# Answering the Call to Action: A Multimodal Wellness Response to Psychological Distress in Health Care Workers During the COVID-19 Pandemic in the Bronx

Donna Geiss, NP<sup>1</sup>, Marni Confino, LCSW-R<sup>1</sup>, Eric Wei, MD<sup>2</sup>, Mariela Reyes, PhD<sup>1</sup>, Jantra Coll, PsyD<sup>1</sup>, Tiffany Rodriguez, PsyD<sup>1</sup>, Aasha Foster-Mahfuz, PhD<sup>1</sup>, Barbara A. Foote, BS<sup>1</sup>, Jeremy Segall, LCAT<sup>2</sup>, Christopher Mastromano, MBA<sup>1</sup>, and Komal Bajaj, MD<sup>1</sup>

#### **Abstract**

The emotional and psychological toll of the COVID-19 pandemic has been characterized as a parallel pandemic, disproportionately affecting health care workers when compared to the general population. Recognizing the tragic effects that the pandemic was having on the psyche of our health care workers, a multidisciplinary peer-support program called Helping Healers Heal was augmented to address these complex needs in a large, urban, academic medical center in the Bronx, NY. A multimodal approach including wellness events, emotional support rounds, fast-tracked connections with therapeutic support, and coalition building was used to reach 80% of staff from May through August, 2020. The multidisciplinary team planned events and interventions to appeal to the myriad ways people cope and build resilience, and by utilizing existing resources, it proved extremely cost-effective. In a survey of the program's participants, 94% of respondents "agreed" or "strongly agreed" that their participation helped alleviate stress.

#### **Keywords**

COVID-19, health care workers, psychological distress, wellness program, quality improvement, hospital preparedness/response, pandemic

# Introduction

The public health emergency of the COVID-19 pandemic has underscored the importance of mental health and psychological support for health care workers (HCWs) as they continue to respond to an ongoing and unprecedented crisis. In addition to the biological threat of COVID-19, a parallel pandemic unfolded as the psychological well-being of HCWs appeared to be under siege. 1-10 Compared to the general population, hospital workers are noted to be at a higher risk for adverse psychological outcomes, such as clinical anxiety, depression, and insomnia. 11 Factors contributing to HCW distress include individual factors such as fear of becoming infected or infecting loved ones, and factors such as increased

workload or lack of PPE.<sup>11,12</sup> Moral injury that can result from making decisions or engaging in actions which violate a person's moral or ethical code is also known to increase the risk for adjustment disturbances and more severe presentations like posttraumatic stress disorder and suicidal ideation.<sup>13,14</sup>

In light of this, efforts to improve pandemic preparedness have focused on providing resources to frontline staff to mitigate the deleterious mental health effects and subsequent burden of disease on the public health system. Studies examining health protective factors and strategies that lend themselves to better outcomes emphasize the need for increased access to psychological interventions and the development of staff support protocols. 12 In particular, interventions tailored to the individual needs of staff members were linked to less adverse psychological outcomes.<sup>12</sup> There are several examples of programs focused on addressing acute stress experienced by employees during the COVID-19 crisis, such as the Healing, Education, Resilience & Opportunity for New York's Frontline Workforce (HERO-NY) virtual training program, and the Kaiser Permanente Workforce Wellness program established in 2010.15,16

#### **Corresponding Author:**

Donna Geiss, NP, NYC Health + Hospitals/Jacobi, 1400 Pelham Parkway S., Building #1-Room 1S9, Bronx, NY 10461.

Email: Donna.Geiss@nychhc.org

American Journal of Medical Quality 2022, Vol. 37(3) 191–199 © 2021 the American College of Medical Quality

DOI: 10.1097/JMQ.0000000000000003

<sup>&</sup>lt;sup>1</sup>NYC Health + Hospitals/Jacobi Bronx, NY, USA

<sup>&</sup>lt;sup>2</sup>NYC Health + Hospitals/Central Office, New York, NY, USA

The following article presents a quality improvement informed case example that addresses the emotional needs of HCWs in a large, urban, level one trauma center in the Bronx, NY, at the height of the COVID-19 pandemic. The authors discuss the process of augmenting a previously established wellness program, and the ways in which a multidisciplinary team responded to the needs of their fellow staff members in the context of an ongoing crisis with chronic stressors. The program became known as the "Summer of Hope (SOH)."

# Setting of Intervention: The Pandemic Epicenter

NYC Health + Hospitals/Jacobi is a 457-bed member of the NYC Health + Hospitals system, the largest public hospital system in the country, and also the largest public hospital in the Bronx. We are an Adult Level 1 Trauma Center and the only Burn Center in the Bronx or southern Westchester. Pre-COVID, our inpatient beds were typically filled to approximately 80%–85% capacity. We have a complement of 539 doctors, 711 nurses, and 2271 ancillary staff providing care in a borough where close to 40% of the population has one or more chronic conditions.

On March 19, 2020, we received our first COVID-19 positive patient. Throughout March, a deluge of patients presented to our Emergency Departments and our Intensive Care Units quickly became saturated. As outlined in the NYS Governor's directive, we increased hospital bed capacity initially by 50%, and finally by 100%. This included identification and design of nontraditional surge space such as closed units, operating rooms, clinic areas, and construction/conversion of spaces.

In the ensuing weeks and months, our Jacobi heroes responded to a crisis unlike anyone had ever seen in their careers or lifetimes. Working in a Level I Trauma Center, our staff are accustomed to loss of patients, generally experiencing approximately 30 deaths per month across the hospital. In the 4 peak months of COVID, 325 patients died. Many more were discharged on ventilators or with life-altering side effects. Some of our patients watched as their spouses died in the bed next to them and many families lost several members. To our staff, death was omnipresent. They hurried about tending to the influx of patients, but their faces were somber and their load was heavy. In their eyes we saw fear, sorrow, and hopelessness. It has often been said that in the midst of a crisis, hope is what gets you from one moment to the next. This was our call to action. The SOH coalition grew out of the need to support these heroes and help the healing process amid untold challenges.

# The Helping Healers Heal Program

Helping Healers Heal (H3), as it is commonly known, is a comprehensive program offered throughout the NYC Health + Hospitals System whose primary purpose at its inception was to support second victims, that is, staff affected by unanticipated adverse events such as medical errors, failure to rescue, first death experience, pediatric cases, and unexpected patient demise. Traumatized staff who do not receive adequate support are at a higher risk of experiencing emotional suffering and burnout. 17-23 H3 consists of 3 tiers of support: (1) local (unit/department) support; (2) trained peer supporters; and (3) an expedited referral network.

Jacobi's H3 program was implemented in July 2018 and originally consisted of approximately 100 peer support champions (PSCs) who were trained in active listening, reflection, and recognizing signs of distress, as well as how to provide individual peer-support sessions and group debriefs. Between July 2018 and March 2020 (just before the pandemic), the H3 Team conducted sixty-eight 1:1 peer-support sessions and 55 group debriefs.

## Method

The SOH blossomed from the roots of Jacobi's robust H3 program and focused on expanding tiers 2 and 3. During the COVID crisis, the overwhelming need for staff support quickly exceeded the existing H3 team's capacity. As several clinical services began to pare down, and it became clear that our staff was in desperate need of emotional support, some staff members were able to shift some of their responsibilities. Colleagues from Behavioral Health, in addition to a team of committed multidisciplinary dedicated professionals, joined the H3 team and ultimately created the SOH coalition. The team met weekly to strategize, plan events, and evaluate program efficacy. It also served as a venue for committee members, many who were in leadership or administrative roles, to provide mutual support of one another. The SOH coalition had the full support of executive leadership at our local hospital level as well as system wide.

# Ramping Up Efforts/Increasing Our Ranks

Before March of 2020, approximately 100 staff members from various disciplines had been trained to be H3 PSCs. In April 2020, we reached out to all those previously trained and assessed their ability and willingness to continue on in their peer supporter

role. Forty-four of the original team expressed their desire to assist through the current crisis. To that 44, we also added 17 psychologists/psychology interns from the Behavioral Health service to support these efforts.

Eight of our most senior PSCs participated in a 5-part HERO-NY "Train the Trainer" series which was based on military expertise in addressing trauma, stress, resilience, and wellness. This training series was adapted for a civilian audience to support the mental health and well-being of frontline workers affected by the COVID-19 pandemic. This team then provided on-site trainings to the remainder of the PSCs. The sessions focused primarily on psychological warning signs to be aware of while on wellness rounds or through individual or group debriefs. Most importantly, PSCs were trained on stress related symptoms and disorders, grief and loss, different levels of traumas, and suicidal ideations.<sup>24</sup> Staff were given a number of resources, but were asked to refer to our tier 3 resources, if they noticed any concerning symptoms. Having this knowledge and a clear pathway for referring symptomatic staff was key in activating the Behavioral Health Services in-house. For tier 3 support, there were a number of options provided by the NYC Health + Hospitals System, such as employee assistance programs, an anonymous hotline staffed by mental health clinicians, and weekly stressreduction groups. We found, however, that some staff needed a place in house to meet with someone confidentially for support. Our team of psychologists were given explicit instructions on how to assess staff, resources for providing psychoeducation, and permitted to provide support for up to 6 confidential

sessions. An internal expedited pathway to our Outpatient Psychiatry Department was also developed for staff who would clearly benefit from longer-term work.

# **Program Development**

Lahad and Leykin posit that there are 6 different coping styles: Belief, Affect, Social, Imagination, Cognition and Physical, known collectively as the BASIC PH framework (see Table 1).<sup>25,26</sup> To reach the person in need of support, you need to understand their coping style and try to match it. This framework provided a roadmap for the development of the SOH events which aimed to meet the diversity of coping styles and offer myriad opportunities to heal. Figure 1 provides a driver diagram of the elements of the SOH program. To monitor progress, we set a lofty goal of engaging 80% of our staff in an SOH event.

The first event was a candlelight vigil for all staff. The coalition felt that staff needed an opportunity to grieve as a Jacobi community before healing could begin. This was an opportunity to mourn the loss of patients, staff, and community members. The vigil provided the first opportunity for staff to gather in a group with anyone outside of their assigned areas. Tears and a sense of oneness provided the first step toward a journey of healing.

Shortly after the vigil, at the "Strings of Hope" event, staff were invited to write down a hopeful phrase or inspirational thought and hang it in the public atrium of the hospital for their colleagues to see. Music, polaroid pictures, and art supplies helped create the needed levity for this first SOH activity.

Table 1. The Integrative Model of resilience: "BASIC Ph."

	Self-value	Emotions	Role-others organization	Intuition humor	Reality knowledge	Action practical
Appreciation	В	А	S	I	С	PH
Domain	Belief	Affect	Social	Imagination	Cognition	Physical
Examples	Attitudes Beliefs Life-span Value Clarification	Listening Skills Emotions Ventilation Acceptance	Social Role Structure Skills Assertiveness Group	Creativity Play Psychodrama "As-If"	Information Order of preference Problem solving Self-navigation	Activities Games Exercise Relaxation Eating
Summer of hope event	Candlelight vigils Weekly meditations Six-word project Daily rosary recitation	Candlelight vigils One-on-one support Weekly garden chat Wellness rounds	Group debriefs Strings of hope Weekly garden chat Training H3 champions Uniting voices	Mural project Community mural paint party Strings of hope How are you really feeling? Art workshop Dance movement Tie-dye events Movie night Talk 'n Totes	Group and one-on-one debriefs H3 trainings Regular CEO informational emails Daily ethics consultation	Dance movement Uniting voices Regrowth and resiliency potting events Yoga weekly outdoor Garden chat Self-care expos Drumming for wellnes

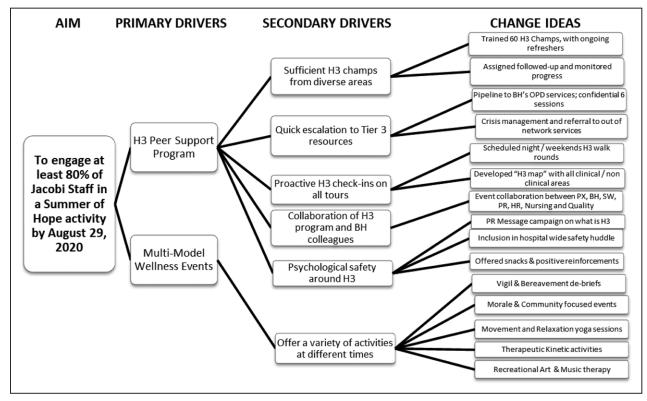


Figure 1. Driver diagram of summer of hope events.

This event was the first of many creative and performance art-based activities offered to staff facility-wide by our creative arts therapists and coalition members. It was followed by music therapy in the form of a sing-along, dance classes, meditation, drumming, a Six-Word project, community mural, and self-care expos (see Table 2).

## Wellness Rounds

Throughout the summer, wellness rounds, in which trained PSCs were deployed to each area of the hospital, provided "in your own space" healing opportunities. To efficiently implement wellness rounds, a map of all departments and their locations in the facility was divided among teams of 2-4 peer supporters. These rounds included frontline staff as well as support staff, such as valet parkers, morgue attendants, and environmental services, because we realized that the impact of COVID was pervasive and affected all staff. For clinical areas, we coordinated with unit leadership to determine best times for rounds that would respect their workflow. PSCs were encouraged to remain flexible in order to adjust to changes in workflow or situation. Wellness rounds were usually conducted with 2 peer supporters equipped with a basket of snacks. The snacks were the ice-breaker and usually an open-ended question was all that was needed to elicit a flow of reactions to the crisis and current state of the world. The rounds became a major way to offer emotional support, provide staff an opportunity to unburden themselves, and allow PSCs to assess overall well-being of the unit. At the conclusion of the visit, units were given a calendar with the upcoming wellness events, and the contact information for their designated PSCs. Staff members who requested, or were determined to need additional support, were offered a tier 3 referral.

#### Results

Between May 17 and August 29, 2020, the H3 team completed 519 encounters (Figure 2) involving 4360 staff members, which represented approximately 85% of the staff that were on-site at the time. Of the total number of H3 encounters, 178 were 1:1 peer-support sessions, 212 were group debriefs, and 129 were wellness rounds or events. During this 15-week period there were 4 times as many encounters as there were during the 2 previous years combined. The approximate cumulative amount of time that the PSCs spent actively involved with staff equaled 270 hours—at no additional cost to the facility.

Table 2. Summer of Hope Events With Descriptions.

Event	Description
H3 peer-support wellness rounds	A casual visitation of staff to "check-in," provide snacks, offer support, and share psychological/emotional health resources. Our goal was to meet Jacobi staff "where they are" and provide a safe space for those who may not actively seek help. Also, to ensure all areas of the hospital were covered and all employees working onsite were approached.
Art project: mural puzzle	A group event of coloring with markers and pastel crayons where staff contributed their individual piece of an art puzzle. Once completed, all pieces were joined to form the words "Stronger Together," an expression of empowerment.
Art therapy: how are you really?	Honest self-expression through creative art. Collages were created by staff using newspaper clippings, magazines and photos, which contained their choice of images and words. The final project was displayed in our main lobby for staff to access, view, and reflect on.
Community check-in	A weekly wellness discussion on topics (eg, sleep, hygiene, nutrition) as well as a safe space for staff to share their thoughts and feelings with our behavioral health psychologists.
Community wall mural	A group event where staff and community members were asked to contribute their ideas to create and install an outdoor mural in a common area on campus. Activities included choosing color themes and images, painting sections of the mural and participating in an unveiling event.
	The installation, which was co-created by a local artist, was meant to inspire viewers to appreciate the beauty of the fragility of life, new beginnings, hope, inclusivity, and joy.
Dance movement for well-being	Mindful movement event with music to promote creativity, emotional expression, connection and self-care.
Drumming for wellness	A group event promoting sharing, expression and stress relief in a semistructured group of music improvisation, with a range of instruments and drums.
Self-care expo	Wellness information based on the self-care wheel and games, exercises and trivia that promoted self-care activities.
Meditation and relaxation sessions	Guided meditation combined with breathing and stretching exercises to promote relaxation and a sense of well-being.
Movie night	A family-inclusive event for staff which involved the outdoor viewing of an animated film. Popcorn, snacks and beverages were provided as well a movie-themed "step and repeat" banner for families to take photos during the event.
"Peace and Love" tie-dye event	A painting event where staff would choose a pattern for their article of white clothing and then apply the tie-dye paint(s) to form a unique image.
Regrowth and resiliency potting event	A gardening event where staff were asked to decorate a flower pot then choose an activity of planting new seeds or transporting young plants to the pot. Decorations included messages of hope, stones, and colorful beads.
Six-word stories	A group event with staff sharing in six words, why they chose a career in health care. Stories were then shared within the group which offered an understanding behind the meaning of the words that she or he chose.
String of hope	Staff were invited to have their photos taken and share a personal message to fellow staff members, which were placed onto decorated cards. The cards were then displayed onto a string that extended across two main areas of the campus. The project was displayed in our main lobby for staff to access, view, and reflect on.
Talk n' Totes Uniting voices sing-a-long	An art therapy event which offered the opportunity for staff to interact with fellow staff and create stencil art using plain tote bags. A musical event for staff interested in either singing along with the group or listening to the music. Participants were given songbooks which contained lyrics to uplifting songs.
Vigil at Jacobi	A candle vigil event to commemorate all lives lost to Covid-19. Staff were invited to light a candle or share their experience of loss with fellow staff who attended.

# Tier 3 Referrals

From the period of April 2020 through November of 2020, there were 27 tier 3 escalations which were captured through direct calls by the PSCs to the H3 leads, or through the H3 intranet webpage, where staff could request additional support for themselves. Staff members were often referred due to self-reported "struggles," anxiety, sleep deprivation, and overall difficulties with the pandemic. Staff demographics

were kept confidential and reflected a variety of disciplines and departments within the hospital. Eightyone percent (81%) of those referred to tier 3 participated in ongoing confidential sessions with psychologists on site, via face-to-face or telehealth. Of those, 23% utilized all of the 6 sessions available to them, and 26% ultimately received a referral for longer-term therapy, or to employee assistance program resources.

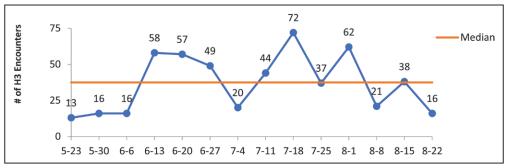


Figure 2. Number of H3 encounters from May to August 2020.

# Impact on Staff

Staff were surveyed on August 21, 2020, immediately after a Community Mural Paint Party. Of the 33 total participants, we collected 31 surveys. One hundred percent of the participants agreed that engaging in the paint party made them feel that they were part of NYC Health + Hospitals/Jacobi team and were appreciative of the opportunity to heal.

A second brief survey using a convenience sample of staff (n = 32) was administered on October 22, 2020, and included these notable findings:

- 94% of respondents reported they "agreed" or "strongly agreed" that the SOH events helped alleviate their stress.
- 90% of respondents reported they "agreed" or "strongly agreed" that the SOH events appealed to them.
- 44% of respondents reported they "agreed" or "strongly agreed" that they had difficulty getting access/time to participate in SOH/H3 events.

# Impact on PSCs

A significant concern was the potential negative impact that an intervention of this nature and magnitude might have on our PSCs, who were simultaneously living through the same stressors of the pandemic that our staff was. On July 8, 2020, PSCs completed a short survey regarding their experience: 100% of respondents (n = 20) reported they were "satisfied" or "very satisfied" with their experience as a PSC.

As the summer turned to fall, we asked our PSCs to reflect upon the impact that the SOH had on them personally. Two of the overarching themes that emerged were how privileged they felt to be part of this program and how they believed it aided in their own healing. A thematic analysis of their responses is summarized in Table 3.

#### **Discussion**

This article describes the approach taken at a large public hospital in the Bronx, one of the hardest hit communities by COVID-19. Through the brainstorming, planning, and execution by the steering committee, behavioral health taskforce, and PSCs, many of the hospital workers were able to participate in one or more of the SOH events. The events spanned various modes of expression including art, music, and talk therapy. Efforts were made to provide events and wellness rounds during various shifts, keeping in mind that our hospital staff members were ever-present working hard to care for patients.

Our hospital staff worked tirelessly during the COVID-19 pandemic to provide high-quality care. The stress and underlying emotional effects of treating patients during a pandemic in addition to fear of contracting COVID-19, isolation from family and friends, and an overall sense of unpredictability weighed heavily upon them. Providing emotional and psychological support was imperative. The H3 program and SOH initiative were a proactive response to the foreseen emotional needs of hospital staff. The multitiered and

Table 3. Themes from Summer of Hope Survey.

Theme	Illustrative example(S)
Sense of camaraderie	"For me the experience was very impactful in seeing how the Jacobi/NCB family came together in dealing with an incredibly difficult time. In a way it not only gave me hope, but restored it as well."
Connection in time of otherwise limited connection	"Summer of Hope for me was about finding human connection in the most chaotic and lonely of times!"  "In many ways participating in 'Summer of Hope' helped me bring meaning to what at times felt like never-ending despair and isolation. Going out and meeting colleagues from departments that I may have never directly crossed paths with before was profoundly touching. We listened to stories of loss and fear but also faith and community. It made me very proud to be part of something that impacted the hospital community so positively. I am proud of my colleagues, especially the Jacobi psychol ogy department. I think 'Summer of Hope' helped us all find purpose during this time when humanity is what we need to lear on."
Ability to provide support to others	"The Summer of Hope was an opportunity to provide support to and connect with our resilient colleagues. It was a privilege to contribute to their healing and bear witness to their process."  "To me, The Summer of Hope Program means a chance for us to focus on our humanity and not the insanity. To remember that health care is all about people and we need to be there for each other so we can be there for the patients. I have really enjoyed seeing staff delighted to see us come back consistently, with a basket of goodies and an open ear to listen."  "The Summer of Hope for me was bringing smizes to the second floor."
A moment of respite	"Seeing my colleagues smile and let out a breath during a Summer of Hope activity helped boost my own hope and healing."
Sense of normalcy	"My Summer of Hope has been a summer of transformation, moving toward our new normal and reflecting on all we've experienced and accomplished with our Jacobi family."
Renewed feelings of hope	"Hope is Stronger than Fear. Love & Togetherness is stronger than any virus." "From my own despair, I found hope again-by helping others"
Opportunity to reflect on accomplishments and appreciation of staff	"The summer of hope has been a way for me to say thank you and show appreciation for all the hard work and dedication of all the varied Jacobi staff. "

multimodal approach charged the effort to provide support to as many staff members as possible in a way that felt comfortable and authentic. Despite the increased challenge of providing hospital-wide emotional care, PSCs made time, in addition to their normal responsibilities, to respond to the call to action. The result was a comprehensive emotional support program that provided various opportunities for staff to grieve, heal, and connect during a difficult time.

# **Successes**

The success of our program was due to the collaboration between multiple disciplines and their mutual support of each other, the team's inventiveness, ingenuity, and ability to think outside of the box, the full support of executive leadership at the local and system-wide level, and most importantly, the willingness of the PSCs to be so generous with their time. Building upon an already established program and utilizing existing resources by creatively redeploying staff allowed the program to be essentially cost neutral.

In addition to providing staff with multiple opportunities to decompress, express themselves and support one another, a major success of the SOH was to destigmatize the acceptance of mental health support for healers. Studies have shown that it can be difficult for HCWs to discuss their struggles with emotional wellness due to feelings of shame or failure. There also continues to be a great deal of stigma associated with mental health struggles within the health care field. Through wellness rounds, self-care programs, weekly debriefings and other events, emotional wellness was normalized and became part of the conversation throughout the summer. There was a shift from reactive emotional support to a culture of overall mental wellness across the hospital.

# Challenges

Although best efforts were made, hospital-wide support of staff came with challenges. During a pandemic, finding time to decompress, attend events, and connect with others sometimes felt burdensome. Although staff were highly encouraged to attend events they often reported that they did not have time to leave the unit or did not have the emotional capacity to reflect on their feelings during the workday. In addition, PSCs and the steering committee had to be creative in planning and executing events in order to maintain social distancing guidelines and keep everyone safe. PSCs made extraordinary efforts to connect with as many staff members as possible, which meant visiting units and office spaces regularly and building a bridge to other wellness events

in the hospital. The wellness rounds were a significant aspect of the SOH because it allowed staff to become familiar with the PSCs in an informal yet memorable way. Research has shown that staff resilience can increase if workers feel they have access to support from people they have pre-existing connections with, which means they are more likely to reach out for help in a more formal way.<sup>29</sup> Last, because we wanted to maintain a sense of psychological safety for our staff, we did not have them "sign-in" during any of our events or sessions. Therefore, although we have an overall tally, it was difficult to discern whether staff participated in more than one event.

### **Lessons Learned**

At the onset of our program, it was important for staff to feel heard and validated in order to gain their buy in. We quickly discovered that the pandemic affected *everyone*, though in different ways and that staff wanted to talk and needed to grieve, but it had to be on *their* terms. Follow-up was necessary as people who said they were "fine" were not always, requiring the PSCs to frequently loop back and checkin. Finally, consistency helps build trust, which in turn has provided a foundation for long-lasting networks of support between the PSCs and our staff.

#### **Future Direction**

Despite the fact that the intensity of the pandemic has begun to subside, it is clear that our staff have still not recovered, either physically or emotionally, and that our efforts to support them must continue. Between September 25 and November 1, 2020, staff were asked to complete a Caregivers Survey designed to assess Coping with COVID-19. Of 589 participants: 30% categorized the stress that they are currently experiencing as high or very high; 36% indicated that due to the impact of COVID-19, they were experiencing anxiety or depression to a moderate or high degree; and 42% stated that they were experiencing work overload to a moderate or high degree. In addition, 65% were very concerned or highly concerned about contracting COVID-19 and 76% were very concerned or highly concerned about a second wave.

#### Conclusion

Findings from this quality informed wellness program underscores the importance of hospital organizations and its administrators to fund and invest in policies and programs that promote wellness among its health care workforce. A proactive approach can

reduce not only the emotional burden associated with the pandemic but the subsequent financial loss linked to staff attrition and unintentional malpractice. A multimodal approach will ensure that health care employees will feel valued and empowered to carry on their heroic efforts and will aid in destigmatizing mental health care which is paramount given a pandemic whose toll may be felt far into the future.

#### **Acknowledgments**

The authors gratefully acknowledge the contributions of all of the SOH PSCs and Coalition members listed below as well as the heroic efforts of all of our direct and indirect caregivers during the height of the COVID-19 pandemic. John Arbo, Katherine Bell, Shani Bennett, Asher Bercow, Leora Botnick, Yvette Carrasquillo, Jacks Cheng, Kate Chittenden, Maureen Connaughton, Edward Conway, Jill Corbo, Edgar Cruz, Barbara DeIorio, Geretha Diamond, Hippolytus Duru, Bimbla Felix, Molly Findley, Ryan Fraleigh, Helene Geramian, Justine Gervacio, Richard Hill, Ilyssa Kaplan, Donnette Kelly, Toni Knight, Kathy Lospinuso, Sarah Luem, Rosemarie Mason, Natasha Mceachin, Sun McGuirk, Anjoinette Minors, Noman Mohamed, Michael Moore, Tanya Moore-Murray, Joshua Moskovitz, Kathi Mullaney, Nery Munoz, Varsha Narasimhan, Michael Paciullo, Michael Palumbo, Gorda Peters-Joseph, Margarita Pirela, Elmira Raeifar, Kirsten Roberts, Betty Rodriguez, Adam Rossi, Valerie Salgado, Richard Scardino, Shellyann Sharpe, Kara Simpson, Victoria Sliva, Shira Spiel, Mengyang Sun, Marguerite Tirelli, Aisha Warner, Sherva Weiss.

#### **Conflicts of Interest**

The authors have no conflicts of interest to disclose.

#### References

- 1. Pfefferbaum B, North CS. Mental health and the covid-19 pandemic. *N Engl J Med*. 2020;383:510–512.
- 2. Dzau VJ, Kirch D, Nasca T. Preventing a parallel pandemic—a national strategy to protect clinicians' wellbeing. *N Engl J Med*. 2020;383:513–515.
- Feingold JH, Peccoralo L, Chan CC, et al. Psychological impact of the COVID-19 pandemic on frontline health care workers during the pandemic surge in New York City. Chronic Stress (Thousand Oaks). 2021;5:2470547020977891.
- 4. Vanhaecht K, Seys D, Bruyneel L, et al. COVID-19 is having a destructive impact on health care workers' mental wellbeing. *Int J Qual Health Care*. 2020:mzaa158. doi: 10.1093/intqhc/mzaa158. Epub ahead of print. PMID: 33270881.
- 5. Shechter A, Diaz F, Moise N, et al. Psychological distress, coping behaviors, and preferences for support among New York health care workers during the COVID-19 pandemic. *Gen Hosp Psychiatry*. 2020;66:1–8.

- 6. Hall H. The effect of the COVID-19 pandemic on health care workers' mental health. *JAAPA*. 2020;33:45–48.
- 7. Pappa S, Ntella V, Giannakas T, et al. Prevalence of depression, anxiety, and insomnia among health care workers during the COVID-19 pandemic: a systematic review and meta-analysis. *Brain Behav Immun*. 2020;88:901–907.
- 8. Sheraton M, Deo N, Dutt T, et al. Psychological effects of the COVID 19 pandemic on health care workers globally: a systematic review. *Psychiatry Res.* 2020;292:113360.
- 9. Carmassi C, Foghi C, Dell'Oste V, et al. PTSD symptoms in health care workers facing the three coronavirus outbreaks: what can we expect after the COVID-19 pandemic. *Psychiatry Res.* 2020;292:113312.
- Shreffler J, Petrey J, Huecker M. The impact of COVID-19 on health care worker wellness: a scoping review. West J Emerg Med. 2020;21:1059–1066.
- 11. Spoorthy MS, Pratapa SK, Mahant S. Mental health problems faced by health care workers due to the COVID-19 pandemic-a review. *Asian J Psychiatr*. 2020;51:102119.
- Kisely S, Warren N, McMahon L, et al. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on health care workers: rapid review and meta-analysis. *BMJ*. 2020;369:m1642.
- 13. Williamson V, Stevelink SAM, Greenberg N. Occupational moral injury and mental health: systematic review and meta-analysis. *Br J Psychiatry*. 2018;212:339–346.
- 14. Greenberg N, Docherty M, Gnanapragasam S, et al. Managing mental health challenges faced by health care workers during COVID-19 pandemic. *BMJ*. 2020;368:m1211.
- Blumberg DM, Giromini L, Papazoglou K, Thornton AR. Impact of the HEROES project on first responders' well-being. J Commun Saf Well-being. 2020;5:8– 14.
- 16. Simons B, Mancuso M, Dee M. Workforce well-being at Kaiser Permanente. *Am J Health Promot*. 2020;34:115–116.
- 17. Scott SD, Hirschinger LE, Cox KR, et al. The natural history of recovery for the health care provider "second victim" after adverse patient events. *Qual Saf Health Care*. 2009;18:325–330.
- 18. Scott SD, Hirschinger LE, Cox KR, et al. Caring for our own: deploying a systemwide second victim rapid response team. *Jt Comm J Qual Patient Saf.* 2010;36:233–240.
- 19. Hall LW, Scott SD. The second victim of adverse health care events. *Nurs Clin North Am.* 2012;47:383–393.
- 20. Scott SD, McCoig MM. Care at the point of impact: insights into the second-victim experience. *J Healthc Risk Manag.* 2016;35:6–13.
- 21. Pratt S, Kenney L, Scott SD, et al. How to develop a second victim support program: a toolkit for health

- care organizations. Jt Comm J Qual Patient Saf. 2012;38:235-40, 193.
- 22. Seys D, Wu AW, Van Gerven E, et al. Health care professionals as second victims after adverse events: a systematic review. *Eval Health Prof.* 2013;36:135–162.
- 23. Wu AW. Medical error: the second victim. The doctor who makes the mistake needs help too. *BMJ*. 2000;320:726–727.
- 24. Wei EK, Segall J, Linn-Walton R, et al. Adapting Department of Defense Combat Lessons Learned to Civilian Health care during the COVID-19 Pandemic. *Health Security*. 2020;18:355–359.
- 25. Lahad M. From victim to victor: the development of the BASIC PH model of coping and resiliency. *Traumatology*. 2016;23:10.1037/trm0000105.

- 26. Lahad M, Leykin D. The integrative model of resiliency: BASIC Ph, or what do we know about survival? In Ajdukovic D, Kimhi S, Lahad M, eds. *Resiliency Enhancing Coping With Crisis and Terror*. IOS Press, 2015:71–91.
- 27. Galbraith N, Boyda D, McFeeters D, Hassan T. The mental health of doctors during the COVID-19 pandemic [published online ahead of print, 2020 Apr 28]. *BJPsych Bull*. 2020;1–4. doi:10.1192/bjb.2020.44
- 28. Henderson C, Noblett J, Parke H, et al. Mental health-related stigma in health care and mental health-care settings. *Lancet Psychiatry*. 2014;1:467–482.
- Maunder RG, Leszcz M, Savage D, et al. Applying the lessons of SARS to pandemic influenza: an evidence-based approach to mitigating the stress experienced by health care workers. Can J Public Health. 2008;99:486–488.