Reviewer’s report

Title: An implementation-effectiveness hybrid trial of video-based family therapy for peripartum depression in home visited mothers: A protocol for a pilot trial

Version: 0 Date: 23 Aug 2017

Reviewer: Geetha Gopalan

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Review PAFS-D-017-00119

The current manuscript describes a pilot study protocol to determine the feasibility and acceptability of implementing a video- and family-based treatment within the context of home visiting for adolescents with peripartum depressive symptoms.

Overall, the manuscript is well-written and organized. Moreover, adolescent peripartum depression is an important topic to address, and the manuscript describes an innovative approach to enhancing access to evidence-based treatments addressing maternal depression. However, there are some issues that lessen my enthusiasm for this manuscript which should be addressed.

Given that participant behavioral outcomes will be assessed, the study meets NIH criteria for clinical trial registration: https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-015.html. Authors are advised to provide the clinical trial registration information to accompany this protocol.

Introduction:

The introduction is clear and well-organized. Authors make a strong argument for the use of video-based family treatment for depressed mothers. However, authors need to make a stronger argument for their choice of intervention ("systemic treatment model informed by family-oriented Dialectical Behavior Therapy skills for adolescents"). What is the current evidence for this family treatment model with or without technological enhancements?

On page 3, authors write "Untreated maternal depression leads to poor outcomes in home visited families". Please explicate for the reader specific outcomes these are and the significance of addressing them.
On page 4, authors write "This is not surprising given the limited research on video-based family therapy." Authors are advised to briefly summarize the other contexts video based family therapy has been used and relevant findings.

On page 6, authors state "Furthermore, we conducted a preliminary research study that produced findings that suggested a need for integrating the video-based, family oriented treatment into the two Federal HV Program sites." This preliminary study should be discussed further in the introduction: What was the study purpose, methodology, and specific findings?

Methods:

On page 6, Authors indicate that this study is an implementation-effectiveness hybrid trial. It would be helpful to reference the Curran et al (2012) paper [Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectiveness-implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact Medical Care, 50(3), 217-226] and which hybrid type (1, 2, or 3). However, given that this study is not an RCT, this study is more likely characterized as quasi-experimental trial. Authors should indicate which features of the current protocol align and differ from the Curran et al. (2012) typology.

On page 7, authors indicate that "This study includes a historical comparison comprised of 12 depressed adolescent mothers who were previously enrolled in home visiting and have similar characteristics to those who will be recruited for the study." More detail is requested regarding how the historical comparison group will be chosen: What were the matching mechanisms? How were they recruited and how was their recruitment different from the 12 adolescent mothers receiving the intervention?

On pages 7-8, authors provide an extensive list of exclusionary criteria for adolescent mothers in the study. Given these exclusions, how might the proposed sample of adolescents receiving the intervention differ from the population authors wish to generalize too? This issue should be addressed in the limitations, if generalization of findings is likely to be impeded by the exclusion criteria. Additionally, how will these exclusionary characteristics be identified and by whom?

On page 11, authors make reference to the use of focus groups but do not identify which participant type will be involved in the focus group (home visitors, mothers, other staff, etc.). Table 1 indicates that the respondents will be home visitors, but it would be helpful to put in narrative form who will complete which assessments in the methods text.
The sample size (n = 24) substantially limits the ability for authors to determine any statistically significant differences between sample groups. More detail is requested in how authors will determine there a sufficient difference between the intervention and comparison groups on key outcomes. If no significant differences are detected, how will the results inform whether authors should pursue a larger scale trial? What other pieces of information could be gathered that would provide important information regarding how to power a larger scale trial?

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