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Addressing Nursing Burnout: Seeking the Need for Mental Health Interventions to Support the Nursing Workforce

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Support the Nursing Workforce

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Abstract

Problem: Feelings of burnout are rampant in the nursing profession, and can have serious consequences for nurses' mental health, patient safety, and healthcare facility costs. The COVID-19 pandemic has exacerbated burnout and made it difficult for nurses to cope with constant anxiety, fear, and grief.

Context: At an outpatient clinic in Santa Clara County, nurses on the COVID-19 testing and vaccination unit were observed and communicated feelings of burnout related to the pandemic and other stressors. Based on the mixed-methods data collection performed, a quasi-experimental study was carried out by implementing mental health interventions to support the staff.

Interventions: A Mental Health Champion (MHC) was established on the unit to lead daily temperature checks during mid-shift huddles, which would assess how the nurses were feeling mentally and emotionally. If any nurse indicated they were struggling, the MHC would refer them to resources, check in more frequently, and connect them with management if necessary.

Measures: The Copenhagen Burnout Inventory (CBI) was used in pre- and post-surveys to measure burnout levels before and after implementation of the MHCs and daily temperature checks. Data from the COVID-19 unit (Clinic A) was compared to a control group of nurses at another clinic in Santa Clara County under the same macrosystem (Clinic B), who did not receive the intervention.

Results: Results indicated that nurses in the microsystem scored lower on the CBI after receiving the mental health interventions, meaning they felt less burnout. Those nurses also had lower scores on the CBI than the control group for 3 out of 5 questions.

Conclusion: It is clear that nursing burnout needs to be addressed now more than ever, and establishing an MHC in the microsystem that can check in with staff and provide support could be the difference between the nurses succeeding in their roles or leaving their roles.

Section II: Introduction

The World Health Organization defines burnout as a phenomenon involving emotional exhaustion, depersonalization, and reduced feelings of personal accomplishment (WHO, 1994). When discussing burnout in the context of nursing professionals who deal with many external stressors everyday, it is no surprise that nurses report some of the highest levels of burnout of any career field (Kelly et al., 2021). The COVID-19 pandemic has certainly heightened feelings of burnout due to unsafe work environments, increased workload, fear of infection and putting others at risk, and grieving the death of loved ones (Manzano Garcia and Ayala Calvo, 2020). Nurse burnout can lead to high turnover rates which burden other staff members, high costs to hire and train new employees, and overall creates an unpleasant atmosphere on the unit (Kelly et al., 2021). According to a 2022 report, the national average of nurses who left their position increased from 18.7% in 2020 to 27.1% in 2021 (NSI Nursing Solutions, Inc., 2022). Nursing burnout also has a direct negative impact on patient safety, outcomes, and satisfaction with their care (Jun et al., 2021). It is crucial to address nurse burnout to protect nurses, patients, and the integrity of the profession as a whole.

Problem Description

In Santa Clara County, while nurse turnover rates are lower than national averages they still indicate that burnout has an impact on employees. According to data collected from the Registered Nurses Professional Association (RNPA), nurse turnover rates in the county increased from 7.4% in 2020 to 9.2% in 2021 (Mills, 2022). It is clear that the pandemic is taking its toll on nurses in the county who no longer feel safe or comfortable at their places of work.

At an outpatient clinic in Santa Clara County, nurses on the COVID-19 testing and vaccination unit were observed and communicated feelings of burnout related to the pandemic and other stressors. After conducting interviews and gathering survey responses, it was determined that factors contributing to burnout on the unit were shift workload, unsafe staffing, work-life balance, and emotional strain. According to the Lown Institute Hospital Index, the overall macrosystem that the outpatient clinic belongs to (which includes a trauma center and 11 outpatient clinics) is ranked high when it comes to social responsibility, equity, and clinical outcomes as compared to national and state averages (Santa Clara Valley Medical Center, n.d.). However, the medical center and its clinics need to improve their indicators for patient safety and patient satisfaction, and addressing nurse burnout is one way to do so.

Available Knowledge

The PICO question used to guide a literature review for this project is: Among the nurses assigned to Clinic A (P), how does implementing Mental Health Champions and "team temperature checks" (I), compared to no intervention among nurses at Clinic B (C), contribute to reducing perceived burnout in one workweek (O)? Databases CINAHL and PubMed were used for the literature review, and keywords such as *nursing, burnout, COVID-19 pandemic, champion, mental health, turnover, retention, and temperature checks,* were used to narrow the search. Six articles were selected from the review and synthesized in an evaluation table (see Appendix C), and the John's Hopkins Research Evidence Appraisal Tool was used to evaluate studies for level of evidence.

A systematic review focused on nurse burnout was appraised at a Level III A. The study found that nurse burnout was negatively associated with several outcomes including patient safety, quality of care, nurses' organizational commitment, nurse productivity, and patient

satisfaction (Jun et al., 2021). This highlights how impactful burnout can be on nurses, patients, and healthcare institutions, and why organizations need to act with urgency to combat these effects. A Level III A integrative review of studies related to nurse turnover sought to compare trends before and after the COVID-19 pandemic (Falatah, R., 2021). The review determined that predictors for nurse turnover pre-pandemic were related to satisfaction, commitment, and leadership style, while during the pandemic turnover increased significantly and predictors were fear of disease, stress, and anxiety (Falatah, R., 2021). The results indicate a shift in the profession and management needs to change their approach to address new concerns.

A systematic review and descriptive study using survey data were both rated at a Level III A, and provided research on the effects of establishing "champions" in the microsystem. The systematic review focused on clinical champions in substance abuse and mental health settings, and found that champions assisted in faster initiation and persistence of interventions, helped overcome system barriers, and enhanced staff engagement (Wood et al., 2020). The descriptive study surveyed 46,787 employees under the Mayo Clinic, and respondents who had "well-being champions" on their unit to facilitate activities and promote staff health had more favorable survey responses regarding physical, social, and financial domains than those with no champion (Wieneke et al., 2019). These studies provided valuable information about how to implement champions in the unit and proved that champions can have a lasting impact on staff.

A Level III A qualitative study conducted focus groups called "Circles of Care" for 636 nurses under Columbia University, where they had the opportunity to voice concerns that arose during the pandemic (Dohrn, et al., 2022). Results revealed eight major themes that were causing nurses to feel overwhelmed including coping mechanisms, patients suffering and dying, feeling of helplessness, frustration with COVID-19 response, exhaustion, and more (Dohrn, et

al., 2022). Not only does this study give more insight into what is leading to nurse burnout during the pandemic, but it shows the effectiveness of having some kind of open forum for nurses to speak up. While the literature review did not reveal any studies on "temperature checks" which is a part of the current project, "Circles of Care" provide a similar service to nurses and show that temperature checks can be valuable as well.

The last study was a Level III descriptive study using survey data from 928 inpatient nurses in Alabama (Montgomery et al., 2021). The study evaluates the Copenhagen Burnout Inventory (CBI), which is a relatively new instrument to measure burnout in comparison to Maslach's Burnout Inventory (MBI) (Montgomery et al., 2021). Not only did the study demonstrate the validity and reliability of the instrument, it determined that scores on the CBI were correlated with work environment, job satisfaction, and intent to leave (Montgomery et al., 2021). Based on the results, the CBI provides a more thorough and clear way to define work-related burnout as compared to the widely used MBI, and will be used for the purposes of this study.

Rationale

John Kotter's eight step process for leading large-scale change was used as the basis for this quality improvement project. The goal of his steps is to help leaders set a direction, align people, and motivate and inspire people to create change (Nelson et al., 2007). The steps start with establishing a sense of urgency (1) and forming a strong coalition to lead change (2) (Nelson et al., 2007). Nursing burnout on the unit and across the country is heightened by the pandemic, and it was easy to communicate the need to address burnout quickly before nurses who are overwhelmed by grief, fear, and anxiety leave their positions. The nurse manager on the

unit was enlisted to help develop a strategy (3) and communicate the vision to staff (4), which helped to gain their trust and increase their willingness to participate.

The next step was to empower staff members (5) which was done by educating them on mental health interventions that could be used to improve outcomes. Kotter then suggests that short-term wins (6) are needed to continue momentum, which was seen in the perceived success of mental health interventions on the unit. Lastly, Kotter discusses expanding change beyond initial goals (7), and anchoring new changes into the microsystem (8) (Nelson et al., 2007). Since this project was limited by time constraints and financial resources, the hope is that in the future it can be expanded so that mental health interventions are established on the unit and funds are allocated to support those interventions.

Specific Project Aim

The project's specific aim is to reduce nurses' perceived burnout scores pertaining to the Copenhagen Burnout Inventory (CBI) ideally by 15% for each measurement question, after implementing mental health interventions for one workweek between April 4 to April 8, 2022.

Section III: Methods

Context

Microsystem Assessment

A microsystem assessment was performed using the 5 P's framework (see Appendix D). The microsystem belongs to an outpatient clinic in Santa Clara County that offers adult and pediatric urgent care, family medicine, OB/GYN services and more. The clinic is one of 11 clinics in the area under the macrosystem of a trauma center in Santa Clara County, which is one of four adult trauma centers serving the South Bay Area. The microsystem is a COVID-19 vaccination and testing unit that provides resources for members of the community to combat infection. The unit serves patients that are primarily low-income and have Medicare or Medi-Cal insurance. Professionals in the microsystem are RNs, LVNs, and travel nurses trained to respond to COVID-19. Some professionals are employed under temporary Emergency Medical Services Authority (EMSA) licenses that were issued in response to the pandemic. Nurses on the unit were observed taking part in several processes, such as daily morning huddles and standardized COVID-19 training interventions. The main pattern that was identified was an increase in nurse turnover rates compared to previous years before the pandemic, which lead to staff shortages.

SWOT Analysis

A SWOT analysis was used to get a better understanding of what the unit is doing well, and what needs to be improved upon (see Appendix E). Some strengths that were identified were ideal shift hours for employees, adequate PPE and supplies, and effective staff training. Weaknesses were mainly related to the pandemic and included low staff numbers and having to adapt to ever-changing policies and regulations regarding COVID-19. Based on the analysis, it

was clear there was an opportunity to provide more mental health support to staff during a pandemic.

Timeline

A timeline was created and used as a guide to complete tasks for this project. Starting at the end of January until early February, researchers oriented to the COVID-19 testing and vaccination unit at the clinic in Santa Clara County and performed a microsystem assessment. Based on the assessment, a PICO question and specific aim were determined and revised until the end of March. Simultaneously, researchers performed a literature review of evidence-based practice surrounding nurse burnout until the end of March. In mid-February researchers created a SWOT analysis, and began their PDSA cycle that continued until the end of April. A cost-benefit analysis was also performed from mid-February to the beginning of March to determine the financial effects of implementing mental health interventions. Researchers distributed a pre-survey to the two groups from mid-March to the first week of April. Once data was analyzed, the researchers implemented mental health interventions on the unit from April 4-8th. At the beginning of that week they educated staff on having a Mental Health Champion on the unit, and how to perform temperature checks at mid-shift huddles. After the week was up, post-surveys were distributed until mid-April to analyze burnout levels.

Cost-Benefit Analysis

A cost-benefit analysis was performed to assess the potential effects of implementing mental health interventions on the unit. It was estimated that the total cost to the unit would be $148,270. This includes $20,666 for staff training, $124,000 in wages for hiring a new employee MHC, and $3,600 for non-cash gifts for the unit to boost morale. The total benefits are intangible but estimated at $167,500 due to an expected decrease in nurse turnover rates on the unit.

Intervention

In order to reduce burnout levels on the unit, a quasi-experiment with mental health interventions was implemented. While the microsystem (Clinic A) received two mental health interventions, another outpatient clinic under the same macrosystem (Clinic B) was selected as the control group who received no intervention. The first intervention was to assign two nurses to be Mental Health Champions (MHC) at Clinic A—one to oversee staff at the outdoor testing site, and one for staff giving vaccines inside the clinic. The MHCs were then given education on the second intervention, which was performing temperature checks on staff during daily mid-shift huddles.

Temperature checks involved three questions (see Appendix J) with the purpose of gaging how nurses were feeling each day and what could improve their situation. The hope was to identify nurses that may be struggling emotionally or with their workload, in order to provide extra assistance. The checks were performed on from April 4-8th and were either face-to-face with the MHC or responses were submitted anonymously through an online survey. If any nurses indicated that they were not doing well, the MHC would check in and assist them more frequently throughout the shift, provide them with mental health resources, and/or connect them with management for additional support. While this study was limited by time and financial resources, if the microsystem were to adopt these interventions the MHCs would be hired and trained specifically to deal with mental health and have an in-depth list of resources to offer.

Study of Intervention

In order to study the effectiveness of the mental health interventions described above, mixed methods survey data were collected before and after implementation. Pre-surveys were distributed from mid-March to the first week of April to both Clinic A and the control group

Clinic B in order to evaluate perceived burnout levels and compare results (see Appendix H for pre-survey questions). After the interventions from April 4-8th, post-surveys were distributed for one week to both groups with the same questions from the pre-survey measuring burnout levels (see Appendix I for post-survey questions). The post-survey also included questions measuring staff feelings surrounding the temperature checks and whether they would be useful.

Measures

The Copenhagen Burnout Inventory (CBI) was used to measure burnout levels among nurses at Clinic A and Clinic B. The CBI includes 19 questions that are categorized by personal burnout, work-related burnout, and patient-related burnout. The questions are rated on a 5-point Likert scale (1=never, 2=seldom, 3=sometimes, 4=often, and 5=always), and higher scores indicate higher levels of burnout experienced. For the purposes of this study, five questions from the CBI work-related burnout and patient-related burnout sections were selected for the pre- and post-survey, and other burnout related questions were asked using "yes or no" responses.

Section IV: Results

Survey data collected from Clinic A and Clinic B indicate that mental health interventions on the unit were successful. Figure 1 and Table 1 below shows average responses from each of the five CBI questions asked in the pre- and post-surveys. Results indicate that for every question, perceived burnout at Clinic A decreased by 15% or greater. Question #4 is scored in reverse because it asks, "Do you have enough energy for your family and friends during non-work hours?" Results for Clinic A actually increased by 15% after mental health interventions, which indicate that nurses on the unit had more energy during non-work hours by the end of the week. While Clinic B also had decreases in burnout that cannot be explained, the results still reveal that interventions did have a positive effect on nurses at Clinic A which was the goal of the study. Burnout levels in the control group were higher than Clinic A's for questions #2, #4 and #5. Based on questions from the post-survey asking staff whether they would want to engage in regular temperature checks with an MHC in the future, both clinics showed an interest and indicated that they could benefit from the interventions.

Figure 1

CBI Outcome Measure Data

Measuring Perceived Burnout using the Copenhagen Burnout Inventory Tool (CBI) among Ambulatory Clinic Nurses
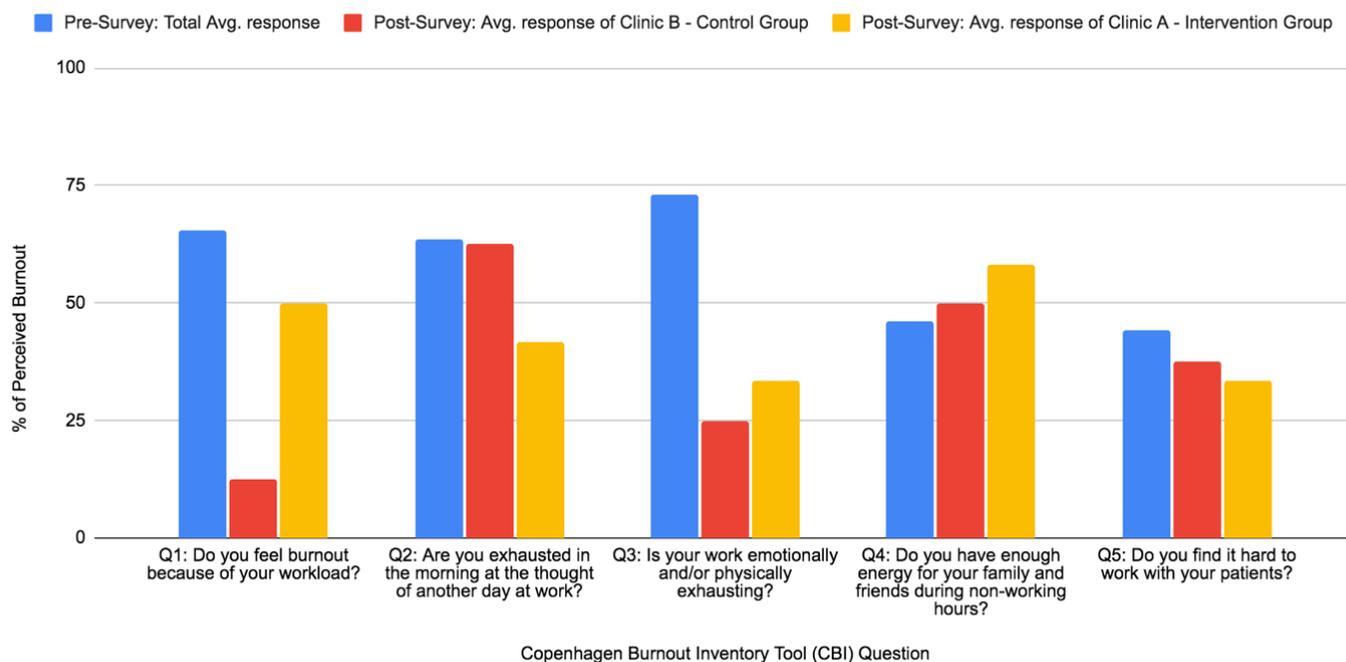
Table 1

CBI Outcome Measure Data

Nurses' Perceived Burnout: Pre- and Post-Intervention			
CBI Question	**Pre-Survey: All SCVMC Nurses' Average Response (Baseline)**	**Post-Survey: East Valley Nurses' Average Response (Control)**	**Post-Survey: Downtown Nurses' Average Response (Intervention)**
Q1: Do you feel burnout because of your workload?	65.4	12.5	50
Q2: Are you exhausted in the morning at the thought of another day at work?	63.5	62.5	41.7
Q3: Is your work emotionally and/or physically exhausting?	73	25	33.3
Q4: Do you have enough energy for your family and friends during non-working hours?	46.2	50	58.3
Q5: Do you find it hard to work with your patients?	44.2	37.5	33.3

Section V: Discussion

The results indicate that having a MHC check in daily on staff members is helpful in not only decreasing feelings of burnout, but also increasing employee engagement and potential retention of staff. This project's specific aim was to reduce CBI scores on the unit by 15% each, and that goal was achieved for all 5 questions. Relating back to Kotter's eight steps, these results represent a short term win for the microsystem that should be capitalized upon and expanded while nurses are feeling empowered. This project was a success thanks to guidance from the nurse manager and the willingness of staff to engage with researchers by responding to surveys and participating in daily temperature checks.

Limitations of the study were in large part related to time constraints. If there was more time, surveys would have been available to staff for longer periods and more responses could have been collected. With more time and planning, MHCs would have received much more in-depth training about how to respond to staff that express burnout. Another limitation was low staff levels at Clinic A due to turnover, contracts ending, or nurses being shifted to other clinics in the macrosystem. While this made it easy to get to know staff on the unit, it led to low survey response rates and potential attrition bias due to some participants being lost to follow-up. Lastly, because this study was not randomized and participants were chosen by researchers, there is the potential for selection bias where the sample may not be completely representative of the population of nurses as a whole.

Conclusion

Based on the results of the interventions, it is recommended that the microsystem continues to use MHCs and perform daily temperature checks at their huddles. Other clinics under the macrosystem could benefit from having an MHC on the unit as well. It is essential to

create a standardized training for the MHCs that outlines protocols and workflow for how to respond to staff needs when they express high burnout levels. It is also recommended that leaders for the clinic and larger macrosystem in Santa Clara County continue to monitor nurse retention rates and employee job satisfaction, regardless of whether they choose to implement the mental health interventions.

This project highlights that simply having someone on the unit that nurses know they can open up to and receive support from is important to keep staff satisfied. While there are a number of systemic issues that can contribute to nurse burnout, it can be difficult to address those concerns effectively without spending large sums of money. Having mental health check-ins is one way to get a sense of which nurses need additional support or may be considering leaving their position. It is clear that nursing burnout needs to be addressed now more than ever, and establishing an MHC in the microsystem that can check in with staff and provide support could be the difference between the nurses succeeding in their roles or leaving their roles.

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Section VII: Appendices

Appendix A: Statement of Determination

Title of Project: Addressing the Phenomena of Nursing Burnout: Seeking the Need for Mental Health Interventions to Support the Nursing Workforce

Brief Description of Project:

- **Gap/Phenomena:** 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.

   Aim Statement: The project's specific aim is to reduce nurses' perceived burnout scores pertaining to the Copenhagen Burnout Inventory (CBI) tool ideally by 15% for each measurement question, after implementing the pilot program for one workweek between April 4 to April 8, 2022.

- **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.

Signature of Supervising Faculty _**Dr. Nicole Beamish**_   Date_ 5/11/2022

   Signature of Student   ___*Kayla Perry*_____   Date _5/7/22_____

Appendix B: Evidence-Based Change of Practice Project Checklist

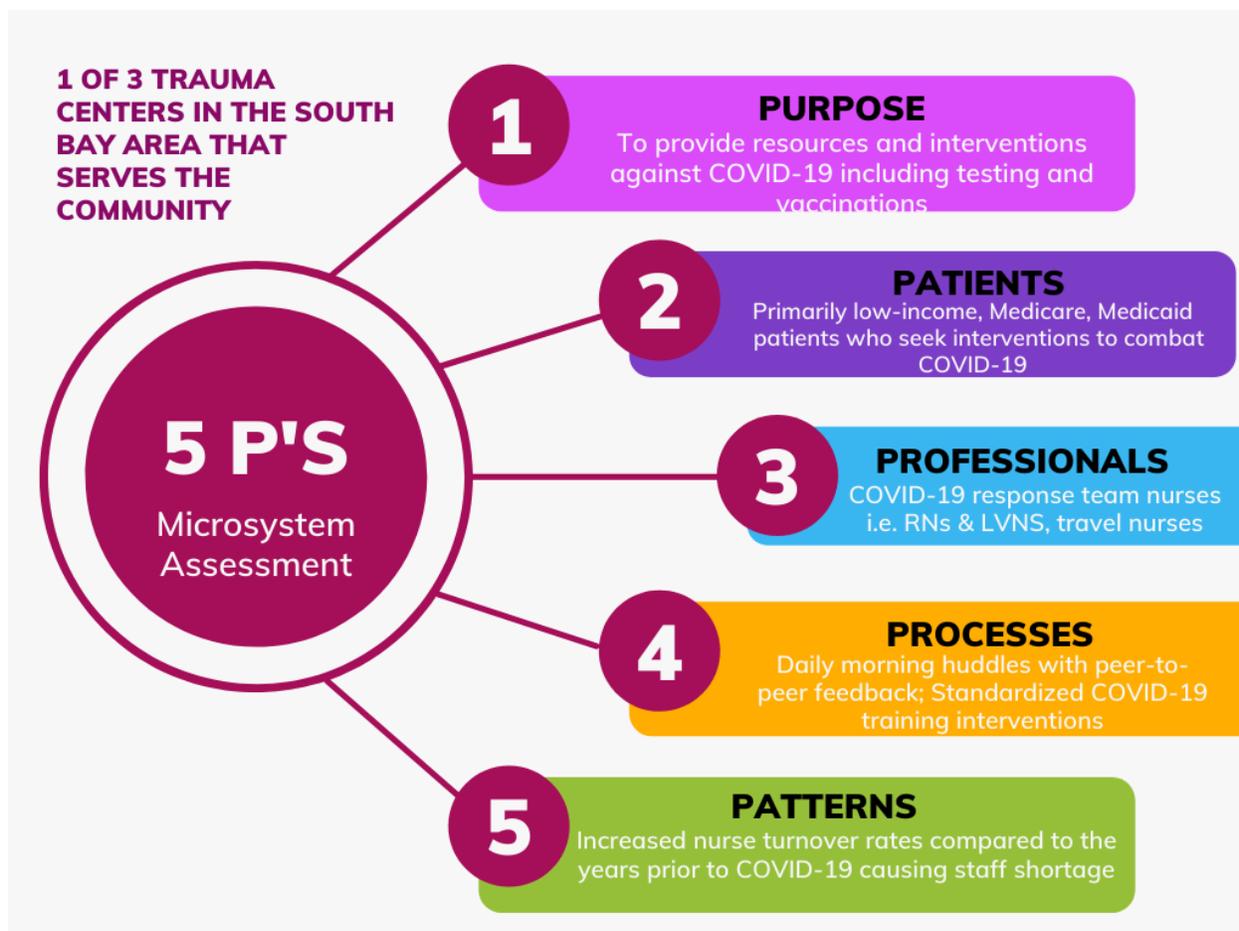| Project Title: Identifying Nurse Burnout	Yes	No
The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	X	
The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive a standard of care.	X	
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.	X	
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.	X	
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.	X	
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.	X	
The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	X	
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.	X	
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.	X	

Appendix C: Literature Evaluation Table

PICO Question: Among the nurses assigned to Clinic A (P), how does implementing Mental

Health Champions and "team temperature checks" (I), compared to no intervention among

nurses at Clinic B (C), contribute to reducing perceived burnout in one workweek (O)?

Study	Level of Evidence	Design	Sample	Outcome
Dohrn et al. (2022)	Level III A	Qualitative study	636 nurses from the Columbia University School of Nursing (faculty, students, and staff at related hospitals)	After conducting "Circles of Care" to allow nurses to discuss concerns with the pandemic, eight major themes were identified: coping mechanisms, patients suffering and dying, feelings of helplessness, frustration with COVID-19 response, silver lining, disconnection from the world, the thread that holds nurses together, and exhaustion.
Falatah, R. (2021)	Level III A	Integrative review of quantitative and qualitative studies	43 studies about nurse turnover from 2016-2021	Turnover intention increased significantly after COVID-19 pandemic. Pre-COVID turnover intention predictors were related to satisfaction, commitment, and leadership style. Post-COVID turnover intention predictors were related to fear of disease, stress, and anxiety
Jun, et al. (2021)	Level III A	Systematic review of quantitative and qualitative studies	20 studies about nurse burnout	Nurse burnout was inversely associated with all outcome measures: patient safety, quality of care, nurses' organizational commitment, nurse productivity, and patient satisfaction
Montgomery, et al. (2021)	Level III A	Descriptive study using survey data	928 nurses working on inpatient units in Alabama (N= 42 hospitals)	Copenhagen Burnout Inventory demonstrates validity and reliability for measuring burnout among frontline nurses. CBI was correlated with work environment, job satisfaction, and intent to leave

Wieneke, et al. (2019)	Level III A	Descriptive study using survey data	46,787 employees from Mayo Clinic sites across the United States	Respondents who had a well-being champion on their unit had more favorable responses regarding physical, social, financial, and general well-being domains than those with no champion.
Wood, et al. (2020)	Level III A	Systematic review of quantitative and qualitative studies	13 studies about clinical champions from 1980-present	Clinical champions in substance use and mental health settings were from a variety of professional roles, were usually selected or expressed interest, and received face-to-face training. Champions assisted in faster initiation and persistence of interventions, helped overcome system barriers, and enhanced staff engagement. Switching around champions could be a barrier. Those with champions viewed their organization and leadership more favorably

Appendix D: Microsystem Assessment

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

5 P'S
Microsystem Assessment

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 E: SWOT Analysis

Strengths	Weaknesses
- Providing wide scale vaccination - Monday-Friday shifts available - Weekend shifts available - Greater pay compared to other states - Relatively easy onboarding - Straightforward training - Adequate PPE provided	- Minimal job security - Lack of collaboration due to staffing turnover - Non guaranteed hours - Not enough staff leading to overwork of current staff - Constant evolution of protocols due to nature of work environment
Threats	**Opportunities**
- Use of Emergency Medical Services Authority (EMSA) Licenses ending June 30th, 2022 - Lack of travel staff causing extra burden on full time staff - Limited scope of travel staff having to work under COVID umbrella, causing increased strain on full time staff - Educational opportunities on current best practice in CA due to nature of travel staff	- Provide timelines of job security dates - Provide guaranteed hours - Implement Mental Health Champions to alleviate overwork - Check in daily with staff using Temperature Checks - Educate all travel employees on current best practice - Bring travel employees into organization to allow for further growth and education

Appendix F: Timeline

PROJECT TIMELINE

Start date: 1/25/2022

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

Appendix G: Cost-Benefit Analysis

Costs				
Category	Item	Quantity	Price	Total
Direct Costs	Training	2	$10,333	$20,666
Indirect Costs	Software License	1	$4.30	$4.30
Tangible Cost	Annual Wage	1	$124,000	$124,000
Intangible Costs	Non-cash morale boosts	12 (1 per month)	$300	$3,600
				Total Costs: $148,270
Benefits				
Intangible	Decrease Nurse Turnover	Rate of Turnover: 27.1%	$46,100	$262,300
				Total Benefits: $167,500

Appendix H: Pre-Survey Questions

What organization do you currently work for?
- Santa Clara Valley Medical Center
- Kaiser Permanente
- Other: _____

- Stanford
- One Medical

What nursing license do you currently hold?
- LPN/LVN
- RN
- Other: _____

What is your current level of education?
- Certificate
- ADN
- BSN

- MSN
- PhD/DNP
- Other: _____

Are you currently working as a travel nurse?
- Yes
- Yes, practice under ESMA license
- No

What is your primary nursing role?
- COVID-19 Vaccination/Clinic/Testing
- Skilled Nursing/Post Acute/Rehab
- Primary Care
- Other: _____

- Acute Care/Floor Nurse
- APRN
- Nursing Leadership/Management

Do you feel burnout because of your workload?
- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)

- Rarely (25% of the time)
- Never (0% of the time)

Are you exhausted in the morning at the thought of another day at work?
- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)

- Rarely (25% of the time)
- Never (0% of the time)

Is your work emotionally and/or physically exhausting?
- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)

- Rarely (25% of the time)
- Never (0% of the time)

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

- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)

- Rarely (25% of the time)
- Never (0% of the time)

Do you find it hard to work with your patients?

- Always (100% of the time)
- Frequently (75% of the time)
- Sometimes (50% of the time)

- Rarely (25% of the time)
- Never (0% of the time)

Were you given training to complete the responsibilities of your job?
- Yes
- No

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

- Yes
- No

- Sometimes
- Other: _____

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
- Other: _____

- Workplace dynamics
- Lack of autonomy
- Unclear job expectations
- Emotional strain
- High-stress environment
- Long hours
- COVID-19 pandemic directly related to providing patient care

When did these factors begin to contribute to your burnout?
- Pre-existed before COVID-19
- Emerged due to COVID-19
- Both

Have you considered transferring or leaving the profession of nursing as a result of burnout?
- Yes, leaving the profession
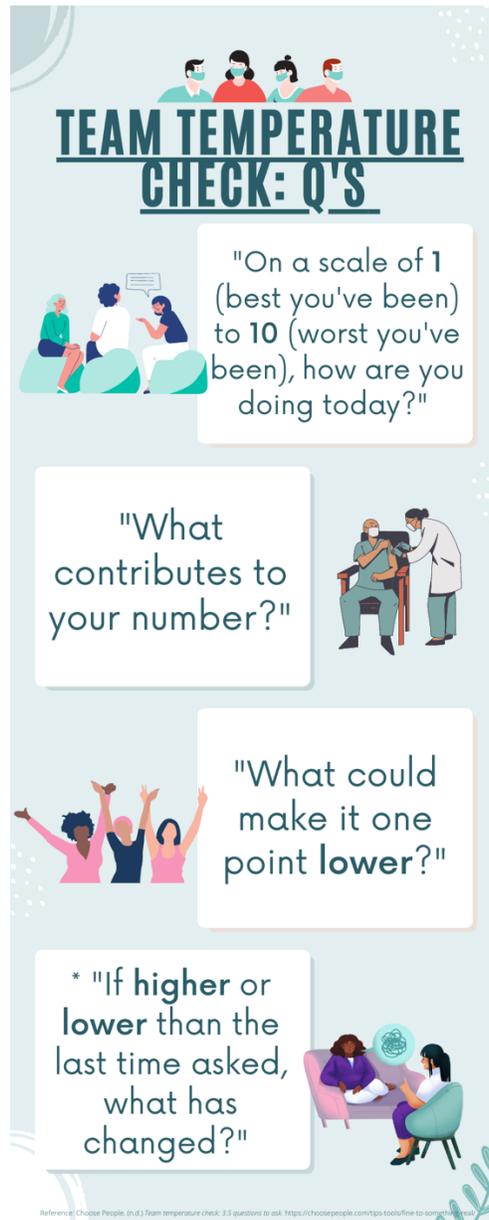- Yes, transferring within the profession: _____
- No

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

How can management help decrease your burnout/what would be beneficial to you?:

Appendix I: Post-Survey Questions

1. Do you feel burnout because of your workload?
2. Are you exhausted in the morning at the thought of another day at work?
3. Is your work emotionally and/or physically exhausting?
4. Do you have enough energy for your family and friends during non-working hours?
5. Do you find it hard to work with your patients?

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

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

3. How likely are you to utilize a temperature check?
a. Extremely Likely
b. Likely
c. Somewhat Likely
d. Unlikely
e. Very Unlikely

4. If you were to receive a temperature check, how would you like to receive it?
a. On paper
b. Electronically by phone
c. Verbally by your Nurse Champion

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

6. How likely are you to utilize a Mental Health Nurse Champion?
a. Extremely Likely
b. Likely
c. Somewhat Likely
d. Unlikely
e. Very Unlikely

Appendix J: Temperature Check Questions