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LETTER TO THE EDITOR

Can a 'second disaster' during and after the COVID-19 pandemic be mitigated?

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ABSTRACT

In most disasters that have been studied, the underlying dangerous cause does not persist for very long. However, during the COVID-19 pandemic a progressively emerging life threat remains, exposing everyone to varying levels of risk of contracting the illness, dying, or infecting others. Distancing and avoiding company have a great impact on social life. Moreover, the COVID-19 pandemic has an enormous economic impact for many losing work and income, which is even affecting basic needs such as access to food and housing. In addition, loss of loved ones may compound the effects of fear and loss of resources. The aim of this paper is to distil, from a range of published literature, lessons from past disasters to assist in mitigating adverse psychosocial reactions to the COVID-19 pandemic. European, American, and Asian studies of disasters show that long-term social and psychological consequences of disasters may compromise initial solidarity. Psychosocial disruptions, practical and financial problems, and complex community and political issues may then result in a 'second disaster'. Lessons from past disasters suggest that communities and their leaders, as well as mental healthcare providers, need to pay attention to fear regarding the ongoing threat, as well as sadness and grief, and to provide hope to mitigate social disruption.

¿Puede un 'Segundo desastre' durante y posterior a la pandemia COVID-19 ser mitigado?

En la mayoría de los desastres que han sido estudiados, la causa subyacente que genera el peligro no persiste por mucho tiempo. Sin embargo, durante la pandemia COVID-19 una amenaza a la vida progresivamente emergente es mantenida, exponiendo a todos a variados niveles de riesgo de contraer la enfermedad, morir o infectar a otros. Distanciarse y evitar la compañía tiene un gran impacto en la vida social. Además, la pandemia COVID-19 tiene un impacto económico enorme para muchos por la pérdida de trabajos e ingreso, lo que está incluso afectando las necesidades básicas como la comida o la vivienda. En adición a esto, la pérdida de seres queridos puede agravar los efectos del miedo y la pérdida de recursos. El objetivo de este artículo es sintetizar a partir de una variedad de literatura publicada, lecciones de desastres pasados para ayudar a mitigar las reacciones psicosociales adversas a la pandemia COVID-19. Trabajos europeos, americanos y asiáticos sobre desastres muestran que las consecuencias a largo plazo tanto sociales como económicas de los desastres pueden poner en peligro la solidaridad inicial. Las disrupciones psicosociales, los problemas prácticos y financieros, y los complejos problemas comunitarios y políticos pueden resultar en un 'Segundo desastre'. Las lecciones de desastres pasados sugieren que las comunidades, sus líderes y también los proveedores de atención en salud mental necesitan prestar atención al miedo en relación a la amenaza en curso, así como a la tristeza y al duelo, y proveer esperanza para mitigar la disrupción social.

COVID-19疫情期间和之后的 '次生灾害' 能够得到缓解吗？

大多数被研究的灾难中，潜在危险原因不会持续很长时间。但是，在COVID-19疫情期间，日益显现的生命威胁一直存在，使每个人都面临患病，死亡或感染他人的不同风险。隔离和避免聚众对社交生活有很大影响。此外，COVID-19疫情对许多失去工作和收入的人产生了巨大的经济影响，甚至影响到基本需求，如食物和住房。此外，失去亲人可能会加重恐惧和资源损失的后果。本文的目的是从大量已发表文献中汲取以往灾害的经验教训，以帮助减轻对COVID-19疫情的不良社会心理反应。欧洲，美洲和亚洲对灾害的研究表明，灾害的长期社会和心理后果可能会损害原本的团结。社会心理的破坏，实际问题与经济问题和复杂的团体与政治问题可能会导致'次生灾害'。以往灾害的经验教训表明，团体，其领导者以及精神卫生保健提供者需要关注对持续存在威胁的恐惧，悲痛与哀伤和为减轻社会混乱提供希望。

HIGHLIGHTS
• Can a 'second disaster' during and after the COVID-19 pandemic be mitigated?
• Learning from previous disasters, a psychosocial response model is outlined based on five essential elements: sense of safety, calming, sense of self- and collective efficacy, connectedness, and hope.

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1. The COVID-19 pandemic as a disaster

Extensive research on previous disasters has yielded a usable definition of disaster as the result of exposure to a hazard that threatens personal safety, disrupts community and family structures, and results in personal and societal loss, creating demands that exceed existing resources (Ursano, Fullerton, Weisaeth, & Raphael, 2007). It seems that the current pandemic shares certain characteristics with previous disasters (Jacobs et al., 2019; McFarlane & Van Hooff, 2014; Puente, Marín, Álvarez, Flores, & Grassau, 2019; Sundram et al., 2008; van der Velden, Bosmans, Bogaerts, & van Veldhoven, 2014; Watson, Brymer, & Bonanno, 2011). One of the critical challenges is how to use available information and knowledge to inform those who are in charge of the response (Fogli & Guida, 2013; Krumkamp et al., 2009). Important sources are the responses to the 1918 Spanish influenza pandemic (Martini, Gazzaniga, Bragazzi, & Barberis, 2019) and the 2003 severe acute respiratory syndrome (SARS) epidemic (Mak, Chu, Pan, Yiu, & Chan, 2009).

Specific to the coronavirus disease 2019 (COVID-19) pandemic is the *progressively emerging* life threat. This leads, as in other disasters, to a *loss of safety*; people becoming *dependent* on each other's behaviour (help and compliance with measures to limit the spread of the virus); the *breakdown of infrastructure*, with hospitals and healthcare institutions being critically hit and social networks disrupted by lockdowns; and *chaos*, as illustrated by people hoarding and searching for reliable information, aggravated by the different restrictive measures taken across countries worldwide. Finding accurate and reliable sources of information in this pandemic is critical in these circumstances. This has been complicated by the rise of social media as the preferred source of information by some groups in the community, rather than their depending on more carefully edited conventional media outlets (Depoux et al., 2020).

The COVID-19 pandemic and social restrictions have already been shown to impact mental health (Fiorillo & Gorwood, 2020; Vindegaard & Eriksen Benros, 2020). A sizeable proportion of people recovering from treatment at an intensive care unit (ICU) develop post-traumatic stress disorder (PTSD) (Davydow, Gifford, Desai, Needham, & Bienvenu, 2008; Paparrigopoulos et al., 2014). Healthcare workers are affected, for whom stressors include confrontation with suffering and death, risk of contracting disease, and moral dilemmas (Williamson, Murphy, & Greenberg, 2020). They are at risk of psychological and post-traumatic distress (Kisely et al., 2020) and grief reactions (Wallace, Wladkowski, Gibson, & White, 2020). Relatives of COVID-19 patients are affected, as they may experience caregiver stress and be confronted with the death of their loved one (Hawryluck et al., 2004).

The initially successful measures taken for containing the virus may be followed by far more socially disruptive consequences related to the psychosocial isolation and the economic consequences (Galea & Abdalla, 2020; Vigo, Thornicroft, & Gureje, 2020; Zhang et al., 2020). What can we learn from previous disasters?

2. Disaster phases and COVID-19

People's response to disasters has previously been described as a *phased* process (Neal, 1997; Raphael, 1986). This phased approach enables the identification of the most common reactions to disasters (Sundnes, 2014). Various analyses of these longitudinal models have been conducted and can assist in planning and anticipating the emerging issues in the COVID-19 pandemic response (Birnbaum, Daily, & O'Rourke, 2015; McFarlane & Williams, 2012). In the *threat phase*, there is an appraisal of the emerging risk, which has been reflected differently between individuals and nations, from the polarity of denial to planning and adaptive action. Perhaps, more than in most other disasters, we can see the differential and cascading consequences of the variable willingness to accurately assess an emerging threat. During the initial *impact* phase, the disaster unfolds, measures to contain its impact are taken, and an emotional outcry is manifested.

However, COVID-19 is a continuous disaster and responses to this disaster may vary among different populations as the disaster unfolds (Dara, Ashton, Farmer, & Carlton, 2005). Indeed, communities and countries may differ significantly in the extent to which the spread of the disease is brought to a halt. This, in turn, may lead to great variations in the sense of threat. The COVID-19 pandemic shows a protracted impact phase: expressions of sadness and anger are muted, while powerlessness and alertness remain. The subsequent, in this case less prominent, *honeymoon* phase is characterized by feelings of relief and connection that are marked by spontaneous acts of solidarity and connectedness, such as clapping for healthcare providers. Without a vaccine or established evidence-based treatment, the threat is still ongoing. The *disillusion* phase reactions may also vary between populations, in part driven by the extent of fractious social media debates and the politicization of the response options, such as whether to wear or not to wear face masks. People have become increasingly tired of chaos and fear, and those affected by the pandemic, such as slowly recovering COVID-19 patients and the families of the deceased, will increasingly feel forgotten. The spotlight progressively will fade out on healthcare workers and caregivers in nursing homes who worked so hard without the necessary equipment. People suffering from diseases such as cancer and cardiovascular disease, and their caregivers, in families who have experienced restricted access to the required health services during lockdown, will have major concerns about their health. Others are hit by the economic impact and many

will long for the return of normal affective social relations. This phase therefore carries the risk of splintering society between groups that are affected differently, thereby creating a breeding ground for a 'second disaster' to take place (Erikson, 1976; Yzermans & Gersons, 2002). The final phase, the *reintegration* phase, still seems far away. A further important dynamic of this disaster and its phases is that the source of the threat has not lessened, and a constant reappraisal and adaptation to the risks is required as the impact phase will not come to an end until a vaccine has been developed or the virus has been eliminated from the community.

3. A COVID-19 pandemic disaster response model

What do previous disasters teach us about containing psychosocial impacts? In response to the 9/11 attacks in the USA, five essential elements of interventions were identified to be promoted as part of the disaster response, ranging from provision of community support and public health messaging to clinical assessment and intensive intervention (Hobfoll et al., 2007). The five elements are summarized in Table 1 and applied to the COVID-19 pandemic. First, to promote *a sense of safety*; for example, by taking measures to limit the spread of the virus and disseminating knowledge about the virus. In the COVID-19 situation, eliminating the disease threat may not be possible, as herd immunity and a vaccine are yet to come. Secondly, for authorities and experts to promote *calming*. During the pandemic this can be achieved by clearly explaining measures, considering the implications involved, and showing genuine compassion. Thirdly, to promote *a sense of self- and collective efficacy*. Self-efficacy is the individual's belief that his or her actions generally lead to positive outcomes, and this can be extended to collective efficacy, which is the sense that one belongs to a group that is likely to experience positive outcomes.

Efficacy beliefs result from accurate information appraisal, considered decision making, behavioural skills, and practised repertoires, as well as access to resources (Patterson, Weil, & Patel, 2010). Thus, during the COVID-19 pandemic, leadership may enhance collective efficacy by communicating the effects of the measures, showing genuine empathy, sharing the economic burdens, promoting solidarity, and promoting activities that are conceptualized and implemented by the community, such as religious activities and mourning rituals. Fourthly, to promote *connectedness* by preventing disadvantage or exclusion of specific groups, and adjustment of social services to the needs of the most vulnerable groups. Fifthly, to instil realistic *hope* by providing perspective and mitigating feelings of powerlessness and discouragement. Sources of hope include effective threat appraisal, self-reliance, demonstrated benefits of scientific appraisal and rational action, religious beliefs, belief in a responsive government, and superstitious beliefs. Indeed, the COVID-19 pandemic has seen a rise in religious coping (Bentzen, 2020).

4. Setting policy and designing intervention strategies

Do these elements translate differently to the different affected groups in the process of setting policy and designing intervention strategies? For patients and healthcare workers, the disaster experience involves intense fear of one's own death or the death of someone close, and promoting safety and calming are the first priorities. This requires the active and effective resourcing of the health system, which includes the provision of high-quality personal protective equipment and ensuring the welfare and protection of families of healthcare workers. Proper financial support for healthcare workers who become sick and adequate compensation for the families of those who die from the infection are critical. For people experiencing the loss of loved ones or economic

Table 1. Psychosocial response model applied to the COVID-19 pandemic.

Needs of the population amid the pandemic	Actions required by authorities and experts to mitigate the impact of COVID-19
Sense of safety	Immediate actions of public health measures to limit the spread of the infection
	Delivery of reliable information for the general population and various groups about the disease
	Effective resourcing of required medical equipment
Calming	Active communication and constant explanation of the actions needed to contain the spread of the infection to the population
	Compassion of authorities towards victims and various groups affected by the pandemic
Sense of self- and collective efficacy	Communication of plans on coping with the economic and social effects of the pandemic
	Stimulating in everyone the sense that one belongs to a group
	Promotion of solidarity and community activities, such as mourning or religious rituals
Connectedness	Active implementation of digital services in education, public institutions, and other services to ensure social functioning of different groups
	Ensuring the functioning of social services, and adjustment of services to the new models of care for vulnerable groups
	Acknowledgement of loss and sadness in the community
Hope	Providing perspective and mitigating feelings of powerlessness and discouragement
	Communication about progress of treatment and vaccine developments
	Symbolic rituals and events to promote resilience
	Facilitation of various community, charity, and business initiatives targeted towards a better future

losses, the disaster causes isolation and despair, and promoting connectedness and instilling hope are paramount. Promoting a sense of self- and collective efficacy is a key priority for all affected groups. Collective failure may create or deepen societal splits along historical and intergenerational fault lines, resulting in a second disaster. This variety in affected groups creates a challenge in dealing with the pandemic's consequences. Decision makers may be tempted to focus more on certain affected groups, to the detriment of others, thus creating a hierarchy of suffering. With growing tension, there is a risk that affected groups will come to stand directly opposite each other while losing confidence in the government. A split along intergenerational lines carries particular risks. Counterbalancing disillusionment is possible when loss and grief are given a place and when government and businesses explicitly create prospects for those affected economically.

Efforts are crucial to prevent and treat the mental health impact of the pandemic in all sectors of society, including healthcare workers (Olff et al., 2020). Care providers in hospitals and residential care organizations for elderly people need peer support, spiritual care, and access to mental healthcare for treatment of burnout, PTSD, moral injury, and other conditions. Aftercare for recovered COVID-19 patients needs to include access to specialized treatment of ICU-treatment-related PTSD. There is also the risk of post-infection syndromes including chronic pain, depression, and fatigue (Moldofsky & Patcai, 2011). Specific attention needs to be paid to the management and treatment of bereaved individuals. Grief interventions taking into account the complex circumstances of the loss, such as ritual omissions and other cultural and intergenerational determinants of meaning attribution (Smid, 2020), may support meaning reconstruction following loss and thereby contribute towards increasing connectedness and inspiring hope. The pandemic affects the traditional means of delivery of psychosocial services, including psychological treatments for mental disorders. This causes challenges in the delivery of the available evidence-based practice models, as novel digital models of care need to be developed and implemented to ensure access to mental health services in various phases of the pandemic (Javakhishvili et al., 2020).

5. Conclusions

While a number of studies on the effects of the COVID-19 pandemic are emerging, this disaster is still unfolding, with a lot of uncertainty about its course. Based on the studies of previous disasters, we identified possible psychological responses to the COVID-19 pandemic. We also foresee that psychosocial disruptions, practical and financial problems, and complex community and political issues associated with the pandemic could result in a second disaster. Lessons from past disasters suggest that communities and their leaders, as well as mental healthcare providers, need to address the different needs of various populations in society. In particular, there is a need to pay attention to fear regarding the ongoing threat, as well as sadness and grief; and to provide a sense of safety, connectedness, and hope to mitigate social disruption.

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Data availability statement

Not applicable.

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