The Year of COVID:

Resiliency of Frontline Healthcare Workers During the SARS-CoV-2 Pandemic

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Introduction

The novel Coronavirus-2019 created an evolving world-wide health care crisis and desperate time of need. The pandemic generated an overwhelming burden of illness and mortality resulting in physical and emotional instability of health care workers. Frontline health workers grappled with fears of infection, death, and the risk of COVID-19 transmission to not only themselves, but their families. Chesak & Croghan (2021 pp 8-9) found many front-line healthcare workers developed post-traumatic stress and other mental, physical, emotional, and spiritual concerns. To quote Greenberg et al., (2020 p 6) "We have placed our healthcare professionals in an impossible situation of having to make life and death decisions while working under extreme pressure."

Aim of the project

Identifying issues linking amplified emotional stress, anxiety and depression of frontline healthcare workers secondary to the COVID-19 pandemic. Second, the project examines the emotional stability and coping mechanisms of frontline health workers, specifically the respiratory therapists, in a 300-bed acute care community hospital at the pandemic epicenter in the state of New Hampshire. The author utilized a review of the current literature, a participant directed online survey utilizing Type Form survey software. The study included self-directed interviewing of Respiratory Therapists within the health care organization affected by the novel Coronavirus pandemic. Third, the project will define, discuss and elaborate on strategic goals for a sustainable and resilient healthcare team.

Background

The coronavirus disease 2019 (COVID-19) pandemic placed unparalleled stress on the health care system globally, revealing the interconnectedness and tenuousness of its bionetwork (Bozdağ & Ergün, (2020 pp 1-2). The resultant overpowering burden of illness and mortality exposed operations of health care institutions worldwide and the physical, emotional, and financial health of their workers (Bozdağ & Ergün, 2020 pp 4-5).

Hurley et al., (2020 pp 1-4) asserts rapid and disruptive change requires conviction, confidence, and courage for immediate and long-term sustainability. Resilient leaders build standing by exhibiting courage to face challenges head on and by finding openings to encourage vision and values in the midst of adversity (Hurley et al., 2020, pp 5-6). Working as a 'frontline' health care professional during a global disease pandemic, like COVID-19, can be very stressful (Hurley et al., 2020 pp 5-6). Hurley et al., 2020 maintains that over time, the deleterious effects of stress lead to mental health problems such as depression and anxiety, which, consequently may affect work, family and other social relationships.

Igoe, (2020 pp 2-3) argues 'Resilience' as the ability to cope with the negative effects of stress and avoid mental health problems and their wider effects. Healthcare providers can use various interventions to support resilience and mental well-being in their frontline healthcare professionals (2020 p 4). These interventions include work-based directed changes of routines or improving equipment; or psychological support interventions, such as counselling (2020 pp 11-12).

Framework

Qualitative and quantitative analysis of current literature surrounding the effects of the COVID-19 pandemic on resilience of front-line health workers. The framework of the project will include health worker experiences and survey questions regarding their resiliency during the COVID-19 pandemic. Finally, the project will discuss tools, and techniques to improve resilience of health care workers to improve resilience.

Significance

Significance of the project to health policy, equity or health care management practices.

Issues to consider: Organizational, economic, political, or legal issues:

Organizational Significance

Rangachari & Woods, (2020 pp 1-2) found that during normal circumstances, working in healthcare is recognized to be emotionally distressing. With the arrival of COVID-19, healthcare workers began fighting a lethal virus with PPE shortages and lack of evidence-based treatment (2020 pp 14-15). Given these unprecedented conditions, health workers witnessed and amplified the sources of emotional distress experienced during the pandemic (Gold, 2020 p 4). With initial personal protective equipment (PPE) shortages, the paramount fear expressed by healthcare workers is that they will not only get sick, but also spread the virus to their patients and families. As such, many opted to socially isolate themselves within their own homes (Lai, 2020 p 8).

Rangachari & Woods, (2020 p 5-6) found that healthcare workers were forced to handle life and death situations on the frontlines. Patient care decisions, historically based on

patient preferences, were now based on triaging protocols, creating moral and ethical distress among healthcare workers, as they were being called upon to triage patients knowing there are a limited number of ICU beds and ventilators (Pearce, 2020 p 5). Pearce (2020 p 15) found additional sources of emotional distress include intense workloads, rapidly evolving practice environments, and witnessing large volumes of medication errors, infections, and deaths

Rangachari & Woods (2020 pp 7-9) found within the frontlines of healthcare, resilience is described as one's ability to improvise with materials at hand, developing solutions to unexpected problems, thereby enabling safe delivery of patient care despite obstacles.

Rangachari & Woods, 2020 contends organizational resilience is known to have three interconnected levels: (i) the individual level, for example, individual healthcare workers who use workarounds to temporarily resolve recurring safety problems on the frontlines, and then communicate their safety concerns to managers (Rangachari & Woods, 2020 pp 20-22), in an effort to prevent problem recurrence; (ii) the team level, for example, managers who encourage frontline healthcare workers to freely communicate their safety concerns, with a view to addressing underlying issues and preventing problem recurrence; and (iii) the organizational level, for example, senior leadership commitment to patient safety and lasting improvement (Rangachari & Woods, 2020 pp 25-26). In other words, the authors confirm, resilience may ideally be described as a property of individuals, teams, and the whole organization (Rangachari & Woods, 2020 p 30).

Rangachari & Woods (2020, p 5) found many hospitals and healthcare organizations (HCOs) in the United States, have opted for a "stoic approach" to healthcare worker support, i.e., no additional support beyond the federal and state policy protections, for the broader

emotional distress and risks endured by healthcare workers during the pandemic. For example, Rangachari & Woods (2020 pp 38-39) finds the dire shortages of personal protective equipment (PPE) during early days of pandemic, prompted the USA Centers for Disease Control & Prevention (CDC) to issue directives to healthcare workers to improvise with materials at hand, to develop face masks. In this context, the authors argue, hospital leaders are reported to have encouraged healthcare workers to use homemade masks for protection, as if nothing had changed, i.e., with no acknowledgment for the lower protection offered by homemade masks, compared to surgical masks and N-95 masks (2020, pp 40-41).

Similarly, Pearce (2020 p 7-8) found that when encountered with added stressors, frontline healthcare workers felt overwhelmed and anxious of making a mistake while treating an unfamiliar patient base, hospital managers are reported to have made comments such as "everyone is out of their comfort zone, hang in there", or "we hear your concerns, but there's nothing we can do" (Pearce, 2020 p-9). Rangachari & Woods (2020 pp 36-37) contends in another instance, hospital leaders are reported to have walked around ICU nursing stations handing out wipes for frontline workers to use before wearing masks (so they are reusable), without asking how staff was doing, or if they needed anything (Soucheray, 2020 p 17). Lack of visibility of hospital leaders on the frontlines of care, has also been reported to be a serious concern (Soucheray, 2020 p 25).

A growing body of pandemic literature reports concerns regarding the lack of reassurance, support, and acknowledgment from health care organization (HCO) leaders, for the unprecedented level of emotional distress experienced by frontline healthcare workers during COVID-19. Under normal circumstances, healthcare workers could seek solace from

workplace stress with family and social lives. This no longer remains an option during COVID-19. As such, worker burnout from emotional distress has become a growing concern during the pandemic (Gold, 2020, Lai et al., 2020, Santarone, et al., 2020). In this scenario, a key public health concern being reported in the pandemic literature, is sustaining an adequate healthcare workforce, both by way of quantity, ensuring adequate numbers of healthcare workers (Gold, 2020 p 21). And quality, maximizing clinician resilience to provide safe and effective care to large volumes of patients under challenging conditions (Lai et al., 2020 p 28).

Ethical Issues

According to Kreh et al., 2021 moral injury is one of the mental health challenges faced by health care workers during the COVID-19 outbreak (Kreh at al., 2021, pp 31–33). The term moral injury "has been used in two related, but distinct, senses; differing mainly in the 'who' of moral agency". According to Kreh's et al., (2021 p 4) own definition, moral injury is present when there has been (a) a betrayal of 'what's right'; (b) by a person in legitimate authority (e.g. a leader) and, (c) in a high stake's situation. Kreh et al., (2021 p 15) explains resiliency entails participation by one's self in acts that transgress such moral beliefs.

Kreh et al., 2021 finds both forms affect trust and lead to psychological distress. Moral injury has mainly been described in victims and perpetrators of violence such as child soldiers. However, not only intentional interpersonal disasters may involve moral injury, also other disasters like pandemics include these types of trauma. In the COVID-19 pandemic, health personnel faced a variety of those injuries in both of the above-mentioned meanings.

Kreh et al., (2021, pp 25-26) found that in a global pandemic, a different set of rules must be applied to healthcare delivery as complex dilemmas in care may evolve. Understanding general principles of collective ethics may help, nevertheless clinicians still have to take decisions for their specific patients, which can lead to significant distress (2021 p 26). Kreh et al., 2021 finds the ethical bitterness of triage decisions is well-known and medical organizations and professionals have found different ways to deal with it. Some of the most common ethical challenges in the response to COVID-19 can be conceptualized in triage, shortage of personal protective equipment and non-pharmaceutical interventions (2021, p 30).

While being at risk, studies show that moral and social responsibilities as well as altruistic attitudes drive health care workers to continue working in an environment that might be extremely stressful (Brooks, et al., 2020 pp 40-45). Data showed, that altruistic risk-acceptance during the SARS outbreak could decrease the odds of higher levels of depression-symptoms three years after the outbreak (2020 p 47). Wu et al., (2020 p 3) identified altruism as a protective factor against negative impacts. Underlining the valuable altruistic attitude can reduce psychological distress especially in those who are quarantined (Wu et al., 2020 p-4). Altruism, being a protective factor, elements that reduce altruism and endanger one's self view as a helper may do a lot of damage for health care personnel (2020, p-4).

Financial implications (budget, costs, etc.)

This project consists of a retrospective review of current literature. Financial impacts associated are inconsequential. A staff survey was developed using Type Forms (Typeform.com Barcelona, Spain) at \$229.00 US Dollars for full access. Staff interviews were conducted during

normal working hours, incurring no additional costs outside the normal hourly rate. Review and correlation of data is outside the normal work day incurring no additional budgetary costs.

Summary

The novel Coronavirus-2019 created a world-wide health care crisis and desperate time of need, generating an overwhelming burden of illness and mortality resulting in physical and emotional instability and decline of health care workers. Frontline health workers remain fearful of infection, death, and the risk of COVID-19 transmission not only to themselves, but to their families. In many cases front-line healthcare workers developed post-traumatic stress and other mental, physical, emotional, and spiritual concerns.

A lack of reassurance, support, and acknowledgment from health care organizations and (HCO) leaders exists. Failing to appreciate the unprecedented level of emotional distress experienced by frontline healthcare workers during COVID-19. In the past, healthcare workers sought solace from workplace stress with family and social lives. Worker burnout from emotional distress has become a growing concern during the pandemic.

Healthcare workers during the pandemic have been forced to handle life and death situations on the frontlines. Patient care decisions, historically based upon patient preferences, moved to triaging protocols, creating a moral and ethical dilemma among healthcare workers. Healthcare workers were called upon to triage patients knowing a limited number of ICU beds and ventilators existed.

The ability to cope with the negative effects of stress and avoid mental health problems and their wider effects is the hallmark of resilience. Healthcare providers use various

interventions to reduce workplace stress, such as spending time with family and maintaining social lives. Additional interventions may include work-based directed changes of routines, improving equipment; or psychological support interventions, such as counselling.

The project aims to create a qualitative and quantitative analysis of current literature surrounding the effects of the COVID-19 pandemic and resilience of front-line health workers.

The framework of the project includes health worker experiences, survey questions regarding their resiliency during the COVID-19 pandemic, rand eal time interviews. Finally, the project will review and discuss tools, and techniques to improve resilience of health care workers.

Methods

Participants

29 board certified registered respiratory therapists, and one department administrative assistant. Subjects are employed at Elliot Hospital, a 300-bed acute care community hospital located in Manchester, New Hampshire. Subjects included 6 males and 24 females between the ages of 25 and 63. The subjects clinical experience level ranged between 1.5-40. Average education level is associate degree in applied science. 28 of the 29 respondents were employed at the organization between spring of 2020 through spring of 2021, and cared for patients with SARS-CoV2 infections. The study was advertised through general emails sent directly to respondents. Participation was voluntary and staff could opt out of the survey.

The staff resilience survey was approved by the institutions internal review board and met the ethical standards of Solution Health, the parent organization of Elliot Health Systems.

Inclusion Criteria

The survey study focused on members of the respiratory care department, Elliot Hospital, Manchester, New Hampshire. No compensation was provided for participation.

Exclusion Criteria N/A

Materials

The objective of the study was to determine if front line health workers in a community hospital respiratory care department experienced negative emotional and physical responses to the COVID-19 pandemic. Additionally, the study design asked participants to list response to their opinions regarding organizational and department leadership support. Finally, subjects were asked to select from a list of techniques respondents found successful in maintaining resilience during the pandemic.

Sample Size:

Of the 30 possible participants, 30 viewed the survey, 24 started the survey with 23 completing all questions. The completion rate was 95.50% with an average time to complete of 1:32secs (Table 1.0).

| Views =30 |
|-------------------------------------|
| Starts =23 |
| Responses =24 |
| Completion rate =95.50% |
| Average time to complete =1:32 secs |

Table 1

Procedure

An 8-question survey (Table 2) was developed using Type Form (Typeform.com, Barcelona, Spain). The survey queried participates regarding physical and emotional responses to the pandemic, leadership support, organizational support, and personal strategies to improve resiliency during the pandemic. Questions were formatted to three possible answers (yes, no and unsure), with one question designed for multiple-choice responses. Cost to utilize all features of the survey was \$229.00.

Table 2

- 1. Given the unknows and serious nature of the COVID-19 virus, did you experience hopelessness?
- 2. During the COVID-19 pandemic my leadership team conveyed a supportive environment?
- 3. I felt free to express my feelings about the pandemic in an open and non-judgmental environment?
- 4. During the COVID-19 pandemic I struggled to find restful sleep.
- 5. During the pandemic I experienced increased sadness and depression.
- 6. My personal/family life was affected by the pandemic and resulted in increased stress and anxiety at work?
- 7. The organization provided tools and resources to help me stay resilient during the pandemic response?
- 8. Thinking about resilience as a health worker during the COVID-19 pandemic, I participated in the following to manage increased levels of stress

Staff resiliency survey questions (TypeForm.com)

Additionally, staff were offered an opportunity to share personal experiences of the pandemic, and how their lives and professional work was negatively or positively altered by the pandemic, and resources participants found helpful for relaxation, sleep and mental health support (employee assistance program, utilization of Zen Den, prayer, time with family ect.), as well as how these mechanisms helped with resilience during the pandemic. Of the 30 possible participants, 10 or 3% of staff were willing to speak openly about their experiences. Subjects

reported positive emotional responses and improved resilience spending time with family, even in situations where those family members had little to no direct understanding of the emotional and physical burden being placed on their loved ones as front line health workers. 3 of the 10 participants found prayer to be helpful in maintain emotional resilience during the pandemic.

RESULTS

Findings

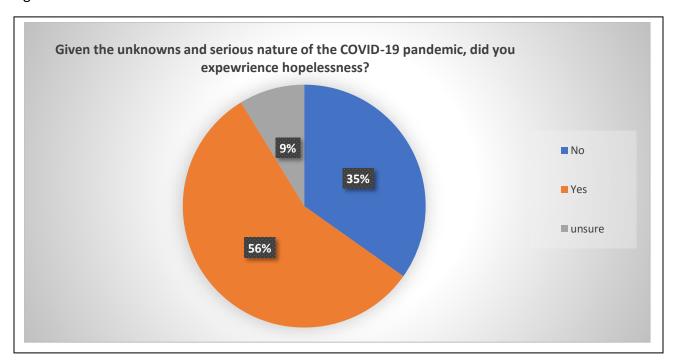
The study design determined if front line health workers in a community hospital respiratory care department experienced negative emotional and physical responses to the COVID-19 pandemic, potentially negatively affecting health worker resilience. Additionally, the study asked participants to list response to opinions regarding organizational and department leadership support during the pandemic. Subjects were asked to select from a list of techniques respondents found successful in maintaining resilience during the pandemic. Finally, the study incorporated additional one on one interviews with staff regarding methods that improved resiliency during the pandemic.

29 board certified registered respiratory therapists, one department administrative assistant, employed at Elliot Hospital, a 300-bed acute care community hospital located in Manchester, New Hampshire. Subjects included 6 males and 24 females between the ages of 25 and 63. The subjects clinical experience level ranged between 1.5-40. Average education level is associate degree in applied science. 28 of the 29 respondents were employed at the organization between spring of 2020 through spring of 2021 and cared for patients with SARS-CoV2

infections. The study was advertised through general emails sent directly to respondents. Participation was voluntary and staff could opt out of the survey. 30 viewed the survey, 24 began the survey, and 23 completed. The completion rate was 95.50% with an average time to complete of 1:32secs (Table 1.0).

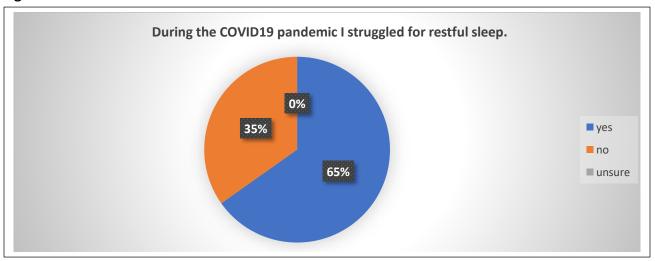
Respondents were initially queried regarding emotional and physical effects of the pandemic, specifically anxiety, stress, hopelessness and altered sleep. 56.6% (n=13) experienced feelings of hopelessness. 34.8% of respondents (n=8) experienced no feelings of hopelessness, with 8.7% (n=2) unsure (Figure 1).

Figure 1



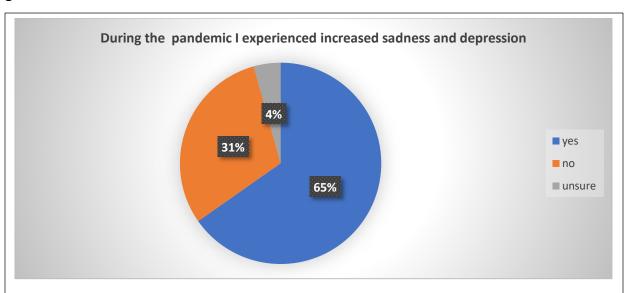
Sleep is directly related to maintaining resilience. The study data indicated poor sleep patterns accounted for 65.2% (n=15) of respondent's challenges maintaining resilience during the pandemic. 34.8% (n=8) noted no altered sleep patterns (Figure 2).

Figure 2

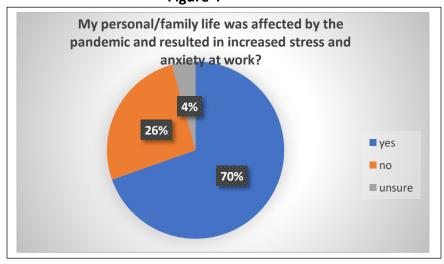


Increased feelings of sadness or depression were noted in 65.2% of respondents (n=15) 30.4% of the respondent's (n=7) experienced no feelings of sadness or depression, with 4.3% (n=1) noting an unsure response if they experienced sadness or depression associated with caring for patients during the COVID-19 pandemic (Figure 3).

Figure 3

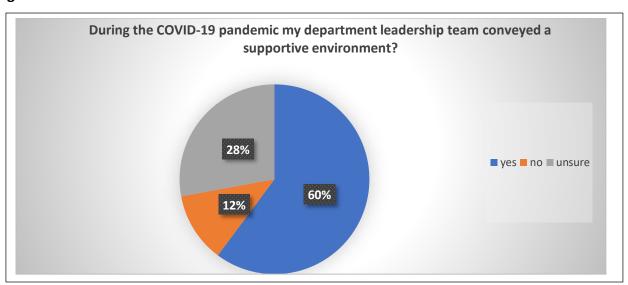


Additionally, participants of the study were asked if their personal or family life was affected by the pandemic, leading to increased levels of stress/and or anxiety in the workplace. Of the 23 respondents, 69.6% (n-16) responded yes. 26.1 (n=6) responded no, with 4.3% (n=1) expressing they were unsure (Figure 4).



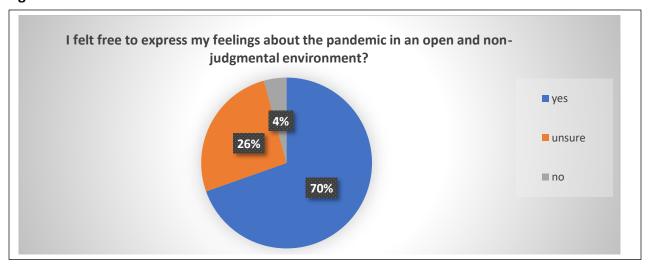
Participants were asked if they experienced a supportive atmosphere from department leadership during the pandemic. 65.6% of respondents (n-=13) answered yes, with 13% (n=3) feeling unsupported. Interestingly, 30.4% (n=13) indicated they were unsure if they experienced an atmosphere of emotional support during the pandemic (Figure 5).

Figure 5



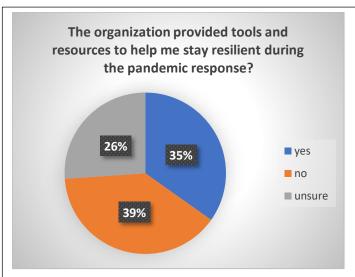
The participants were asked to respond to the overall environment of the department and if they felt free to express their feelings in an open and non-judgmental manner. Of the 23 respondents 69.6% (n=16) responded yes. 26.1% (n=6) stated they were unsure, and 4.3% (n=1) responded no, they did not feel free to express themselves (Figure 6).

Figure 6



As the staff survey continued, participants were asked to rate their feelings on organizational support during the pandemic, and if they were offered tools and resources to maintain resiliency as a health care worker. 39.10% (n=9) responded No, they did not feel the organization offered tools or resources to better cope with the emotional and physical drains on resilience. 34.8% (n=9) responded Yes. 26.1% (n=6) felt unsure if resources were available

from the healthcare organization (Figure 7). Figure 7



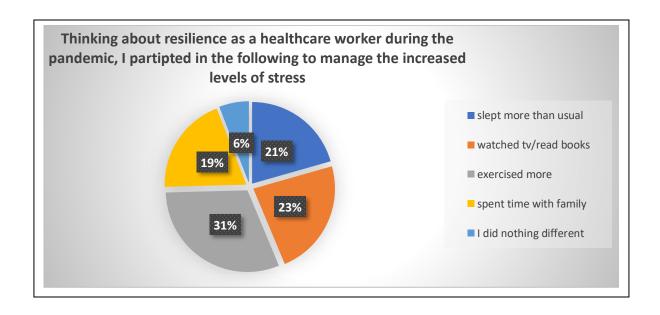
The survey concluded with a multiple-choice response questions, asking respondents to select methods they found improved coping mechanisms. In order to ascertain specifics on tools that improve staff resilience, the survey allotted five specified responses to the question, with respondents able to choose more than one answer (Table 1).

Table 1

- 1. Slept more than usual
- 2. Watched tv or read books
- 3. Exercised more
- 4. Spent time with family
- 5. I did nothing different

Selection of Techniques to Improve Resiliency

52.2% (n=12) responded to increased use of exercise to maintain resilience. 39.1% (n=9) watched tv and read books. 33% (n=7). Spent more time with family. 34.8% (n=8) attested they Slept more than usual, and finally, 10% (n=2) did nothing different to maintain resiliency during the pandemic (Figure 8).



Health care workers utilized both problem-centered and emotion-centered coping to manage the stress associated with the coronavirus pandemic. Coping behaviors, resilience and social support were associated with positive mental and psychological health outcomes (Labrague, L. J. (2021 pp 1-2). Work-family balance is a common challenge for caregivers. Spouses of healthcare professionals lived in a state of fear, aware human resources and protective equipment shortages, while coping with a burden of responsibilities. In fact, parenting children alone in the absence of school or daycare is one of the burdens of the COVID-19 outbreak (2021 p 3).

Participants of the study noted family time as a positive method of self-care and reducing stress and anxiety. Several members of the team described the pandemic as bringing their families closer together. Despite family members comprehending the issues faced as front-line workers in a pandemic, they listened, and demonstrated compassion and empathy. Moreover, many worked their shifts, and proceeded home to care for children, providing attention for school and studies. Adding to the burden of stress, anxiety and lack of restful sleep associated with decline in resilience. This was found especially true for those who worked the overnight shift.

Interestingly, the author failed to appreciate the role prayer and spiritualty has on resilience of health workers. 3 participants associated prayer as a method to reduce stress, anxiety and maintaining resilience during the pandemic. The use of pray as a coping method affords an individual opportunity to connect on a spiritual level.

Implications

Serrano-Ripoli et al., (2020 pp 2-6) found mounting evidence indicating that health care workers (HCWs) have suffered a deterioration in their mental and psychological health during the coronavirus pandemic, with reports from individual and review studies showing higher prevalence rates of anxiety, burnout, depression, PTSD, and psychological distress among HCWs compared to the general public (2020 pp 5-6). In a systematic meta-analysis by Serrano-Ripoli et al., (2020 pp 7-9) the pooled prevalence rate of stress among HCWs during the pandemic was 40%; furthermore, 30% of HCWs in the pooled analysis had anxiety, 28% experienced burnout, 24% had depression, and 13% had post-traumatic stress disorder (PTSD).

Serrano-Ripoli et al., (2020 pp 10-12) finds factors known to contribute to poorer mental health were categorized into sociodemographic factors and organizational factors.

Sociodemographic factors included younger age, female sex, being in the nursing profession (2020 p 12), a history of psychiatric illness, and a history of requiring psychiatric support (2020 p 12).

The collective data noted by Serrano-Ripoli et al., (2020) is comparable to the cohort of respiratory therapists surveyed. Greater than 65% of respondents in our study confirmed increased feelings of sadness and depression. Poor sleep patterns accounted for 65.2% of responses, and 56.6% experienced feelings of hopelessness. Nearly 70% of participants confirmed the pandemic negatively affected their family. Better than 39% of those surveyed felt a lack of organizational support during the pandemic. While the study cohort was small in

comparison (n=-23, CI 95%), the data emphasizes the ongoing trials faced by front line health workers during the pandemic.

Challenges & Accomplishments

Maintaining resiliency during the COVID-19 pandemic remains challenging. The Delta variant, along with increasing rates of hospitalizations will increase personal and professional stressors to an already stunned healthcare team. Death from COVID-19 is highly preventable given the availability of vaccinations. Health workers caring for patients with Delta variant may find their physical and emotional capacities pushed further than before. The potential for increased illness in pediatric populations may increase these negative emotions, further declining the resilience of the health care team.

This study however, is not all doom and gloom. The project has a positive side. As a manager and leader, appreciating the effects a pandemic has on health worker resilience, attending to staff needs, and the importance of self-care serves as opportunities to improve tools available to support resilience of the team. The emotions and physical derangements are real. By identifying cause and effect and addressing key steps in supporting health worker mental and physical wellbeing, we ensure a sustainable health care team capable of navigating the pandemic and maintaining resilience.

Recommendations

A retrospective review of the literature is ripe with articles and recommendations supporting practices to enhance health worker resilience during and beyond the pandemic. Such examples may include but are not limited to: communication, psychosocial support and treatment, adjusting tasks and responsibilities, adjusting work patterns, and team building

During the outbreak, many interventions relate to the concept of resilience: communication, psychosocial support and treatment, and monitoring health status (Rieckert et al., 2021 pp 14-17).

The pandemic required enhanced communication. Daily huddles became important venues for the team to come together, review action items, updates and allow opportunities for bi-directional communication. When required, additional huddles during the day commenced to provide real time updates as changes initially were occurring at a rapid pace as the pandemic emerged. Leadership connected with night shift by calling in, coming on early or staying late. Communication boards, daily emailed updates and weekly news letters accented communication.

Work patterns were adjusted, prioritizing critical care patients. Standard bronchodilator therapy was diapered to nursing units. This allowed for increased numbers of RT's to be stationed in higher acuity locations in the hospital. Staffing flexed upwards to allow for a higher volume of staff on shift. An unfortunate downside was all vacation requests were cancelled for the first four months of the pandemic.

While all the above noted measures seek to improve staff resilience, an alternative approach supporting team self-care and health worker resilience was desired. Since the ICU waiting rooms were closed an opportunity to repurpose and create a safe space for staff to retreat when feeling overwhelmed presented itself.

"Zen Den," relatively speaking, is a phrase made up to describe a space you devote to practicing yoga. The concept of a Zen den is relatively simple: It is a place that you can go to relax and connect to yourself while expanding your awareness of the present moment. combat

the physical effects of mental health issues, or just trying to find a moment of peace amongst the chaos in the world,

Aiding in the creation of the Zen Den, the critical care physicians purchased a massage chair (Index 1). Soft lighting, a sound machine, flameless candles and essential oils were purposed in the room. Permitting a warm, cozy and reassuring environment (Index 2). A journal allows staff to express their emotions and feelings should they desire (index 3). A small table was included, optimizing a seating location for a quiet and stress-free lunch. One free from constant alarms and noises common in the critical care environment (Index 4). Additionally, a Feng Shui table fountain and a Himalayan salt lamp bring depth to a relaxing and safe space (Index 5).

In evaluating the Zen Den, several factors improving awareness is evident. Few staff outside the ICU know this space existed. The physical space is not labeled, and the door remains locked, requiring staff members to ask for a key from in the ICU. This barrier negates opportunities for that special safe place. One that is quiet and comforting when staff need it the most. These observations have moved the group toward better message the Zen Den, designing a sign for the door and seeking to keep the space accessible to staff members.

In conclusion, we have created an environment here where the message is, 'You need to take care of yourself before you can take care of somebody else.' Our Zen Den is a respite room where nurses, RT's and other care givers can go for a break. Creation of the Zen Den is about changing culture. Encourage staff to take care of themselves in order to avoid stress and burnout, and helping staff understand the connection between caring for self and caring for others.

References

- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessley, S., Greenberg, N., & Rubin, G. J. (2020, March 14). *The psychological impact of quarantine and how to reduce it: Rapid review of the evidence*. Lancet (London, England).

 https://pubmed.ncbi.nlm.nih.gov/32112714/.
- Bozdağ, F., & Ergün, N. (2020, October 13). *Psychological resilience of healthcare*professionals during covid-19 pandemic. Psychological reports.

 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7557235/.
- Chesak, S. S., & Croghan, I. T. (2021, April 9). Stress, resilience, and coping of healthcare workers during the Covid-19 Pandemic Ivana T. croghan, SHERRY S. CHESAK, JAYANTH ADUSUMALLI, Karen M. FISCHER, Elizabeth W. beck, Shruti R. PATEL, Karthik GHOSH, Darrell r. Schroeder, Anjali Bhagra, 2021. SAGE Journals. https://journals.sagepub.com/doi/full/10.1177/21501327211008448.
- Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020, March 26). *Managing mental health challenges faced by healthcare workers during covid-19 pandemic*. The BMJ. https://www.bmj.com/content/368/bmj.m1211.
- Gold, J. (2020, April 2). *The hidden Covid-19 crisis: health care workers' mental health*. STAT. https://www.statnews.com/2020/04/03/the-covid-19-crisis-too-few-are-talking-about-health-care-workers-mental-health/.

- Hurley, K., Sood, A., Kilroy, D. S., Kraft, A., Rauf, D., Migala, J., Editors, E. H., & Landau, M.
 D. (2020, December 10). What Is Resilience? Definition, Types, Building Resiliency,
 Benefits, and Resources: Everyday Health. EverydayHealth.com.
 https://www.everydayhealth.com/wellness/resilience/.
- Igoe, K. J. (2020, September 21). How to Build-And Lead-Resilient Health Care Teams During

 COVID-19. Executive and Continuing Professional Education.

 https://www.hsph.harvard.edu/ecpe/how-to-build-lead-resilient-health-care-teams-covid-19/.
- Lai, J. (2020, March 23). Mental Health Outcomes Among Health Care Workers Exposed to COVID-19. JAMA Network Open.

 https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2763229.
- Labrague, L. J. (2021, April 28). Psychological resilience, Coping behaviours and social support among health care workers during THE COVID-19 pandemic: A systematic review of quantitative studies. Wiley Online Library.

 https://onlinelibrary.wiley.com/doi/full/10.1111/jonm.13336.
- Kreh, A., Brancaleoni, R., Magalini, S. C., Chieffo, D. P. R., Flad, B., Ellebrecht, N., & Juen, B. (2021, April 2). *Ethical and psychosocial considerations for hospital personnel in the Covid-19 crisis: Moral injury and resilience*. PLOS ONE.

 https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0249609.

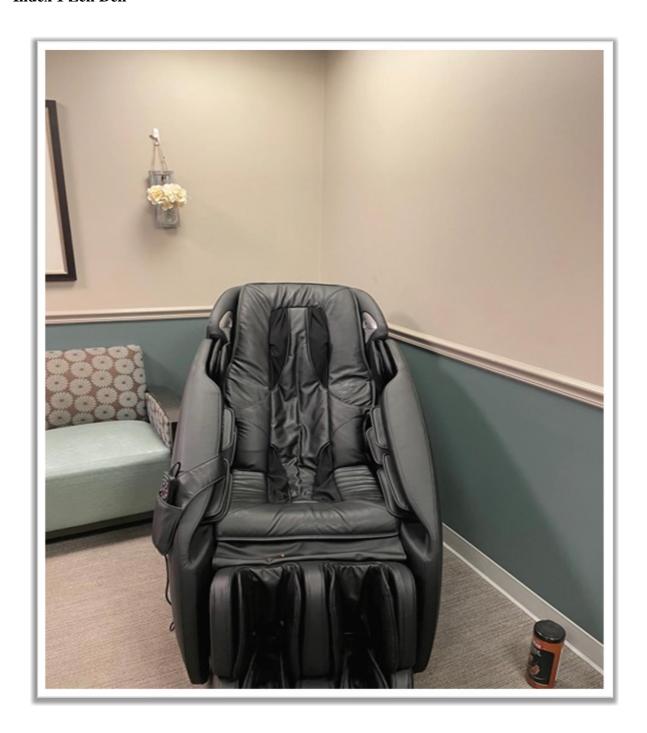
- Pearce, K. (2020, April 6). *In fight against COVID-19, nurses face high-stakes decisions, moral distress*. The Hub. https://hub.jhu.edu/2020/04/06/covid-nursing-cynda-rushton-qa/.
- Rangachari, P., & L Woods, J. (2020, June 15). Preserving Organizational Resilience, Patient Safety, and Staff Retention during COVID-19 Requires a Holistic Consideration of the Psychological Safety of Healthcare Workers. International journal of environmental research and public health. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7345925/.
- Santarone, K., McKenney, M., & Elkbuli, A. (2020, July). *Preserving mental health and resilience in frontline healthcare workers during covid-19*. The American journal of emergency medicine. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7156943/.
- Serrano-Ripoll, M. J., Meneses-Echavez, J. F., Ricci-Cabello, I., Fraile-Navarro, D., FioldeRoque, M. A., Pastor-Moreno, G., Castro, A., Ruiz-Perez, I., Zamanillo Campos R, R., & Gonçalves-Bradley, D. C. (2020, December 1). Impact of viral epidemic outbreaks on mental health of healthcare workers: A rapid systematic review and meta-analysis.
 Journal of affective disorders. https://pubmed.ncbi.nlm.nih.gov/32861835/.
- Soucheray, S. (2020, March 20). *Hospitals scramble to keep up with CDC N95, mask guidance*. CIDRAP. https://www.cidrap.umn.edu/news-perspective/2020/03/hospitals-scramble-keep-cdc-n95-mask-guidance.

Wu, G., Feder, A., Cohen, H., Kim, J. J., Calderon, S., Charney, D. S., & Mathé, A. A. (2020, January 1). *Understanding resilience*. Frontiers.

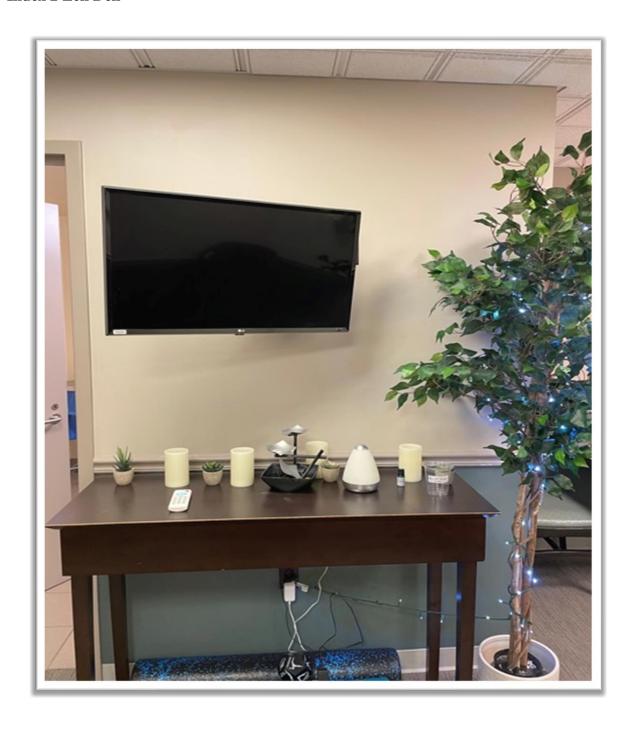
https://www.frontiersin.org/articles/10.3389/fnbeh.2013.00010/full.

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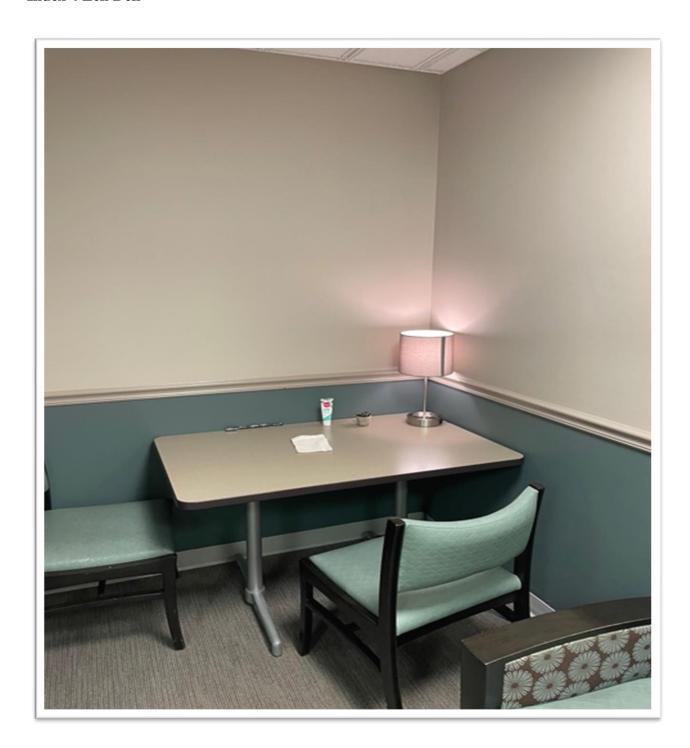
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