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## Mental health and health behavior during COVID-19: Multi-level strategies to enhance perceived control

*Saúde mental e comportamento de saúde durante a COVID-19: Estratégias multinível para melhorar o controle comportamental percebido*

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COVID-19 has claimed over 2 million lives worldwide, and Brazil is an epicenter of the pandemic, with over 8 million confirmed cases and over 200,000 deaths at the time of this commentary. Hardships associated with the pandemic, such as social isolation, fears of contracting the virus, loss of loved ones, and loss of employment have also created a mental health (MH) crisis. For example, prior to the pandemic, the estimated prevalence of depressive symptoms in Brazil was 4.1%<sup>1</sup>, and studies have found the prevalence to be as high as 68% during the pandemic<sup>2</sup>.

We must examine the impacts of the pandemic-related MH crisis and consider ways to address it, not only to improve MH outcomes, but also to effectively promote adherence to recommended COVID-19 preventive behaviors (e.g., mask wearing, social distancing, vaccination). MH concerns may stem from the uncontrollable nature of the pandemic itself and hence, experiences of learned helplessness (i.e., an inability to adaptively respond to uncontrollable, traumatic situations, therefore, becoming passive and unable to take action to respond to the situation)<sup>3</sup>. For example, Morgul et al. (2020)'s Turkish study on the associations between psychological fatigue (a symptom of learned helplessness) and COVID-19 preventive behaviors found that those who did not report psychological fatigue were more likely than those who were fatigued to adhere to preventive behaviors<sup>4</sup>. These findings suggest that learned helplessness may cause passive acceptance of the pandemic and its negative MH effects because of the belief that that one's behaviors will not improve MH or COVID-19 outcomes<sup>5</sup>. Consequently, MH concerns can create barriers to coping behaviors to mitigate the negative emotional impacts of COVID-19 (e.g., engaging in physical activity, maintaining safe social connections) and adhering to COVID-19 preventive behaviors.

While some aspects of the pandemic are beyond the control of individuals, some elements can be controlled, such as using coping strategies to manage MH concerns and adhering to recommended COVID-19 preventive behaviors. Therefore, one important way to combat learned helplessness during the pandemic is by instilling feelings of perceived control, particularly among people with existing MH conditions or those at risk for MH concerns (hereafter referred to as MH populations)<sup>3</sup>. Perceived control over one's environment may foster beliefs that one's preventive behaviors during a turbulent time may reduce some of the burden resulting from the pandemic<sup>6,7</sup>. We highlight multi-level strategies to instill a sense of perceived control in MH populations: 1) at the population level, through targeted public health communication focusing on behavioral responses to combat the negative effects of the pandemic; 2) at the individual level, by expanding access to evidence-based MH services that focus on enhancing perceived control.

Traditional public health communication efforts that focus on translating public health research into behavioral recommendations do not consistently acknowledge MH concerns or the needs of MH populations. Given the high and increasing MH burden, COVID-19 messaging that emphasizes perceived control can potentially achieve three equally important goals: acknowledging and empathizing with widespread MH concerns associated with COVID-19

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(e.g., it is understandable to feel depressed after prolonged isolation), increasing one's ability to cope emotionally (e.g. taking walks in nature, maintaining safe social connections with loved ones), and promoting adherence to COVID-19 preventive behaviors (e.g. mask wearing, social distancing, avoiding crowds). Taken together, messages that enhance perceived control during the pandemic while also empathizing with fears and MH concerns may more effectively reach MH populations than standard messaging.

We recognize that public health messaging alone cannot fully address the growing MH crisis brought on by the pandemic. Improving access to MH services is another public health priority area. MH services such as individual, group, and peer counseling can potentially help individuals focus on the ways in which they can exercise control. One such potential intervention approach is Cognitive Behavioral Therapy (CBT), which focuses on addressing maladaptive cognitions and teaching behavioral coping skills to increase perceived control and improve MH outcomes<sup>8</sup>. Health care professionals can leverage CBT to increase perceived control by addressing cognitive processes underlying learned helplessness (i.e., lack of control) and teaching behavioral skills (coping behaviors, recommended COVID-19 preventive behaviors) to increase perceived control over both MH and COVID-19 outcomes<sup>8</sup>.

Access to MH services can be increased in several ways, including expanding availability of telehealth services, utilizing pay-as-you-can services to reduce socioeconomic barriers, and training allied health professionals (e.g., community mental health workers) to deliver clinical interventions specific to MH concerns experienced as a result of COVID-19. Along with improved access, efficient interventions with demonstrated effectiveness that focus on addressing both the emotional and behavioral facets of MH concerns during COVID-19 are needed.

The MH crisis brought on by COVID-19 is deeply concerning in and of itself, but it can also negatively

affect adherence to recommended COVID-19 preventive behaviors. These issues should be carefully and sensitively addressed at multiple levels – from targeted and tailored health communication efforts for the public, to improving access to evidence-based MH services for individuals. Both efforts should aim to increase perceived control over mental health concerns as well as control of COVID-19 infection through preventive behaviors. Opportunities for jointly implementing both efforts are likely to result in more optimal outcomes. Future studies may develop and evaluate the effectiveness of these interventions during and even after the pandemic.

**Disclaimer:** the opinions expressed by the authors/speakers are their own and this material should not be interpreted as representing the official viewpoint of the U.S. Department of Health and Human Services, the National Institutes of Health or the National Cancer Institute.

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