Psychological Adjustment During the Global Outbreak of COVID-19: A Resilience Perspective

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Amid the global outbreak of COVID-19, resilience is likely to be one of the many possible outcomes. Studies pertaining to resilience following potentially traumatic events including disease outbreak have shown that the vast majority of individuals are resilient, and that outcomes depend on a combination of resilience factors including exposure severity, individual differences, family context, and community characteristics. To better understand psychological dysfunction and resilience during the global outbreak of COVID-19, researchers are encouraged to investigate long-term patterns of mental health rather than cross-sectional prevalence rates, adopt prospective designs and analyses, integrate multiple risk and resilience factors to enhance outcome prediction, and consider the importance of flexibility as the situation unfolds.

Keywords: COVID-19, resilience, potentially traumatic events, flexibility

The global outbreak of the novel coronavirus disease 2019 (COVID-19) is an unprecedented disaster in human history. Declared a pandemic by the World Health Organization (2020), the disease has spread to every country, thus far infecting millions and killing tens of thousands (John Hopkins University, 2020). The pandemic has taken a toll on mental health and exacerbated pre-exiting psychopathology (e.g., Adhanom Ghebreyesus, 2020; Wan, 2020). The COVID-19 pandemic is unique in that it exerts widespread and severe impacts on daily life without a certain end date, presents a complex combination of stressors, and blocks access to protective factors (Gruber et al., 2020). During this stressful and potentially traumatic time, many people are forced to adapt to a new reality dominated by fear of viral spread and contagion. More seriously, some are striving to recover from COVID-19 or cope with the fear of illness and death. In the front lines, essential workers such as medical professionals and first responders are facing an increased risk of contracting the virus as they remain on duty. During the pandemic, lockdowns and quarantines are certainly essential to suppressing the virus, but they also lead to parents' struggle between work and childcare, and, in some worse-case scenarios, trap vulnerable populations with abusive partners and guardians.

The key psychological task for most people during the pandemic is to keep distress at a minimum. However, in the face of the uncertainty wrought by the pandemic, questions abound. How common will resilience be? What can individuals do in the face of the COVID-19 pandemic to maintain resilience? Studies specific to COVID-19 that might answer these questions are only now getting started. However, previous research related to disease outbreaks and natural disasters has provided important insights that can inform guidelines to help us get through the pandemic. In this commentary, we address these important questions and suggest some important research directions.

What is Resilience?

As one of many possible outcomes to life challenges, resilience refers to a stable trajectory of mental health despite exposure to a serious stressor (Bonanno, 2004). In the face of COVID-19, one needs to cope with ongoing stressors and manage to keep psychological distress at a minimum. Several nationwide cross-sectional studies have documented depression and anxiety symptoms among Chinese people during the COVID-19 pandemic (Qiu et al., 2020; Wang et al., 2020). These studies found that participants who were middle-aged, adopted precautionary measures, and obtained accurate COVID-related health information exhibited decreased psychological distress. Although informative and timely, these studies, at best, provided a snapshot of the immediate impact of COVID-19, but failed to consider the important unfolding process of psychological adjustment following stressful and potentially traumatic events (PTEs; for a review, see Bonanno, Brewin, Kaniasty, & Greca, 2010). Longitudinal and prospective studies that identify patterns of outcome using relatively sophisticated data analytic approaches (e.g., latent growth mixture modeling) can provide more accurate assessments of long-term psychological adjustment. The prototypical variations reported in a longitudinal study examining physical and psychological functioning among survivors of the 2003 severe acute respiratory syndrome (SARS) epidemic in Hong Kong are highly consistent with what typically observed in the aftermath of a major stressor or PTE (Figure 1).

This article was published Online First June 15, 2020.

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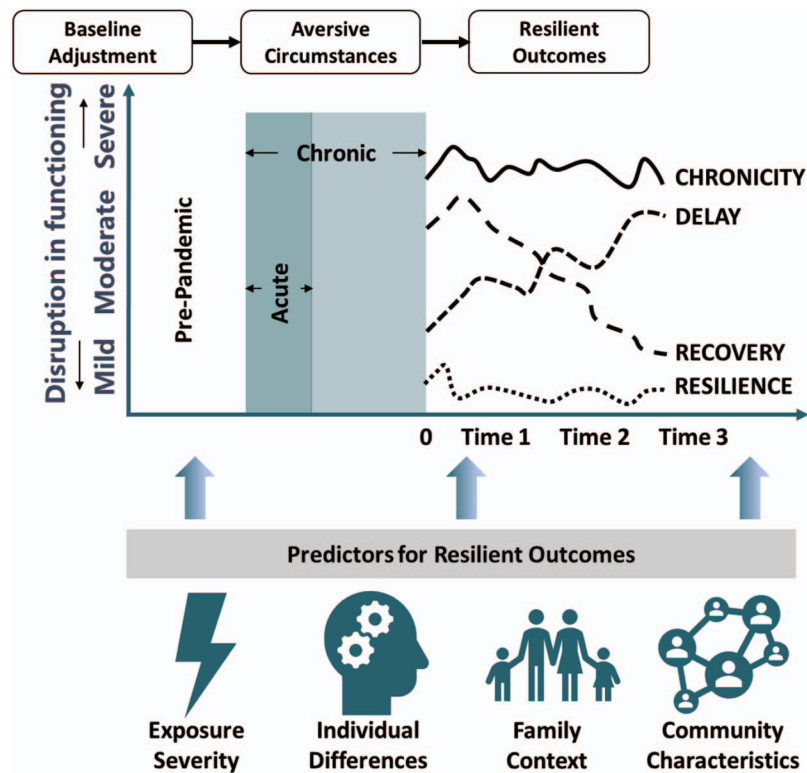
Figure 1. The temporal elements of psychological resilience. From "Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?" by G. A. Bonanno, 2004, *American Psychologist, 59*, p. 21. Copyright 2004 by the American Psychological Association. Adapted with permission. See the online article for the color version of this figure.

After hospitalization, four major trajectories emerged among these survivors, respectively resilience, recovery, delayed, and chronic dysfunction (Bonanno et al., 2008).

How Common is Resilience?

Research has shown that most people are resilient even when facing highly aversive life events. Studies on extreme stress exposure such as disease outbreaks have reported a higher prevalence of psychopathology and a lower rate of resilience as compared to studies examining only moderately aversive events. Across all types of studies and modeling approaches, the proportion of resilient individuals was on average around two thirds (Bonanno, 2004; Bonanno, Galea, Bucciarelli, & Vlahov, 2006). Although SARS is more lethal than COVID-19, there were still around half of the survivors who recovered from distress and remained resilient (Bonanno et al., 2008). Moreover, the percentage of resilience in this study may be underestimated due to lack of prospective data. In a recent systematic review, Galatzer-Levy, Huang, and Bonanno (2018) found that postevent sampling tends to bias estimates of the impact of the PTEs toward greater psychopathology. To control for the confounding effect of preexisting distress, studies adopting prospective designs (i.e., pre-event psychological distress is measured) is critical for a more accurate assessment of the health impacts of COVID-19. Researchers who have collected pre-COVID-19 mental health data and

have consent to recontact participants can potentially collaborate on multisite studies to more rigorously assess the psychological impact of this pandemic.

How to be Resilient in the Face of COVID-19?

Resilience relies on several risk and protective factors related to individual differences, family context, and community characteristics (see Figure 1). Although the severity of exposure can influence outcomes, a number of factors have been shown to promote resilience, including personality as well as external factors such as social and interpersonal resources. Knowledge of these factors can be especially useful in the face of ongoing and uncertain threats during the COVID-19 pandemic. These factors include optimism (Galatzer-Levy & Bonanno, 2014; Sumer, Karanci, Berument, & Gunes, 2005), social support and bonding (Bonanno et al., 2006, Bonanno, Galea, Bucciarelli, & Vlahov, 2007; Bonanno & Mancini, 2008; Lai, Tiwari, Beaulieu, Self-Brown, & Kelley, 2015; Mandavia & Bonanno, 2019), staying informed without overindulging in media consumption (Ahern et al., 2002; Bernstein et al., 2007; Fairbrother, Stuber, Galea, Fleischman, & Pfefferbaum, 2003), employing distraction strategies such as finding ways to have fun and laugh (Keltner & Bonanno, 1997), and reducing social isolation with online communication (Bonanno, 2020). For those infected with COVID-19, it can be especially important to

mobilize social support, increase help-seeking behaviors, and maintain ongoing physical care in order to maintain resilience (Bonanno et al., 2008).

At the family level, studies have identified a few resilience factors, such as adaptability, family cohesion, good communication, and adequate financial management (Black & Lobo, 2008; Caligiuri, Hyland, Joshi, & Bross, 1998; Walsh, 1996). While these studies contribute to our understanding of individual trajectories, few studies have specifically examined resilient outcomes at the family level (Bonanno, Romero, & Klein, 2015). Given that many individuals are quarantined with family members, it is important to consider pathways to resilience at the family level.

At the community level, resilient outcomes are more likely to occur in communities with higher social cohesion (Heid, Christman, Pruchno, Cartwright, & Wilson-Genderson, 2016), lower crime rates (Mandavia & Bonanno, 2019), and less disaster exposure (Gruebner et al., 2016). Other important factors include the possible negative impact of health disparities such as access to health care and socioeconomic status on fear and anxiety. Research aimed at better understanding the origins of health disparities in the context of COVID-19, the effects of perceived health inequality on psychopathology, and associated policies that strive to narrow the gap of inequality are crucial to maintaining community resilience.

Given that each resilience factor alone only has a small effect, analyses incorporating multiple risk and resilience factors that span across exposure, individual, family, and community domains (for a review, see Chen, Bagrodia, Pfeffer, Meli, & Bonanno, 2020), are essential, as they have the potential to reveal the interplay of multiple resilience factors. Moreover, a more person-centered approach, such as establishing profiles of resilience factors and linking these profiles to outcomes can help identify high-risk individuals and enable early interventions.

The Importance of Flexibility

Although there are a number of predictors that are consistently associated with resilience, any single predictor alone exerts only relatively small effects and explains a small portion of outcome variances (Bonanno et al., 2015). This is largely because the efficacy of any given strategies tends to vary markedly across situations and individuals (for reviews, see Aldao, 2013; Bonanno & Burton, 2013). In other words, effects of regulatory strategies are small when aggregated without considering the varying context. Therefore, in the face of COVID-19, each individual may need to determine the most effective strategies for themselves. What the research has highlighted is the need for flexibility (Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Cheng, Lau, & Chan, 2014). Simply put, flexibility means paying attention to the changing situational demands, deciding on strategies that are likely to meet those demands, and then monitoring the efficacy of the chosen strategies, reevaluating the changing situations, and modifying strategies as needed (Bonanno & Burton, 2013). Flexibility, rather than a fixed set of strategies, is a crucial consideration for maintaining resilience. As such, research is encouraged to evaluate the effect of flexibility as the COVID-19 situation unfolds so as to identify ways to best facilitate public mental health.

Concluding Comments

Studies on the impact of COVID-19 on mental health are starting to come out in myriad populations and across the globe. Despite the serious nature of the pandemic, most individuals are likely to be resilient. As decades of research suggest, psychological resilience is informed by a number of factors across domains including exposure, individual, as well as family and community. To better understand the impact of COVID-19 as well as mitigating factors, studies should integrate resilience factors across different levels within the framework of longitudinal and prospective designs so as to determine robust predictors for outcomes and identify individuals and communities that are most vulnerable and in need of intervention. Moreover, according to theoretical models of flexibility, the function of any resilience factors may likely change as the COVID-19 situation unfolds, thus highlighting the importance of paying attention to the context in which a regulatory strategy is used and modifying strategy use in response the changing situational demands.

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