Reviewer’s report

Title: Definition and improvement of the concept and tools of a psychosocial intervention program for parents in pediatric oncology: A mixed-methods feasibility study conducted with parents and healthcare professionals

Version: 0 Date: 29 Oct 2018

Reviewer: Kate Guastaferro

Reviewer's report:

Thank you for the opportunity to review the manuscript entitled 'A mixed-methods study conducted with parents and healthcare professionals to improve the concept and tools of a psychosocial intervention program for parents in pediatric oncology'. The authors describe the process of refining an intervention designed to reduce distress among pediatric oncology parents using the ORBIT Model. One of the advantages of a journal like Pilot and Feasibility Studies is the venue for publishing this phase of research, but the challenge for authors is to provide enough information to make sense of what work has been done previously and where it will lead. My comments are largely centered on that discord within this manuscript.

Abstract:

* The first two sentences are slightly in disagreement with each other; if manualized programs are effective, then why do you need to do anything more? This is a nuanced argument that should be discussed in the background (see comments below), but is perhaps misleading in the abstract. Instead, I wonder if the abstract should make the case for the importance of parental distress and say something about how interventions are not currently effective.

* Line 37: Shouldn't the name of the intervention be capitalized?

Background: Overall, this section needs to be reorganized and expanded to demonstrate the problem, describe current intervention efforts, explain why they are not sufficient, and describe how these authors are going to use a rigorous process to make an improved intervention. In short, the need for this work needs to be more clearly articulated.

* Paragraph on problem: Currently paragraph #1 (lines 57-66) does not adequately justify the couples component of the intervention. There is one sentence on marital functioning, but given that two sessions of the intervention are couples focused, there needs to be some more justification here for why that is important.
* Paragraph about current interventions; currently paragraph 2 (lines 67-73): I can appreciate that the identification of 11 interventions and the review of those interventions was done elsewhere. However, the author needs to provide a brief summary here so that the reader can come to the same conclusion that this intervention is solving a need. The argument must be made that these programs are not sufficient and the need to apply the ORBIT Model. The authors could even say something to the effect of 'The results of this review are presented elsewhere, but briefly…'

* Related, it would seem that lines 74 - 76 are the concluding remarks for paragraph #2.

* Line 70: I suggest clarifying that the support for parents is surrounding their child's cancer diagnosis.

* Lines 76 - 87: This paragraph is focused on the ORBIT model, but as is does not clearly describe the advantage of the ORBIT model. The phases should likely be described in more detail and the work described herein should be placed within those phases. In particular, I think the authors need to define how they arrived at the 'best components'. As the authors are likely aware, there are other frameworks for optimizing interventions, such as the Multiphase Optimization Strategy (MOST) developed by Linda Collins. MOST would call for an empirical examination of the components of an intervention before arriving at the most effective, efficient, economical, and scalable intervention. It is probably worthwhile for the authors to put their approach in context of other strategies for making this intervention more effective.

* Line 88: I am struggling with the idea of an 'integrative program'. It is not clear what this means and if it has been integrated in prior work, then the intervention described herein is now its own intervention, no longer integrated right?

* In the background section, I suggest the authors describe what happens after the refinement period as they do later on. This gives the reader some context about what comes after this process; a reader unfamiliar with ORBIT may be confused as to why the participants who provided feedback were not actually receiving the intervention.

Methods: This section also should be reorganized. The description of the intervention should be moved to the background section so that the method section focuses on what was done in this phase of the research. With so much detail on the procedures of the intervention, the reader is led to believe that the paper is going to be about the implementation/delivery of the program when in reality the information about the program and its delivery was only provided to the participants. I suggest that instead the section of the methods
In the description of the intervention, which again I feel strongly should be moved to the background section, there is likely a need for some reorganization. The aim of the program (Line 103) should be in the first sentence. The description should tell the reader what the focus of the intervention is, describe theoretical underpinnings, and then describe how it is implemented briefly. The authors might decide to include some detail of implementation on Figure 1 (which should go in the background section).

When did the manualization occur- was that in the prior publication or was that between the identification of components and what is presented in this manuscript?

Line 97: The transition is off here, probably an easy fix with punctuation.

Line 102: The authors use the word refining here, but I strongly suggest they reserve this word to describe the process they are presenting in this paper not the goal of the couples component.

The illustrations (Line 111) are confusing; these are scenarios? Vignettes? It is unclear how they relate to the intervention.

Line 120: As is, the first sentence does not explain how participants were recruited. I recommend moving Line 130 to line 120.

Line 124: The fact that the parents in this sample are of children who are in remission likely warrants some discussion of this approach in the introduction. Again, I think that if the authors explain the ORBIT model and its process in more detail, this may become clearer to the reader, but the idea is that these are the ultimate end-users, parents who have made it through their child's cancer and they can offer some perspective of parents going through it. I could see a reader wondering why the authors did not have parents of children not in remission in the sample.

Line 128 - Line 130: I suggest this is moved to the end of the background to set the stage for what was done in this study.

Line 134: The authors say the participants had received documentation of the program 'beforehand'; I'd like to see a little more detail about how long the participants had the information before the interview.

Line 142: Curious why the authors focused on the providers at first. I'd like to see some justification of why the process began with providers and not parents.
* Line 143: Is it a potential limitation that the parents were not interviewed in a group setting? If not, why is this called out? If the initial design was to do a focus group, it seems like this would be an important limitation.

* Line 148: In what form were the evaluation questionnaires completed?

* Line 154: Were providers not compensated?

* Line 161-167: I would encourage the authors to offer some sample items for these measures. I might also suggest a table with mean scores for parents and providers. I think this would help with interpreting the qualitative results as a whole.

* Line 175: Were kappas calculated for agreement in coding?

Results: The results of this approach are rich and deserve as much space as the authors have allocated to present. However, I think they are difficult to follow in this format. As mentioned above, I suggest that the quantitative results be presented in a table format. I think then the quantitative results should be presented in context with the qualitative results. This way it is almost as if the participants can explain their quantitative scores. I also recommend that the results be consistent in the order in which they are presented; that is, for every theme, the provider feedback comes first then the parent. In the discussion the differences should be highlighted.

* Line 213 Responses to questionnaires: The method section describes the quantitative measures on a 6-point scale. The results are presented in percentiles. It may be more effective to translate the findings to that 6-point scale and present the mean and standard deviation.

* Line 235: "The participants began by talking about the parents' experience." Was this all participants? Providers? Parents?

* Line 243: The authors are using the word couple, but there are 2 parents who are not a couple. I have a problem with this conceptualization throughout the paper, and with the intervention. Is it only for heterosexual married couples? What about single parents who rely on an extended family member for support - it seems like what is discussed may not be relevant for them.

* Line 356: Unclear who the term 'caregiver' refers to in this sentence.
Discussion:

* At the end of the discussion section, the authors use the word acceptability. I wonder if this shouldn't be used earlier in the manuscript? In particular, I was looking for the word acceptability around line 490.

* Line 563: The authors might consider clarifying that the feasibility testing would be conducted with parents who recently received a diagnosis.

Table 1: Is it important to note who the comments came from that led to the modification?

Figure 1: I would like to see more information about implementation in this figure. I think this would streamline the introduction (where I am suggesting the description of the intervention goes now) and be a reference for the comments in the results section as well.

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An article whose findings are important to those with closely related research interests

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No