

CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Mental Health and the COVID-19 Crisis

Working Group Description:

Exposure to crises and disasters is linked to the development of mental health distress in children and adults (Goldman & Galea, 2014; Lai et al., 2014; Pfefferbaum et al., 2015). The COVID-19 crisis is unprecedented with regard to its global scale, prolonged duration, loss of life, economic impacts, and the need for social isolation. As such, the COVID-19 crisis will have significant impacts on mental health around the world.

Given the impending magnitude of COVID-19 related mental health needs, a public health approach is needed to guide research. A public health approach focuses on four pillars: surveillance, identifying risk and protective factors, developing and evaluating interventions, and dissemination and implementation (Centers for Disease Control and Prevention [CDC], 2020). Below, we outline how these four pillars serve as priority research topics that may inform our understanding of the COVID-19 crisis and mental health. For each pillar, we highlight guidance from past research, potential research questions, and examples from the field.

Priority Research Topics and Specific Research Questions:

Surveillance: Surveillance will involve defining and monitoring the magnitude (CDC, 2020) of mental health problems related to COVID-19. Past research indicates that hallmark mental health distress symptoms following disasters include post-traumatic stress, depression, and anxiety symptoms in both children and adults (Goldman & Galea, 2014; Lai et al., 2014; Pfefferbaum et al., 2015). In addition, post-disaster externalizing problems such as aggression, anger, and hostility have been observed among children (Rubens et al., 2018; Self-Brown et al., 2017), and post-disaster increase in drug and alcohol use has been observed among adults (Birur et al., 2017). Research is needed to understand the extent to which mental health symptoms related to the COVID-19 crisis may differ from the symptoms observed in past disasters. A recent review of the literature suggests that quarantines can lead to post-traumatic stress symptoms, confusion, and anger (Brooks et al., 2020). Additionally, long-term effects of stay at home orders and social distancing may result in increased loneliness, domestic violence, and child maltreatment (Boserup, McKenney, & Elkbuli, In press; Campbell, 2020; Tull et al., 2020).

Potential research questions. What is the magnitude of mental health symptoms related to the COVID-19 crisis? What mental health symptoms need to be assessed? Which groups are most affected and why? What are the longitudinal impacts of this crisis?

Examples from the field. Preliminary research already indicates high levels of impact. In a convenience sample study of 1,210 respondents from 194 cities in China, surveyed in January and February 2020, Wang and colleagues (2020) found that 29% of their sample reported moderate to severe levels of anxiety, 17% reported moderate to severe levels of depression, and 8% reported moderate to severe levels of stress.

Identify Risk and Protective Factors: It will be critical to understand factors that protect or place people at risk for experiencing mental health distress symptoms in response to the COVID-19 crisis. Protective factors may suggest strategies for prevention, in addition to treatment, of mental health disorders due to the COVID-19 crisis. Past research indicates that pivotal factors influencing the development of post-disaster mental health symptoms include: exposure to the disaster, perceived life threat, social support, coping, parenting styles, and prior experiences of trauma (Bonanno et al., 2010; Lai et al., 2017; Trickey et al., 2012). Social contexts amplify these risks; living in poverty, having temporary or unstable housing, being a member of a racial/ethnic minority group, age, and female gender have all been linked to vulnerability during disasters (Cutter, 2012; Peek, 2008; Tierney, 2014; Weems et al., 2010).

Potential research questions. What aspects of the COVID-19 crisis impact mental health? To what extent do risk and protective factors differ from those identified in past disasters?

Examples from the field. Lai and colleagues are conducting a longitudinal study examining the effects of the COVID-19 crisis on college students and faculty/advisors. Initial findings from their qualitative interviews indicate that concerns and stressors for students and faculty/advisors include lack of transparent and thorough communication from institutional leadership, increase in workload, the unstructured and sudden switch to online learning, financial needs, and difficulty with maintenance of routines.

Develop and Evaluate Interventions: The COVID-19 crisis has increased attention on how social disparities and systematic oppression exacerbate risk (APM Research Lab, 2020; Serwer, 2020). Evidence-based interventions can be used to prevent further disparities by promoting health and resilience among vulnerable populations. To date, multiple evidence-based programs have been adapted for use after traumatic events and have been shown to decrease mental health symptoms in children and adults (Dorsey et al., 2017; Watson et al., 2011). However, policy changes are needed to address the larger structural issues that influence mental health, including systemic racism and concentrated poverty (Bailey et al., 2017).

Potential research questions. To what extent may existing psychosocial interventions be adapted to improve mental health and address disparities? In the context of social distancing, web-based interventions and/or smartphone apps may be helpful mechanisms to deliver mental health services.

Examples from the field. “CoPE It” is a self-directed e-mental health intervention adapted for individuals experiencing distress related to COVID-19 (Bäuerle et al., 2020). It is based on evidence-based principles, and the intervention can be accessed using a mobile phone, tablet, or computer.

Dissemination and Implementation: Effective interventions only have the potential to work when they reach those in need. Thus, research needs to focus on how interventions are disseminated and implemented. After Hurricane Katrina, Project Fleur de Lis offered two evidence-based interventions, at no cost, to families with children reporting elevated psychological distress (Jaycox et al., 2010). Only 37% of families began services offered in an offsite clinic. In contrast, when services were located within schools and therefore are more convenient for families, 98% of children began services.

Potential research questions. To what extent is social distancing changing how mental health programs are delivered and implemented? Do these changes reduce or exacerbate pre-existing disparities? Are programs effective when delivered in new formats?

Examples from the field. During the COVID-19 crisis, many interventions have transitioned to telehealth platforms. For example, home visiting services have transitioned to a nearly ubiquitous virtual

delivery format (O’Neill et al., 2020). However, these services often do not reach the populations that need them most, such as those with limited financial resources or communities of color. As telehealth is generally a new format for many interventions, and one for which they were not initially designed, it will be important to support and evaluate the dissemination and implementation of interventions in this format.

Priority Research Topics	Potential Research Questions
1. Surveillance	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What is the magnitude of mental health symptoms related to the COVID-19 crisis? • <u>Research Question 2</u>: What mental health symptoms need to be assessed? • <u>Research Question 3</u>: Which groups are most affected? • <u>Research Question 4</u>: What are the longitudinal impacts of this crisis?
2. Identify Risk and Protective Factors	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What aspects of the COVID-19 crisis impact mental health? • <u>Research Question 2</u>: To what extent do risk and protective factors differ from those identified in past disasters?
3. Develop and Evaluate Interventions	<ul style="list-style-type: none"> • <u>Research Question 1</u>: To what extent may existing psychosocial interventions be adapted to improve mental health and address disparities? • <u>Research Question 2</u>: In the context of social distancing, which populations are web-based interventions and/or smartphone apps reaching? Are these effective mechanisms for delivering mental health services?
4. Dissemination and Implementation	<ul style="list-style-type: none"> • <u>Research Question 1</u>: To what extent is social distancing changing how mental health programs are delivered and implemented? • <u>Research Question 2</u>: Do these changes reduce or exacerbate pre-existing disparities? • <u>Research Question 3</u>: Are programs effective when delivered in new formats?

Ethical / Methodological Considerations:

Research teams need to actively register and disseminate their mental health protocols. This will serve to advance ethical coordination of research, avoid duplication of efforts, and promote future data sharing (Peek et al., 2020). Examples of these efforts include the CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research (CONVERGE, 2020a), which features groups, such as this one, and allows for research coordination and enhanced communication; CONVERGE COVID-19 Global Research Registry for Public Health and Social Sciences (CONVERGE, 2020b), which lists studies related to COVID-19; the International Society of Traumatic Stress Studies (ISTSS) research bank on mental health measures related to COVID-19 (ISTSS, 2020); and the PhenX Toolkit (2020), which lists COVID-19-related assessment protocols that are free to use and download.

Research is urgently needed to address the looming mental health needs related to the COVID-19 crisis. Adopting a rigorous and ethical public health perspective, informed by past research on disasters and crises, increases the potential for achieving public health impact.

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