

## Review Article

# Psychological factors that affect mental resilience in crises

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## ABSTRACT

Psychopathological morbidities represent a significant burden over the different sectors of populations exposed to the different crises. Many factors can contribute to the development of these events, including economic, health-related, and psychological factors. In addition, different factors can affect resilience, including demographic, environmental, and psychological factors. Many original studies have highlighted the impact of these factors on resilience in these settings. In the present literature review, we discussed the different psychological factors associated with resilience following a crisis. Some factors include the sense of avoidance and fear of being harmed or impacted by these crises. Our findings indicate the impact of different factors on psychological resilience during these events. For instance, reports show that fear of catching and transmitting the infection during infectious diseases pandemics was associated with reduced resilience and increased anxiety and stress. On the other hand, lockdown measures were associated with better resilience. In addition, social support, coping strategies, and adequate training and experience are essential factors that significantly contribute to resilience in a crisis.

**Keywords:** Crisis management, Psychology, Resilience, Coping, Distress, Anxiety, Stress, Pandemics

## INTRODUCTION

The incidence of natural disasters is increasing with time, owing to different factors, especially climate changes. Furthermore, there have also been different pandemics of infectious diseases during the past decades, adding to the burdens on the different global communities.<sup>1,2</sup> In addition, evidence from different studies in the literature has highlighted the significant risk of developing major psychological disorders following these events. Some

reported events include post-traumatic stress disorder, stress, and anxiety.<sup>3-5</sup> Moreover, evidence indicates that social and economic factors might also contribute to psychopathology and impact the quality of life of the affected individuals. Accordingly, it is essential to introduce urgent management and interventional modalities for populations at high risk of suffering from these burdens.

Among the different interventions, resilience and coping with the different stressors have been reported with

enhanced outcomes and quality of life during crises.<sup>6,7</sup> However, it should be noted that different factors can affect resilience, including demographic, environmental, and psychological factors. Many original studies have highlighted the impact of these factors on resilience in these settings.<sup>8,9</sup> Therefore, based on evidence from previous studies, the present literature review will discuss the different psychological factors that can potentially impact resilience during a crisis.

## LITERATURE REVIEW

This literature review is based on an extensive literature search in Medline, Cochrane, and EMBASE databases which was performed on 25<sup>th</sup> October 2021 using the medical subject headings (MeSH) or a combination of all possible related terms, according to the database. To avoid missing potential studies, a further manual search for papers was done through Google Scholar while the reference lists of the initially included papers. Papers discussing psychological factors that affect mental resilience in crises were screened for useful information. No limitations were posed on date, language, age of participants, or publication type.

## DISCUSSION

As a result of the exposure to different stressors in recent years, evidence shows that populations tend to develop different resilience factors to cope with the different stressors and enhance their quality of life. Therefore, many investigations aimed to investigate these factors and draw better interventions to enhance the outcomes in this context. In this context, a previous study assessed the different factors associated with resilience against pandemics after exposing their population to two weeks of stress. The authors reported that an upbeat appraisal style was significantly associated with resilience. It has been furtherly reported that stress response recovery was a significant psychological factor associated with resilience.<sup>10</sup>

Another investigation in Nepal aimed to assess the impact of psychological factors on resilience among patients with earthquake-related spinal cord injuries. The authors reported that having a depressive mood and self-efficacy were significantly correlated with an impact on the resilience among the included participants. It has been furtherly demonstrated that resilience was also significantly influenced by the employment status of the participants, current living location, and sex. In addition, social support was also significantly associated. However, by multi regression analysis, it was not. Besides, spirituality did not have a significant association with resilience among the included patients. Another investigation that obtained their data following September 11, 2001 terrorist attack also aimed to assess the correlation between different factors and resilience. It has been reported that having past and recent life stressors, the number of comorbid and chronic conditions, social

support, income change, level of exposure to the traumatic disorder were associated with resilience. Moreover, the authors reported that education, ethnicity and race, age, and gender were all significant factors associated with resilience after these events.<sup>11</sup>

Evidence shows that having a sense of preparedness and competence is significantly associated with better resilience outcomes. Accordingly, these outcomes are more significant among individuals that perceive more preparedness and training to cope with crisis-related events. In addition, these patients are reported to have a reduced risk of developing mental health manifestations. Following the 2004 Madrid bombings, a previous investigation by Gabriel et al aimed to assess different psychological factors associated with resilience among police officers.<sup>12</sup> Among the included population, it has been reported that only two officers said that they had depressive symptoms without any other mental manifestations. The low prevalence of depressive symptoms among the included population has been attributed to the fact that most of them were adequately prepared to deal with such attacks. In this context, the authors reported that most participants (70%) received terrorist operation modules. The impact of training and preparedness was also indicated by previous investigations that showed that depressive symptoms and resilience were significantly enhanced among trained personnel than volunteering individuals.<sup>13-15</sup> Following the 2004 South East Asia tsunami, another investigation reported that reduced stress-related events were significantly associated with specific training and mission preparation programs.<sup>16</sup> Similar findings were also reported among individuals that developed post-traumatic distress syndrome.<sup>17</sup>

The impact of training and preparedness was also assessed among healthcare workers during outbreaks and pandemics. For instance, a previous study reported that resilience against mental health manifestations was significantly associated with receiving adequate experience and training during the SARS outbreak.<sup>18</sup> Other similar investigations have furtherly reported this. In addition, a previous study that was conducted during the same period also reported that poor mental health was significantly reduced among healthcare family physicians that received training courses about the proper management of cases during an outbreak of infectious diseases.<sup>19</sup> In the same context, it has been reported that reduced adverse psychological events and decreased stress levels were significantly associated with healthcare workers who are confident about their skills and knowledge about infection control practices. These events were evident among these workers more than other workers who had lower confidence levels during the SARS outbreak.<sup>20</sup> During COVID-19, different factors were also reported to affect resilience and reduce the frequency of developing psychological symptoms. It has been demonstrated that enhanced resilience was associated with social distancing measures, while general

bad health conditions were associated with high-stress levels.<sup>21</sup> Different factors were reported to contribute to the levels of stress during the COVID-19 pandemic. These factors include reduced confidence in avoiding COVID-19 and having a feeling of vulnerability in catching COVID-19.<sup>21</sup> This has been further indicated in previous investigations that reported that feelings of anxiety and other psychological parameters were significantly associated with fearing catching an infection or transmitting it to other individuals in society.<sup>22-25</sup> Lower meaning in life and high distress levels were also significantly influenced by reduced confidence in avoiding infections, job insecurity, and income reduction during the COVID-19 pandemic.<sup>21</sup>

A previous study also reported reduced mental health manifestations that included nurses working in SARS after perceiving adequate family support.<sup>26</sup> During the Hurricane Katrina crisis, Tak et al investigation demonstrated that reduced depressive symptoms among fire-fighters were associated with living with families.<sup>27</sup> In addition to community and social support, evidence shows that perceiving adequate support from managers and colleagues was also previously evidenced to reduce the frequency and intensity of mental health disorders. A previous study demonstrated reduced anger states and avoidance behaviors were significantly associated with providing adequate organizational support for the included nurses during the SARS crisis.<sup>28</sup> A previous study in Australia assessed factors associated with resilience following a major flood among police officers in this context. It has been reported that reduced psychological strain was significantly associated with providing adequate supervisor and cultural support to the included officers.<sup>29</sup> Thus, evidence of the efficacy of social support has been provided for the public and military individuals.<sup>30</sup> Evidence furtherly indicates that resilience is significantly associated with social, family, and friends support. The previous study that recruited police officers that witnessed Madrid bombings also indicated that social support was also associated with the reduced frequency of psychopathological events and provided adequate training for these individuals.<sup>12</sup> Evidence among Humanitarian aid workers also reported that social support was associated with enhanced life satisfaction and reduced burnout, psychological distress, and depression.<sup>31</sup> Following the 2005 North Pakistan earthquake, evidence indicated that social support was significantly associated with reduced burnout, depression, anxiety, and post-traumatic distress.<sup>32</sup> Previous studies based on data following the 9/11 attacks demonstrated that social support and self-confidence were associated with the different psychopathological parameters of these crisis-related events.<sup>33</sup> These findings imply the importance of community support to the different workers and populations directly related to and are at significant risk of developing psychopathological morbidities.

Among the different factors associated with resilience during a crisis is the presence of effective coping

strategies. For example, it has been reported that post-traumatic stress was significantly associated with having an approach acceptance attitude towards mortality among crisis workers. In addition, negative psychological impacts were significantly associated with avoiding fear of death and avoiding thinking of death. On the other hand, it has been demonstrated that resilience was significantly associated with thinking of the traumatic events rather than avoiding them and accepting their potential incidence. Previous investigations have indicated these findings that showed that psychopathology was associated with a feeling of avoidance of thinking about stress-related events and mortality. Previous studies have indicated that individuals exposed to stress-related events have reduced psychological manifestations when they cope with the different stressors and convince themselves about their abilities to deal with the different crisis-related events.<sup>34-36</sup>

Previous similar investigations also reported that self-efficacy is a significant factor that can influence resilience. This psychological factor is essential to promote and motivate individuals following crises and enhance their health-promoting behaviors. Therefore, it has been demonstrated that reduced psychological behaviors were associated with high self-confidence to pass through the different crisis-related stressors and better with these situations without being impacted by the adverse outcomes. In this context, a previous study concluded that resilience was significantly associated with being highly confident of having control over the different desirable things.<sup>37</sup>

Low resilience was reported to be significantly associated with having a depressive mood.<sup>38-40</sup> The presence of a crisis-related event can significantly lead to various factors that lead to developing a depressive mood. These factors include chronic pain, being less dependent on performing daily activities, financial and employment loss, difficulty with reintegration and adjustment into the community and routine life, and restricted mobility among patients who suffer from crisis-related injuries.<sup>41,42</sup> For instance, a previous study showed that crisis-related injuries influenced patients to develop suicidal thoughts and ideas, have more frequent hospital visits, and develop an increased risk of medical complications. Affected individuals might also reduce the frequency of performing exercises, avoiding eating and self-care activities. These factors were reported to increase depressive mood characteristics associated with low resilience against crises.<sup>43-45</sup>

Among individuals that survive disasters, evidence shows that social support is a significant factor of resilience and coping among these patients.<sup>37,39,46</sup> However, other studies reported that this factor is not significant among their participants following disasters. Thus, social support does not enhance the person's ability to buffer the different crisis-related stressors. On the other hand, it has improved resilience among the affected personnel.<sup>11,47</sup>

A previous study also demonstrated that enhanced resilience parameters were significantly associated with confidence-related various internal factors.<sup>48</sup> These factors have been reported to regulate the emotions and thoughts of individuals after the crises. The impact of spirituality on resilience outcomes and coping was also reported among previous investigations. However, evidence is contradicting about its significance in this context.<sup>37</sup> These differences can be attributed to different reasons. For instance, the cause of injury following the crisis and the duration of living with such impacts might alter the individuals' spirituality. It is widely known that different circumstances can significantly affect spirituality because it is mainly dynamic.<sup>49,50</sup> Therefore, it might be challenging to assess the association between spirituality and resilience from cross-sectional investigations. Therefore, this might explain why the association between spirituality and resilience is different among cross-sectional designs. Accordingly, other investigations with better designs are needed for better validation.

## CONCLUSION

Psychopathological morbidities represent a significant burden over the different sectors of populations exposed to the different crises. Many factors can contribute to the development of these events, including economic, health-related, and psychological factors. In the present literature review, we discussed the different psychological factors associated with resilience following a crisis. Our findings indicate the impact of different factors on psychological resilience during these events. Some factors include the sense of avoidance and fear of being harmed or impacted by these crises. For instance, reports show that fear of catching and transmitting the infection during infectious diseases pandemics was associated with reduced resilience and increased anxiety and stress. On the other hand, lockdown measures were associated with better resilience. Social support, coping strategies, and adequate training and experience are essential factors that significantly contribute to resilience in a crisis.

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