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Perspective Chapter: The Psychosocial Effects of Isolation and Social Distancing during the Coronavirus Disease 2019 Pandemic: An Overview and Mitigation Strategies

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Abstract

There is no doubt that the coronavirus disease 2019 pandemic has changed the world in unprecedented ways. Among its turbulent effects, it has impacted many aspects of the lives of individuals, ranging from their mental health to finances. As such, it is essential to determine the psychosocial factors at play and examine how they have impacted the lives of people around the world. This chapter examines psychosocial factors, such as depression, anxiety, and stress, which have been on the rise. Furthermore, the interplay of mental health factors and other stressors brought on by the pandemic has led to the concern that cases of suicidal ideation are also increasing. In response to the stay-at-home orders, family members spent unprecedented amounts of time in close contact with one another, which has had mental health repercussions. In addition, changes in the format of lesson delivery have been stress-inducing and have robbed many students of proper education. Another factor is unemployment, which has been on the rise since the start of the pandemic. Finally, rates of sexual and domestic violence have also increased, significantly impacting women. Exercise, limiting media exposure, counseling, and maintaining social networks are the strategies that have been identified to mitigate the effects of the psychosocial factors discussed in this chapter.

Keywords: pandemic, COVID-19, mental health, psychosocial factors, mitigation strategies

1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has undoubtedly changed the lives of individuals all around the world in profound ways. First identified in Wuhan, a city in Hubei Province in China, at the end of 2019, the pathogen responsible for the pandemic, severe acute respiratory syndrome 2 (SARS-CoV-2), has noticeably become the modern era's largest global health threat [1]. Although, Chinese authorities reported the country's first cluster of pneumonia cases related

to this virus on December 31, 2019, it wasn't until January 30, 2020, that the World Health Organization (WHO) declared a global health emergency [2]. At the beginning of March 2020, the world essentially shut down, with countries closing their borders, schools closing their doors, and employees either laid off or directed to begin working from home. As the virus was confirmed to be capable of human-to-human transmission via respiratory droplets, individuals began to wear masks, social distance from one another, and quarantine to contain its spread [3]. Within weeks, the world effectively began to witness and experience the repercussions of the pandemic; beyond its disruption of the global economic and health care systems, it has impacted the physical health of individuals significantly, with the virus resulting in hundreds of millions of cases and, consequently, millions of deaths [4]. Those who became infected with SARS-CoV-2 experienced symptoms that ranged from fever, dry cough, fatigue, and loss of taste and smell to pneumonia, respiratory distress, septic shock, and organ failure [5–7]. Many individuals who recovered from COVID-19 have since reported experiencing lingering symptoms as part of a condition that came to be called long COVID [8]. The unique range of symptoms associated with COVID-19 and the consequential fear and anxiety associated with SARS-CoV-2 infection, including concerning the possibility of dying from it, led to the development of what is now termed “coronaphobia” [9]. This kind of state of prolonged fear and anxiety has been shown to increase the risk of major psychiatric disorders [10]. Furthermore, prolonged social isolation with minimal social contact, as was made necessary by the pandemic, has been shown to increase individuals' chances of developing mental health complications that include anxiety, depression, posttraumatic stress disorder (PTSD), and insomnia [11].

With the lives of individuals changing radically in all areas, including daily routines, work and family dynamics, income, leisure, and socialization, a global concern for the mental health of individuals has emerged [4]. According to Pfefferbaum and North [12], the uncertain prospects, resource shortages, the enforcement of public health measures that resulted in infringement on individual freedoms, the financial loss brought on by the economic crisis, and the contradicting information presented by authorities triggered an increase in the prevalence of stress which, in turn, led to a heightened risk of developing mental illness during the pandemic. Since mental health issues are the result of a dynamic interplay between mental, emotional, and social factors [13], identifying these psychosocial factors is crucial to helping those already affected, as well as for mitigating—or eliminating altogether—the effects of these factors. In addition, with no clear end to the pandemic in sight, despite the approval of vaccines and their subsequent rollout, this remains an ongoing issue [14].

Accordingly, this chapter will examine the psychosocial factors brought on by the COVID-19 pandemic, which include depression, anxiety, and stress and their association with substance abuse, and sleep disturbances, suicidal ideation, changes in family dynamics and education, an increase in unemployment rates, and the increase in sexual and domestic violence rates. This chapter will then go on to scrutinize mitigation techniques, such as exercise, limiting exposure to the media, counseling, and maintaining social networks.

2. Psychosocial factors

2.1 Depression, anxiety, and stress

It is no surprise that the spread of SARS-CoV-2 has resulted in a global mental health burden; the COVID-19 pandemic has both resulted in a substantial increase

in psychiatric illnesses and further aggravated pre-existing psychiatric disorders [15]. The COVID-19 pandemic not only disrupted critical mental health services in more than 93% of countries globally but also increased the number of individuals suffering from mental health issues, thus further increasing the demand for mental health support services [16]. A survey conducted by the WHO in the summer of 2020 found that 70% of countries had adopted a telemedicine approach to therapy, forgoing in-person sessions, thus resulting in inconsistencies in the effectiveness of interventions. Furthermore, before the pandemic, countries were spending less than 2% of their health budgets on mental health and were falling short in meeting the demand for mental health services [16]. With the aftermath of the pandemic that encompasses the isolation, loss of income, bereavement, and fear; countries are expected to struggle further to meet their populations' need for access to mental health services. A study by Cambridge University investigated the global prevalence of anxiety and stress during the COVID-19 pandemic and documented high prevalence rates of both depression (24%) and anxiety (21.3%) worldwide. The study then went on to investigate the prevalence rates in different regions of the world. The report noted that, before the pandemic, the prevalence rates of depression and anxiety in Asian countries ranged from 1.3% to 3.4% and from 2.1% to 4.1%, respectively, while, post-pandemic onset, these numbers increased to ranges of 15.4–19.8% for depression and 15.4–20.3% for anxiety. For Europe, a large difference was witnessed, with the pre-pandemic prevalence rate ranging from 1.4% to 3.9% for depression and 3% to 7.4% for anxiety, while post-pandemic onset, the prevalence rate for depression reached 26% and that for anxiety reached 19.2%. Finally, the 2011 pre-pandemic prevalence rates for regions outside Asia and Europe were reported to range from 2.1% to 4.3% for depression and 2.8% to 7.1% for anxiety, but they increased to 29.2% and 28.6% for depression and anxiety, respectively [17].

Persistent uncertainty about the pandemic and the resulting significant changes in many areas of life created an environment in which stress can increase [18, 19]. The COVID-19 pandemic led to rising stress levels due to increased and prolonged worrying about issues such as finances, health, isolation, loneliness, and changes in daily routines [20]. A study conducted among the public in China found that stress and anxiety increased by 25% during the pandemic compared to before the pandemic [21]. Another study reported that 8.1–29.2% of individuals in China, 11.6% in India, 14.6% in Italy, and 0.6–9.2% of men and 1.2–8.9% in women in Spain reported experiencing stress [22]. In fact, with the exceptional economic circumstances, the hundreds of thousands of deaths, and the prolonged exposure to stressors brought about by the pandemic, current stress levels have surpassed normal ones attributed to the usual range of human experiences and have inflicted major psychological trauma that has led some individuals to experience PTSD [23, 24]. According to Xiao et al. [24], this trauma can be the sum of traumas from three distinct circumstances, the first being that experienced by those who suffer from the disease and experience traumatizing symptoms, such as respiratory distress and near-death experiences; the second being that experienced while watching someone suffer and/or die from the disease; and the third being that triggered by fears—whether realistic or not—about catching the virus, being alone, or being stigmatized because of the disease. A study in Italy investigated the prevalence of PTSD in individuals who suffered from acute COVID-19 and found that, among the 115 participants who survived COVID, the prevalence of PTSD was 30.2% [25]. Among health care workers, especially frontline workers, the toll of watching thousands of patients die from COVID-19 has been uniquely traumatizing. A study conducted by King's College London found that 45% of intensive care unit employees in the United Kingdom were suffering from severe anxiety, PTSD,

or other psychological disorders [26]. Finally, in considering the isolation and fear of contracting the virus, Zhang et al. [27] reported the prevalence rate of PTSD in the general population during the pandemic to be 15%.

This increase in stress, due to the unprecedented changes in the lives of individuals worldwide, has manifested into negative health consequences, one of which is insomnia or sleep disturbances. A colloquial term, “coronasomnia,” has been established to describe the array of sleep dysfunction symptoms—which include but are not limited to insomnia, disrupted sleep, alteration in the sleep-wake cycles, and reductions in sleep quality—brought about by the stress of the pandemic [28]. The global prevalence rates for insomnia symptoms have previously been reported to be 20–45% [29]; however, Voitsidis et al. [20] investigated the prevalence of insomnia in the Greek population during the COVID-19 pandemic and, based on the participation of 2427 individuals, detected sleep problems in 37.6% of participants. Another study explored the prevalence of insomnia in the general French population during the COVID-19 pandemic and reported that the prevalence of clinical insomnia was 19.1% [30]. Research has also examined the rates of insomnia specifically in health care workers [31]; this kind of work is crucial as frontline health care workers are a group that has remained highly vulnerable to developing mental health problems during the pandemic [32]. Ultimately, Stewart et al. found that nearly all individuals who took part in their study reported poor sleep, with almost half reporting moderate to severe insomnia [31].

Another health consequence brought about by the higher stress levels experienced by individuals during the pandemic is the increase in substance abuse. There is no denying that the COVID-19 pandemic has resulted in greater stress for individuals around the world, and this increase in stress has been correlated with the abuse of addictive substances [33]. In fact, according to a study done by Rogers et al. [34], the worry, fear, and stress associated with the pandemic have led to the use of substances as a coping mechanism; of the 160 participants who took part in their study, 8.8% reported they had started drinking during the pandemic, while 6.9% had started smoking cigarettes, 5% had started using cannabis, 4.4% had started using electronic cigarettes, 5.6% had started using stimulants, and 5.6% had started using opioids. In addition, in looking at the reason for this rise in substance abuse, the negative reinforcement models of substance use postulate that disasters, stress, worry, and/or anxiety, such as that brought on by the pandemic, trigger an increase in negative effects which, in turn, strengthens the motivation of individuals to use and even abuse substances to mitigate such effects [35–37]. In other words, individuals used or even abused substances as a maladaptive coping strategy during the pandemic because the isolation, social distancing, and stay-at-home measures limited the options for healthier forms of emotional regulation, such as social interaction or working out and being active [34]. Another reason suggested by existing research that could explain the maladaptive use of addictive substances as a strategy for coping with the increased levels of stress, anxiety, and depression brought on by the COVID-19 pandemic is the behavioral immune system (BIS) [12, 38, 39]. The BIS has been shown to increase interoceptive awareness and signals the body in case of a potential infection. In turn, this leads to the production of behaviors that help prevent an illness. However, this feedback is linked with anxiety, stress, trauma, and fear, which are all reactions that are associated with an increased risk of substance use and abuse [15, 40]. More specifically, research has shown that activation of the BIS and the consequential rise in anxiety levels due to interoceptive awareness can lead to higher usage rates of both alcohol and marijuana [41, 42].

In general, identifying the prevalence of psychosocial factors such as depression, anxiety, and stress is essential to better understand how to mitigate the effects of these factors. However, given the increased need and demand for mental services

during the pandemic, it is crucial to identify those individuals who urgently need help to provide them with more support [43]. As such, determining the high-risk groups is essential. As it pertains to depression, anxiety, and stress, research has found that younger individuals are more vulnerable and have reported greater levels of depression, anxiety, and stress compared to their middle- and older-age counterparts [44]. Furthermore, the Centers for Disease Control and Prevention found that young adults are exhibiting worsening depression and anxiety during the COVID-19 pandemic [45]. In addition, they are also the group that has seen the largest increase in unmet mental health needs [46].

2.2 Suicidal ideation

Along with the anxiety, depression, stress, insomnia, and substance abuse discussed above, the financial stressors brought about by the global economic hardships and the social isolation brought on by the stay-at-home measures have created what psychologists have termed “the perfect storm,” leading to the concern that suicide rates may increase [47]. It has been found that suicidal ideation is on the rise, especially in young adults [48]. Fortgang et al. [49] investigated whether suicidal thoughts were predicted by an increase in social isolation and found that rates of suicidal ideation increased with greater feelings of isolation. However, another study conducted in the Spanish general population found that the overall prevalence of suicidal ideation did not change significantly between before and after the start of the pandemic [50]. With these variations in findings, no clear trends can yet be established, and such data on suicide rates still need to be compiled [51].

It has been indicated above that the prevalence of depression during the pandemic is on the rise. With that in mind, research has identified depression as a major risk factor for suicidal ideation [52]. The pandemic has resulted in closed businesses and stay-at-home directives to curb the spread of SARS-CoV-2. This has, in turn, led to employees being laid off and/or working reduced hours. In the past, economic declines such as this have been associated with a higher rate of suicide [53]. Another crucial side effect of the pandemic is social isolation. Social connection is a protective factor against suicidal ideation; however, the pandemic has made establishing and maintaining social connections difficult and has led to greater rates of loneliness. This social isolation and loneliness have been shown to lead to suicidal thoughts [54]. Interestingly, the Japanese government created what they termed the “Ministry of Loneliness” after 20,919 people took their lives in 2020 [55].

While the pandemic has had its toll, in one way or another, on individuals worldwide, some groups have been more heavily affected than others. As it pertains to suicidal ideation, health care workers fighting on the front lines are one of them. For example, health care workers reported higher rates of suicidal thoughts when they also suffered from PTSD. In addition, these individuals also reported higher rates of feeling isolated [56]. Another high-risk group is adolescents. With the lack of social connections and the upheaval of daily routines, navigating the pandemic has been particularly tough on adolescents. One study found that the suicide rates among adolescent girls aged 12–17 years increased by 51% during the pandemic [57]. These trends are an indication that these groups require urgent mental health services.

2.3 Changes in family dynamics and education

It is undeniable that the pandemic has led to the restructuring of relationships in ways that either pushed individuals to live in closer contact with each other or further apart from one another. With schools shutting down, shops and restaurants closing, and parents being asked to work from home, contact with

the outside world was limited in unparalleled ways [58]. Often, families found themselves confined to their homes and isolated together for unprecedented amounts of time. Paired with financial troubles, stress, anxiety, and fear due to the pandemic, a situation has emerged in which a high-pressure confinement environment was created [59]. This has been associated with dysfunction in the lives of individuals and families. When Feinberg et al. examined the impact of the pandemic and its mitigation interventions on the mental health of parents, children, and overall family functioning, they found that, during the first month of the pandemic, children reported elevated levels of internalizing problems, such as depression, and of externalizing problems, like aggressive behaviors. As for the parents, they reported decreased quality levels of co-parenting and higher levels of depression [60].

The pandemic has disrupted the traditional methods by which education is delivered worldwide. Instead of the traditional in-person education, children were now left attending schools online via digital learning software programs, YouTube videos, and Zoom classes [61]. This arrangement has created several educational challenges for children [62]. Parents were also left needing to support their children more and, with the little warning they had, they did not have much time to prepare [63]. In response to the shift to online learning and the closure of childcare facilities, parents had to learn to allocate responsibilities. One study found that 67% of women assumed responsibility for the education of their children compared to 52% of men. While some parents have attempted to share this responsibility, women were rendered not only more likely to take charge of homeschooling but to also spend more time washing, dressing, and feeding their kids [64]. It was reported that 53% of women have been struggling with educating their children at home and that their mental health was negatively impacted as a result. In contrast, 43% of men reported the same struggles [64]. Along with this, many parents were dealing with other stressors brought on by the pandemic. It was reported that 74% of parents perceived a disruption had occurred in their daily routine and found the necessary adaptation to be a critical stressor [65]. In addition, children were significantly impacted too. It was reported that 52% of parents in Great Britain stated that their children were struggling with being educated at home. When looking at the major causative factors, it was determined that the absence of motivation, guidance, and support was an issue [64]. Another issue brought on by distance learning is that not all children have access to the equipment necessary to carry it out. According to the United Nations Educational, Scientific and Cultural Organization, 463 million around the world were no longer receiving an education during the pandemic because they could not access remote learning [62].

The COVID-19 pandemic, in addition to its many negative consequences, has brought with it the worst economic crisis since the Great Depression of 1930 [66]. With this came the loss of income due to a lack of employment or being laid off. This has particularly impacted children of low-income, less-educated parents. To better understand family dynamics following the consequences of the pandemic, responses were collected from 572 low-income families in Chicago; what was found was that the parents' job and income loss were strongly linked to their stress level, loss of a sense of hope, depression, and negative interactions with their children [67]. Yet, this does not apply to parents who have lost jobs but did not experience simultaneous income loss. On the contrary, positive parent-child interactions were seen among individuals who lost their jobs but did not experience any income loss. Another outcome that was observed in this study was that parents who spent more time taking care of their children reported more positive parent-child connections, while negative parent-child interactions were seen among parents who were exposed to SARS-CoV-2 [67].

2.4 Unemployment

The COVID-19 pandemic was not merely a public health crisis—it was an economic crisis as well [68]. With businesses closing and travel and hospitality businesses becoming obsolete, many individuals around the world lost their jobs and, consequently, their incomes [68, 69]. According to a survey conducted by the International Labour Organization, 30% of respondents lost their source of income, and 25% of respondents were unable to meet their basic needs. Furthermore, 5% reported not being able to pay their rent [70]. In addition to this, according to the United Nations labor agency, the COVID-19 pandemic has caused more than 100 million workers to be pushed into poverty. This means that families were surviving on less than 3.20 US dollars a day. This trend was caused by the job losses, reductions in job hours, and lack of access to good jobs brought on by the pandemic [71]. According to WHO, because of the economic and social disruption caused by the pandemic, tens of millions of people have been put at risk of falling into extreme poverty. In addition, there is an estimated 690 million undernourished people in the world, and this number was expected to increase by up to 132 million by the end of 2020. As for job losses, almost half of the world's workforce is at risk of losing their jobs [72].

With all this in mind, it should be noted that exposure to SARS-CoV-2 is not random. One of the highest-risk groups is those who live in poverty. It has been shown that individuals who are in low-paid, manual jobs in the retail, service, and care sectors are more highly and likely to be exposed to the virus as they hold jobs that cannot be performed remotely. In addition, poorer individuals are more likely to contract the virus as they have higher levels of pre-existing illnesses [73]. Another area in which lower-income families have been greatly affected by the pandemic is that of childcare. With community support programs and free services being halted, low-income families with children are having to put up with extra costs in food, heating, and housing [74]. According to Brewer and Patrick [75], in 2020, 36% of low-income families who had children saw an increase in their spending, while families without children saw a 40% reduction in their spending.

Previous studies have investigated the effects of unemployment on suicide rates in 63 countries around the world, without factoring in the extra stressors of the pandemic. What was found was that suicide rates increase by 20–30% when unemployment is factored in [76]. When trying to ascertain the rates of suicide due to unemployment while factoring in the health and psychiatric implications of the pandemic, the relationship is less clear, and a lot of the findings are speculative. When looking at similar situations in history, such as during the severe acute respiratory syndrome epidemic of 2003, it was found that suicide rates in the affected Asian countries increased together with unemployment, reaching historic levels in that year. However, since the severe acute respiratory syndrome pandemic occurred at the peak of the Asian financial crisis, it can be hard to separate that event from the larger findings [77]. Projections have been made, with the use of time-trend regression models, about the rate of suicides as it relates to unemployment during the COVID-19 pandemic. In Canada for example, the rate was projected to be 27% [78] while, in the United States, it was projected to be 3.3–8.4% [79].

2.5 Sexual and domestic violence

As a result of the emergency stay-at-home measures taken to curb the spread of SARS-CoV-2 and “flatten the curve,” many individuals have been forced to spend unprecedented amounts of time indoors, and this trend has raised concerns about an increased risk for sexual violence [80]. According to data, the percentage of women worldwide who have had violence perpetrated against them by a partner

or a non-partner is 35% [81]. It has been predicted that, due to the COVID-19 pandemic, the rate of domestic violence has increased by at least 25%, and this phenomenon has been termed the “shadow pandemic.” However, it should be noted that this has yet to be fully confirmed, and further insight and monitoring of the issue are required [82]. The best way to learn about the present is to look at the past, and research from previous pandemics has shown that factors that most commonly increase the risk of violence include economic uncertainty, stress related to poverty, quarantine requirements, the loss of a job or a reduction in working hours, and the social isolation [83–86]. As previously discussed in the above sections, pandemics have been linked to depression, stress, PTSD, insomnia, and substance abuse, which are all factors that have been correlated with increased violence rates [87–89].

Another side effect of the pandemic’s lockdowns is that they create the ideal environment for domestic violence. An exponential increase in domestic violence has been recorded since the start of the pandemic [90–92], including especially against women. According to WHO, this is in line with the current world circumstances as violence against women tends to increase in disaster situations such as the current pandemic we are living through. The environment that has been created by the pandemic, in which there are high levels of stress, increased economic turmoil, upheaval, and reduced access to social and protective networks that serve as protective factors, is ripe for domestic violence [93]. In Australia, a 5% increase in domestic violence has been recorded [94–96]. In a study in Portugal that consisted of 1062 participants, 13.7% reported experiencing some form of domestic violence [97]. In France, reports increased by 30%, while a 25% increase was seen in Argentina and a 30% increase was noted in Cyprus. In Singapore, a 33% increase was seen. Finally, this trend has also been seen in the United Kingdom, the United States, Canada, Germany, and Spain [90].

3. Mitigation strategies

3.1 Exercise

Exercise has been proven to reduce stress and anxiety. It was found that exercising during the pandemic reduces symptoms of stress, anxiety, depression, boredom, and frustration, and it renders individuals more mentally and physically resilient [98]. When we exercise, our brains release endorphins, and these are the hormones that help us deal with stress and reduce sensations of pain. As such, exercising on a regular schedule will facilitate a consistent release of endorphins, thus mitigating the effects of stress [99]. This is crucial, as prolonged stress can harm the body physically by negatively affecting our cardiovascular system, central nervous system, immune system, and central nervous system [100]. Prolonged stress has been shown to accelerate aging by increasing the rate at which telomeres shorten, and short telomeres have been linked to diseases like osteoporosis and coronary heart disease [101]. In addition, the constant stimulation and emotional arousal brought on by chronic stress have been shown to cause insomnia [102]. Furthermore, stress has been linked to depression and anxiety; as such, eliminating or at least minimizing stress can keep one from developing anxiety and depression [103].

Exercise not only benefits the mental health of individuals but also their physical health. Exercise has also been shown to improve the immunity of individuals. Since SARS-CoV-2 is a virus that attacks the respiratory and immune systems, strengthening our immune systems is crucial to ward it off [104]. According to da Silveira et al. [105], exercise stimulates cellular immunity; however, intensity plays a crucial role. Moderate-intensity exercise stimulates immunity, while high-intensity exercise has

been shown to have the opposite effect. Furthermore, exercising consistently is a protective factor against both viral and bacterial infections and can also increase the immune system's response to vaccines [106]. In addition, regular moderate-intensity exercise minimizes respiratory infection and stimulates humoral and cellular immunity [107]. When looking at the types of exercises, one particularly beneficial mode is aerobic exercises. This kind of exercise increases the body's immunity by increasing neutrophils, macrophages, T-lymphocytes, and monocytes. The increase in these components is not only crucial for protecting against infection but also plays a particularly crucial role in increasing immunoglobulin levels, especially immunoglobulins A and G, which have a substantial role in fighting lung infections such as those caused by the COVID-19 virus [108]. This is of importance since the medical indication of COVID-19 is dominated by respiratory symptoms [109]. Another practice that has been proven successful in improving the mental health of individuals during the COVID-19 pandemic is yoga. Yoga is a practice that is widely used to lower stress and anxiety and has even been shown to improve immunity [110, 111]. A study by Nagarathna and colleagues [112] examined the effects of yoga on the physical health, mental health, lifestyle, and coping skills of individuals during the COVID-19 pandemic and what was found was that those who practiced yoga exhibited less anxiety, stress, and fear, as well as had better coping strategies. In addition, yoga practitioners had better physical health and endurance, were less likely to use substances, consume unhealthy food, and had better quality sleep. All these aspects are crucial when it comes to the strength of the immune system [112].

3.2 Minimizing media exposure

With the novelty of SARS-CoV-2 and the confusion brought on by it, individuals have turned to social media and news outlets to gain information. According to Garfin et al. [113], the extensive media coverage of the pandemic has magnified the distress caused by it. When individuals are exposed to too much stressful news, it can not only strengthen their fears but also preclude them from concentrating on regular everyday tasks and adopting protective behaviors [114]. A study conducted in China examined the association between media exposure about the COVID-19 pandemic and the stress response, and the study investigators found that prolonged exposure to the media was not only associated with higher levels of stress but also with acute stress disorder. This led to the recommendations that governments should be more conscious of the negative impacts that such exposure has on their citizens and should develop suitable mediation strategies that do not compromise citizen well-being but rather promote it in times of crisis [115].

It has been shown that, since the start of the pandemic, the rates of anxiety have tripled and those of depression have quadrupled in the United States, and research has suggested that the media has played a role in these trends [116]. This is fathomable as the media coverage of the pandemic has consisted of commentary on distress and death. Furthermore, the media's reporting of exaggerated numbers, inaccurate facts, and conspiracy theories have led to fear and confusion [116, 117]. Looi et al. [118] offered three recommendations that could mitigate the mental health effects of the pandemic; the first is that governments and health authorities should be responsible for communicating information clearly and correcting misinformation. Second is that these authorities should warn citizens of the likely adverse mental health effects of prolonged media exposure during the pandemic, and third is that limiting exposure to the media is essential. In fact, as per research recommendations, individuals should limit their exposure to COVID-19-related news to a maximum of 2 h per day. Spending more than 2 h a day focusing on COVID-19-related news has been associated with anxiety and depression [119, 120].

Furthermore, attending to the media should be avoided at least 1 h before bedtime to avoid experiencing insomnia [120, 121].

3.3 Counseling

The pandemic has left a psychic scar that still needs tending. With psychological pressures like depression, anxiety, and stress that then may manifest into health issues like insomnia and substance abuse, counseling is necessary to be able to support those who are affected [122]. Due to the social and physical distancing required by the COVID-19 pandemic, the usual means of support are no longer as accessible and have been disrupted immensely [123]. When looking at 130 countries, it was found that 67% of them saw disruptions to their counseling and psychotherapy services. Despite this, the pandemic is increasing the demand for mental health services [16]. In response, countries have begun to adopt electronic mental health tools and, while the acceptance of these tools was quite minimal before the pandemic, they have now become the best and highest-quality solutions available given the circumstances brought about by the need for physical distancing [124, 125]. As for how effective counseling during the pandemic is, research has shown that individuals who regularly attend counseling sessions experience lower levels of depression, anxiety, and stress [122].

One very salient effect of the pandemic is the transition from in-person to online therapy sessions. With the increasing rates of stress, anxiety, and depression and the lasting impact they are expected to have, it is essential to make sure that the adopted treatment methods alleviate the patient's distress and have lasting effects [126]. One technique that has been shown to alleviate stress, depression and anxiety is cognitive behavioral therapy (CBT). CBT psychotherapeutic approach aims to change the constant destructive and disturbing patterns of negative thoughts that result in stress, depression, and anxiety with ones that are more objective and realistic [127]. Weiner et al. [126] developed a protocol that is looking at how effective online cognitive behavioral therapy is for health care workers, a group that is at higher risk of developing mental health repercussions because of stressors of the pandemic. According to this study, similar protocols have been shown to improve resilience in high-stress scenarios, such as that of a pandemic, as well as to mitigate the chances that psychological disorders might emerge. While this protocol is still being implemented, the findings may prove significantly helpful in managing the long-term mental health effects of the COVID-19 pandemic [126]. Another study investigated the effectiveness of cognitive-behavioral therapy and found that computer-based cognitive behavioral therapy proved to be an effective treatment for patients with COVID-19 who suffered from anxiety, depression, and insomnia. In support of this Mahoney and colleagues decided to look at the effects of online CBT on anxiety and depression during the COVID-19 pandemic and found a sizeable reduction in anxiety and depression symptom severity, as well as a reduction in psychological distress [128]. Nevertheless, further research is needed to better understand the long-term effects of such a treatment approach [129]. On the other hand, a study conducted by Barker and Barker [130] found that face-to-face counseling sessions are more effective than online sessions. It was noted that individuals appeared more diverted and disengaged during virtual sessions. In addition, they were not as open or comfortable with confiding in their counselor.

3.4 Maintaining social connections

Humans are hard-wired to need social connection [131]. While the pandemic has altered all types of social norms, it does not mean these norms have to be eliminated; instead, they can be altered, and individuals can adapt to the alterations

because maintaining a regular human connection in times like these is as important as ever [132]. Higher levels of social connectedness during the pandemic were associated with lower levels of stress and fatigue. In addition, the larger and more active their social networks are, the lower individuals' levels of distress and anxiety are [133]. Furthermore, social connections are crucial in building resilience in times of hardship by shielding individuals against any trying mental and physical outcomes brought on by those times [113]. On the other hand, chronic loneliness has been associated with negative health outcomes, like an addiction. As for the effects of loneliness, they are more harmful than hypertension and obesity [134, 135]. Captivatingly, social connections are not only beneficial to our mental health but also our physical health: they can help to fight off infections. It has been found that maintaining healthy social connections aids our immune system in creating more antibodies, which can then go on to fight diseases [136, 137]. All this research has clearly shown that maintaining social connectedness is crucial in not only fighting off mental health ailments but also physical ones.

Since the Internet has been the sole means of maintaining social connections in a socially distanced world, it is worth examining the effectiveness of using the Internet to maintain these social connections. With the pandemic, all aspects of life have become Internet-based, from counseling to religious services to parties [126, 138, 139]. A study conducted in Germany investigated the effects that Internet- and technology-based communication had on maintaining social connections during the pandemic. What was found was that, while the impact of audiovisual communication was minimal, that of text-based communication has been found to promote the maintenance of social distancing measures and increase life satisfaction and the feeling of being socially supported. However, when looking at the long-term effects, some of these findings changed. While the feeling of being socially supported increased, the desire to maintain communication and social distancing measures decreased [140]. On the other hand, another study compared social networking data pre-pandemic and during the pandemic and found that there were substantial decreases in network density and size [141]. This can be attributed to the fact that, with the prolonged lack of face-to-face communication, the familiar feeling of being close to family and friends begins to fade; more specifically, after a two-month period, the feeling decreases by 30% while, after a five-month period, the feeling decreases by 80% [141, 142]. Furthermore, when comparing the levels of loneliness, before the COVID-19 pandemic (June 2019) and during the COVID-19 pandemic (June 2020), face-to-face interactions, along with the duration and frequency, have been shown to be associated with smaller increases in levels of loneliness compared to other modes of communication during the COVID-19 pandemic [141].

4. Summary

It's needless to say that the COVID-19 pandemic has had seismic effects on the lives of individuals worldwide. With the documented impacts on mental health and financial well-being, it is crucial to determine the psychosocial factors at play to be able to mitigate their effects. The first psychosocial factors covered in this chapter were depression, anxiety, and stress. The research discussed in this chapter shows that depression, anxiety, and stress have increased during the pandemic. The next factor focused on was suicidal ideation, and preliminary research has indicated rates of this phenomenon are rising during the pandemic. In addition, some groups have documented higher rates than others, and frontline health care workers and adolescents may be particularly at risk. Then, changes in family dynamics and

education were discussed. The pandemic has forced certain people to spend unprecedented amounts of time with one another, which has had its effects. The pandemic has proven to be particularly difficult on children and has made things hard on parents as well when it comes to cooperativity, which has also affected their mental health. As for education, adjusting to distance learning has been difficult for both parents and children. The shift to distance learning has also particularly affected low-income families. Furthermore, many children are no longer able to receive an education due to a lack of access to remote learning equipment. Unemployment was another factor discussed. Although, many individuals lost their jobs and source of income, this has again impacted low-income families more. In addition, their low-income status has left some individuals more at risk of SARS-CoV-2 infection as they have jobs that cannot be done remotely. The pandemic has also made childcare more expensive as the usual means of support that were relied upon are no longer available, and lower-income families were left taking on more costs for childcare. Unemployment has influenced mental health, leaving mental health providers worried about its effect on suicide rates. The last factor discussed was that of sexual and domestic violence, which the pandemic has created the ideal environment for. Rates for both have increased due to the pandemic, and a particularly stronger impact on women has been noted. Finally, mitigation strategies were discussed to ease the effects of these factors. The first was exercise, which has been shown to alleviate the depression, anxiety, and stress brought on by the pandemic. Limiting media exposure can also help ease the stress and anxiety created by the pandemic and its confusion. Counseling represents another mitigation strategy. The need for mental health services has increased in the wake of the pandemic; however, with the distancing measures, traditional counseling techniques have had to be altered and moved to a virtual setting. Nevertheless, those attending such sessions have shown improvements in mental health. The final mitigation strategy discussed was maintaining social connections. We are social beings, and social connections constitute not only a protective factor for mental health but also one for physical health. Connecting socially also aids in building the resilience that allows us to survive instances of adversity, such as what we are currently living through.

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