



PRISM: PRELIMINARY RESULTS FROM AN ONLINE MINDFULNESS INTERVENTION FOR ADOLESCENTS

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COVID-19 and the Move to Virtual interventions

The arrival of the COVID-19 pandemic in early 2020 created a period of prolonged stress with an undetermined endpoint for most families. Adaptations to those stresses include moving much of people's work, education, social, and leisure lives to reduced in-person connections and more hybrid or online experiences. COVID-19 also disrupted traditional delivery of behavioral health interventions, requiring a shift to online individual and group treatment. This transition provides both benefits (increased reach, accessibility) and challenges to care (relationship quality, threats to confidentiality).¹

Delivery of behavioral health supports that build on mindfulness seem particularly appropriate for online adaptation, given their focus on managing stress by building awareness of and cultivating practiced connection to an inward experience. Delivery through technology makes these interventions much more available for adolescents in particular, given the reduction in barriers to engagement for in-person participation (e.g., scheduling, time, transportation, comfort of use). To date, tele-delivery of mental health services demonstrates promising evidence of efficacy.²

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Potential Barriers to Going Virtual

In-person research-related intervention settings can build an atmosphere that encourages participants to return for sequential sessions over time. The mood of the intervention spaces—ideally inviting, personal, safe, and soothing environments—contributes to participant engagement and can encourage retention.

In contrast, online modes of delivery can result in

- lack of control over the environmental cues that signal the intent and care necessary to engage, retain, and deliver longitudinal interventions effectively.³
- the potential loss of social connection with the facilitator and peers

Synchronous intervention administration of online programs may help manage this challenge, maintaining active participation and engagement in shared moments online, in contrast to more passive engagement possible through asynchronous activities (e.g., non-interactive mindfulness applications on smartphones).

Piloting PRISM Online

UConn researchers piloted the online use of an existing, evidence-based mindfulness program (Promoting Resilience in Self-Management, or PRISM), for high-risk adolescents in behavioral health treatment through outpatient services and those with elevated needs on waitlists for intensive home-based services. Adolescent participants attended the PRISM series of eight hour-long units, held online via videoconference.⁴ This small-group educational intervention

provided opportunities to discuss content and practice mindfulness skills focusing on three core mindfulness tenets: observing non-judgmentally; attending to positivity; and self-soothing.

Adolescent participants completed pre- and post-intervention surveys including psychometrically valid assessments.⁵ Several months later, participants were invited to complete a third round of assessments and participate in a focus group that asked about perceptions of acceptability, barriers to engagement, and descriptions of PRISM elements that are sustained self-care practices.

Study Findings

Discussion about the factors that shaped adolescents' acceptability and feasibility ratings took place during post-intervention focus groups designed to highlight barriers to engagement and capture the sustained mindfulness practices utilized by participants.

Preliminary results from eleven groups of adolescents indicate that the adolescents had

- positive experiences with the meditation and breathing exercises;
- improved psychiatric symptoms (depression, anxiety, somatic symptoms); and
- improved coping skills (better cognitive refocusing and reappraisal, and less self-blame).

Several participants also said they liked the online-format, noting their anxiety would have prevented them from joining an in-person group.

Implications

Particularly during quarantine and social distance circumstances like those enacted during the COVID-19 pandemic, fostering social support and a sense of connectedness is crucial to combatting the effects of prolonged isolation, boredom, and frustration that contribute to stress and its documented negative effects.⁶ Future research should also examine whether the option of online mindfulness interventions might be more suitable for some adolescents even when in-person options are available, particularly for those with pre-existing anxiety symptoms.

Resource

Mindfulness-Based Stress Reduction (MBSR): This resource from PositivePsychology.com describes the widely available MBSR approach and outlines its exercises and practices.

¹ Madigan, S., Racine, N., Cooke, J. E., & Korczak, D. J. (2021). COVID-19 and telemental health: Benefits, challenges, and future directions. *Canadian Psychology/Psychologie canadienne*, 62(1), 5–11.

² Wind, T. R., Rijkeboer, M., Andersson, G., & Riper, H. (2020). The COVID-19 pandemic: the 'black swan' for mental health care and a turning point for e-health. *Internet Interv*, 20, 100317.

³ Lovejoy and colleagues (2009) identify this loss of environmental control as a barrier that dehumanizes the intervention environment, thus warranting heightened attention when developing acceptable online interventions. Lovejoy, T. I., Demireva, P. D., Grayson, J. L., & McNamara, J. R. (2009). Advancing the practice of online psychotherapy: An application of Rogers' diffusion of innovations theory. *Psychotherapy: Theory, Research, Practice, Training*, 46(1), 112–124.

⁴ n=56; 66.1% female; mean age 14.5 years. The sample was considered high-risk by dint of comorbid diagnoses, including depression, anxiety and PTSD, and due to multiple instances (0-6) prior referrals to higher levels of care (i.e., intensive in-home services, partial hospitalization programs). Indicators of engagement and retention were high across 7 waves, as the pilot effort was able to retain 81.8% of those who enrolled across all rounds of the PRISM series; those lost to follow-up did not complete the study due to transitions to a higher level of care (e.g., hospitalization) or reports of current engagement in too many services. Additional indicators of engagement are inferred from completion rates for all study materials; in this feasibility pilot, item-level missingness was very low (87.5% of the sample had 0% missingness), scores on the Treatment Perception Questionnaire were also high (mean = 18.53), as on the Internet Evaluation and Utility Questionnaire (mean = 35.58).

⁵ Assessments included the Adverse Childhood Experiences Scale (Felitti et al., 1998), Center for Epidemiologic Studies-Depression (Eaton et al., 2004), Generalized Anxiety Disorder-7 (Spitzer et al., 2006), Five Facet Mindfulness Questionnaire (Baer et al., 2012), Cognitive Emotion Regulation Questionnaire (Garnefski & Kraaij, 2006), Distress Tolerance Scale (Simons & Gaher, 2005), Somatic Symptom Scale-8 (Gierk et al., 2014), Treatment Perceptions Questionnaire (Marsden et al., 1998) and the Internet Evaluation and Utility Questionnaire (Ritterband et al., 2008). See Hutchison, M. (2021). Outcomes from an Emotion Regulation Intervention: A Comparison of Levels of Care [Doctoral dissertation, University of Connecticut]. for full citations.

⁶ Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA internal medicine*, 180, 817-818.