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Creative arts intervention to reduce burnout and decrease psychological distress in healthcare professionals: A qualitative analysis

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ABSTRACT

Creative arts therapy (CAT) can potentially mitigate the unprecedented levels of healthcare professional (HCP) burnout that have been exacerbated by the COVID-19 pandemic. However, empirical evidence about the impact of CAT programs is lacking. We conducted focus groups with HCPs (N = 20) who participated in a 12-week CAT clinical trial to enhance the understanding of the effectiveness of the intervention. For HCPs experiencing burnout and psychological distress, our CAT program supported healing and resiliency through building a sense of community. Participants reported that several programmatic components contributed to this sense of community including: 1) diversity of participants' disciplines, roles, and geographic locations; 2) physical separation between the conduct of the CAT program and their primary place of employment; 3) facilitator skill; 4) collectively contributing to a group project; and 5) being pushed out of their "comfort zone" through the creative activity. Although participants described the particular need for the CAT program in light of additional stressors induced by the COVID-19 pandemic, they believed that this program would have been beneficial pre-pandemic and in the future. To build long-term resiliency, participants suggested that CAT interventions should continue after the 12-week program.

Introduction

The COVID-19 pandemic has been associated with unprecedented levels of burnout among healthcare professionals (HCP) (Ferry, Wereski, Strachan, & Mills, 2021) accelerating the need to prevent and treat HCP burnout. Prior to the COVID-19 pandemic, concerning levels of burnout among HCPs already existed due to excessive workload, lack of support, lack of work-home integration, loss of control, and loss of meaning from work (West, Dyrbye, & Shanafelt, 2018). Given that COVID-19 was a novel virus, HCPs faced an unprecedented amount of stress due to isolation protocols and quarantine recommendations (Sethi, Sethi, Ali, & Aamir, 2020). Additionally, the lack of personal protective equipment, fear of exposing family members to the virus, and exposure to an overloaded healthcare system increased risk of psychological distress for HCPs (da Silva & Barbosa, 2021). Since the beginning of the COVID-19 pandemic, even higher levels of burnout among HCP have been reported (Lluch, Galiana, Doménech, & Sanso, 2022) due to exposure to COVID-19 patients, perceptions of being pushed beyond training, and making life prioritizing decisions (Morgantini et al., 2020). These factors have led HCPs across the world to leave employment in healthcare (Jeleff, Traugott, Jirovsky-Platter, Jordakieva, & Kutalek, 2022), causing widespread HCP shortages.

Prior research has emphasized the need to mitigate burnout (Nyashanu, Pfende, & Ekpenyong, 2022), but few proven therapies to specifically treat and prevent this type of prolonged work stress in HCP exist (Pospos et al., 2017). Some studies suggest that protective factors

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including resilience, social support, participating in interventions designed to reduce burnout (Lluch et al., 2022), and community building (Chi & Chi, 2013) can reduce and prevent burnout. In this study, we define resilience as the capacity for HCPs to utilize resources that sustain wellbeing in culturally meaningful ways (Ungar, 2008).

Creative arts therapy (CAT) has been identified as a beneficial intervention to mitigate and prevent HCP prolonged stress that focuses on increasing resilience (Gerge & Pedersen, 2017). CAT is administered by professionals who use art-based methods and creative processes to increase health and wellness (National Coalition of Creative Arts Therapies Associations, n.d.). Examples of CAT include art therapy, music therapy, and dance/movement therapy as discussed in this study. Through CAT, individuals can explore and share in visual, musical, physical, or written form. CAT invites participants to identify workplace trauma and its effects on the physical, psychological, and emotional systems. The consecutive workshops are designed specifically to maximize social support with colleagues to process and normalize traumatic effects, both vicarious and residual, and to develop coping mechanisms to reduce isolation (Reed et al., 2020). Individual artworks, writings, movements, and musical expressions become modes of communication for difficult experiences, allowing participants to find language for, and supporting each other through, vulnerable disclosures. Thereby, new communities of support are created as participants often develop new, more compassionate perspectives.

Previous work has demonstrated how CAT can be of particular benefit to HCPs. For example, extant research shows that creating mandalas can promote reflection on HCP's current psychological state (Potash, Chen, & Tsang, 2016) and that group CAT involving the creation of a collaborative project can decrease HCP burnout (Nainis, 2005; Salzano, Lindemann, & Tronsky, 2013). Other studies have shown that art therapy support groups can improve stress management around occupational concerns for pediatric hospital employees and oncology care teams (Kometiani, 2017; Nainis, 2005). However, these studies focused on HCPs in particular roles or settings (e.g., hospice staff, oncology nurses, medical students), rely on anecdotal evidence instead of standardized tools or methods (Huss & Sarid, 2014; Schnitzer, Holttum, & Huet, 2021), and were not specifically intended to address HCP burnout. Additionally, the literature has noted lack of randomization within CAT interventions as a limitation that the CAT intervention we conducted filled (Potash, Ho, Chan, Wang, & Cheng, 2014). Further, many of these studies were conducted prior to the COVID-19 pandemic. In this study, we aim to fill this gap by examining the impact of a standardized CAT intervention that was available to HCPs across settings and roles who reported experiencing high levels of burnout, and contextualizing those findings within the COVID-19 pandemic.

Following our performance of a CAT clinical trial for HCPs, we conducted post-intervention focus groups to better understand the impact of the CAT program on HCP experiences of burnout and long-term resiliency – (Moss et al., 2022). Specifically, this study explored 1) how to enhance our CAT intervention, 2) the impact of the CAT intervention in the context of the COVID-19 pandemic, and 3) how resilience impacts CAT interventions.

Methods

Study design and participants

The Colorado Resiliency Arts Lab (CORAL) conducted a randomized trial of healthcare professionals with symptoms of burnout to determine the feasibility and acceptability of a CAT program. Participants were recruited from several metropolitan hospitals across the Denver area. The trial was approved by the lead author's Institutional Review Board and registered to clinicaltrials.gov: NCT04276922 on February 19th, 2020.

The design and outcomes of the CORAL trial have been previously reported (Moss et al., 2022). The interventions were developed by our creative arts therapists and writing experts using an iterative process. Draft protocols were also reviewed by external experts in the field and were revised accordingly.

Participants engaged in either visual art, music, dance/movement, or creative writing during the 12-week intervention. In the visual art group, participants were provided with various art supplies (oil pastels, watercolors, sketchbooks). They practiced using these supplies to depict personal and professional experiences, with a focus on their emotional impact, to then share with the members of the group. The facilitators of the visual arts group had various credentials including License Professional Counselor, Doctor of Education, and Board-Certified Art Therapist (ATR-BC). The music group consisted of music listening, music playing, and music directives. The facilitator was a Licensed Professional Counselor and a Board-Certified Music Therapist (MT-BC). The creative writing group focused on timed freewriting and journaling exercises to help participants iterate their experiences in healthcare. The writing facilitator holds a Master of Fine Arts and had formal training around the protocol's therapeutic interventions. The dance/movement group participants started with low-impact physical warm-up and relaxation techniques and explored nonverbal storytelling and co-created choreography around healthcare themes. The facilitator was a Licensed Professional Counselor and Registered Dance Movement Therapist (R-DMT).

All modalities followed a standardized plan to address safety, vulnerability, and community. The first four sessions focused on safety by utilizing the specific modality to introduce group members to each other, formulate agreed upon group expectations, and maximize social benefit from authentic emotional expression. Weeks five through eight focused on vulnerability and encouraging resilience. Weeks nine through twelve utilized the creative modality to integrate what they learned and collaboratively create a group project as the intervention's final deliverable. The visual art group created a final booklet of each members' art work, the writing group created a final anthology, the

Fig. 1. Visual art piece by a CORAL participant, titled "The Storm Matrix".

12 HOURS

As soon as I walked into the unit, I could hear multiple call lights and patient monitors alarming. Nurses scurried from room to room, soothing patients with quiet voices. It was a scene of tightly controlled chaos.

"Oh boy," I thought. "It's going to be one of those days."

One of my patients had a massive growth on his neck and required intubation to protect his airway because the grapefruit-sized tumor affected his ability to breathe. Surgeons attempted to resect, leaving him with an incision under his chin stretching from ear to ear. Staples held it together, looking like a disturbing smile from a jack-o'-lantern. I introduced myself as his nurse, and he smiled a huge chimpanzee grin at me and flapped his hands and greeting. I asked him how he felt, and he pantomimed a frowny face, pointing at his endotracheal tube. I asked him if he was thirsty, and he nodded his head vigorously.

"Be careful of your breathing tube," I said. "You have a lot of swelling in your throat, so it must stay in place." He nodded solemnly in agreement then promptly reached for his tube to try and pull it out.

My other patient appeared skeletal, his skin drawn tightly against the bones of his face and his hospital gown hanging loosely around his thin frame.

"My name is Shala," I said. "I will be your nurse today."

"What?" He bellowed at me. "I don't have my hearing aids. I can't hear very well."

"My name is Shala," I yelled. "I will be your nurse today."

"Did you say your name is Cheryl?" He screamed at me.

"It's Shala," I responded.

"Shirley?" He yelled.

"Shala," I screamed. "Like Shala-la."

"Oh, I got it," he said. "It's Charlotte." I just shrugged my shoulders, nodding in agreement. Charlotte, it was.

"Hey, Charlotte," he yelled. "I think I have to poop. I have an infection that makes me poop a lot." I mentally sighed but smiled at him while helping him onto the commode.

I walked up to the front nurses' station and cornered the charge nurse and resource nurse. They cringed when they saw me approach, physically bracing themselves for what I was about to say. In my mind, I thought, "You have got to be fucking kidding me! Do you hate me? Are you trying to kill my patients?" Instead, I mentally arranged my thoughts and forced my face to relax. "I am worried about my patient assignment," I said in a neutral voice. "I do not think it is safe. My patients are split across the unit. Bed 119 is weaning, is on a sedation vacation and is at risk for self-extubation, and bed 306 has C-diff, and his pressures are soft."

They looked relieved when I didn't yell at them. "Oh my God, Shala, we know, and we are so sorry; we had no other option." The three of us decided that charge would call the nursing supervisor to try to get more help, and resource would try and watch my patients when she wasn't helping the other 23 patients on the unit.

My intubated patient pressed his call light. When I walked into his room, he pointed toward his notepad and pen. Peering over his ET tube, he stuck out his tongue with intense concentration and laboriously wrote me a message. He grasped the pen and fumbled with it, then proudly handed me the paper. "I don't know if it is a fart or solids."

"Do you need to be cleaned up?" I asked. He nodded his head in agreement and wiggled his butt at me like a happy dog while I cleaned his backside.

The doctors lined up outside his room, peering at his naked form. Everyone stopped at the threshold for the required squirt of hand sanitizer before filing into the room. The medical student proudly recited the pertinent medical facts, including lab abnormalities, medical history, hospital course since admission, and care plan. Each doctor chimed in, stating something that sounded impressive but meant absolutely nothing to the patient, and they somehow managed to forget the nurse entirely. The pulmonary attending made eye contact with me and said, "Hey guys, I think we forgot something." The team looked at their notes quizzically, not understanding. The pulmonary attending sighed. "We should probably hear from Shala before we leave."

At that moment, a robotic announcement came over the intercom: code blue, K-3, room 103. The doctors sprinted out the door, and I saw the charge nurse and resource nurse rush off the unit.

Fig. 2. Creative writing piece by a CORAL participant, titled "12 h".

When I checked on my other patient, his blood pressure was 70/40, and he said he felt lightheaded. I called the team but couldn't get through to anyone because they were at the code blue. I started some IV fluids to stabilize him, and I called the nursing supervisor to see if we could get any extra help.

"Hey, this is Shala, a nurse in the ICU. I'm calling to see if we can get any help up here."

"Why do you need help?" The nursing supervisor asked. "Can your charge nurse or resource nurse help?"

I told her both are at the code blue.

"Can your educator help?" She asked.

"Our educator has a full patient load already," I said.

"Can your manager help?"

"She got floated to the ED to help swab Covid patients," I said.

"Why do you need more help anyway?" She asked.

"I have a patient who is at risk for self-extubation, and my other patient is going to need a central line and pressers, so I need someone to watch my intubated patient."

"Don't you have CNAs to help you?" She asked.

I reminded her that the ICU was not allowed to have CNAs.

"Well, we don't have anyone to float to you," she said.

I mentally sighed, wondering why she didn't just say that in the first place, but I thanked her politely before hanging up.

When the doctors got back to the unit, I told them I started fluids and sent blood cultures on bed 306, but we would probably need better access. One central line, one arterial line, two vasopressors, and three bowel movements later, I was finally able to leave the room. As I walked toward 119, the pulmonary attending stopped me in the hall. "Hey, just so you know, your other patient is fine."

"That's good," I said. "I was just coming to check on him."

"Oh shoot," he said, "you don't know. He self-extubated during the code blue."

As I peered into the room, I could hear the ventilator alarming and see my coworkers putting oxygen on my patient. My jaw dropped, and my eyes filled with huge alligator tears. "Gah," I said.

“Oh my God," he said, "it's OK. Why don't you go eat some lunch, and we will watch your patient?"

I was secretly grateful to have the break room to myself so no one would witness my tears slowly dripping into my soup. I miserably ate my lunch, feeling that I had somehow failed despite trying my best.

Afterward, I walked into room 119 and pointed my finger at him. "I heard you were a troublemaker. How do you like having that breathing tube out?" He smiled at me smugly, raised both of his arms above his head, shaking them in victory, and then gave me a fist bump.

"I hated that damn breathing tube," he croaked at me. "Can you help me call my wife? I haven't talked to her in two weeks." As I left his room, I could hear him crooning into the phone as he talked to his wife of 40 years.

When I checked on my other patient, his blood pressure has stabilized, and he was resting comfortably in bed.

“I wanted to say goodbye before leaving,” I said.

“What?” He yelled at me. “I can't hear you.”

"I wanted to say goodbye," I yelled at him.

“Thank you for everything you've done,” he screamed back at me.

“It was my pleasure,” I yelled back at him.

“What?” he said.

I shrugged at him but placed one of my hands on his shoulder. His face relaxed in understanding, and he reached up to squeeze my hand before gently touching my face. “You are a good nurse!” he yelled.

Fig. 2. (*continued*).

music group created a final song, and the dance/movement group created a final interpretative dance. Figs. 1 and 2 present examples of participants' contribution to the intervention's final deliverable, visual arts and creative writing respectively. An example of a HCP visual arts creation can be found in Fig. 1, an example writing sample can be found in Fig. 2.

The overall goal of the clinical trial was to allow participants to be randomized to the specific intervention that they felt would be a best fit for them whenever possible instead of identifying differences between the four modalities. At the end of the intervention, participants were encouraged by their facilitator to continue the creative art modalities they learned through the program.

Data collection

We recruited participants who had completed at least 9 of the 12 CAT

intervention sessions, as we wanted participants who had sufficient exposure to the intervention to provide accurate feedback of the program. Participants were contacted via email in November of 2021. We used purposeful sampling to recruit participants across different cohorts, modalities, and professional roles. Participants provided written informed consent and were compensated $25 for their time in the form of an electronic email gift card.

Focus groups were conducted by study personnel with qualitative training (CT, CG) via Zoom videoconferencing software and lasted approximately 90-minutes. Both interviewers were not involved in the CAT trial, which was a limitation listed in previous CAT qualitative literature (Huet & Holttum, 2016). We used a semi-structured focus group guide that reflected our primary research questions, including 1) program feedback to enhance the CAT program 2) the impact of the program on HCP participants and 3) understanding the role of building resilience. Focus groups were audio-recorded and professionally transcribed.

Data analysis

Study members with qualitative training (CT, CG, KT) analyzed the interview data using content analysis (Hsieh & Shannon, 2005). First, a list of codes, or descriptors that captured the concepts and ideas discussed in the interviews, was developed from multiple rounds of reading the transcripts. The codes were then applied to every interview transcript. To ensure coding consistency during this phase, a subset of the coded transcripts were re-reviewed by an alternate member of the study team. Coded data was analyzed within and across cases to identify major themes, with the team meeting frequently to discuss emerging patterns (Saldaña, 2021). Quantitative data are presented as median and 25–75 % quartiles. Analytic memos were used to summarize transcripts, record salient themes and quotes, and describe impressions. Atlas.ti software (version 9.0) was used to facilitate data management. We used investigator triangulation (multiple investigators with multiple areas of expertize) to establish the trustworthiness of our findings (Denzin, 2017).

Results

Overall, 20 HCPs who had completed the CAT intervention, participated in the focus groups. Participants included nurses (n = 14), social workers (n = 2), physicians (n = 2), and other HCPs (n = 2). Participants were employed in 7 different units across four metropolitan hospitals. Their primary units of work included Intensive Care Unit, Inpatient Psychiatry, Emergency Department, Operating Room, Outpatient, Medical/Surgical Inpatient, and Obstetrician-Gynecology. The median age of participants was 38.5 [28–60], and participants were largely white (n = 19) and non-Hispanic or Latino (n = 18). The median number of years working in healthcare was 12 [2–39]. Full participant demographics can be found in Table 1.

For HCPs experiencing burnout and psychological distress, our CAT program supported healing and resiliency through building a sense of community. Participants reported feeling disconnected from others during the pandemic, but the CAT program gave them space to feel less alone. We found that four programmatic components of the program contributed to this sense of community, including 1) diversity of participants' disciplines, roles, and geographic locations; 2) physical separation between the conduct of the CAT program and their primary place of employment; 3) facilitator skill; and 4) being pushed out of their "comfort zone" through the creative activity. In the following sections we describe how each of these components promoted healing among participants by fostering a sense of community. We highlight how these components contributed to participants' resiliency during COVID and make suggestions for future CAT interventions that aim to address HCP burnout beyond the pandemic. Additional quotes from participants regarding how the program supported healing and resiliency through building a sense of community can be seen in Table 2.

Table 1
Demographic characteristics of healthcare professional participants.

	Focus group 1	Focus group 2	Focus group 3	Focus group 4	Total	
					n	%
Gender						
Female	3	6	4	5	18	90
Male	1	0	1	0	2	10
Occupation						
Nurse	3	5	2	4	14	70
Doctor	0	0	2	0	2	10
Social Worker	0	1	1	0	2	10
Other HCP	1	0	0	1	2	10
Cohort						
Cohort 1 (September '20–November '20)	1	0	0	2	3	15
Cohort 2 (January '21–March '21)	1	2	3	2	8	40
Cohort 3 (May '21–July '21)	2	4	2	1	9	45
Modality						
Creative Writing	0	1	4	0	5	25
Dance/Movement	1	1	0	1	3	15
Music	3	1	0	1	5	25
Visual Arts	0	3	1	3	7	35

Diversity among participants

Participants repeatedly described how diversity of roles within each group was a key factor in developing a sense of community. The CAT program included HCPs from various hospitals, units, and occupations. Participants valued seeing the degree to which their experiences were shared with others across roles and locations. As one participant explained:

> *"I like [including] multiple disciplines. I felt like I got a lot from hearing other perspectives. I think that was also part of what made me feel less alone, because I was like okay, it's not just nursing, this is an across the spectrum thing, and we can all support one another."*

Diversity among CAT participants also fostered a sense of community by improving participants' appreciation for various HCP roles. For example, some participants described that the CAT program disbanded the medical hierarchy – or the social ranking of health professions – and helped them empathize with all HCPs rather than just others who shared the same role. Participants described how this sense of community alleviated stress and burnout by showing HCPs that they were not alone in their trauma, and enabled members of each CAT group to establish supportive, bonded groups. Additionally, participants stated that it was easier to share their work-related concerns when other members of their group did not work in the same field or team. Many shared how healing it was to feel connected to and understood by a range of HCPs – particularly during periods of isolation and trauma during the COVID pandemic.

> *"I think that, in challenging situations that you have across discipline, there's sometimes that feeling that one role doesn't care about the other role. I think, if anything, I definitely care more about the other roles. Really honing in on the fact that we are all in this [pandemic] together. I am still carrying that through my daily work."*

Separation between the CAT program, work, and home

A second feature of the CAT program that participants felt contributed to the sense of community within their groups was the location of the sessions. Given that each CAT group included participants across multiple organizations, the sessions were conducted in a central location

Table 2
How a CAT program supported healing and resiliency through building a sense of community: main themes and example quotes.

Main finding	*Summary*	*Example quote*
Diversity of Participants' Roles & Geographic Locations	CAT intervention groups included participants from various professions and hospitals. This minimized the medical hierarchy, made participants feel less alone and made them feel more comfortable sharing than they would have with coworkers.	"I think it's really important to [include] all provider roles because it takes you out of whatever box you put yourself in, in your role as maybe a child life specialist, or nurse, or physician. Echoing someone else's words earlier about understanding that you weren't alone in any of this. Hearing it from different parts, from different roles, that was incredibly helpful for me."
Physical Separation between CAT program & primary place of employment	CAT intervention sessions were held at a non-clinical setting away from participants' employment. Participants reported that this made them feel safe being vulnerable.	"I liked the location, something that wasn't clinical. It wasn't even super classroom-like. It was a very comfortable environment. Then, at certain times during the session, other groups were there, they'd be leaving or coming in. There were other things going on, and it somehow encapsulated creativity from so many places. While you can't, technically feed on that, it did sort of feel like a little fountain of creativity somehow."
Facilitator skill	The CAT facilitators played a vital role in the perception of the program. These trained facilitators helped participants feel more comfortable being vulnerable and creative.	"I was really impressed with our facilitator. I do think having the right facilitators is really important. He was very skilled. I really appreciated that because I appreciate people who bring a really great skill set to their work."
Being pushed out of participant "comfort zone"	Participants described how being pushed out of their comfort zone through the creative activity was beneficial.	"I was happy to go try it out and was really glad I did. It was really probably a better experience for me because it was outside of my comfort zone and reignited a passion I [had] for music when I was younger, playing piano and doing various things. It was just great in that way."

away from the participants' employment. Although participants reported that they did not feel any stigma or shame in sharing their CORAL experiences with other HCP coworkers or supervisors, they felt more creative and comfortable being vulnerable in CAT sessions when they were not physically at work.

> *"Nobody had the same job in the same department in our group, which was pretty cool. I think it was nice for us to have an offsite location because there were many of us in our group who were going through some very, very difficult things at our workplace, and I don't think that we would have been able to open up in the same way that we did had we been at that workplace."*

In addition to fostering a sense of safety within the group by holding CAT sessions away from work, participants also discussed how the sessions provided a safe space to talk to other HCPs away from home. For example, many participants reported that discussing work-related trauma with family members or friends was challenging because they did not "get it." One participant explained how members of her group related in a way that her family could not:

> *"At the time that I was in the group, I [thought], 'I think I'm losing my mind. I think I want to go buy a farm in Costa Rica.' Anyone in my family who I mentioned that to [said], 'You need to ride this out. It's gonna be okay. I can't imagine you being anything but a doctor. You've worked so hard at this. This is who you are.' Every single person in [the CAT] group that we were in was like, 'That's a great idea. We're gonna come with you.' …Literally any other healthcare worker knew exactly where I was and what I was going through or at least could relate to it, and literally anyone else could not. It was really nice, having not a group of coworkers, but a group of people who understood."*

However, participants reported that the CAT program helped them bridge the gap between themselves and loved ones who did not work in health care by giving them something positive to talk about (i.e. participation in a program that makes them feel better) and language to convey their hardships.

> *"I enjoyed [calling] my mom or my aunt on my way home and [telling them] 'I had this nice window of time to just put aside and do this. It was specific to healthcare [and] our mental health and trying to help with burnout'. I don't know about you guys, but friends and family are probably real sick of hearing about that. It was a nice refresh to be able to tell them something positive, that we're trying to help alleviate some of that stress."*

Facilitator skill

A third component of our CAT program that contributed to participants' sense of community was the perceived strength of the facilitators. As licensed creative arts therapists with mental health experience, these practitioners incorporated skill sets that are primary to their roles. Importantly, facilitators helped participants realize that the creative process is natural and accessible rather than relegated only to those with "skill or talent", which fostered an environment of emotional safety.

> *"I was never a creative artistic type of person. I never really did anything like that…It was just nice to be in a safe group where it doesn't matter what it looks like, just put something on the paper."*

Participants felt that facilitators were so integral to the effectiveness of the CAT program – and the healing that each participant experienced as a result – that many described how difficult it was to maintain what they learned independently once the 12-week CAT program ended. Facilitators fostered community within each group, and participants felt that being part of the group was therapeutic. For example, participants valued working together to create a collective project at the end of the program:

> *"One of the helpful things for us and our group was we had a project at the end, so we were building up to something, and there was a structure that was laid out. We didn't have any idea where it was going completely, but we had something to work up towards. I thought that was helpful and building our relationship obviously within our group leading up to our final project, that was really helpful."*

Across all focus groups, participants reported struggling to maintain the skills they learned because much of the benefit centered on the group interaction that facilitators led during the program. Participants felt that continuing either creative arts or group therapy independently did not confer the same degree of peace and resiliency they experienced while attending the CAT program weekly. Even for those who attempted to maintain contact with their group, having to shoulder the responsibility of organizing and directing their own creative arts therapy group felt too

burdensome to offset any potential benefits.

Getting out of "the comfort zone" with creative expression

The fourth aspect of the CAT program that fostered community and healing was participants' unfamiliarity with creative expression in a group context. They described how expressing themselves in front of the group pushed them "out of the comfort zone" and made them feel vulnerable. Though uncomfortable at first, many participants described how much they ended up enjoying being encouraged to express themselves creatively because this made them feel seen by others rather than simply blending into the background:

> *"My favorite part was really getting out of my comfort zone and singing a really hard song or a portion of a hard song solo, without anything else to blur my voice or make me feel like I didn't have to really sing. I don't have a super great voice, but I do sing. It was really a push for me to do something very different in front of a group that I didn't really have knowledge of. [It] was fun that we were encouraged to do that self-expression."*

Consequently, the creative activity fostered a safe environment in which participants felt comfortable sharing their personal struggles; seeing other participants embrace being vulnerable by sharing their writing, visual art, singing, or dancing with the rest of the group made each participant more willing to share himself or herself. By engaging fully with the creative activity, participants were able to "tap into emotions that I didn't even realize I was having."

Additionally, participants valued having to try their hand at a new mode of creative expression because this gave them a sense of pride, accomplishment, and newfound interest that they previously may have considered beyond their ability. Importantly, learning that creative expression is for everyone underscored participants' sense of community and belonging.

> *"I had no idea what [dance therapy] meant, and that was terrifying, 'cause I'm not great at dancing or movement. [The facilitator] made us really comfortable. Just the first session was really scary 'cause we're like oh gosh, what is this. I thought movement was gonna be yoga or something, not dance. It [was] really cool because we were all [new]—you could see the true terror in everyone's face when we figured out what we really were into. It was great. I never would have danced or done interpretive type dancing in a group, let alone make up our own moves."*

Resilience during COVID-19and beyond

The global circumstances of the pandemic dramatically increased the strain on health care employees, and participants described experiencing additional burnout, trauma, longer work hours, and social isolation. The urgency with which participants needed to work during the pandemic combined with a culture of "white knuckling" and continuing to work despite how they might feel about their experiences exacerbated pre-pandemic stressors. Multiple participants described how the CAT program differed from other organized attempts to promote resilience at various organizations:

> *"By the point [I participated], it felt like resilience was just getting to be a buzz word. It was just like, 'Just be more resilient, you'll be fine.' Or, 'We're gonna give you some resilience pizza, or we have a resilience menu on the wall in the breakroom.' You can get a cheeseburger for $2. That's not resilience… [with the CAT program] we can really build some community and then rely on that and help us keep moving forward."*

Participants discussed the specific ways in which the CAT group taught and reinforced coping skills applicable to both personal and professional life, such as mindfulness, thought awareness, communication, and stress management. As a result, CAT program participation reshaped participants' understanding of resiliency, and taught them how to incorporate resiliency in their lives. Many participants characterized resiliency as being able to understand and accept their feelings at any given time, while also being able to employ what their learned in the CAT program to weather future stress long-term.

> *"Resiliency isn't just one time in the moment. It's a lifestyle change, and it's those habits that you build or things that you do. When you realize those tools and you just keep doing them in little ways, it actually changes how you feel about things* versus *just those one-off things like, oh, I'm just gonna take a bubble bath tonight. Then it's just like, yeah, it felt great, but then I still have to face work tomorrow."*

Although the CAT sessions made participants feel happier, present, and more motivated at work, these feelings were difficult for participants to maintain after the program ended. For example, participants described the difficulty in engaging in this work without dedicated time and group structure. Many wished that the CAT program could continue in some capacity, and described the need for resources like this during period of crisis but also beyond the COVID-19 pandemic:

> *"I think this CAT therapy group couldn't have come at a better time…it was definitely something that I needed, something that I greatly benefitted from. I think even before the pandemic healthcare workers, at least for myself, I experienced burnout. I always felt overwhelmed. In healthcare you get to see the good, the bad and the ugly…I think whether or not we were faced with the pandemic like we are now, I think I could have benefitted from this five years ago* versus *even more so now."*

Discussion

This project demonstrated that the CAT program alleviated HCP burnout through building a sense of community. The CAT intervention offers a pivotal solution in providing social support to HCP. From our findings, it is clear there is a need to continue the CAT program for longer than 12 weeks. We found that including various professions in to one group helped to show various aspects of the healthcare system and learn empathy for other professions. Given the dynamics of nurses, doctors, and social workers, this helped to alleviate the medical hierarchy and helped to create understanding and empathy across professions.

In addition, a physical separation from healthcare settings should be utilized for burnout interventions. Participants were comfortable and secure in being vulnerable off campus. This implication suggests that anti-burnout interventions should take place outside of the workplace. This implication suggests that these interventions should take place outside of the workplace. In reference to CAT facilitators, we found that these individuals play an important role in the conduct of the program and subsequently in decreasing HCP burnout. Furthermore, participants were able to change their perception regarding the importance of resilience and how to prioritize resilience into practice.

Our research supports previous notions that resilience is an important protective factor to reduce and prevent burnout (Lluch et al., 2022). We additionally found that HCPs benefit from education surrounding resilience to understand the concept and how it applies to them through CAT (Gerge & Pedersen, 2017). These results indicate that resilience can be increased when burned out individuals understand resilience, perceive resilience as important, and prioritize resilience into their daily lives, especially in the context of the COVID-19 pandemic.

Considering the number of participants who stated this type of burnout intervention would have been beneficial prior to the pandemic, there is a need for interventions to combat HCP burnout. Given the new line of research for HCP compassion fatigue, prolonged exhaustion, and stress in the context of COVID-19 (Morgantini et al., 2020), additional studies should aim to explore CAT as a potential solution for HCP burnout (Giordano et al., 2020). Our research filled this gap by utilizing previous HCPs that endorsed at least one symptom of burnout which we further investigated utilizing qualitative methods. Additionally, our

structured interview guide and data analysis has helped fill the gap of going beyond anecdotal and case-study evidence for CAT as an intervention (Schnitzer et al., 2021). More rigorous research on CAT as an evidence-based practice to support HCPs should continue.

To our knowledge, qualitative analysis has not been used to evaluate the implications of a CAT intervention for HCP burnout in the context of implications as a whole for the combined modalities of visual arts, music, dance/movement, and creative writing under one clinical trial. This approach to qualitatively analyze post-clinical trial participants can lead to new findings that quantitative surveys cannot reveal. Initially, we developed the focus group guide that would elicit relevant answers. By having an established focus group guide, we were able to ask relevant questions that would help us answer our study aims. By using qualitative focus groups, we revealed that participant narratives are complex, nuanced, and interrelated across various focus groups. Lastly, because we took an inductive approach to analyze these data, the results reflect the participants' narratives.

This study had a few limitations. The sample size consisted of mostly white female nurses; and does not reflect national HCP workforce characteristics. Given the demographic, recruitment efforts should focus on a more diverse sample in terms of gender, occupation, race, and ethnicity. Although participants worked in a variety of roles and settings, all came from one geographic location. Future work should examine the impact of CAT more broadly. The lack of diversity could also be attributed to the fact that the sample was limited to those who participated in the CAT intervention. That is, the sample reflects only HCPs who had the ability to participate and had accessible transportation to get to the off-campus location. This may have limited participation of more diverse HCPs and future work should examine the degree to which such factors impact broader accessibility of CAT and whether CAT interventions may benefit from adaptations to better support all HCPs. Future research should include HCP from underrepresented minorities and examine the role of CAT. Future interventions should also concentrate on making programs more accessible for HCPs of color.

In addition to a less racially and ethnically diverse sample, the CAT program was a first-time experience for all participants. In future studies, these participants could be contacted again once their feedback is implemented to see if follow-up sessions are beneficial to HCP burnout. Lastly, this study investigated participant perception of CAT program to reduce burnout in HCP rather than the efficacy of the CAT program. Therefore, additional research is needed to explore if the key to reducing burnout is CAT itself or creating community groups within CAT and creative art therapists.

The general recommendations for future CAT programs that originated from this study are as follows: 1) build a sense of community among participants, 2) include diverse participants, 3) offer ongoing CAT sessions, 4) hold CAT sessions outside of work settings, and 5) teach participants to prioritize resilience. While these results are promising, our results showcase the need to understand the generalizability of CAT programs among a more diverse group of HCPs in more geographic locations. CAT programs may be broadly beneficial for HCPs and future work should recruit individuals from more diverse backgrounds to evaluate the impact of CAT.

Declarations of Interest

None.

Data Availability

The authors do not have permission to share data.

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References

Chi, J. L., & Chi, G. C. (2013). The impact of servant leadership on job burnout among employees of a Christian hospital. *International Journal of Management and Human Resources, 1*(1), 86–110.

da Silva, F. C. T., & Barbosa, C. P. (2021). The impact of the COVID-19 pandemic in an intensive care unit (ICU): Psychiatric symptoms in healthcare professionals. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 110*, Article 110299.

Denzin, N. K. (2017). *The research act: A theoretical introduction to sociological methods*. Routledge.

Ferry, A. V., Wereski, R., Strachan, F. E., & Mills, N. L. (2021). Predictors of UK healthcare worker burnout during the COVID-19 pandemic. *QJM: An International Journal of Medicine, 114*(6), 374–380.

Gerge, A., & Pedersen, I. N. (2017). Analyzing pictorial artifacts from psychotherapy and art therapy when overcoming stress and trauma. *The Arts in Psychotherapy, 54*, 56–68.

Giordano, F., Zanchi, B., De Leonardis, F., Rutigliano, C., Esposito, F., Brienza, N., & Santoro, N. (2020). The influence of music therapy on preoperative anxiety in pediatric oncology patients undergoing invasive procedures. *The Arts in Psychotherapy, 68*, Article 101649.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288.

Huet, V., & Holttum, S. (2016). Art therapy-based groups for work-related stress with staff in health and social care: An exploratory study. *The Arts in Psychotherapy, 50*, 46–57.

Huss, E., & Sarid, O. (2014). Visually transforming artwork and guided imagery as a way to reduce work related stress: A quantitative pilot study. *The Arts in Psychotherapy, 41*(4), 409–412.

Jeleff, M., Traugott, M., Jirovsky-Platter, E., Jordakieva, G., & Kutalek, R. (2022). Occupational challenges of healthcare workers during the COVID-19 pandemic: A qualitative study. *BMJ Open, 12*(3), Article e054516.

Kometiani, M. K. (2017). Creating a vital healing community: A pilot study of an art therapy employee support group at a pediatric hospital. *The Arts in Psychotherapy, 54*, 122–127.

Lluch, C., Galiana, L., Doménech, P., & Sansó, N. (2022). The impact of the COVID-19 pandemic on burnout, compassion fatigue, and compassion satisfaction in healthcare personnel: A systematic review of the literature published during the first year of the pandemic. *Healthcare, 10*(2), 364.

Morgantini, L. A., Naha, U., Wang, H., Francavilla, S., Acar, Ö., Flores, J. M., … Weine, S. M. (2020). Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey. *PLoS One, 15*(9), Article e0238217.

Nainis, N. A. (2005). Art therapy with an oncology care team. *Artelor Therapy, 22*(3), 150–154.

National Coalition of Creative Arts Therapies Associations. (n.d.). *Home page*. Retrieved March 27, 2023, from ⟨https://www.nccata.org/#:~:text=%EF%BB%BFCreative%20Arts%20Therapists%20are,and%20optimizing%20health%20and%20wellness⟩.

Nyashanu, M., Pfende, F., & Ekpenyong, M. S. (2022). Triggers of mental health problems among frontline healthcare workers during the COVID-19 pandemic in private care homes and domiciliary care agencies: Lived experiences of care workers in the Midlands region, UK. *Health & Social Care in the Community, 30*(2), e370–e376.

Moss, Marc, Edelblute, Anthony, Sinn, Hillary, Torres, Kristen, Forster, Jeri, Adams, Tisha, … Reed, Katherine (2022). The effect of creative arts therapy on psychological distress in health care professionals. *The American Journal of Medicine, 135*(10), 1255–1262.

Pospos, S., Young, I. T., Downs, N., Iglewicz, A., Depp, C., Chen, J. Y., … Zisook, S. (2017). Web-based tools and mobile applications to mitigate burnout, depression, and suicidality among healthcare students and professionals: A systematic review. *Academic Psychiatry, 42*(1), 109–120.

Potash, J. S., Chen, J. Y., & Tsang, J. P. Y. (2016). Medical student mandala making for holistic well-being. *Medical Humanities, 42*(1), 17–25.

Potash, J. S., Ho, A. H., Chan, F., Wang, X. L., & Cheng, C. (2014). Can art therapy reduce death anxiety and burnout in end-of-life care workers? A quasi-experimental study. *International Journal of Palliative Nursing, 20*(5), 233–240.

Reed, K., Cochran, K. L., Edelblute, A., Manzanares, D., Sinn, H., Henry, M., & Moss, M. (2020). Creative arts therapy as a potential intervention to prevent burnout and build resilience in health care professionals. *AACN Advanced Critical Care, 31*(2), 179–190.

Saldaña, J. (2021). The coding manual for qualitative researchers. *The coding manual for qualitative researchers* (pp. 1–440).

Salzano, A. T., Lindemann, E., & Tronsky, L. N. (2013). The effectiveness of a collaborative art-making task on reducing stress in hospice caregivers. *The Arts in Psychotherapy, 40*(1), 45–52.

Schnitzer, G., Holttum, S., & Huet, V. (2021). A systematic literature review of the impact of art therapy upon post-traumatic stress disorder. *International Journal of Artelor Therapy, 26*(4), 147–160.

Sethi, B. A., Sethi, A., Ali, S., & Aamir, H. S. (2020). Impact of Coronavirus disease (COVID-19) pandemic on health professionals. *Pakistan Journal of Medical Sciences, 36*(COVID19-S4), S6.

Ungar, M. (2008). Resilience across cultures. *The British Journal of Social Work, 38*(2), 218–235.

West, C. P., Dyrbye, L. N., & Shanafelt, T. D. (2018). Physician burnout: Contributors, consequences and solutions. *Journal of Internal Medicine, 283*(6), 516–529.