

## Mental Health and COVID-19: Challenges and Multimodal Clinical Solutions

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The Coronavirus Disease 2019 (COVID-19) pandemic has led to an exponential rise in mental health issues. Studies have shown that, in times of increased unemployment rates and economic downturn, rates of mental health issues, suicide, substance use, and domestic violence tend to increase. Barriers to care, including stigma and decreased access to providers, contribute to morbidity and mortality. Telehealth services are being utilized to help increase access to care, and economic stimulus packages have been created to help with the financial burden that is often associated with increased mental health stressors. Efforts to prevent burnout and other policy recommendations can help decrease mental health issues in first responders and health care professionals, who are at an increased risk for these problems. Increasing the ability to provide wellness screenings to the general population, to educate the public about preventive measures and practices, and to provide mental health and substance use treatment, such as medication management and therapy services, are among top priorities to further reduce the socioeconomic impact of COVID-19 on mental illness.

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### HISTORICAL OVERVIEW

On March 11, 2020, the World Health Organization (WHO) declared the Coronavirus Disease 2019 (COVID-19) outbreak caused by the 2019 novel coronavirus [severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)] a pandemic.<sup>1</sup> According to WHO,<sup>2</sup> as of June 2, 2021, there have been

172,242,495 confirmed cases and 3,709,397 deaths globally related to COVID-19. In January 2020, the first confirmed case of COVID-19 was reported in the United States. As of June 4, 2021, there have been 33,148,701 cases and 593,377 deaths reported in the United States.<sup>3</sup>

Data from China, where the outbreak first emerged, showed that older individuals, particularly those who have underlying health conditions, are at a higher risk for contracting COVID-19 compared with younger adults and those with no previous underlying health conditions.<sup>1</sup> Early research has shown that COVID-19 can be spread through various ways, including airborne, through respiratory droplets, or through fomites.<sup>4</sup> Documented cases have shown that fever is the most

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common symptom of COVID-19, followed by cough, fatigue, shortness of breath, anosmia, ageusia, and digestive symptoms, including lack of appetite, diarrhea, vomiting, and abdominal pain.<sup>4,5</sup> In older individuals, symptoms may also include hypotension, rhinorrhea, conjunctivitis, falls, and delirium.<sup>6</sup> The most prevalent comorbid conditions, which are also closely related to severity of symptoms and mortality from COVID-19, are hypertension and diabetes, followed by cardiovascular disease, chronic obstructive pulmonary disease, and obesity.<sup>4,7</sup>

The Centers for Disease Control and Prevention (CDC) recommended social distancing, routine hand washing, face coverings, strict cleaning routines, and avoiding nonessential travel to slow the spread of the virus, protect vulnerable populations, and prevent the health care system from becoming overburdened.<sup>1</sup> Many states issued face covering mandates in public areas, and a large number of businesses implemented disinfectant protocols and limited the number of people in their buildings. Health care and medical offices have been especially cautious during this time. Figure 1 shows the recommendations from the American Society of Addiction Medicine (ASAM) for infection mitigation in outpatient settings during the COVID-19 pandemic.<sup>8</sup>

Many uncertainties arise during a pandemic, including questions about possible treatment options and their efficacy, economic difficulties and rising unemployment numbers, limited access to treatment and health care, an increase in depression, anxiety, and other conditions, including substance use disorders, and concerns about the safety of essential workers and their families.

### **Treatment Trials: Medications**

On December 4, 2020, the US Food and Drug Administration (FDA) approved the drug remdesivir, for the treatment of COVID-19 in certain cases.<sup>9</sup> Before this approval, the FDA gave physicians emergency use authorization in May 2020 to prescribe remdesivir.<sup>10</sup> Previous studies had shown that *in vitro* remdesivir, an antiviral drug developed in 2017 as a treatment for Ebola, can inhibit coronaviruses.<sup>11</sup> More recent studies, however, have shown that, while remdesivir may benefit mild or moderately ill patients, its use has had little to no

impact in critically ill patients with COVID-19.<sup>12</sup> On November 19, 2020, the FDA issued an emergency use authorization that allowed physicians to prescribe the drug baricitinib in combination with remdesivir for hospitalized COVID-19 patients who required supplemental oxygen, invasive mechanical ventilation, or extracorporeal membrane oxygenation.<sup>13</sup> The FDA also issued an emergency use authorization for casirivimab and imdevimab to be administered together in patients who had not been hospitalized or did not require oxygen therapy.<sup>13</sup>

The FDA had previously authorized providers to prescribe chloroquine and hydroxychloroquine for the treatment of COVID-19 in March 2020.<sup>14</sup> However, in June 2020, the FDA revoked the emergency use authorization of hydroxychloroquine and chloroquine after a large, randomized clinical trial found that the drugs showed no clinical benefit in patients with COVID-19.<sup>15</sup> Chloroquine and hydroxychloroquine are antimalarial drugs that are also used to treat chronic inflammatory diseases such as lupus and rheumatoid arthritis.<sup>10</sup>

### **Vaccinations**

Under Operation Warp Speed, the US government began working on the development and distribution of a COVID-19 vaccine from the beginning of the pandemic. On December 11, 2020, the FDA issued the first emergency use authorization for the first vaccine to prevent COVID-19. Pfizer-BioNTech's vaccine is given in 2 doses 3 weeks apart and has been found to be 95% effective in preventing COVID-19. On December 18, 2020, the FDA then issued a second emergency use authorization for Moderna's COVID-19 vaccine, which is given in 2 doses 1 month apart and has been found to be 94.1% effective. Johnson & Johnson's COVID-19 vaccine was approved for emergency use by the FDA in late February 2021. This single dose vaccine has been shown to be 100% effective against hospitalization and death yet also poses an extremely rare but serious risk of blood clots.<sup>16</sup> As of June 5, 2021, the CDC reported that 170,272,150 people in the United States (51.3% of the total population) had received at least 1 dose of a COVID-19 vaccine and 138,11,702 people (41.6% of the total population) were fully vaccinated.<sup>17</sup> Individuals who are fully vaccinated can now resume all activities without

**FIGURE 1. COVID-19—infection mitigation in outpatient settings.**

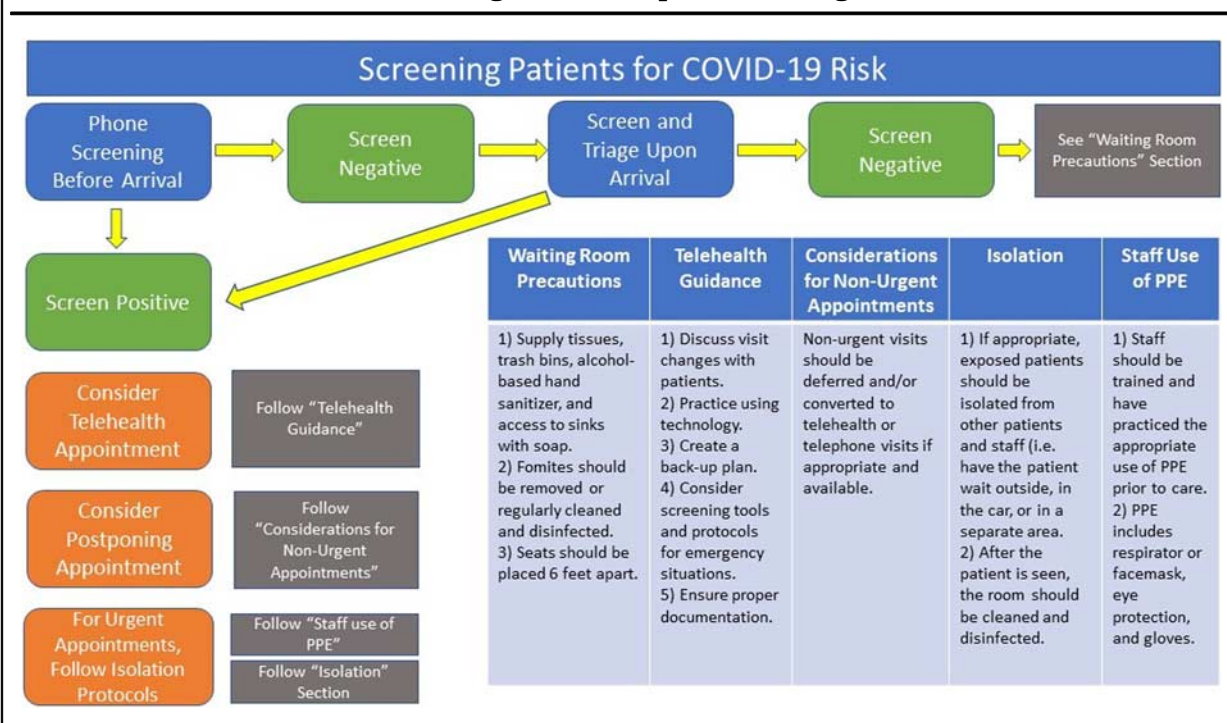


Figure created by the authors based on the American Society of Addiction Medicine (ASAM) COVID-19 Task Force Recommendations.<sup>8</sup> COVID-19 indicates Coronavirus Disease 2019; PPE, personal protective equipment.

wearing a face covering or social distancing, except when required by government laws or business guidance, and all individuals are still required to wear face coverings on public transportation.<sup>18</sup> The CDC recommends that unvaccinated individuals continue to wear face coverings, practice social distancing from those outside of their home, avoid crowded or indoor areas, and get a COVID-19 vaccine when it becomes available.<sup>19</sup> While vaccines have been approved for children over the age of 12, unvaccinated children should continue wearing face coverings in public and social distancing whenever possible.

**MENTAL HEALTH CHALLENGES**

Individuals around the world are experiencing increased stressors related to the COVID-19 pandemic, including fear of infection, inadequate supplies, conflicting information presented to the public, financial loss, and excessive consumption of news. The Census Bureau developed the Household

Pulse Survey at the end of April 2020 and found that 24% of respondents reported clinically significant symptoms of depression and 30% of respondents reported clinically significant symptoms of anxiety.<sup>20</sup> There has also been a noticeable increase in psychotropic prescriptions during the pandemic. Ginger, a platform that provides online mental health services to companies, found that its psychiatrists prescribed 86% more psychotropic medications, primarily antidepressants, benzodiazepines, and medications for sleep impairment, in March and April 2020 compared with the number of psychotropic medications prescribed in January and February 2020.<sup>21</sup>

According to a survey released by the American Psychological Association (APA) on March 25, 2020, over one third of Americans who were surveyed reported that the pandemic is having a “serious impact” on their mental health.<sup>21</sup> Some individuals with no history of mental health conditions began to exhibit symptoms of depression and anxiety disorders during the pandemic, and the pandemic has

in some cases aggravated the symptoms of individuals with preexisting mental health conditions.

Over 1 year after the pandemic began, new variants have caused infection surges across many countries, leading to extended or renewed lockdowns and increased fear.<sup>22</sup> Research is showing that young adults, women, those with young children, and those with prior mental health diagnoses are most vulnerable for increased psychological issues during the pandemic.<sup>22</sup> Current research is focusing on how certain COVID-control measures may reduce or increase psychological distress and whether certain populations are disproportionately affected by certain safety measures and policies.<sup>22</sup> Other major disasters, such as the 9/11 attack in New York City, have led to psychological distress for several years following the event.<sup>22</sup> A 2007 report indicated that while the majority of people will experience a significant decline in distress within the first 3 months following a disaster such as the pandemic, ~11% to 15% of individuals will continue to experience high levels of distress during that time.<sup>23</sup>

### **Psychological Consequences: Dynamics of Social Isolation, Quarantine, and Threat and Fear Responses**

While quarantine and isolation are effective tools in reducing rates of infection and spread to others, they can also be associated with many negative psychological effects. One study noted that people who were quarantined after potential exposure to severe acute respiratory syndrome in 2002-2003 reported more negative feelings, including fear, anxiety, and sadness, compared with those who were not quarantined during the outbreak.<sup>24</sup>

There has been an evident fear response to the threat of COVID-19. Results of a population-based survey concerning precautionary actions in response to a hypothetical influenza pandemic published in 2007 showed that an individual's behavior, especially during a crisis, is impacted by perceived risk, and the person will generally take precautionary measures to reduce that perceived risk.<sup>25</sup> Some behaviors that have already been noted include social distancing while in public areas, working from home, avoiding nonessential travel, opting for virtual appointments, decreased use of public goods and services, and avoiding public areas altogether.

### **Link Between the Unemployment Rate and Substance Abuse, Suicide, and Domestic Violence**

During the last 2 weeks of March 2020 and the first 2 weeks of April, 2020, ~13% of adult workers (over 22 million individuals) in the United States filed for unemployment benefits for the first time.<sup>26</sup> By June, 2020, total unemployment filings since the beginning of the pandemic had almost reached 40 million individuals.<sup>27</sup> According to McIntyre and Lee,<sup>28</sup> the COVID-19 pandemic's effect on the United States' labor market has resulted in the "greatest and most rapid change in the employment sector ever recorded." A large amount of data has been collected on the relationship between economic downturns and high unemployment rates and increased income inequality, increased emotional suffering, worsened mental health, and increased substance use, suicidal ideation, and suicide as well as domestic violence.<sup>26,29</sup>

Under ordinary circumstances, it has been estimated that ~3% of employed adults and 10% of unemployed adults have a substance use disorder.<sup>26</sup> Using data from 1999 to 2014, one report projected that a 5% increase in the unemployment rate would lead to an additional 600,000 cases of substance use disorders, 4800 overdose deaths, and 5500 overdose-related deaths in the United States per year.<sup>26</sup> In addition, the pandemic has created a barrier to access to treatment for those who are currently being treated for substance use disorders. Buprenorphine is commonly used as treatment for opiate use disorder and is prescribed on a weekly to monthly basis. Loss of access to this medication may lead to relapse, overdose, or death.<sup>8</sup> In providing guidance for infection control and mitigation in the outpatient setting, the ASAM espoused 3 principles: (1) protect patients and staff from the coronavirus infection, (2) maintain access to addiction treatment services, and (3) maintain a therapeutic environment for patients with substance use disorders.<sup>8</sup> The ASAM also made 6 recommendations for provision of buprenorphine treatment during the COVID-19 pandemic, as shown in Table 1.

Multiple studies have demonstrated a positive correlation between the unemployment rate and suicide rates. A study by the Meadows Mental Health Policy Institute<sup>26</sup> used estimates from the 2007 to 2009 recession and 2018 suicide rate data

**TABLE 1. Recommendations From the American Society of Addiction Medicine (ASAM) for Outpatient Opioid Treatment**

***ASAM Guidance for Office-based Opioid Treatment***

Leveraging telehealth	Telemedicine or telephonic visits should be used whenever possible and appropriate to provide buprenorphine treatment to patients
Prescriptions and refills	Provide buprenorphine refills to stable patients without requiring in-person visits or urine toxicology testing
Psychosocial treatment	Psychosocial counseling should not be required as part of buprenorphine treatment
Ensuring adequate supply of buprenorphine	Providers and programs should take steps to ensure that all patients currently taking buprenorphine for addiction treatment continue to have timely access to this medication
Harm reduction	Ensure patients have access to naloxone
Considerations for high-risk patients	High-risk patients should continue to have access to appropriate addiction treatment, which may need to include some capacity for face-to-face treatment

*Table content based on the American Society of Addiction Medicine (ASAM) COVID-19 Task Force Recommendations.<sup>8</sup>*

from the CDC to study the projected rates of suicide in correlation with a rising unemployment rate. Assuming the relationship between unemployment rate and suicide rate is linear, they projected that there would be ~775 additional deaths by suicide in the United States for each additional percentage point increase in the unemployment rate.<sup>26</sup> Using this projection, they estimated that if the COVID-19

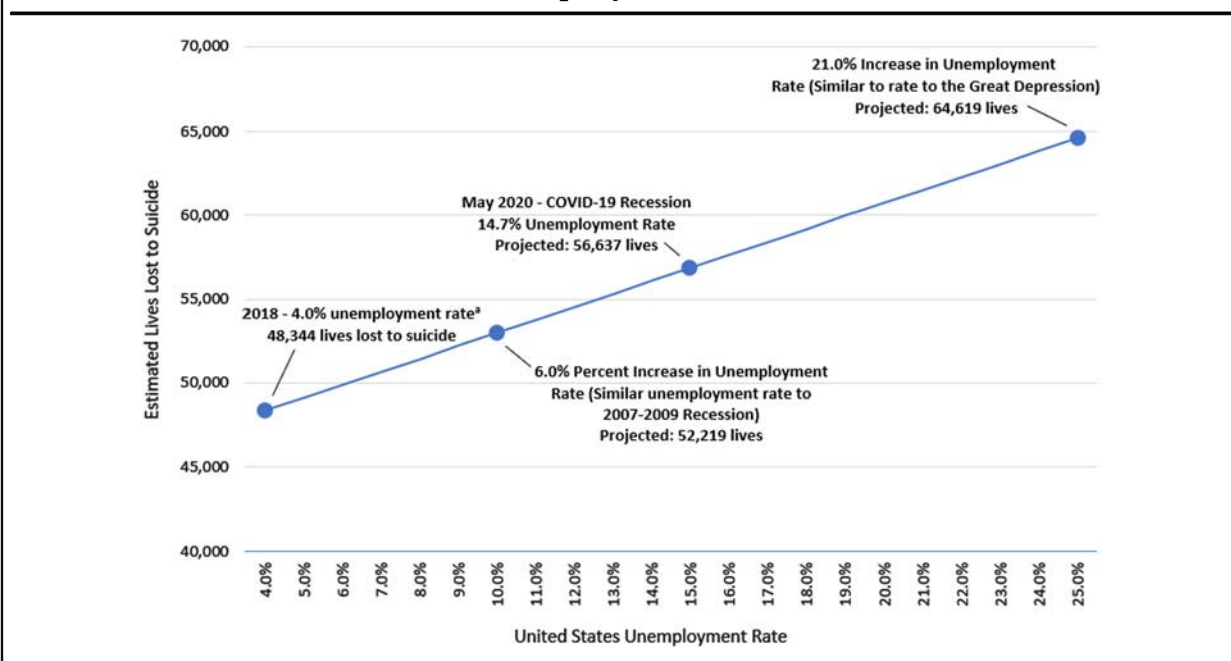
pandemic results in a recession similar to the 2007-2009 recession, there will be ~4000 additional suicides in the United States per year.<sup>26</sup> If there were to be recession similar to the Great Depression, they estimated an additional 18,000 suicides per year.<sup>26</sup> In May, the unemployment rate skyrocketed to 14.7%, an increase of 10.7% from the unemployment rate in 2018. For perspective, the highest unemployment rate during the 2007-2009 recession was 10%. Based on these data, with an unemployment rate of 14.7%, it was estimated that there could be 56,637 suicides in the United States during 2020, as shown in Figure 2. However, it is difficult to predict how measures and policies that have been implemented, such as the stimulus bills, moratorium on evictions, and increased access to and coverage for telehealth care, will affect the suicide rate.

The WHO reports that domestic violence also tends to increase during emergencies that exacerbate stressors. Data from China, the UK, and the United States have shown an increase in domestic violence since the COVID-19 pandemic began.<sup>32</sup> With workplace closures and stay-at-home orders in place, victims of domestic violence are spending more time alone with their abusers, and they are lacking support and possible protection provided by family, friends, and other loved ones.

**Frontline Workers**

Frontline workers, including first responders and health care professionals, have been at an increased risk for mental health stressors during the pandemic. On average, it is estimated that 30% of first responders will develop a behavioral health condition or substance use disorder in their lifetime, compared with 20% of the general public who develop behavioral health conditions.<sup>33</sup> During the COVID-19 pandemic specifically, frontline workers have been exposed to high mortality rates, fears for their personal safety, isolation from loved ones, heavy workloads and long hours, and rapidly changing information about the virus.<sup>33,34</sup> Frontline workers also frequently feel helpless as they witness death after death of patients dying alone, despite their best efforts to save their lives. Frontline workers have also shared frustration, feeling that the public does not understand or show adequate concern about the severity of the pandemic,

**FIGURE 2. Estimated lives lost to suicide per year in the United States.**



<sup>a</sup>Figure created by the authors based on data from the American Foundation for Suicide Prevention<sup>30</sup> and the US Bureau of Labor.<sup>31</sup> COVID-19 indicates Coronavirus Disease 2019.

as shown by ongoing social activities and lack of adherence to safety guidelines.

**Moral Injury and Guilt**

Frontline workers have also been experiencing moral injury and increased feelings of guilt during the pandemic. Moral injury occurs when an act is committed, either by oneself or by another, that violates one’s own moral code, often in a high stakes situation.<sup>35</sup> With regard to the COVID-19 pandemic, difficult decisions can lead to moral injury because there are inadequate resources and insufficient research to guide best practices.<sup>34</sup> Equipment shortages have also led to physicians being tasked with deciding which patients will receive certain treatments or access to ventilators and other life-saving equipment. Many decisions that health care workers have had to make during the pandemic, such as choosing to withhold treatment from one patient to save another, are direct violations of their moral code. Health care workers may also feel guilt following the death of a patient, and workers may

take too much responsibility for the patient’s death or feel inadequate in their practice.

In addition, many health care professionals and first responders feel less connected to patients due to required personal protective equipment, social distancing, and strict guidelines excluding loved ones from patient care rooms.<sup>34</sup> Because of safety guidelines, health care workers are carrying the guilt of witnessing patients dying alone without their loved ones present and/or with religious ceremonies, such as Last Rites, being performed over the telephone or a tablet. During the pandemic, a number of organizations have been working to create policies and recommendations to ease the stress placed on first responders and health care professionals.

**TREATMENT APPROACHES**

**Recommendations for First Responders: Psychological First Aid**

The APA and the US Department of Veterans Affairs (the VA) both recognize the importance of psychological first aid to encourage individuals to engage in

self-care, recognize stressors, develop coping skills and stress reduction techniques, promote a feeling of safety, create social supports, and continuously monitor individuals under stress.<sup>34,36</sup> The abbreviation “HALT” is used as a tool to help individuals recognize indicators of unmet needs, to include feeling hungry, angry, lonely, and tired.<sup>36</sup> The VA recommends that people practice “selfish” self-care, including taking care of their physical and mental health above all else, maintaining boundaries, limiting the use of substances such as drugs or alcohol as a coping mechanism, and using stress management tools on a regular basis.<sup>36</sup> The VA also recommends that individuals take into consideration their personal, health, family, and work circumstances before deciding to participate in disaster response, both during the disaster and afterwards.<sup>36</sup> However, it is important to also consider that many individuals risk losing their gainful employment if they do not choose to continue working during the pandemic.

### Screening Instruments

With the understandable stressors being experienced during this global pandemic, it is very important to take proactive measures to assess and monitor those who are having difficulty coping and adjusting. Many screening tools and scales are available for health care providers, including the Generalized Anxiety Disorder-7 item Scale, the Patient Health Questionnaire-9, the Clinician-Administered PTSD Scale for DSM-5, the Learned Helplessness Scale, and the Social Isolation Scale. Many of these screening scales can be given at primary care offices and specialty clinics, and most of these scales are also accessible for patients to complete online. If a patient screens positive for symptoms of suffering and/or mental illness in need of treatment, providers should monitor the person’s status and treat as needed, or refer the patient to another specialist who is able to help. Providers and community programs should also offer free, easily accessible self-help resources to empower individual well-being, as many individuals do not have financial resources or access to other help.

### Treatment Approaches

Possible approaches range from trying to relieve normal responses to suffering to providing

treatment for specific psychiatric and/or medical conditions. Common treatments for symptoms of suffering and/or mental illness related to or exacerbated by the COVID-19 pandemic include prescription medications, such as antidepressants and anti-anxiety medications, and various types of psychotherapies, such as cognitive behavioral therapy, acceptance and commitment therapy (ACT), critical incident stress debriefing, and eye movement desensitization and reprocessing.

### ACT

ACT has been being used by therapists across the country during the pandemic. It combines acceptance and mindfulness strategies with commitment and behavior change strategies to increase psychological flexibility. The goal is to help people move in the direction of a life that is meaningful and purposeful even in the presence of unwanted private experiences, such as negative thoughts and feelings.<sup>37</sup>

### Crisis Counseling

Crisis counseling has become another prominent treatment option during the pandemic. Crisis counselors are trained individuals who are able to provide psychoeducation, emotional support, assessments, coping skills training, and resource referrals to people who have been affected by a disaster or trauma.<sup>23</sup> Crisis counselors help people manage their emotions and other issues that may arise or be exacerbated following a disaster or trauma, including anxiety, depression, substance use, sleep disturbances, anger, and acute stress reactions.<sup>23</sup> While crisis counselors provide a great deal of support, the majority of support following a disaster or trauma generally comes from an individual’s social supports, including family, friends, and other loved ones, so it is imperative that training be available and offered to a wide array of individuals in the community.<sup>23</sup>

### PREVENTION

Many people are looking for preventive measures they can take to help ease the weight of the stressors during the pandemic, whether it be practicing mindfulness, exercising, taking up new hobbies,



spending time outdoors, connecting virtually with loved ones, or playing games.

### CARES Model

The first author of this article, Dr Prakash Masand, created the CARES (Connection, Attitude, Reach, Exercise, Sleep) model in response to the COVID-19 pandemic. The CARES model encourages individuals to connect with loved ones, maintain a positive outlook on life, reach out to others in need, exercise, and maintain a healthy sleep schedule.

Humans are social creatures who thrive on connection with others, which affects happiness, health, and even longevity.<sup>38</sup> Having that social connection can lead to a better support system when an individual needs to reach out for help during difficult times. Likewise, reaching out to others who are in need can help to boost one's own mood and fulfill the need to help others and feel connected.

Some studies have shown that optimistic attitudes are associated with greater well-being, longer life expectancy, and better physical and mental health, while pessimistic attitudes and higher stress levels are associated with a worse immune response and greater vulnerability to infection.<sup>39</sup> It is also widely known that exercise and sleep have been linked to overall health and well-being. Maintaining a regular sleep schedule and finding time to exercise can help to decrease stress levels and improve one's mood. By following the CARES model, individuals can help manage the psychological impact of COVID-19 and empower individual well-being.

### *The 4 M's of Mental Health*

In an interview in March 2020 on MSNBC, psychiatrist Sue Varma<sup>40</sup> recommended using the 4 Ms of Mental Health (Mindfulness, Mastery, Meaningful engagement, and Movement) to help alleviate anxiety and increase resilience during the COVID-19 pandemic. Varma<sup>40</sup> encouraged individuals to practice mindfulness exercises, focus on personal growth and development, participate in meaningful engagement with others, and move their bodies to stay healthy.

### *Technology Solutions*

As people all over the world face isolation and boredom in response to the pandemic, technology

has provided a means for social connection and emotional release. One game that was co-launched by a local Chinese government department with the official newspaper *People's Daily* is based on the popular "Fruit Ninja" game and provides prevention tips about the pandemic to players in an interactive format.<sup>41</sup> Self-care apps have also become increasingly popular during the pandemic. As of May 2020, the online therapy company TalkSpace reported a 65% jump in clients since mid-February.<sup>42</sup> Other self-care apps such as HeadSpace, Wysa, InnerHour, and Fabulous have also been widely utilized during the pandemic. The Centers of Psychiatric Excellence (COPE) has released the COPE Wellness app that allows users to take an initial assessment and then follow a 4-week program designed to encourage physical activity, mindfulness and guided meditation, deep breathing, and reflection.

## RECOMMENDATIONS

### **Job Creation and Economic Stimulus**

To help minimize long-term negative psychological effects from the economic decline during the COVID-19 pandemic, government officials and other policy makers need to continue to focus on financial assistance programs, job assistance and creation programs, and funding for social programs.<sup>28</sup> Social programs that focus on mental health, healthy coping strategies to minimize substance use, and job assistance would be primarily beneficial to those who have experienced negative psychological effects as a direct result of COVID-19. The United States has passed a number of acts so far to help stimulate the economy.<sup>43</sup> The 2.3-trillion-dollar CARES act, which was signed into law March 27, 2020, offered a one-time tax rebate to eligible citizens, extended unemployment benefits, offered forgivable loans to small businesses, and put 8.3 billion dollars into research, virus testing, support to the CDC, Medicaid funding, and development of vaccines, therapeutics, and diagnostics.<sup>43</sup> The American Rescue Plan, which was signed into law March 11, 2021, provided additional coronavirus relief with an estimated cost of \$1844 billion (about 8.8% of 2020 GDP). The plan focused on investing in the public health response and providing assistance to families, communities and



businesses, including an extension of unemployment benefits and additional direct stimulus payments of \$1400 to eligible individuals, aid to state and local governments, and more resources for the vaccination program and school reopening.<sup>43</sup>

### **Burnout Prevention for First Responders**

First responders are exposed to death, injury, long working hours, threats to their personal physical and mental safety, and other negative experiences.<sup>33</sup> Protective factors to reduce the chances of burnout include longer duration of employment, specialized training to prepare for stressful and chaotic events, confidence in their team's capabilities, and positive and supportive leadership.<sup>33</sup> Employers can also create policies to restrict long working hours, allow for time off, insist that employees take time for self-care, and provide access to self-help, well-being resources, and confidential, affordable, accessible supportive/psychiatric/psychological treatment when needed.

### **Telehealth Approaches**

Telehealth has become increasingly popular and more accessible during the pandemic in response to social distancing and other safety guidelines. In response to the pandemic, Health Insurance Portability and Accountability Act (HIPAA) policies were changed to allow a variety of video-sharing platforms, including Zoom, Apple FaceTime, doxy.me, and Skype Business, to be utilized in the provision of care.<sup>44,45</sup> Various insurance providers, including Medicare, have altered their practices to cover these telehealth visits for patients. Research suggests that telehealth visits can be just as effective as in-person visits in health care settings.<sup>44</sup> Telehealth also allows patients who would normally have difficulty accessing treatment, such as those in rural or low-income areas, access to providers from the convenience of their own homes.

### **Increased Resources for Mental Health Treatment**

A final recommendation is to increase the allocation of mental health resources available to the public. The United States' CARES Act provided \$425 million for additional community-based behavioral

health care and suicide prevention.<sup>29</sup> Studies have shown that for every dollar spent on increasing treatment for the most common mental health conditions, there is return of \$4 in terms of health and productivity of citizens.<sup>29</sup> Educational materials and self-help resources should be accessible and readily available to the public to empower emotional well-being. Easy-to-use, evidence-based screening tools, such as self-report scales, should also be available for individuals to use to determine if their emotions are a natural response to the pandemic or if they need to seek professional guidance. It is also important to provide information on how to seek professional help, especially for those who are strained financially. Organizations that provide outreach, intervention, education, and self-help resources can help to promote resilience among the communities they serve.<sup>23,29</sup>

### **CONCLUSIONS**

The COVID-19 pandemic has changed life as we know it. With 172,242,495 confirmed cases and 3,709,397 deaths related to COVID-19 globally as of June 2, 2021, the COVID-19 pandemic is a worldwide health, economic, educational, and psychological crisis. Many individuals are experiencing increased stress and feelings of helplessness, uncertainty, frustration, and exhaustion, all of which are to be expected in times of crisis. Individuals are encouraged to relieve stress caused by the pandemic by taking care of their emotional health, taking time to pursue activities that bring them joy, connecting with others while following social distancing protocols, and taking care of their physical health by eating well, exercising, getting plenty of sleep, and avoiding excessive alcohol and tobacco use.

It is recommended that more self-help and educational materials be made widely available and accessible to all individuals. Materials include user-friendly, evidence-based screening tools, explanation of normal reactions and ways to combat stress, education concerning more serious symptoms of mental illness and when to seek help, and resources for confidential, accessible, affordable treatment options and other resources for help. It is important for individuals to be aware of their options, such as socially distanced support groups, telehealth, medication, counseling, and activities they can engage in on their own to empower individual well-being.

All individuals should continue to follow recommended safety guidelines to help slow the spread of the virus.

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