# COVID-19 vs. terrorism: Contribution of the COR theory to the process of coping with invisible threats

Leah Shelef [a,*], Miriam Schiff [b], Ruth Pat-Horenczyk [b], Rachel Dekel [c]

[a] *Department of Military Medicine, Faculty of Medicine, The Hebrew University of Jerusalem, Israel*
[b] *Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem, Israel*
[c] *Louis and Gabi Weisfeld School of Social Work, Bar-Ilan University, Ramat Gan, Israel*

## ABSTRACT

Two years have passed since the outbreak of the COVID-19 pandemic. The entire world is still struggling with the virus and its mutations, and governments have been imposing various restrictions, including social distancing and quarantine. This paper leans on the Conservation of Resources (COR) theoretical model in comparing the impact of COVID-19 with that of an ongoing threat of terror attacks, allowing us to understand the similarities and differences between them. Such exploration could result in an understanding that may guide devising psycho-social interventions to minimize the negative psychological consequences of a continuous life-threatening situation. By applying the extensive available literature on the aftermath of terrorist attacks to the little-known long-run consequences of the COVID-19 pandemic, this paper comes up with several guidelines such as increasing online social support and enhancing adaptive coping with stress, that are applicable on the individual, community, and societal levels.

In an editorial article in the New York Times (February 23, 2003) on the impact of 9/11, Thomas L. Friedman wrote: "The right response [to terrorism], after a point, is not to demand more and more security—but to learn to live with more and more anxiety … The question is not whether there will be more attacks … The question is whether we can survive them and still maintain an open society."

This statement seems to be no less relevant to the COVID-19 "attack".

Since its December 2019 appearance in Wuhan, China, COVID-19 has been referred to in military terms: the invisible enemy, the worst attack ever, worse than 9/11, worse than Pearl Harbor, we will win the war against coronavirus, the great COVID-19 war, are but few examples (e.g., Casagrande et al., 2020; McNeil-Willson, 2020; Michigan governor; Donald J. Trump; Robert Goler; Edith M. Lederer; David Martin; Kurt Snibbe; Victor Davis Hanson; Dan Michelson). Yet, McNeil-Willson argues that the threats of terrorism and COVID-19 are dissimilar. He claims that experience shows that terrorism as such does not threaten the continued existence of states. In contrast, due to COVID-19, the restrictions imposed by organizations and governments have jeopardized human life by limiting face-to-face social relations and interactions that may have worse implications for humanity than 20

years of terrorism (Horesh and Brown, 2020; Singh and Singh, 2020).

The present paper explores the similarities and differences between the psycho-social consequences of COVID-19 vs. terrorism, leaning on the formulations of the Conservation of Resources (COR) theory (Hobfoll, 2011; Hobfoll et al., 2006). The COR theory also helps devise psycho-social interventions capable of minimizing the psychological damages of these two global crises.

No exact guidelines have been formulated to date as to how to withstand and cope with COVID-19 – an amorphous enemy that has put us under continuous threat for two years. In our paper, we propose that understanding the vulnerabilities and resilience that emerge while coping with terrorism may prove relevant to coping with the COVID-19 pandemic outcomes. The goals of this paper are: 1. Exploring the similarity between the COVID-19 pandemic and terror attacks based on the Conservation of Resources (COR) theory and existing research studies; 2. Identifying differences between the pandemic and terror attacks based on the COR theory; 3. Suggesting preventive and treatment interventions on the individual and community levels, to minimize the long-run psycho-social damages of the pandemic.

Several similarities may link the COVID-19 outbreak with terrorism. Among them are life-threatening characteristics, loss of loved ones and

grief, the unpredictability of the threat, diverse levels of exposure or proximity to the events, the intensity of the experience, ambiguity about protective measures, and the considerable disruption they both cause to routine daily life. Brown et al. (2019) noted that thoughts such as, "I am totally incompetent," "Others cannot be trusted," and "Nowhere is safe," often reflect common emotional reactions to trauma. Negative thoughts about oneself, others, and the world are central to the development and persistence of posttraumatic stress disorder (PTSD). Fear has been identified as a strong predictor of PTSD in people exposed to terror attacks (Laufer and Solomon, 2009). Although much has been learned about the epidemic, people around the world continue to fear COVID-19 and its mutations and live with high levels of uncertainty. It is too early to determine with certainty whether fears related to COVID-19 are strong predictors of PTSD. Yet, recent evidence suggests that ordinary people (Gao et al., 2020), medical staff (Johnson et al., 2020), and recovering COVID-19 patients (Xiao et al., 2020; Matalon et al., 2021) have been diagnosed with PTSD.

These phenomena are all potentially associated with psychological distress and functional impairment, as studies conducted in different countries have shown (Gallagher et al., 2020; Gao et al., 2020; Fernández et al., 2020; Huang and Zhao, 2020; Marazziti et al., 2020; Schiff et al., 2020). At the same time, terror attacks and COVID-19 differ in various ways, such as the recommended isolation and quarantine in the latter, which are associated with unique challenges (Singh and Singh, 2020). We will further explore these similarities and differences based on the Conservation of Resources theory and empirical evidence.

# 1. The Conservation of Resources theory (COR)

The COR theory proposes a model that explains coping with stress and trauma. The basic premise underlying the COR theory is that humans are motivated to protect their existing resources and acquire new resources (Hobfoll, 1989). According to the COR theory, stress response can be a normal reaction that tends to occur in one or more of the following situations: threat or actual loss of personal resources – self-esteem, hope, or a sense of control over future events; loss of physical resources such as one's home, clothes, or accessibility to transportation; and lacking resource gain. Notably, a central principle underlying the COR theory is that resource loss is more prominent than resource gain. Nonetheless, while resource gains may have little impact on people who are not experiencing specific loss or loss cycles, these gains become potent in the case of major or sustained resource loss (Chen et al., 2015). In the COVID-19 case, the gain of greater family attention under quarantine and increased virtual support has quite possibly been higher than we have been used to receiving. At the same time, uncertainty, loss of socializing, impaired economic security, and loss of other routine-life features make for more resource loss than gain. During the COVID-19 pandemic, resource loss has been greater than resource gain, predicting stress and psycho-social implications. This means that those who have more resources in the first place would be less vulnerable to the consequences of the resource loss brought about by the pandemic (Chen et al., 2015; Thomas et al., 2020).

## 1.1. Threat of losing personal resources

Fear and loss of a sense of security are among the central emotional responses to both terror attacks and the COVID-19 pandemic (Van Bavel et al., 2020).

In terms of the COR theory, fear underscores resource loss (i.e., a sense of insecurity at home, in the community, and the environment). Since the COVID-19 pandemic breakout, some individuals have been in fear of imminent death (i.e., loss of self-confidence). Others report guilt-feelings and worry about spreading and transmitting the virus to family, friends, and colleagues (i.e., loss of control) (Park and Park, 2020; Xiang et al., 2020). The high rate of morbidity and mortality during the pandemic and the lack of data-based knowledge about the infection

spread, risk populations, and treatment options have generated a worldwide sense of insecurity, indicating a loss of personal and social security (Pakpour and Griffiths, 2020).

## 1.2. Lost sense of certainty

Uncertainty associated with the COVID-19 disease has implications for the mental health of the population (Ornell et al., 2020; Park and Park, 2020; Xiang et al., 2020). The loss of certainty, which stands for resource loss, is common among people exposed to COVID-19 and terror attacks. Uncertainty is a COVID-19 consequence that any resource gain does relatively little to offset or limit (Hobfoll et al., 2006). In terrorism, direct or indirect exposure and proximity to the source of stress have significant implications for mental well-being (Bleich et al., 2003; Chemtob et al., 2011; Neria et al., 2008; Schiff, 2006; Shalev and Freedman, 2005; Shalev et al., 2006). Similarly, in the case of COVID-19, both direct exposure (e.g., of healthcare workers; Lai et al., 2020) and indirect exposure (e.g., suspected exposure to the virus; Zhang et al., 2020) are widespread. Moreover, suspected exposure to the virus contributes to losing the sense of well-being (Zhang et al., 2020), a central psychological resource (Galea et al., 2002; Hobfoll et al., 2006).

Yet, certain threats or actual loss of personal resources are unique to COVID-19 and do not appear in the context of terror attacks. One of them is *disease-related stigma,* a central attribute of infectious diseases, where a personal resource loss is identified with the COVID-19 pandemic. Stigmatization is an undesirable stereotype that can cause mental distress and disorders (Zolnikov and Furio, 2020). A recent review revealed that infection or suspected infection with COVID-19 was stigmatized (Brooks et al., 2020; Logie and Turan, 2020). Studies from previous pandemics reveals that healthcare workers may face additional public stigma and isolation because they are thought to be more likely to transmit the disease (e.g., Bai et al., 2004; Reynolds et al., 2008). Unlike first responders in a terror attack, who the population perceives as heroes, a study conducted at the height of the COVID-19 pandemic revealed that first responders directly exposed to the virus were at a higher risk of social stigmatization by the general public (Zolnikov and Furio, 2020). In the mental health study, conducted a year after patients had recovered from SARS (Bai et al., 2004), medical staff reported that the stigma associated with being potentially infected by the virus led to a sense of isolation, lack of support and understanding from family and friends, decreased social interaction, or complete forced removal from one's immediate social circle. Individuals stigmatized by the community (unlike ones with an internalized stigma) often suffer from various mental health outcomes, such as depression and anxiety (Zolnikov and Furio, 2020). Internalized stigma, namely, self-agreement with negative stereotypes that often co-occurs with rejection and distress, has been associated with loss of self-esteem, self-identity, and self-efficacy resources (Tansey et al., 2007).

Loss and grief are two other issues that are common to terror and the COVID-19 pandemic, causing both loss of physical resources and a lost sense of certainty and familiarity. The death of a family member may result in the loss of physical resources (e.g., livelihood) or an emotional condition (e.g., lost sense of security). Those losses can contribute to psychological symptoms of grief following suffering and death. Grief is a normal and natural response to loss. The social context plays a huge part in one's loss and grief experiences. Social support is one of the strongest determinants of positive outcomes after bereavement (Breen, 2020). Deaths usually entail gatherings. For example, funerals offer grievers an opportunity to receive support from others. But the physical distancing has damaged the traditional gatherings, with possible exacerbation of grief feelings due to physical distancing (Breen, 2020).

Numerous families have suffered significant losses during the pandemic (Zhai and Du, 2020). Several studies note that quarantine and isolation have undermined various traditional bereavement rituals, impairing support and recognition of the loss. Among them are attending a loved one's burial ceremony, saying goodbye, corpse

handling, and avoiding social gatherings that impairs support resources, and recognition. The need to revert to improvised grief rituals puts individuals at a greater risk of prolonged grief disorder (PGD) (Goveas and Shear, 2020; Zhai and Du, 2020). Moreover, government policy measures to target the pandemic, expose people whose family members died of causes other than COVID-19 to the same potential risk factors, also increasing their grief of (Eisma et al., 2020).

Quarantine and lockdown restrictions are two specific COVID-19 stressors that may also exist in connection with terrorist threat. In both contexts, these restrictions clearly define who must not leave home and when going out is permitted. For example, immediately after the terrorist attack at the Boston marathon, the authorities declared lockdowns to protect vulnerable populations (Naturale et al., 2017). In the current COVID-19 pandemic, the lockdowns aim to reduce chain infection. Despite the different restrictions and guidelines, the purpose of the lockdown in both cases is to protect human life whether by limiting infection or reducing the danger of injury.

They are both associated with a sense of loss of freedom (e.g., having to stay at home and prohibition to go to work) and a sense of loneliness (e.g., loss of relationships, recreation, and social support (Bareket-Bojmel et al., 2021)). These losses worsen once quarantine and lockdowns are perceived as instances of coercion (Mattioli et al., 2020). Social distancing prevents emotional and physical intimacy, and is associated with the dissolution of intimate relationships with partners, family, and friends (Zhai and Du, 2020).

### 1.3. Loss of physical resources

Loss of economic resources, associated with a deteriorated mental state, is among the most significant physical resource losses experienced by numerous people in both terrorism and COVID-19 circumstances. There is ample evidence of local and national efforts to assist populations that have lost their jobs due to terrorist attacks (e.g., 9/11) or natural disasters (e.g., Hurricane Katrina). The 9/11 terror attack, for example, had a severe impact on the mental health of individuals who lost money or jobs in New York City and worldwide (e.g., Yu, et al., 2016).

During the economic slump caused by the COVID-19 pandemic, millions of people lost their jobs. The loss of this crucial material resource has caused pain accompanied by stress (Plomecka et al., 2020). Loss of job security and difficult economic recovery have been previously associated with mental health symptoms (Mucci et al., 2016; Plomecka et al., 2020). Crayne (2020) pointed out that the economic aspect of losing one's job was accompanied by a psychological effect of losing meaning and value.

### 1.4. Resource gain

Resource gains contribute to improved psychological well-being, health, and functioning (Hobfoll et al., 2012). Chen et al. (2015) maintain that resource gain is a paradoxical principle. Although the COR theory places greater weight on resource loss, resource gain plays a key role in developing resilience (Luchetti et al., 2020). Thus, whereas resource gains may have little impact on people who have not experienced a loss or a series of losses, they become potent in cases of significant or sustained resource loss (Chen et al., 2015). Hence, to gain resources and be protected or recover from resource loss, people must invest resources (Hobfoll et al., 2003). The following example illustrates this point. A qualitative study among twenty nurses who treated COVID-19 patients found that at the beginning of their work with COVID-19 patients, they experienced negative emotions (fatigue, discomfort, and helplessness) due to loss of resources resulting from their high-intensity work, fear and anxiety, and concern for patients and family members. To gain resources, they had to invest in potential resources by adopting self-coping means (altruistic acts, team support, and rational cognition) that were associated with psychological growth (Sun

et al., 2020). Several studies published during the COVID-19 pandemic have shown that gaining more tangible resources, such as a social support network, tends to reduce psychological symptoms such as anxiety (Cao et al., 2020; Xiao et al., 2020; Spoorthy et al., 2020) and depression (Spoorthy et al., 2020), and improve self-efficacy (Spoorthy et al., 2020; Xiao et al., 2020). Social support was also identified as alleviating psychological distress among medical staff and medical students (Li et al., 2021).

Another crucial aspect related to the lockdown policies was that people were forced to work from home and adopt long-distance work modes that might be associated with a sense of resource loss such as by compromised working conditions at home, or resource gain such as by saving commuting time. For example, one study conducted during a COVID-19 lockdown among couples with children in Israel, all of whom were working from home, found an association between difficulty to tolerate uncertainty and psychological distress (Reizer et al., 2021). However, while optimism (a vital personal resource) buffered the negative ramifications of intolerance to uncertainty (i.e., resource gain), the inability to schedule proper work arrangements at home during the lockdown was a risk factor for intolerance of uncertainty and psychological distress (i.e., resource loss). Another example for loss of resources emerged from a study where people who had to go on an unpaid leave of absence demonstrated significantly higher distress than those who were unemployed prior to the pandemic (Mimoun et al., 2020).

The COVID-19 lockdowns and the resultant ongoing economic slump have considerably reduced a highly significant material resource –social support. A loss of this kind is a risk factor for long-term mental health problems, including the risk of suicide attempts during and after the pandemic (Zalsman et al., 2020). Moreover, in addition to loss of social support resources, a material loss may prompt a sense of reduced mastery. In their extensive discussion, Hobfoll et al. (2003) suggested that acquiring a sense of mastery and social support resources may mediate the impact of material loss on depressive mood and anger so that a more definite sense of mastery and social support would reduce anger and depressive moods (Hobfoll et al., 2003).

Social distancing policies potentially lead to social isolation and reduce the sense of belongingness, increasing the risk of devastating outcomes such as suicidal behaviors (Sheffler et al., 2020). Gaining resources such as social support and belongingness may even prevent future losses (Hobfoll, 1989) and further impairment (Chipman et al., 2011). The pandemic threat is different from terror attacks (a natural threat vs. a human one). One typical challenge of the COVID-19 that considerably differs from the challenges of terror attacks is, as noted, the collapse of social support structures (Jung & Jun 2020; Logie and Turan, 2020). In contrast, after a terror attack people tend to gather, hold ceremonies, and find comfort in each other.

Two COR theory principles relevant to the current discussion are that individuals who have more resources in the first place are better positioned for resource gains, and individuals with fewer resources are more likely to keep losing resources (Hobfoll and Lilly, 1993). In practice, this means that a person with extra personal resources can resist resource depletion to some extent and is, therefore, less prone to emotional exhaustion due to cumulative stress or strain. Excessive resource depletion, however, can lead to emotional exhaustion and burnout (Westman et al., 2004).

Thomas et al. (2020) identify several groups as vulnerable and having fewer resources from the start. They include minority groups, younger ages, females, individuals with a mental health history, and ones with high levels of COVID-related anxiety or economic insecurity (Thomas et al., 2020). Many of these groups were also found vulnerable in connection with terrorism (e.g., Bleich et al., 2006; Brewin et al., 2000), and therefore require special attention.

A discussion of the COR theory in light of the COVID-19 situation is more relevant now than ever towards finding better ways to help people gain the resources they have lost.

Challenges, dilemmas, and conflicts revealed during the pandemic

pointed to the loss of resources in many unexpected areas of life and have been related to distress (e.g., frustration, anger, annoyance, irritation, fear, and helplessness) going above and beyond demographic variables such as age, gender and other. Nonetheless, groups that had fewer resources on the pandemic outbreak, such as minority groups, experienced a higher level of stress than the general population (Thomas et al., 2020). The unique characteristics of the pandemic compelled certain groups to become involved in activities with which they were not familiar. This was the case with parents who had to acquire teaching skills over the home-schooling period (Parczewska, 2021). Other groups were new to online resources, lost valuable resources such as information or personal support, and tried to gain those resources from the internet (Laslo-Roth et al., 2021).

## 2. The role of the community in restoring individual resources

The community plays an essential role in restoring individual resources and providing social support, and can positively affect the way individuals deal with a common stressful event. This may involve boosting material resources such as food, clothing, and medicine, as well as increasing the community's non-material resources by supporting the psychosocial needs of its members. One such example is found in Israeli villages that have come under continuous terror attacks. In those places, a higher sense of belonging among those exposed to terror attacks has been associated with lower levels of distress (Dekel and Nuttman-Shwartz, 2009; Kaplan et al., 2005; Nuttman-Shwartz and Dekel, 2009a; Nuttman-Shwartz et al., 2015). Moreover, a sense of belonging in different groups and communities has helped reduce PTSD symptoms (Dekel and Nuttman-Shwartz, 2009). The amount of social and objective resources (e.g., a sense of belonging to the community) was a better predictor of PTSD than the level of actual exposure to terrorism (Nuttman-Shwartz et al., 2015). Mao et al. (2020) showed that adequate management could affect employee psychological capital through the employees' perceived organizational behavior. They based their study on the COR principle that people tend to work hard to obtain and maintain valuable psychological resources and reduce or avoid the loss of such resources (Halbesleben et al., 2014). Based on the COR theory, this implies that organizations (and states) may prove capable of preventing psychological symptoms and resource loss and enhance the sense of security.

Similar to the findings concerning exposure to terror, several studies have indicated that in COVID-19 circumstances various resources provided by the community have played a part in preventing the aggravation of post-traumatic effects while also promoting means of increasing the sense of belonging, and projecting concern for at-risk populations. In communities having the means to invest in resilience, a reduction in negative consequences is predicted in many areas (Kim and Su, 2020; Qiu et al., 2020).

Despite the similar behaviors of people exposed to terror attacks and to an epidemic outbreak, the COVID 19 circumstances are fundamentally different. The COVID-19 pandemic's consequences have resembled those of a worldwide mega terror attack rather than a local one, grave as it may be. Thy have crossed state borders, impacting populations in a way that had nothing to do with politics, opinions, ideology, or any other man-made values. By this, the pandemic has increased the vulnerability of individuals and whole societies, intensifying uncertainty and undermining the sense of security. A significant difference has emerged in the way people perceive terrorist events and the epidemic. Although since the early 20th century, many more people have lost their lives to epidemics than to terrorist attacks, more research studies have examined the psychological impact of terrorist attacks than of epidemic outbreaks (e.g., SARS, MERS, Ebola).

An urgent need exists for further research that would explore ways to mitigate the mental health implications pandemics have for vulnerable groups (Holmes et al., 2020). Nevertheless, we venture in this article to offer several recommendations based on the knowledge accumulated

since the outbreak of the COVID-19 pandemic, past mass terrorist attacks, and leaning on the COR theory.

## 3. Implications for public health policy

We suggest guidelines at the individual, community, and social levels that are likely to lead to resource gain and mitigate resource loss.

## 4. The individual level

1. **Identify the stressors.** List optional distracting activities (self-care activities) on a hierarchic scale (e.g., make a telephone call, engage in sports, watch TV) to help reduce distress (Polizzi et al., 2020). For example, The US National Center for PTSD (U.S. Department of Veterans Affair, 2021) developed an app that explains how people can help themselves, proposing a suitable and accessible way to manage stress caused by the epidemic (U.S. National Center for PTSD, November 2021). The app offers psycho-educational information, practice of accessible strategies of stress reduction and self-concern, and a delf-monitoring method that has proven to be effective for physical and emotional regulation (https://www.ptsd.va.gov/appvid/mobile/COVID_coach_app.asp.).

2. **Exchange reliable information.** Although the epidemic seems to continue forever, it will reasonably die down eventually. Critical thinking may help evaluate correctly frequently biased information. Avoid cognitive distortions or dichotomous thinking, and apply critical thinking to reduce psychological distress. List the deterministic or negative sentences that come to mind, and exchange them with a list of optimistic, positive statements.

3. **Limit excessive exposure to the media and social networks.** Overwhelming exposure to the media and social networks tends to increase catastrophic thinking and a sense of threat and may lead to losing control. Limiting unnecessary exposure reduces the likelihood of mental disorders (Gao et al., 2020). People who cannot do without the news and social networks might minimize thinking distortions by applying critical thinking. Select one news program per day, and in the remaining time, replace news programs with other TV programs that entertain or interest you.

4. **Find meaning and be active.** Finding meaning and active coping (e.g., planning, seeking support, active search for information) has been associated with a decrease in the levels of distress (Bleich et al., 2003; Silver et al., 2002). Social connectedness decreases loneliness, ambiguity, and uncertainty and increases cohesiveness. We, therefore, recommend joining groups or participating in activities that enhance one's sense of meaning, mission, altruism, and belongingness.

5. **The centrality of maintaining a daily routine.** It has been shown that keeping a daily routine despite the ongoing threat contributes to better mental health and coping (Pat-Horenczyk et al., 2006). In Pandemic-related isolation, maintaining a regular daily routine can help overcome the unfavorable consequences of the situation. Decide what daily activities you would not give up (including simple activities, such as getting dressed and not remaining in your pajamas).

6. **Increase social support.** Developing as many social activities as possible will enhance adaptive functioning (Bonanno et al., 2007). For example, organizing several small groups to meet regularly (on zoom, in the open air, or in a spacious room) for various social purposes, such as chats, cooking, or movie watching. Try to find a group you can be the one to manage and set the frequency and characteristics of the meetings.

7. **Seek any available kind of help.** Seeking psychological help is an effective way to cope with psychological distress. A brief video intervention has increased treatment-seeking intentions among people prone to mental distress, such as military veterans with PTSD, through identification and emotional engagement with the video protagonist (Amsalem et al., 2021). All the populations should be encouraged to seek help, any help. Prepare an emergency list of

telephone numbers of all the people you can call if you feel distressed, including a helpline.

## 5. The community level

8. **Resource gain through volunteering activities.** Engaging in volunteering activities is one way of regaining resources such as a sense of physical and social safety, self-control, hope, connectedness, and community cohesion (Girdhar et al., 2020; Li et al., 2020). As already mentioned, participating in activities is a way to enhance one's sense of meaning (e.g., altruism). Offering the most deprived communities (Borkowska and Laurence, 2020) material resources by supplying food, clothes, and medical care, and social resources, such as a sense of caring, and belongingness would help them regain their lost resources.

9. **Enhance the sense of social solidarity and mutual responsibility.** In times of crisis, strengthen community social connections, develop a network of volunteers, and identify trustworthy community leaders that can lead processes and contribute to the community's health are central first-rate necessities (Miao et al., 2021; Roberts, 2020). Mutual responsibility will boost meaningfulness, a sense of control, competence, coherence, and positive functional behaviors, all crucial to crisis management.

## 6. The treatment level

In a global health crisis of the COVID-19 magnitude, trauma-related mental health care is no less important than physical care (Horesh and Brown, 2020). Since most of the population will recover and return to pre-event functioning (Bonanno et al., 2005; Bonanno et al., 2006; Solomon, 2013), any symptomatic response should include emotional support.

10. **Early interventions.** Developing continuity of mental health services from preparedness to early interventions followed by short- and long-term treatment modalities (e.g., the five-steps of first-aid intervention; Everly et al., 2012). It is necessary to identify, evaluate, and devise interventions for those mental health effects to address the psychological and social aspects of the pandemic (Holmes et al., 2020).

11. **Developing Information and mental services.** Developing available information in networks, sensitivity to different cultures, and cultural adaptation in information and services. Identifying vulnerable populations and groups facilitates informing the public about mental health responses to current and future pandemics.

12. **Professional training.** Over the years, it has become clear that the impact of disasters and war circumstances has increasingly complicated the tasks of professionals involved in therapeutic interventions in an ongoing traumatic reality (Dekel and Baum, 2010; Lavi et al., 2017). The knowledge accumulated to date indicates a need to address this complexity already during professional training, emphasizing specialized training in dealing effectively with emergencies. Ultimately, this should improve the functional and performance skills of caregivers in emergency (Nuttman-Shwartz and Dekel, 2009b). The professional literature maintains that preserving the therapists' resources should be a central factor in planning interventions that follow an emergency (Benedek et al., 2007). Thus, professional training for emergency will affect the functioning of both caregivers and individuals in need of assistance (Van Der Veer and Francis, 2011).

13. **Evidence based treatment.** There is evidence that individuals who experience a respite in negative post-trauma cognitions also display reduced PTSD, and vice versa, i.e., treatments that have effectively reduced PTSD symptoms have also decreased negative post-trauma cognitions. (Brown et al., 2019).

## References

Amsalem, D., Lazarov, A., Markowitz, J.C., Gorman, D., Dixon, L.B., Neria, Y., 2021. Increasing Treatment-seeking Intentions of US Veterans in the Covid-19 Era: A Randomized Controlled Trial. Depression and Anxiety. https://doi.org/10.1002/da.23149.

Bai, Y., Lin, C.C., Lin, C.Y., Chen, J.Y., Chue, C.M., Chou, P., 2004. Survey of stress reactions among health care workers involved with the SARS outbreak. Psychiatr. Serv. 55 (9), 1055–1057. https://doi.org/10.1176/appi.ps.55.9.1055.

Bareket-Bojmel, L., Shahar, G., Abu-Kaf, S., Margalit, M., 2021. Perceived social support, loneliness, and hope during the COVID-19 Pandemic: testing a mediating model in the UK, USA, and Israel. Br. J. Clin. Psychol. 60 (2), 133–148. https://doi.org/10.1111/bjc.12285.

Benedek, D.M., Fullerton, C., Ursano, R.J., 2007. First responders: mental health consequences of natural and human-made disasters for public health and public safety workers. Annu. Rev. Publ. Health 28, 55–68.

Bleich, A., Gelkopf, M., Solomon, Z., 2003. Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel. JAMA 290 (5), 612–620. https://doi.org/10.1001/jama.290.5.612. .

Bleich, A., Gelkopf, M., Melamed, Y., Solomon, Z., 2006. Mental health and resiliency following 44 months of terrorism: a survey of an Israeli national representative sample. BMC Med. 4 (1), 1–11.

Bonanno, G.A., Rennicke, C., Dekel, S., 2005. Self-enhancement among high-exposure survivors of the September 11th terrorist attack: resilience or social maladjustment? J. Pers. Soc. Psychol. 88, 984–998.

Bonanno, G.A., Galea, S., Bucciarelli, A., Vlahov, D., 2006. Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. Psychol. Sci. 17 (3), 181–186. https://doi.org/10.1111/j.1467-9280.2006.01682.x. .

Bonanno, G.A., Galea, S., Bucciarelli, A., Vlahov, D., 2007. What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. J. Consult. Clin. Psychol. 75 (5), 671–682. https://doi.org/10.1037/0022-006X.75.5.671.

Borkowska, M., Laurence, J., 2020. Coming together or coming apart? Changes in social cohesion during the COVID-19 pandemic in England. Eur. Soc. 1–19. https://doi.org/10.1080/14616696.2020.1833067.

Breen, L.J., 2020. Grief loss and the COVID-19 pandemic. Austr. J. General Pract. 49, 1–2.

Brewin, C.R., Andrews, B., Valentine, J.D., 2000. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. J. Consult. Clin. Psychol. 68 (5), 748–766. https://doi.org/10.1037/0022-006X.68.5.748.

Brooks, S.K., Webster, R.K., Smith, L.E., Woodland, L., Wessely, S., Greenberg, N., Rubin, G.J., 2020. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet. https://doi.org/10.1016/S0140-6736(20)30460-8.

Brown, L.A., Belli, G.M., Asnaani, A., Foa, E.B., 2019. A review of the role of negative cognitions about oneself, others, and the world in the treatment of PTSD. Cognit. Ther. Res. 43 (1), 143–173. https://doi.org/10.1007/s10608-018-9938-1.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., Zheng, J., 2020. The psychological impact of the COVID-19 epidemic on college students in China. Psychiatr. Res. 112934. https://doi.org/10.1016/j.psychres.2020.112934.

Casagrande, M., Favieri, F., Tambelli, R., Forte, G., 2020. The enemy who sealed the world: effects quarantine due to the COVID-19 on sleep quality, anxiety, and psychological distress in the Italian population. Sleep Med.

Chemtob, C.M., Pat-Horenczyk, R., Madan, A., Pitman, S.R., Wang, Y., Doppelt, O., Burns, K.D., Abramovitz, R., Brom, D., 2011. Israeli adolescents with ongoing exposure to terrorism: suicidal ideation, posttraumatic stress disorder, and functional impairment. J. Trauma Stress 24 (6), 756–759. .

Chen, S., Westman, M., Hobfoll, S.E., 2015. The commerce and crossover of resources: resource conservation in the service of resilience. Stress Health 31 (2), 95–105. https://doi.org/10.1002/smi.2574.

Chipman, K.J., Palmieri, P.A., Canetti, D., Johnson, R.J., Hobfoll, S.E., 2011. Predictors of posttraumatic stress-related impairment in victims of terrorism and ongoing conflict in Israel. Hist. Philos. Logic 24 (3), 255–271. https://doi.org/10.1080/10615806.2010.515304.

Crayne, M.P., 2020. The traumatic impact of job loss and job search in the aftermath of COVID-19. Psychol. Trauma: Theor. Res. Pract. Pol. 12 (S1), S180–S182. https://doi.org/10.1037/tra0000852.

Dekel, R., Baum, N., 2010. Intervention in a shared traumatic reality: a new challenge for social workers. Br. J. Soc. Work 40 (6), 1927–1944.

Dekel, R., Nuttman-Shwartz, O., 2009. Posttraumatic stress and growth: the contribution of cognitive appraisal and sense of belonging to the country. Health Soc. Work 34 (2), 87–96. https://doi.org/10.1093/hsw/34.2.87. .

Eisma, M.C., Boelen, P.A., Lenferink, L., 2020. Prolonged grief disorder following the Coronavirus (COVID-19) pandemic. Psychiatr. Res. 288, 113031. https://doi.org/10.1016/j.psychres.2020.113031.

Everly, G.S., Barnett, D.J., Links, J.M., 2012. The Johns Hopkins model of psychological first aid (RAPID—PFA): curriculum development and content validation. Int. J. Emerg. Ment. Health.

Fernández, R.S., Crivelli, L., Guimet, N.M., Allegri, R.F., Pedreira, M.E., 2020. Psychological distress associated with COVID-19 quarantine: latent profile analysis, outcome prediction and mediation analysis. J. Affect. Disord. 277, 75–84.

Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., Vlahov, D., 2002. Psychological sequelae of the September 11 terrorist attacks in New York City. N. Engl. J. Med. 346 (13), 982–987. https://doi.org/10.1056/NEJMsa013404. .

Gallagher, M.W., Zvolensky, M.J., Long, L.J., Rogers, A.H., Garey, L., 2020. The impact of COVID-19 experiences and associated stress on anxiety, depression, and functional impairment in American adults. Cognit. Ther. Res. 1–9.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., et al., 2020. Mental health problems and social media exposure during COVID-19 outbreak. PLoS One 15 (4), e0231924. https://doi.org/10.2139/ssrn.3541120. Available at: SSRN:

Girdhar, R., Srivastava, V., Sethi, S., 2020. Managing mental health issues among elderly during COVID-19 pandemic. J. Geriatr. Care Res. 7 (1). ISSN 2397-5628.

Goveas, J.S., Shear, M.K., 2020. Grief and the COVID-19 pandemic in older adults. Am. J. Geriatr. Psychiatr. 28 (10), 1119–1125. https://doi.org/10.1016/j.jagp.2020.06.021.

Halbesleben, J.R., Neveu, J.P., Paustian-Underdahl, S.C., Westman, M., 2014. Getting to the "COR" understanding the role of resources in conservation of resources theory. J. Manag. 40 (5), 1334–1364.

Hobfoll, S.E., 1989. Conservation of resources: a new attempt at conceptualizing stress. Am. Psychol. 44 (3), 513–524. https://doi.org/10.1037/0003-066X.44.3.513.

Hobfoll, S.E., 2011. Conservation of resources theory: its implication for stress, health, and resilience. In: Folkman, S. (Ed.), Oxford Library of Psychology. The Oxford Handbook of Stress, Health, and Coping. Oxford University Press, pp. 127–147.

Hobfoll, S.E., Lilly, R.S., 1993. Resource conservation as a strategy for community psychology. J. Community Psychol. 21 (2), 128–148. https://doi.org/10.1002/1520-6629(199304)21.

Hobfoll, S.E., Johnson, R.J., Ennis, N., Jackson, A.P., 2003. Resource loss, resource gain, and emotional outcomes among inner city women. J. Pers. Soc. Psychol. 84 (3), 632–643. https://doi.org/10.1037/0022-3514.84.3.632.

Hobfoll, S.E., Canetti-Nisim, D., Johnson, R.J., 2006a. Exposure to terrorism, stress-related mental health symptoms, and defensive coping among Jews and Arabs in Israel. J. Consult. Clin. Psychol. 74 (2), 207–218. https://doi.org/10.1037/0022-006X.74.2.207.

Hobfoll, S.E., Tracy, M., Galea, S., 2006b. The impact of resource loss and traumatic growth on probable PTSD and depression following terrorist attacks. J. Trauma Stress: Off. Publ. Int. Soc. Traum. Stress Stud. 19 (6), 867–878. https://doi.org/10.1002/jts.20166.

Hobfoll, S.E., Vinokur, A.D., Pierce, P.F., Lewandowski-Romps, L., 2012. The combined stress of family life, work, and war in Air Force men and women: a test of conservation of resources theory. Int. J. Stress Manag. 19 (3), 217–237. https://doi.org/10.1037/a0029247.

Holmes, E.A., O'Connor, R.C., Perry, V.H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R.C., Everall, I., Bullmore, E., 2020. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. Lancet Psychiatr. 7 (6), 547–560. https://doi.org/10.1016/S2215-0366(20)30168-1.

Horesh, D., Brown, A.D., 2020. Traumatic stress in the age of COVID-19: a call to close critical gaps and adapt to new realities. Psychol. Trauma: Theor. Res. Pract. Pol. 12 (4), 331–335. https://doi.org/10.1037/tra0000592.

Huang, Y., Zhao, N., 2020. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: a web-based cross-sectional survey. medRxiv. https://doi.org/10.1101/2020.02.19.20025395.

Johnson, S.U., Ebrahimi, O.V., Hoffart, A., 2020. PTSD symptoms among health workers and public service providers during the COVID-19 outbreak. PLoS One 15 (10), e0241032. https://doi.org/10.1371/journal.pone.0241032.

Jung, S.J., Jun, J.Y., 2020. Mental health and psychological intervention amid COVID-19 outbreak: perspectives from South Korea. Yonsei Med. J. 61 (4), 271–272. https://doi.org/10.3349/ymj.2020.61.4.271.

Kaplan, Z., Matar, M.A., Kamin, R., Sadan, T., Cohen, H., 2005. Stress-related responses after 3 years of exposure to terror in Israel: are ideological-religious factors associated with resilience? J. Clin. Psychiatr. https://doi.org/10.4088/JCP.v66n0910. .

Kim, S.W., Su, K.P., 2020. Using psychoneuroimmunity against COVID-19. Brain Behav. Immun. 87, 4–5. https://doi.org/10.1016/j.bbi.2020.03.025.

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H., Chen, T., Li, R., Tan, H., 2020. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Netw. Open 3 (3). https://doi.org/10.1001/jamanetworkopen.2020.3976 e203976-e203976.

Laslo-Roth, R., George-Levi, S., Margalit, M., 2021. Hope during the COVID-19 outbreak: coping with the psychological impact of quarantine. Counsell. Psychol. Q. 1–15. https://doi.org/10.1080/09515070.2021.1881762.

Laufer, A., Solomon, Z., 2009. Gender differences in PTSD in Israeli youth exposed to terror attacks. J. Interpers Violence 24 (6), 959–976. https://doi.org/10.1177/0886260508319367. .

Lavi, T., Nuttman-Shwartz, O., Dekel, R., 2017. Therapeutic intervention in a continuous shared traumatic reality: an example from the Israeli–Palestinian conflict. Br. J. Soc. Work 47 (3), 919–935.

Li, J.B., Yang, A., Dou, K., Cheung, R.Y., 2020. Self-control Moderates the Association between Perceived Severity of the Coronavirus Disease 2019 (COVID-19) and Mental Health Problems Among the Chinese Public. https://doi.org/10.31234/osf.io/2xadq.

Li, Z., Yi, X., Zhong, M., Li, Z., Xiang, W., Wu, S., Xiong, Z., 2021. Psychological distress, social support, coping style, and perceived stress among medical staff and medical students in the early stages of the COVID-19 epidemic in China. Front. Psychiatr. 12, 789. https://doi.org/10.3389/fpsyt.2021.664808.

Logie, C.H., Turan, J.M., 2020. How do we balance tensions between COVID-19 public health responses and stigma mitigation? Learning from HIV research. AIDS Behav. 1–4. https://doi.org/10.1007/s10461-020-02856-8.

Luchetti, M., Lee, J.H., Aschwanden, D., Sesker, A., Strickhouser, J.E., Terracciano, A., Sutin, A.R., 2020. The trajectory of loneliness in response to COVID-19. Am. Psychol. 75 (7), 897–908. https://doi.org/10.1037/amp0000690.

Mao, Y., He, J., Morrison, A.M., Andres Coca-Stefaniak, J., 2020. Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: from the perspective of conservation of resources theory. Curr. Issues Tourism 1–19. https://doi.org/10.1080/13683500.2020.1770706.

Marazziti, D., Pozza, A., Di Giuseppe, M., Conversano, C., 2020. The psychosocial impact of COVID-19 pandemic in Italy: a lesson for mental health prevention in the first severely hit European country. Psychol. Trauma: Theor. Res. Pract. Pol. 12, 531–533. https://doi.org/10.1037/tra0000687.

Matalon, N., Dorman-Ilan, S., Hasson-Ohayon, I., Hertz-Palmor, N., Shani, S., Basel, D., Gross, R., Chen, W., Abramovich, A., Afek, A., Gothelf, D., 2021. Trajectories of post-traumatic stress symptoms, anxiety, and depression in hospitalized COVID-19 patients: a one-month follow-up. J. Psychosom. Res. 143, 110399. https://doi.org/10.1016/j.jpsychores.2021.110399.

Mattioli, A.V., Puviani, M.B., Nasi, M., Farinetti, A., 2020. COVID-19 pandemic: the effects of quarantine on cardiovascular risk. Eur. J. Clin. Nutr. 74 (6), 852–855. https://doi.org/10.1038/s41430-020-0646-z.

McNeil-Willson, R., 2020. What the 'war on Terror' Can Teach Us about the Fight against COVID-19. .

Miao, Q., Schwarz, S., Schwarz, G., 2021. Responding to COVID-19: community volunteerism and coproduction in China. World Dev. 137, 105128. https://doi.org/10.1016/j.worlddev.2020.105128.

Mimoun, E., Ben Ari, A., Margalit, D., 2020. Psychological aspects of employment instability during the COVID-19 pandemic. Psychol. Trauma: Theor. Res. Pract. Pol. 12 (S1), S183–S185. https://doi.org/10.1037/tra0000769.

Mucci, N., Giorgi, G., Roncaioli, M., Perez, J.F., Arcangeli, G., 2016. The correlation between stress and economic crisis: a systematic review. Neuropsychiatric Dis. Treat. 12, 983–993. https://doi.org/10.2147/NDT.S98525.

Naturale, A., Lowney, L.T., Brito, C.S., 2017. Lessons learned from the Boston Marathon bombing victim services program. Clin. Soc. Work. J. 45 (2), 111–123. https://doi.org/10.1007/s10615-017-0624-7.

Neria, Y., Nandi, A., Galea, S., 2008. Post-traumatic stress disorder following disasters: a systematic review. Psychol. Med. 38 (4), 467–480. https://doi.org/10.1017/S0033291707001353.

Nuttman-Shwartz, O., Dekel, R., 2009b. Challenges for students working in a shared traumatic reality. Br. J. Soc. Work 39 (3), 522–538.

Nuttman-Shwartz, O., Dekel, R., Regev, I., 2015. Continuous exposure to life threats among different age groups in different types of communities. Psychol. Trauma: Theor. Res. Pract. Pol. 7 (3), 269–276.

Nuttman-Shwartz, O., Dekel, R., 2009a. Ways of coping and sense of belonging in the face of a continuous threat. J. Trauma Stress: Off. Publ. Int. Soc. Traum. Stress Stud. 22 (6), 667–670. https://doi.org/10.1002/jts.20463. .

Ornell, F., Schuch, J.B., Sordi, A.O., Kessler, F.H.P., 2020. "Pandemic fear" and COVID-19: mental health burden and strategies. Braz. J. Psychiatr. https://doi.org/10.1590/1516-4446-2020-0008 (AHEAD).

Pakpour, A.H., Griffiths, M.D., 2020. The fear of COVID-19 and its role in preventive behaviors. J. Concurr. Disorders.

Parczewska, T., 2021. Difficult situations and ways of coping with them in the experiences of parents homeschooling their children during the COVID-19 pandemic in Poland. Educ. 3-13 49 (7), 889–900. https://doi.org/10.1080/03004279.2020.1812689.

Park, S.C., Park, Y.C., 2020. Mental health care measures in response to the 2019 novel coronavirus outbreak in Korea. Psychiatr. Investig. 17 (2), 85.

Pat-Horenczyk, R., Schiff, M., Doppelt, O., 2006. Maintaining routine despite ongoing exposure to terrorism: a healthy strategy for adolescents? J. Adolesc. Health 39 (2), 199–205. https://doi.org/10.1016/j.jadohealth.2005.11.021.

Plomecka, M.B., Gobbi, S., Neckels, R., Radziński, P., Skórko, B., Lazerri, S., Almazidou, K., Dedić, A., Bakalović, A., Hrustić, L., Ashraf, Z., 2020. Mental Health Impact of COVID-19: a global study of risk and resilience factors. medRxiv. https://doi.org/10.1101/2020.05.05.20092023.

Polizzi, C., Lynn, S.J., Perry, A., 2020. Stress and coping in the time of COVID -19: pathways to resilience and recovery. Clinic. Neuropsychiatr. 17 (2), 59–62. https://doi.org/10.36131/CN20200204. Neuropsychiatry, 17 (2), 59-62.

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., Xu, Y., 2020. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. General Psychiatr. 33 (2) https://doi.org/10.1136/gpsych-2020-100213.

Reizer, A., Geffen, L., Koslowsky, M., 2021. Life under the COVID-19 lockdown: on the relationship between intolerance of uncertainty and psychological distress. Psychol.

Trauma: Theor. Res. Pract. Pol. 13 (4), 432–437. https://doi.org/10.1037/tra0001012.

Reynolds, D.L., Garay, J.R., Deamond, S.L., Moran, M.K., Gold, W., Styra, R., 2008. Understanding, compliance and psychological impact of the SARS quarantine experience. Epidemiol. Infect. 136 (7), 997–1007. https://doi.org/10.1017/S0950268807009156.

Roberts, R., 2020. COVID-19, leadership and lessons from physics. Aust. J. Rural Health 28 (3), 232–235. https://doi.org/10.1111/ajr.12649.

Schiff, M., 2006. Living in the shadow of terrorism: psychological distress and alcohol use among religious and non-religious adolescents in Jerusalem. Soc. Sci. Med. 62 (9), 2301–2312. https://doi.org/10.1016/j.socscimed.2005.10.016. .

Schiff, M., Zasiekina, L., Pat-Horenczyk, R., Benbenishty, R., 2020. COVID-related functional difficulties and concerns among university students during COVID-19 pandemic: a binational perspective. J. Community Health 1–9. https://doi.org/10.1007/s10900-020-00930-9.

Shalev, A.Y., Freedman, S., 2005. PTSD following terrorist attacks: a prospective evaluation. Am. J. Psychiatr. 162 (6), 1188–1191. https://doi.org/10.1176/appi.ajp.162.6.1188. .

Shalev, A.Y., Tuval, R., Frenkiel-Fishman, S., Hadar, H., Eth, S., 2006. Psychological responses to continuous terror: a study of two communities in Israel. Am. J. Psychiatr. 163 (4), 667–673 ().

Sheffler, J.L., Joiner, T.E., Sachs-Ericsson, N.J., 2020. The interpersonal and psychological impacts of COVID-19 on risk for late-life suicide. In: The Gerontologist. https://doi.org/10.1093/geront/gnaa103.

Silver, R.C., Holman, E.A., McIntosh, D.N., Poulin, M., Gil-Rivas, V., 2002. Nationwide longitudinal study of psychological responses to September 11. JAMA 288 (10), 1235–1244. https://doi.org/10.1001/jama.288.10.1235. .

Singh, J., Singh, J., 2020. COVID-19 and its Impact on Society, vol. 2. Electronic Research Journal of Social Sciences and Humanities.

Solomon, Z., 2013. Coping with War-Induced Stress: the Gulf War and the Israeli Response. Springer Science & Business Media. .

Spoorthy, M.S., Pratapa, S.K., Mahant, S., 2020. Mental health problems faced by healthcare workers due to the COVID-19 pandemic–A review. Asian J. Psychiatr. 51, 102119. https://doi.org/10.1016/j.ajp.2020.102119.

Sun, N., Wei, L., Shi, S., Jiao, D., Song, R., Ma, L., Wang, H., Wang, C., Wang, Z., You, Y., Liu, S., Wang, H., 2020. A qualitative study on the psychological experience of caregivers of COVID-19 patients. Am. J. Infect. Control 48 (6), 592–598. https://doi.org/10.1016/j.ajic.2020.03.018.

Tansey, C.M., Louie, M., Loeb, M., Gold, W.L., Muller, M.P., de Jager, J., Cameron, J.I., Tomlinson, G., Mazzulli, T., Walmsley, S.L., Rachlis, A.R., 2007. One-year outcomes and health care utilization in survivors of severe acute respiratory syndrome. Arch. Intern. Med. 167 (12), 1312–1320. https://doi.org/10.1001/archinte.167.12.1312. .

Thomas, J., Barbato, M., Verlinden, M., Gaspar, C., Moussa, M., Ghorayeb, J., Menon, A., Figueiras, M.J., Arora, T., Bentall, R.P., 2020. Psychosocial correlates of depression and anxiety in the United Arab Emirates during the COVID-19 pandemic. Front. Psychiatr. 11, 1248. https://doi.org/10.3389/fpsyt.2020.564172.

U.S. Department of Veterans Affair, 2021. PTSD: National Center for PTSD. Retrieve from Mobile Apps: COVID Coach on December, vol. 28. https://www.ptsd.va.gov/appvid/mobile/COVID_coach_app.asp.

Van Bavel, J.J., Boggio, P., Capraro, V., Cichocka, A., Cikara, M., Crockett, M.J., Crum, A. J., Douglas, K.M., Druckman, J.N., Ellemers, N., 2020. Using Social and Behavioural Science to Support COVID-19 Pandemic Response, 10.31234/osf.io/y38m9.

Van Der Veer, G., Francis, F.T., 2011. Field-based training for mental health workers, community workers, psychosocial workers and counsellors: a participant-oriented approach. Int. J. Mental Health Psychos. Work & Counsel. Areas Armed Confl. 9, 145–153.

Westman, M., Hobfoll, S.E., Chen, S., Davidson, O.B., Laski, S., 2004. Organizational stress through the lens of conservation of resources (COR) theory. In: Exploring Interpersonal Dynamics (Research in Occupational Stress and Well Being, vol. 4. Emerald Group Publishing Limited, Bingley, pp. 167–220.

Xiang, Y.T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., Ng, C.H., 2020. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatr. 7 (3), 228–229. https://doi.org/10.1016/S2215-0366(20)30046-8. .

Xiao, S., Luo, D., Xiao, Y., 2020. Survivors of COVID-19 are at high risk of posttraumatic stress disorder. Global Health Res. Pol. 5, 1–3. https://doi.org/10.1186/s41256-020-00155-2.

Xiao, H., Zhang, Y., Kong, D., Li, S., Yang, N., 2020. The effects of social support on sleep quality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. Med. Sci. Mon. Int. Med. J. Exp. Clin. Res.: Int. Med. J. Exp. Clinic. Res. 26 https://doi.org/10.12659/MSM.923549 e923549-1.

Yu, S., Brackbill, R.M., Locke, S., Stellman, S.D., Gargano, L.M., 2016. Impact of 9/11-related chronic conditions and PTSD comorbidity on early retirement and job loss among World Trade Center disaster rescue and recovery workers. Am. J. Ind. Med. 59 (9), 731–741. https://doi.org/10.1002/ajim.22640.

Zalsman, G., Stanley, B., Szanto, K., Clarke, D.E., Carli, V., Mehlum, L., 2020. Suicide in the Time of COVID-19: Review and Recommendations. Archives of Suicide Research, pp. 1–6. https://doi.org/10.1080/13811118.2020.1830242.

Zhai, Y., Du, X., 2020. Loss and grief amidst COVID-19: a path to adaptation and resilience. Brain Behav. Immun. 87, 80–81. https://doi.org/10.1016/j.bbi.2020.04.053.

Zhang, F., Shang, Z., Ma, H., Jia, Y., Sun, L., Guo, X., et al., 2020. High risk of infection caused posttraumatic stress symptoms in individuals with poor sleep quality: study on influence of coronavirus disease (COVID-19) in China. medRxiv. https://doi.org/10.1101/2020.03.22.20034504.

Zolnikov, T.R., Furio, F., 2020. Stigma on first responders during COVID-19. Stigma and Health 5 (4), 375–379. https://doi.org/10.1037/sah0000270.