The BEAM Program

Building Emotion Awareness & Mental Health

Exploring the feasibility and initial efficacy of an online psycho-education and social connection platform for mothers throughout the COVID-19 pandemic

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Introduction

- Context: There has been a dramatic increase in maternal depression since the beginning of the COVID-19 pandemic (Tomfohr-Madsen et al., 2021)
- Research identifies social isolation, domestic conflict and lack of parenting support as strong contributors toward this increase (Cameron et al., 2014)
- Many mental health service needs remain unmet during the pandemic (Yao et al., 2020), while long-term, persistent maternal mental health problems continue to have lasting effects on child development (Kingston & Tough, 2014)
- Looking through a patient engagement lens, our Patient Advisory Board highlighted the benefit of social connection emerging from community forums and group therapy, which is not possible in the context of traditional therapy
- Objective: Evaluate the feasibility and efficacy of the BEAM program: an app-based psycho-education & social program during the COVID-19 pandemic

Methods

- Recruitment approach:
  - Online recruitment by contacting family wellness programs and daycare centers throughout Manitoba
  - Social media sharing (primarily Instagram) from daycares throughout Manitoba
  - Online recruitment by contacting family wellness programs and the U of M lab accounts
  - Mommy-influencers in both Calgary and Manitoba invited to share program information on Instagram
- Procedure:
  - Pilot clinical trial registered at https://clinicaltrials.gov/
  - Ethics protocol reviewed by UManitoba and UCalgary ethics boards given the collaboration of both research teams
- Randomization:
  - Following initial enrollment, mothers with children aged 18-36 months were randomized into an intervention group and a control group using the www.randomlists.com/team-generator online tool to avoid selection biases
- Measures:
  - Weekly surveys were administered to track participant mental health and parental perception of their children’s behaviours and emotions:
    - Mental Health: PHQ-9 ($\alpha = 0.85$)
    - Parental Perception of Child: PDR ($\alpha = 0.87$)

About the App

- Psychoeducational Videos
  - Mental Health Videos using Unified Protocol (UP: an evidence-based cognitive behavioural therapy for depression and associated disorders)
  - Parenting Videos using emotion-focused parenting strategies
- Group Sessions via Zoom
  - Structured weekly group meetings with clinicians to consolidate therapeutic content and promote social support
- Online Forum
  - Monitored by research team, including parent coaches, tech supports and mental health experts, to help encourage and enhance social connection among participants
- Weekly Surveys
  - Including symptom monitoring to track participant progress throughout the program

Results

- Strengths: recruitment
  - 665 mothers screened throughout Alberta and Manitoba
  - 57 enrolment in preschool cohort
- Indication of interest in this format
  - 665 screeners successfully completed in just over two months
- Successful screening protocol
  - Mothers willingly and easily filled out screeners with few complications
- Limitations: retention
  - Excessive contact points from the research team and multistep process for app enrollment increased dropout rate
  - Lower engagement than anticipated in forum & group sessions
  - Average attendance rate in zoom meetings = 20%

Feasibility

- Cross-screening between multiple programs used for enrollment made the process more susceptible to human and technical error
- App development issues lead to a four week delay in the launch, resulting in several dropouts and likely diminished participant motivation to engage in the program
- Difficulties in finding a secure network for the forum where confidential participant information has potential to be shared

Initial Efficacy

- Trends of improvement in family wellness shown in Weekly Symptom Tracking below:

Discussion

- Given the high interest demonstrated by online recruitment efforts, it is evident that this approach is appealing and sought out by mothers in need of mental health support
- Weekly symptom tracking data indicates promising trends towards family wellness
- Further analyses must be conducted before making further assumptions
- Post-program quantitative surveys & qualitative focus groups taking place within the next month will help refine future iterations of the program

Future Iterations

- Largely structured based on feedback received by Parent Coaches and participants in this round of BEAM
- Reducing the content load on a weekly basis (reduce pressure & review more in group)
- Reframe assignments as opportunities to practice/reflections
- Promote the telehealth meetings, making them a core component of the program
- Reduce structure of forums - let them be more naturalistic and support peer connection
- Initial RCT - Launch Jan 31st

Future community partnerships to promote connection and reduce social isolation

Acknowledgements

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- Learning objectives to further my research skills across recruitment procedures, data management and clinical content management components of this program

References


