Responding to COVID-19 Stress: Disseminating Mind-Body Resiliency Approaches

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Abstract
The COVID-19 pandemic has resulted in unprecedented stress and uncertainty, particularly among vulnerable populations such as healthcare workers who are facing a multitude of current and looming economic and psychosocial stressors. As clinician-scientists delivering mind-body interventions in our hospital, we suggest applying evidence-based mind-body techniques that promote resiliency and adaptive coping during these difficult times. Interventions that package a variety of mind-body skills into one cohesive program, such as the Stress Management and Resiliency Training – Relaxation Response Resiliency Program (SMART-3RP), offer promise for meeting the variety of stress management needs (e.g., health concerns, isolation) present during the COVID-19 pandemic. From our work with frontline healthcare clinicians and other caregiver populations, we offer recommendations for adapting the delivery, modality, and content of mind-body practices during the COVID-19 pandemic and suggest key skills for promoting resiliency and buffering against the future stressors that lie ahead for everyone.

Keywords
intervention, mind-body, healthcare clinicians, resiliency, stress management

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The COVID-19 pandemic has affected nearly every facet of society, altering and disrupting lives worldwide. We are being faced with the task of managing stress and uncertainty, inconclusive information about disease transmission and infection status, and unknown social and economic consequences. As a result, many individuals are now living in a world of high perceived risk and low controllability. Collectively, these conditions have contributed to heightened levels of distress, including spikes of anxiety and depressive symptoms, particularly among healthcare workers and vulnerable populations already facing healthcare disparities.1

These conditions are ripe for triggering a chronic stress response, which, if left unmanaged, can increase allostatic load and have substantial negative effects on long-term physical and emotional health.2 Compared to acute stress responses in which there are some forms of care (e.g., psychological first aid3), there is no standard of care for chronic stressors. In prior disasters, such as Hurricane Katrina and 9/11 in the US, the mental health consequences were numerous and pervasive.4 The COVID-19 crisis has already brought tremendous economic and social stressors on healthcare workers, vulnerable populations, caregivers, teachers, and children that are likely to persist for years.1,5 Critically, the virus is unremitting in the U.S., and there is a second wave expected. Management and proactive, preventive

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mental health interventions to promote resilience is critical. To address COVID-19 related chronic stress, we suggest applying evidence-based techniques and practices that promote resiliency and adaptive coping. Interventions that teach skills rooted in the relaxation response, mindfulness meditation, cognitive reappraisal, and positive psychology have been shown to improve stress coping and management of illness-related fears among chronically-stressed populations. By targeting underlying processes such as meta-cognition (awareness of one’s thought processes), tolerance of uncertainty and distress, positive expectancies, and self-compassion, these mind-body techniques can teach individuals how to (a) recognize signs of stress in themselves, (b) manage stress using resiliency skills that promote adaptive perspectives and behavioral responses, and (c) accept uncertainty as part of one’s life view.

At our institution, we developed a multimodal, mind-body resiliency program that can be adapted to address stress in the context of COVID-19. The Stress Management and Resiliency Training – Relaxation Response Resiliency Program (SMART-3RP) is based on a theoretical model of resiliency and has been modified for various populations. While other stress-management programs (e.g., MBSR, MBCT) can also be helpful during the COVID-19 pandemic, this commentary will focus only on SMART-3RP. The SMART-3RP is comprised of an intake and eight, 90-minute sessions delivered weekly to small groups led by a certified facilitator. Sessions combine didactics and skills training in relaxation response elicitation, stress awareness, adaptive coping skills. In SMART-3RP, these three components are interlaced and additive, allowing participants to immediately access and build skills critically needed for coping with stressors. Relaxation response skills are presented as a variety of options, including “minis” to incorporate during a busy schedule; Stress awareness is critical for identifying new and ongoing work stressors, particularly crucial as the COVID-19 pandemic changes in course and scope. Adaptive strategies, grounded in positive psychology and health behaviors, are often overlooked during a time of acute stress like the COVID-19 pandemic, so their reinforcement is critical for buffering against ongoing stress. Indeed, SMART-3RP’s emphasis on the proactive use of adaptive skills including health behaviors and positive psychology is a key factor that sets it apart from other stress management programs. The collective learning and application of these skills can help individuals feel emotionally and physiologically centered in the midst of a stressful situation. This multimodal, mind-body approach emphasizes the interplay between physiological responses to stress (and its counterpoint, the relaxation response), cognitive-behavioral factors (e.g., observing and responding to negative automatic thoughts), social support, health behaviors (e.g., recuperative sleep, healthy eating, physical activity), and stress buffering resiliency skills grounded in positive psychology (e.g., gratitude, humor, creativity). Given the pervasive and adverse impact the pandemic is likely to have on a national and global level (in the short and long-term), we believe there is a critical need to take a prevention and well-being approach to mental health care by providing individuals with the tools needed to cope with the long-lasting physical, emotional, health and socioeconomic stressors associated with the COVID-19 pandemic.

**Recommendations**

There are a variety of ways that healthcare systems can provide stress management and resiliency programs for healthcare workers, patients, and communities at large. The demands of the COVID-19 pandemic include social distancing, remote work and school programs, and associated financial and health consequences that cut across sociodemographic groups but disproportionately affect racial and ethnic minorities and lower socioeconomic groups. These disparities, along with the sweeping nature of the social effects of the pandemic, drive the need for broad dissemination and access of stress management and resilience interventions.

We recommend that programs be offered and delivered remotely, with no in-person meetings to the extent possible, to maintain physical distancing and promote widespread access. To deliver care remotely during the pandemic, programs can use telephone or video visits, as our group has had success using both modalities for clinical research. We have experienced that patients and providers prefer video meetings to closely mirror the experience of in-person delivery. Within the video platform, sessions can be conducted synchronously (live or “real time”) or asynchronously (stand-alone content that people can access at any time), and in our institution we have offered both options for hospital employees and frontline clinicians. There are pros and cons to both video delivery options. Synchronous remote programs facilitate peer support and connection, reducing feelings of isolation. They also provide more direct clinician support within a formalized schedule, which can serve to provide a sense of comfort and structure. While asynchronous remote programs may lack these benefits, they overcome time concerns by providing more flexibility in terms of scheduling and content pacing. Collectively, both remote formats address common obstacles to mental health care access. However, compared to in-person programs, they are subject to their own unique challenges (e.g., internet disruptions due to connectivity or environmental...
distractions; nonparticipation due to “overscheduling” virtual meetings or multitasking). Healthcare institutions are encouraged to weigh the costs and benefits of each modality, considering whether flexibility or responsiveness are most needed on the part of participants. In our program, we deliver SMART-3RP synchronously, so that interventionists can be responsive to individual needs and tailor or explain content as necessary while maintaining fidelity of the intervention (e.g., Park et al.7). Open-ended feedback from frontline clinicians who participated in our groups indicated that the ability to connect with peers facing the same COVID-related challenges was among the biggest asset of the program. Future studies could compare the use of asynchronous sessions as well as hybrid designs with both real-time and stand-alone content.

Program length and meeting frequency can also be targeted to the specific needs of COVID-19 affected populations. To address time constraints and acute needs of COVID-19 frontline clinicians, SMART-3RP sessions were shortened (an intake plus eight 1.5-hour sessions modified to eight 1-hour sessions) and more frequent (weekly modified to twice per week). Groups were co-facilitated by staff trained in SMART-3RP delivery, offered at flexible times corresponding with clinicians’ shift schedules (i.e., early morning, late evening), and organized according to clinician specialty. These types of delivery challenges can be effectively dealt with by maintaining flexibility, given that access to these valuable resources is the primary goal during this time and beyond. The interventions can be malleable and still produce effective results.

Finally, intervention content should be reviewed for importance (e.g., background information may need to be pared down or placed in an appendix), relevance for the target population (e.g., adapt examples and exercises for the audience at hand, in terms of reading level, cultural references, etc.), and an understanding that not all material may make it into the final intervention. Adaptation of content can use inductive (data-driven, such interviews with stakeholders), deductive (theory-driven), or hybrid approaches. Again, the emphasis here is on dissemination and scalability, rather than stringent adherence to a theoretical model that may not fit under these circumstances. In our study of frontline healthcare workers, program content was adapted to target the following demands faced by COVID-19 frontline clinicians: burnout and associated stigma, isolation, health and job uncertainty, fears of contracting COVID-19, clinical role transitions and new responsibilities, financial and family challenges, and modifying sleep, diet and exercise routines to accommodate new shift schedules. We removed content on fostering optimism in order to avoid being “tone deaf” to clinicians’ perceptions of ongoing and future demands on our healthcare system.

### Practical Tips and Clinical Take-Aways

Mind-body interventions such as SMART-3RP include a variety of practices that can be particularly helpful for coping with COVID-19 specific stress. To illustrate the relevance and applications of SMART-3RP skills to specific COVID-19-related stressors, we provide some specific examples below.

1. **Formal relaxation practices.** Diaphragmatic breathing and mindfulness meditation can be used to elicit the relaxation response and counter the negative physiological effects of stress. To cope with the ongoing nature of COVID-19 stress, developing a regular practice of relaxation exercises (e.g., 10 minutes/day), can help reduce the negative physiological effects stress and prevent a buildup of chronic stress as the challenges of the pandemic continue. Additionally, breath-focused practices (e.g., awareness of breath or deep breathing) may be replaced with a focus on other external (e.g., sounds) or sensory experiences (e.g., body scan), if the breath is associated with danger or discomfort due to fears of COVID-19 as a respiratory infection.

2. **Informal mindfulness practices.** Mindfulness during everyday activities (e.g., walking eating) help keep the mind focused on the present in daily life and prevent excessive worries about future uncertainties related to the pandemic (e.g., possibility of becoming infected or losing employment). The ability to self-regulate attention also helps focus on what is within one’s control, supporting important COVID-19-related health behaviors such as hand washing and eating a healthy diet, and minimizing preoccupations about fears of the disease that are outside of one’s control.

3. **Positive perspectives and experiences.** By reducing stress and improving self-regulation, it becomes possible to broaden cognitive processes to include adaptive perspectives (e.g., appreciation). In the context of the COVID-19 pandemic, noting daily appreciations, such as for the positive efforts of healthcare and community workers and one’s personal health and safety in each given moment, could help to build positive emotions and reduce stress. Adaptive perspectives also provide opportunities for positive growth, such as reconnecting with one’s values or develop hobbies, making use of added time that may be available due to working from home and eliminating work commutes.

4. **Positive social connections.** Even while physically distanced, mind-body interventions practiced virtually
allow people to connect in meaningful and compassionate ways. Compassion may support the reminder that the intention of social distancing is based on care and concern for others, particularly the most vulnerable, transforming distress about social distancing into an opportunity for greater pro-sociality during the COVID-19 pandemic.

5. Self-empathy and acceptance. By connecting the mind and body, relaxation and mindfulness practices promote awareness and understanding of emotions. The calm and non-judgmental quality of this awareness allows for acceptance of uncomfortable emotions and situations, preventing unnecessary struggle with uncontrollable events. Many of the stressors of COVID-19 are uncontrollable and distressing, and the ability to notice, process, and release these emotions is an important way to reduce suffering during the pandemic.

6. Informal humor and creativity practices. Using humor can strengthen social connections, trigger laughter (promoting physiological relaxation), and increase access to positive emotions during times of stress. Similarly, creativity exercises (e.g., poetry) can foster flexible thinking and therapeutic expression of emotions. These skills can be practiced virtually with others to promote constructive, nourishing social interactions, rather than spend too much time focused on concerns about the pandemic.

Conclusion
In summary, as we continue to navigate the stressors and uncertainties brought on by the COVID-19 pandemic, the promise of mind-body resiliency skills cannot be understated. The unique needs and challenges of the pandemic – particularly among those most vulnerable – may necessitate adapting the delivery, length, and content of existing mind-body interventions. We hope that our approach using an adapted SMART-3RP will serve as a useful model as a disseminable and accessible option for enhancing resiliency during and after the pandemic.

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