INPLASY

Virtual and Hybrid Tier 1 (Universal) Mental Health Programs Focused on Children and Youth

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ADMINISTRATIVE INFORMATION

INTRODUCTION

*R*eview question / Objective Tier 1 mental health programs are universal interventions designed to support the mental health of a population (School Mental Health Ontario, 2024). Goals are to develop and support skills foundational to the mental health of all children and youth.

The overall objective of this systematic review is to synthesize the literature examining universal virtual and hybrid mental health prevention and promotion programs focused on children and youth. It will address the following research question:

What is the current state of evidence of Tier 1 virtual and hybrid mental health prevention or promotion programs aimed at children and youth? Specifically:
a. What are the mechanisms and common factors of successful programs?

b. What are the gaps that need to be filled in the future in prevention and promotion to support the mental health of children and youth?

To address these questions, we will be searching for studies that examine virtual and hybrid intervention format programs aimed at promoting skills associated with positive mental health and wellbeing (e.g., deep breathing) or preventing clinical psychopathology (e.g., preventing PTSD, depression, or suicidality).

Programs may include interventions, apps, mobile tools, curriculum training, or trials.

Source:
School Mental Health Ontario. (2024, March 12). Think in tiers about student
mental health. https://smho-smso.ca/school-administrators/think-in-tiers-about-student-mental-health/

Rationale The growing need for accessible and scalable mental health supports and services has led to a surge in research on universal (non-clinical; Tier 1) mental health programs. These programs are designed to promote well-being and prevent the onset of clinical levels of mental health challenges. Over the past decade, there has been increasing attention on supporting the mental health of young people. Similarly, over the past four years (2020-2024), there has been a significant rise in research focused on virtual and hybrid versions of these universal programs.

This rapid shift toward virtual and hybrid formats can be attributed in part to the global Covid-19 pandemic, which highlighted the need for remote and accessible mental health support. This period has highlighted the potential of technology to bridge gaps in mental health service provision, particularly in reaching diverse and historically marginalized populations. Digital platforms not only broaden the accessibility of mental health programs but also increase their inclusivity, enabling interventions to be more responsive to varied needs. This shift highlights the importance of understanding the effectiveness of virtual and hybrid mental health promotion and prevention programs tailored for children and youth.

In this study, we aim to explore the effectiveness and accessibility of such universal virtual and hybrid programs, considering the lessons learned during the pandemic and the role of technology in advancing mental health equity and inclusion.

Condition being studied Healthy samples of children and youth (0-18) who do not have a mental health diagnosis or not assumed to have a mental health diagnosis.

METHODS

Search strategy In collaboration with a hospital librarian, a search strategy was created. The MEDLINE, Embase, and APA PsycInfo databases were searched for terms related to prevention/ promotion, interventions, apps, trial, mental wellbeing, resilience, and children and youth.

Participant or population Infants, children, and youth between the ages of 0-18. Non-clinical sample.

Intervention Virtual and hybrid mental health prevention and promotion programs.

Comparator Standard care, active control, wait-list control, pre/post.

Study designs to be included Randomized controlled trials or quasi-randomized controlled trials.

Eligibility criteria Exclusion criteria: 1) non-human studies; 2) review papers, book chapters, commentaries, case studies, conference proceedings; 3) mean participant age > 18 years; 4) mental health diagnosis; 5) no mental health outcomes.

Information sources MEDLINE, Embase, and APA PsycInfo databases.

Main outcome(s) Social, emotional, cognitive, behavioural mental health outcomes. Outcome measures within trials will be evaluated for appropriateness to combine within one of the four clusters.

Additional outcome(s) No.

Data management Abstracts, full-text extraction and risk of bias will be managed using the COVIDENCE software package.

Quality assessment / Risk of bias analysis Risk of bias will be assessed using the Cochrane tool for assessing risk of bias.

Strategy of data synthesis Based on our initial scoping of the data, we have refined our data synthesis plan into two separate papers:

Paper 1: A scoping review
Paper 2: A systematic review and meta-analysis examining the effectiveness of universal digital mental health interventions. The systematic review will assess effect sizes across:
Four psychological outcome clusters (emotional, behavioural, social, and cognitive)
Two data collection time points (immediately post-intervention and follow-up within 1–6 months)
Two intervention formats (hybrid and virtual)
A meta-analysis of Cohen's d effect sizes will be attempted. When quantitative analysis is not possible, a qualitative synthesis will be conducted.

Subgroup analysis We will attempt to conduct a subgroup analysis based on age, publication year, intervention type, intervention setting, and focus on historically marginalized people and groups.

Sensitivity analysis Sensitivity analysis will be performed to assess the contribution of each study by excluding one study at a time to observe their impact on the meta-analysis.

Language restriction English.

Country(ies) involved Canada.

Keywords Promotion; Prevention; Intervention; Program; Mental Health; Mental Well-being; Psychosocial; Behaviour; Resilience; Child; Youth.

Dissemination plans We plan to publish is an open access, peer-reviewed journal.

Contributions of each author
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