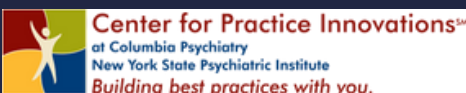**Columbia World Projects**
COLUMBIA UNIVERSITY

Summary Project Report: Digital Mental Health Care for COVID-19 High-Risk Populations

November 2023

Center for Practice Innovations℠
at Columbia Psychiatry
New York State Psychiatric Institute
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Project Period

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Acknowledgments

Columbia World Projects (CWP) is a university-wide initiative established in 2017 to bridge scholarly knowledge and real-world action. With the goal of achieving the greatest possible impact on pressing challenges of our time, CWP mobilizes Columbia University's scholars, researchers, practitioners, and students to identify and implement interdisciplinary solutions to complex societal challenges in partnership with targeted change agents, such as policymakers, government agencies, non-governmental organizations, and corporations.

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Columbia World Projects
Digital Mental Health Care for COVID-19 High-Risk Populations

Introduction

The most immediate fallout of the COVID-19 pandemic was physiological in nature, with high death tolls and striking rates of infection transmission. Before long, however, it became clear that the pandemic's mental health consequences could not be overlooked, especially among essential workers. These groups, including healthcare and non-healthcare essential workers, suffered high levels of anxiety, depression, and posttraumatic stress as a result of their labor throughout some of the most challenging days of the pandemic. Even so, rates of help-seeking in these groups were low. This CWP-supported **Digital Mental Health Care for COVID-19 High-Risk Populations** project, carried out from 2021-2023, created, tested, and delivered a set of digital mental health care tools to address increased rates of anxiety, stress, and other symptoms among essential workers during the pandemic.

Background

The COVID-19 pandemic's disastrous effects range far beyond the risk of infection. Healthcare workers were needed more than ever to staff hospitals and other medical settings. Meanwhile, those working in settings such as grocery stores, non-medical emergency services, public transportation, and other essential services suddenly shouldered the burden of society's continued functioning. Despite the heightened mental health risks that essential workers faced during this time, help-seeking intentions were notoriously low and stigma towards mental health treatment high. The **Digital Mental Health Care for COVID-19 High-Risk Populations** project brought together colleagues of diverse disciplines from the Columbia University Department of Psychiatry, the New York Psychiatric Institute, and the New York State Office of Mental Health (NYS OMH) to address these challenges by developing and evaluating the effectiveness of digital mental health care tools and resources, in the form of short video interventions, which were widely disseminated through NYS OMH's ongoing programs and channels.

Objectives

The project set out to create and evaluate an intervention to address the two key variables of **help-seeking intentions** and **perceptions of mental health self-stigma** among essential workers during the height of the COVID-19 pandemic.

Methods

Guided by their previous experience [1, 2, 3], in social contact-based interventions [4] to reduce stigma, the team created seven brief video-based interventions, each with either a healthcare worker or essential worker describing their experience of struggling with their mental health in the

pandemic, their decision to seek treatment with a mental health therapist, and the ways that their quality of life has improved since making that decision. Three behavioral change modules were also created, focusing on sleep hygiene, social support, and exercise. Using Prolific, an online crowdsourcing platform, randomized control trials were conducted to test the effects of the intervention on the help-seeking intentions and self-stigma levels of nearly 6,000 healthcare and non-healthcare essential workers in the United States. The project was carried out in stages, which allowed analysis of each execution individually and the ability to implement lessons learned in the subsequent phases.

Photo stills from video intervention

Findings

Phase 1: Efficacy of the Brief Video Intervention. The team tested a series of videos depicting healthcare and non-healthcare essential workers who sought out mental health treatment after experiencing the deleterious mental health effects of life as an essential worker during the early COVID-19 pandemic. Findings revealed the success of the videos in reducing self-stigma and increasing help-seeking intentions across both groups of essential workers in the immediate period following intervention delivery. No effect was found for the behavioral change modules. In the sample of non-healthcare essential workers, those who were women and/or Black were more impacted by the intervention when they viewed a protagonist who shared that aspect of their gender or ethno-racial identity.

Phase 2: Understanding the Mechanism of Action. Essential workers who expressed deeper emotional engagement with the intervention videos were more likely to experience an increase in help-seeking intentions and reduction in self-stigma after viewing the videos. This hypothesis, that identity-driven emotional engagement is stronger when the video script has clear references to that identity, was tested in the next phase.

Phase 3: The Role of Race/Ethnicity and Gender. The final phase explored the additional prospective moderators of ethnoracial background, gender, and age, using what we had learned about emotional engagement. A new script was created that incorporated language specific to the experiences of a young Latina woman, with an eye toward understanding whether this would more significantly impact viewers of similar backgrounds and identities, as compared to our original script.

Mental Health Effects of the Pandemic: The findings offered a striking window into the mental health state of essential workers in the United States for a significant period of the COVID-19 pandemic (August 2021-June 2023).The self-reported symptoms of anxiety, depression, and posttraumatic stress exhibited by study participants was notably high.

> In the sample of essential workers, 74-78% reported elevated levels of symptoms of depression, anxiety, and post-traumatic stress disorder during the pandemic, with the highest rates reported by female, transgender individuals and young adults.

Key Outputs

1.	Production of seven short videos designed to increase help-seeking behavior and decrease stigma associated with mental health
2.	Testing and refinement of the videos to measure effectiveness through randomized controlled trials with 6,000 essential workers
3.	Dissemination of the video (>100,000 views) in partnership with the NYS Office of Mental Health's Project Hope
4.	Four peer-reviewed publications [5]

Lessons Learned

Essential workers (both within healthcare and non-healthcare sectors) are highly vulnerable, yet an inadequately represented population in COVID-19 mental health research. The high symptom rates found among essential workers reinforced the need for interventions, such as the ones created in this project, to assist those experiencing psychiatric distress—anxiety, depression, and posttraumatic stress—in overcoming self-stigma as a barrier to mental health care. As we emerge from the worst of the COVID-19 pandemic, these findings remain critical to shape future work on help-seeking and stigma reduction. The project revealed important findings on the capacity of short video interventions to meaningfully impact sigma reduction and help-seeking behaviors, which can be applied to other contexts and populations, such as in addressing high rates of mental illness and anxiety among adolescents and youth.

Integral to Columbia's Fourth Purpose mission is the interdisciplinary mobilization of professionals with varied expertise. The project team included a diverse range of experts, who normally do not have opportunities to collaborate, from across the field of psychiatry—in trauma, adolescent mental health, post-traumatic stress disorder, RCTs, implementation science, video-based mental health interventions, cultural competence, racial and ethnic disparities in mental health treatment, and biostatistics. The unique interdisciplinarity across the project team enabled important insights, contributions, and debates that lent themselves to the creation of high quality, effective products. Additionally, the close-working partnership with NYS OMS was integral to ensuring the interventions would be broadly accessible, including making them widely available to the public through the Project Hope website.

The findings illuminated how highly vulnerable healthcare and non-healthcare essential workers are, even above and beyond mental health risks quantified in research with war veterans, and the dire need to intervene. The team was able to hone its script-writing and production skills to produce effective video-based interventions that were not only effective in increasing help-seeking intentions and decreasing self-stigma among essential workers, but also have the ability to reach large audiences. The lessons learned from these studies will provide the necessary tools to develop interventions on help-seeking and stigma, provide insights on how to adapt mental health services in the wake of the COVID-19 pandemic, and serve as a template for interventions with other populations and scenarios.

Conclusions

The video interventions developed in this project are scalable, readily disseminated, easily replicable, and applicable to a range of other groups. While COVID-19 continues to fade from the spotlight of current events, mental health stigma is a continuous, powerful force that creates barriers to care among many groups—people with serious mental illness, adolescents, survivors of childhood maltreatment, and many others— who are deterred from receiving services.

Notes

1. Amsalem D, Lazarov A, Markowitz JC, Gorman D, Dixon LB, Neria Y. Increasing treatment-seeking intentions of US veterans in the Covid-19 era: A randomized controlled trial. Depress Anxiety 2021; 38(6): 639–47.

2. Amsalem D, Yang LH, Jankowski S, Lieff SA, Markowitz JC, Dixon LB. Reducing stigma toward individuals with schizophrenia using a brief video: A randomized controlled trial of young adults. Schizophr Bull 2021; 47(1): 7–14.

3. Amsalem D, Lazarov A, Markowitz JC, Smith TE, Dixon LB, Neria Y. Video intervention to increase treatment-seeking by healthcare workers during the COVID-19 pandemic: Randomised controlled trial. Br J Psychiatry 2022; 220(1): 14–20.

4. These interventions entail interaction with an individual who is a member of the stigmatized group describing the way that they have attained their desired goals, despite challenges or struggles.

5. Amsalem D, Wall M, Lazarov A, Markowitz JC, Fisch CT, LeBeau M, Hinds M, Liu J, Fisher PW, Smith TE, Hankerson S, et al. Destigmatising mental health treatment and increasing openness to seeking treatment: randomised controlled trial of brief video interventions. BJPsych Open. 2022 Sep;8(5):e169.

Amsalem D, Wall M, Lazarov A, Markowitz JC, Fisch CT, LeBeau M, Hinds M, Liu J, Fisher PW, Smith TE, Hankerson S, et al. Brief video intervention to increase treatment-seeking intention among US health care workers: A randomized controlled trial. Psychiatric Services. 2023 Feb 1;74(2):119-26.

Amsalem D, Fisch CT, Wall M, Choi CJ, Lazarov A, Markowitz JC, LeBeau M, Hinds M, Thompson K, Fisher PW, Smith TE, et al. Anxiety and depression symptoms among young US essential workers during the COVID-19 pandemic. Psychiatric Services. 2023 Apr 7:appi-ps.