increasing nurse retention rates by 5% by the organization’s next fiscal year.

**Conclusion**

The issue of burnout is preventable, yet the rates continue to increase at the cost of organizations and patient safety. While nursing burnout has existed before the COVID-19 pandemic, the incidence of rising mental health and nurses leaving the profession expresses the need to intervene with great urgency. Evidence in literature and these findings support how COVID-19 has exacerbated burnout risk factors with the constant evolution of new restrictions. This quality improvement project offers the opportunity to perform two interventions to support the nursing profession by addressing mental health. The potential for improvements in nurses’ work environments may concurrently reduce the risk of turnover and career burnout and increase patients’ satisfaction. Future steps for the project include creating standardized education for the role of Mental Health Champions and gathering resources to provide to colleagues for “temperature checks.” In conclusion, continuing to monitor nurse retention rates and employee job satisfaction will improve the quality of work-life for nurses, increase patient safety, and decrease overall costs for the organization.


Buckingham, B. & Gutierrez, M. (2017). Promoting high reliability through the utilization of
team huddles and a huddle board. *Johns Hopkins Bayview Nursing Annual Report.*

https://www.hopkinsmedicine.org/johns_hopkins_bayview/_docs/about/nurse/2018_nursing_annual_report.pdf


Ross, J. (2020). The exacerbation of burnout during COVID-19: A major concern for nurse


https://doi.org/10.3390/ijerph19031154


https://doi.org/10.1097/01.mlr.0000109126.50398.5a


https://doi.org/10.1017/j.jen.2011.04.009


Appendix A

Microsystem Assessment

1 OF 3 TRAUMA CENTERS IN THE SOUTH BAY AREA THAT SERVES THE COMMUNITY

1. PURPOSE
   To provide resources and interventions against COVID-19 including testing and vaccinations

2. PATIENTS
   Primarily low-income, Medicare, Medicaid patients who seek interventions to combat COVID-19

3. PROFESSIONALS
   COVID-19 response team nurses i.e. RNs & LVNS, travel nurses

4. PROCESSES
   Daily morning huddles with peer-to-peer feedback; Standardized COVID-19 training interventions

5. PATTERNS
   Increased nurse turnover rates compared to the years prior to COVID-19 causing staff shortage
### Appendix B

**SWOT Analysis**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Providing wide scale vaccination</td>
<td>- Minimal job security</td>
</tr>
<tr>
<td>- Monday-Friday shifts available</td>
<td>- Lack of collaboration due to staffing turnover</td>
</tr>
<tr>
<td>- Weekend shifts available</td>
<td>- Non guaranteed hours</td>
</tr>
<tr>
<td>- Greater pay compared to other states</td>
<td>- Not enough staff leading to overwork of current staff</td>
</tr>
<tr>
<td>- Relatively easy onboarding</td>
<td>- Constant evolution of protocols due to nature of work environment</td>
</tr>
<tr>
<td>- Straightforward training</td>
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</tr>
<tr>
<td>- Adequate PPE provided</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Threats</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Use of Emergency Medical Services Authority (EMSA) Licenses ending June 30th, 2022</td>
<td>- Provide timelines of job security dates</td>
</tr>
<tr>
<td>- Lack of travel staff causing extra burden on full time staff</td>
<td>- Provide guaranteed hours</td>
</tr>
<tr>
<td>- Limited scope of travel staff having to work under COVID umbrella, causing increased strain on full time staff</td>
<td>- Implement Mental Health Champions to alleviate overwork</td>
</tr>
<tr>
<td>- Educational opportunities on current best practice in CA due to nature of travel staff</td>
<td>- Check in daily with staff using Temperature Checks</td>
</tr>
<tr>
<td></td>
<td>- Educate all travel employees on current best practice</td>
</tr>
<tr>
<td></td>
<td>- Bring travel employees into organization to allow for further growth and education</td>
</tr>
</tbody>
</table>
Appendix C

Cause and Effect Fishbone Diagram
Appendix D

PDSA Cycle

**PLAN**
- Observe the workflow & perform microsystem assessment
- Determine PICO and Specific Aim
- Conduct a literature review
- Create a SWOT analysis, perform CBA, and outline project timeline on a Gantt chart
- Meet with advisor; interview the clinic nurses
- Create surveys

**ACT**
- Report results to staff
- Educate staff on the study’s significance
- Promote the continuation of Mental Health Champions and “temperature checks” among staff

**DO**
- Distribute pre-surveys to identify and measure burnout
- Provide elevator speech to introduce the interventions
- Assign Mental Health Champions to perform “temperature checks”
- Conduct and monitor the pilot program for a week
- Distribute post-surveys to remeasure burnout and identify endorsement of the interventions

**STUDY**
- Evaluate pre- and post-survey data on perceived burnout levels
- Evaluate staff engagement in the intervention
- Evaluate post-survey data on endorsement of the interventions
# Appendix E

## Cost-Benefit Analysis

<table>
<thead>
<tr>
<th>Costs</th>
<th>Item</th>
<th>Quantity</th>
<th>Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Costs</td>
<td>Training</td>
<td>2</td>
<td>$10,333</td>
<td>$20,666</td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>Software License</td>
<td>1</td>
<td>$4.30</td>
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<tr>
<td>Tangible Cost</td>
<td>Annual Wage</td>
<td>1</td>
<td>$124,000</td>
<td>$124,000</td>
</tr>
<tr>
<td>Intangible Costs</td>
<td>Non-cash morale boosts</td>
<td>12 (1 per month)</td>
<td>$300</td>
<td>$3,600</td>
</tr>
</tbody>
</table>

**Total Costs: $148,270**

| Benefits       | Decrease Nurse Turnover | Rate of Turnover: 27.1% | $46,100 | $262,300 |

**Total Benefits: $167,500**
Appendix F

Gantt Chart

Start date: 1/25/2022

<table>
<thead>
<tr>
<th>TASKS</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform microsystem assessment at SCMVC</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Determine PICO question and specific aim</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform literature review of EBP surrounding nurse burnout</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create SWOT analysis and PDSA cycle for mental health interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform Cost-Benefit Analysis for mental health interventions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribute pre-survey to unit and control group and analyze burnout levels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assign champions to perform daily temperature checks on staff during mid-shift huddles</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educate champions on performing checks and provide tools for documenting responses for 1 week</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribute post-survey and analyze burnout levels after interventions</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
# Appendix G

## Pre-Intervention Nurses Burnout Survey

Dear survey participant,

We are MSN Nursing Students at the University of San Francisco enrolled in a Quality Improvement Externship associated with Santa Clara Valley Medical Center. We are currently gathering data from nurses actively providing patient care during the COVID-19 pandemic. Through this research, we aim to identify sources of nursing burnout contributing to employee retention rates. This survey is anonymous, confidential, and should take no more than five minutes to complete. We thank you for your participation and collaboration. If you have any additional questions, please reach out at qiproject2022@gmail.com

---

### Q1 What organization do you currently work for?

- [ ] __________________________

### Q2 What nursing license do you currently hold?

- a. LPN/LVN
- b. RN
- c. Other __________________________

### Q3 What is your current level of education?

- a. Certificate
- b. ADN
- c. BSN
- d. MSN
- e. PhD/DNP
- f. Other __________________________

### Q4 Are you currently working as a travel nurse?

- a. Yes
- b. Yes, practice under EMSA license
- c. No

### Q5 What is your primary nursing role?

- a. COVID-19 Vaccination/Clinic/Testing
- b. Skilled Nursing/Post Acute/Rehabilitation
- c. Primary Care
- d. Acute Care/Floor Nurse
- e. APRN
- f. Nursing Leadership/Management
- g. Other __________________________

### Q6 Do you feel burnout because of your workload?

- a. Always (100% of the time)
- b. Frequently (75% of the time)
- c. Sometimes (50% of the time)
- d. Rarely (25% of the time)
- e. Never (0% of the time)

### Q7 Are you exhausted in the morning at the thought of another day at work?

- a. Always (100% of the time)
- b. Frequently (75% of the time)
- c. Sometimes (50% of the time)
- d. Rarely (25% of the time)
- e. Never (0% of the time)

### Q8 Is your work emotionally and/or physically exhausting?

- a. Always (100% of the time)
- b. Frequently (75% of the time)
- c. Sometimes (50% of the time)
- d. Rarely (25% of the time)
- e. Never (0% of the time)

### Q9 Do you have enough energy for your family and friends during non-working hours?

- a. Always (100% of the time)
- b. Frequently (75% of the time)
- c. Sometimes (50% of the time)
- d. Rarely (25% of the time)
- e. Never (0% of the time)

### Q10 Do you find it hard to work with your patients?

- a. Always (100% of the time)
- b. Frequently (75% of the time)
- c. Sometimes (50% of the time)
- d. Rarely (25% of the time)
- e. Never (0% of the time)

### Q11 Were you given training to complete the responsibilities of your job?

- a. Yes
- b. No

### Q12 Do you feel there are enough resources to do your job efficiently?

- a. Yes
- b. No
- c. Sometimes
- d. Other __________________________
Q13 What are some factors that have contributed to why you personally feel burnout? (Select all that apply)
- Workload
- Unsafe/short staffing
- Repetition
- Lack of leadership support
- Work-life balance
- Extremes of activity
- Not practicing within your full scope of practice
- Workplace dynamics
- Lack of autonomy
- Unclear job expectations
- Emotional strain
- High-stress environment
- Long hours
- COVID-19 pandemic directly related to providing patient care
- Other__________________________

Q14 When did these factors begin to contribute to your burnout?
- a. Pre-existed before COVID-19
- b. Emerged due to COVID-19
- c. Both

Q15 Have you considered transferring or leaving the profession of nursing as a result of burnout?
- a. Yes, leaving the profession
- b. Yes, transferring within the profession ___________________________
- c. No

Q16 Briefly express why you personally feel burnout in your workplace environment and the contributing factors:
________________________________________________________________________

Q17 How can management help decrease your burnout/what would be beneficial to you?
________________________________________________________________________
Appendix H

Pre-Survey Results

Q1 - Do you feel burnout because of your workload?

- Always (100% of the time)
- Frequently (75% of the time)
- Sometime (50% of the time)
- Rarely (25% of the time)
- Never (5% of the time)

Q2 - Are you exhausted in the morning at the thought of another day at work?

- Always (100% of the time)
- Frequently (75% of the time)
- Sometime (50% of the time)
- Rarely (25% of the time)
- Never (0% of the time)

Q3 - Is your work emotionally and/or physically exhausting?

- Always (100% of the time)
- Frequently (75% of the time)
- Sometime (50% of the time)
- Rarely (25% of the time)
- Never (0% of the time)
Q4 - Do you have enough energy for your family and friends during non-working hours?

Q5 - Do you find it hard to work with your patients?

Q6 - Were you given training to complete the responsibilities of your job?
Q7 - Do you feel there are enough resources to do your job efficiently?

Yes  | No  | Sometimes  | Other
---   | ---  | ----------  | ---
21    | 17   | 19          | 0

Q8 - What are some factors that have contributed to why you personally feel burnout?
(Select all that apply)

- Workload
- Unsafe/short staffing
- Repetition
- Lack of leadership support
- Work-life balance
- Extremes of activity
- Not practicing within your full scope of practice
- Workplace dynamics
- Lack of autonomy
- Unclear job expectations
- Emotional strain
- High-stress environment
- Long hours
- COVID-19 pandemic directly related to providing patient care
- Other

0  | 5  | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45
--- | --- | --- | --- | --- | --- | --- | --- | --- | ---
21  | 17  | 19  | 0   |
Q9 - When did these factors begin to contribute to your burnout?

- Pre-existing before COVID-19
- Emerged due to COVID-19
- Both

Q10 - Have you considered transferring or leaving the profession of nursing as a result of burnout?

- Yes, leaving the profession
- Yes, transferring within the profession
- No
Appendix I

Mental Health Champions and “Team Temperature Check” Educational Flyer

ATTENTION: COVID-19 Response Nurses!

We are MSN Nursing Students at the University of San Francisco enrolled in a Quality Improvement Externship associated with SCVMC. Our team is executing a pilot project to incorporate Mental Health Champions and mid-shift huddle temperature checks.

Our concern:
Nursing burnout has been an existing phenomenon contributing to staff turnover rates and the nationwide nursing shortage, and the COVID-19 pandemic has only exacerbated this issue. Our recent research indicates that surveyed nurses are experiencing moderate-to-high rates of physical and emotional exhaustion related to their increased workload and job demands. Chronically placing nurses in these stressful environments without any intervention can negatively impact their mental health and well-being, thus contributing to nurses leaving the profession. Our primary concern is to reduce feelings of perceived stress among nurses by providing them with mental health tools to use within their workforce.

Our intervention:
Our pilot project will include two mental health tools:
1. The integration of Mental Health Champions (MHCs), who serve as nurse advocates that can engage their colleagues to promotional mental health and well-being activities. In addition, MHCs can assist with identifying signs of burnout among their colleagues.
2. The implementation of “Team Temperature Checks,” a staff engagement tool that allows nurses to assess their colleagues’ perceived stress levels.

Our project will take place from Monday, April 4 to Friday, April 8. We will implement daily “team temperature checks” during mid-shift huddles. We will also assign a Mental Health Champion to whom you can report to.

Instructions:
Conduct a daily mid-shift huddle before lunch break. During your huddle, perform a “team temperature check” by answering the following questions listed on the infographic. After engaging with your peers during the team huddle, report your answers to your assigned Mental Health Champion or respond using the QR code. Your participation matters and is greatly appreciated!

For any questions, please reach out to qiproject2022@gmail.com
As always, we thank you for your participation and collaboration!
Appendix J

Temperature Check Data Collection Tool
Appendix K

Post-Intervention Nurses Burnout Survey

Hello and thank you for taking our survey! We are MSN Nursing Students at the University of San Francisco enrolled in a Quality Improvement Externship associated with SCVMC. We would like to genuinely thank you for your time and participation in our Quality Improvement project. Through your participation, our team was able to identify sources of nursing burnout and create potential solutions to combat burnout in the workplace. To end our research, we ask you to complete one final survey. This survey is anonymous, confidential, and should take no more than five minutes to complete. We thank you for your participation and collaboration. If you have any additional questions, please reach out at qiproject2022@gmail.com

Q1 Do you feel burnout because of your workload?
   a. Always (100% of the time)
   b. Frequently (75% of the time)
   c. Sometimes (50% of the time)
   d. Rarely (25% of the time)
   e. Never (0% of the time)

Q2 Are you exhausted in the morning at the thought of another day at work?
   a. Always (100% of the time)
   b. Frequently (75% of the time)
   c. Sometimes (50% of the time)
   d. Rarely (25% of the time)
   e. Never (0% of the time)

Q3 Is your work emotionally and/or physically exhausting?
   a. Always (100% of the time)
   b. Frequently (75% of the time)
   c. Sometimes (50% of the time)
   d. Rarely (25% of the time)
   e. Never (0% of the time)

Q4 Do you have enough energy for your family and friends during non-working hours?
   a. Always (100% of the time)
   b. Frequently (75% of the time)
   c. Sometimes (50% of the time)
   d. Rarely (25% of the time)
   e. Never (0% of the time)

Q5 Do you find it hard to work with your patients?
   a. Always (100% of the time)
   b. Frequently (75% of the time)
   c. Sometimes (50% of the time)
   d. Rarely (25% of the time)
   e. Never (0% of the time)

Q6 Which clinic do you work at?
   a. Downtown Clinic
   b. East Valley Clinic

Q7 Do you feel it would be beneficial to have a "team temperature check" during your shift?
   a. Yes
   b. No

Q8 If you were to receive a "team temperature check," how would you like to receive it?
   a. On paper
   b. Electronically by phone
   c. Verbally by the Mental Health Nurse Champion
   d. Does not apply to me

Q9 How likely are you to utilize a "team temperature check" during your huddles?
   a. Extremely likely
   b. Likely
   c. Somewhat likely
   d. Unlikely
   e. Very unlikely

Q10 Do you feel it would be beneficial to have access to a Mental Health Champion on shift to assist your mental health needs and provide mental health resources when needed?
   a. Yes
   b. No

Q11 How likely are you to utilize a Mental Health Champion?
   a. Extremely likely
   b. Likely
   c. Somewhat likely
   d. Unlikely
   e. Very unlikely
Appendix L

Post-Survey Results

Measuring Perceived Burnout using the Copenhagen Burnout Inventory Tool (CBI) among Ambulatory Clinic Nurses

Q1 - Do you feel it would be beneficial to have a "team temperature check" during your shift?
Q2 - How likely are you to utilize a "team temperature check" during your huddles?

Q3 - Do you feel it would be beneficial to have access to a Mental Health Champion on shift to assist your mental health needs and provide mental health resources when needed?

Q4 - How likely are you to utilize a Mental Health Champion?
Statement of Determination and Evidence-Based Change of Practice Project Checklist

<table>
<thead>
<tr>
<th>Statement of Determination and Non-Research Determination Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Name:</strong> Kelly Leung</td>
</tr>
<tr>
<td><strong>Title of Project:</strong> Supporting the Nursing Workforce and Addressing the Phenomena of Nursing Burnout with Evidence-Based Mental Health Interventions</td>
</tr>
</tbody>
</table>

**Brief Description of Project:**
- **Gap/Phenomena that Shows the Need for the Project:** The exacerbation of nursing burnout during the COVID-19 pandemic continues to affect the mental health and well-being of nurses. Chronic exposure to emotionally demanding situations can result in job dissatisfaction and organizational turnover among the nursing workforce. At this public healthcare system, a gap in retaining nursing staff was found at COVID-19 response ambulatory clinics. This quality improvement project aims to decrease areas of burnout found within the organization and provide a cost-effective intervention to support the nursing workforce by incorporating two mental health tools in daily nursing practice.
- **Aim Statement:** The project aims to reduce feelings of perceived burnout among nurses by implementing a pilot program that incorporates Mental Health Champions (MHC) and mid-shift huddle temperature checks.
- **PICOT:** “Among the nurses assigned to Clinic A, how does implementing Mental Health Champions and “team temperature checks,” compared to no intervention among nurses at Clinic B, contribute to reducing perceived burnout in one workweek?”
  - **P:** Nurses at Clinic A and B
  - **I:** Mental health champions and “team temperature checks”
  - **C:** Changes in perceived burnout scores pertaining to the Copenhagen Burnout Inventory (CBI) tool
  - **O:** Reduction of perceived burnout
  - **T:** One workweek

**Description:** Nursing burnout has been an existing phenomenon contributing to hospital staff turnover rates and the nationwide nursing shortage, and the COVID-19 pandemic has only exacerbated this issue. Despite nurse resiliency and adaptation to repeated surges of COVID-19, nurses continue to leave the workforce at an exponential rate. The turnover rate for staff RNs in 2020 was 18.7%, an increase of 2.8% from the previous year (Nursing Solutions, Inc., 2021). There is an increased demand for nurses to fill vacancies in healthcare systems, particularly at entities designed to support the COVID-19 crisis; yet, these healthcare systems fail to implement solutions to retain the nurses they hire. We hope to identify the current factors contributing to burnout among nurses assigned to the COVID-19 ambulatory clinics at a Santa Clara County public healthcare system. With this information, we also aim to propose an array of mental health interventions to alleviate nursing burnout and improve nurse retention.

- **Desired Change in Practice:** The hope is to collect decreased nurse burnout scores by 15% for each measurement question after the one workweek period of April 4 to April 8, 2022. After reducing perceived burnout in this microsystem, the global aim of this project is to increase nurse retention rates by 5% by the organization’s next fiscal year.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used: (http://answers.hhs.gov/ohrp/categories/1569)

✓ This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Students may proceed with implementation.

Comments:
<table>
<thead>
<tr>
<th>Project Title: Supporting the Nursing Workforce and Addressing the Phenomena of Nursing Burnout with Evidence-Based Mental Health Interventions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive a standard of care.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and the supervising faculty and agency oversight committee are comfortable with the following statement in your methods section.</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**ANSWER KEY:** If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. IRB review is not required, except at Stanford Hospital. Keep a copy of this checklist in your files. If the answer to ANY of these questions is NO, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

Signature of Supervising Faculty **Dr. Nicole Beamish** Date _5/11/2022_

Signature of Student **Kelly Leung** Date _02/28/2022_