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Reviewer A

This is quite an interesting study; the authors have identified the gaps they intended to address. Namely: little consistency regarding the method, length, and intensity of the other interventions, lack of grounding in health behavior theories, and lack of data on best practices in preventing early pediatric obesity.

This study has a lot of strengths as well. It involved a diverse US population (often understudied) and was adequately randomized. It's a mixed-method study that used the findings of qualitative research and the HBM theoretical framework to inform the design of a randomized clinical trial.

The qualitative aspect of the paper is also robust. I have no comments on this part.

However, I'd like to know a few things about the quantitative aspect:

Questions for the authors:

1. This study compared the impact of "text messages" versus "usual pediatric nutrition care." However, both groups received text messages. The intervention group received "text messages with feeding advice," while the control group "received safety messages." An example of what makes up these messages should be part of the supplement. Further, are these safety messages part of the "usual pediatric nutrition care" protocols? It's important to clarify.

Reply 1: Thank you for the comment. The safety text messages were not part of usual care. We used them to control for the potential effects of receiving any health-related text messages (special attention) on any of the variables studied. We have uploaded the safety messages to the supplemental files.

Changes in the text 1: We have added information about this on page 8 in lines 199-203 of the revised, marked up manuscript.

2. The randomization method was effective. However, the non-blinding is a limitation, and the authors should include this in this study's limitations. If participants are not blinded, knowledge of group assignment may affect their behavior in the trial and their responses to subjective outcome measures.

Reply 2: We appreciate the comment. We have added a comment about the lack of blinding to group assignment.

Changes in the text 2: pg 17, lines 399-401 of the revised text.

3. This study used a moderate effect size, and the authors did not explain the rationale. Are there other pilot or research studies that have used this effect size? Or was it selected based on convenience?

Reply 3: Another study showed significant differences in exclusive breastfeeding

with text messaging intervention. Effect sizes were not included. Therefore, we based the effect size on a guess of what might occur. (Gallegos 2014, ref 40)

Changes in the text 3: We have added a comment about this on pg 10 lines 238-241.

4. Analysis: Interestingly, the authors used repeated measures ANOVA. It's a convenient, simple, and fair approach. But has inherent drawbacks in this study given the:

A. Missing data on the response variables and low sample size

We agree.

B. Imbalance in the number of repeated responses from each individual across the different periods (some respondents did not complete follow-up at some periods).

In line 485, the authors noted that "the lack of 12-month data points due to the COVID-19 pandemic contributed to these limitations", and they also indicated that socioeconomic status could have affected this. However, a marginal or mixed model can be used to overcome the analytical drawbacks of the repeated measures ANOVA by treating each occasion as a different observation of the same variable. In the mixed model, the measurement with missing data may be lost. However, the mixed model will not lose other responses from the same subject. What the repeated measures ANOVA does is treat each measurement as a separate variable; this is just like listwise deletion. Hence, if one measurement is missing, the entire case is dropped. It's not surprising that your initial small sample size becomes even smaller. This will, inturn, lead to non-significance.

Further, using a mixed model would handle unequal repeats as well.

So is there a rationale for using repeated measures ANOVA against the mixed model in this scenario? Given its missingness and small sample size, this study will benefit from a mixed-model approach.

Reply 4: This is a great point. We agree that a linear mixed model is more appropriate than our RM ANOVA approach. As such, we re-analyzed the data using a linear mixed model and updated the results section. There were not major differences in terms of interpretation as significance levels were similar (i.e., there was no significant interaction between group and time). We applied this analysis to weight for length z scores and percentiles.

Changes in the text 4: This has been described on pg 9 in lines 234-239. The results have been included on page 14, lines 326-331 of the revised manuscript.

Overall, it's a fascinating mixed-method study that contributes to understanding the use of a text-messaging system to provide health information, especially in a diverse population.

Reviewer B

This paper reports on a study designed to develop and test an intervention designed to reduce early childhood obesity risk. The authors used a mixed-methods approach and conducted focus groups followed by a randomized controlled trial (RCT). While the topic itself is very important, the paper suffers from a number of issues especially around the presentation of the mixed methods study, the RCT, presentation of the results and the implications of the study itself to the field. Below are a number of recommendations for improving the current manuscript.

Methods

Study setting—more information is needed about the study setting, i.e., the UNTHSC pediatric clinic. For instance, does it serve low-income families as WIC is mentioned later in the manuscript. What is the race/ethnicity of the parents and pediatric patients, place of birth, US or other countries.

Reply 1: We mentioned that this was a low-income, urban clinic in the abstract. The race/ethnicity of the parents was reported in Table 2 for the qualitative study, Table 5 for the RCT, along with WIC enrollment status. We did not collect income data, but the clinic serves primarily lower income families. We did not ask about place of birth, but they would almost certainly have been born in the US, since the clinic is in a southern US state, and they were recruited by day 30 of life. However, we see your point about including this information in the methods.

Changes in the text 1: We have added detail about the income status of the parents in the methods, pg 4, lines 102-104.

The methods section is a bit confusing. It seems that the authors used a mixed-methods design and the qualitative informed the randomized controlled trial (RCT). If that is the case, the type of mixed-methods approach (e.g., sequential exploratory design) needs to be specified. How did the qualitative inform the trial? Were the samples different, for instance if participants participated in the focus groups were they excluded from participation in the trial?

Reply 2: We are sorry for the confusion. The participants were different because the studies took place sequentially.

Changes in the text 2: We have included more information on the mixed methods design and sequencing of the study on page 3 in lines 86-92.

For the section titled “study instrument and data collection” I suggest retitling this something like “Focus Group Interview Guide.”

Reply 3: We agree.

Changes in the text 3: This has been revised as requested in pg 4, line 113.

Page 3, lines 27 to 28, the reference to focus groups seems out of place as this method hasn’t yet been introduced.

Reply 4: We have tried to more specifically mention this in the methods introduction.

Changes in the text 4: We have added an explanatory phrase on pg 3, line 97.

The design of the randomized controlled trial needs to be clearer—it seems that the trial was over 8 weeks; however, this is not clear as on page 6 line 215 the authors indicate that parents of children 6 months of age received a text to introduce solid foods. If the infants are 3-30 days upon enrollment, at the end of 8 weeks, they would be between 3-4 months. Also the data collection section indicates a 12 month period. Were text messages sent across all 12 months? An image that represents the design, including randomization to the intervention or control group and the information each group received would be helpful. This image could also include any pretest and posttest data collection.

Reply 5: We are sorry for any confusion.

Changes in the text 5: We have added to the abstract, line 13: "delivered for 12 months" to make it clear how long messages were sent. We also added the description of "up to 12 months of life" to line 176 and 178 to try to make that more clear. We have added Figure 1 to try to better illustrate the flow.

Were sociodemographic data collected at baseline? Additional information about what was collected at baseline and follow up is needed, e.g., the topics or variables used from the NHANES.

Reply 6: We apologize for the lack of detail. We have added some detail. In addition, the reviewer will find we included the specifics of other data collection indicated in the next sections of the manuscript.

Changes in text 5: We added "demographic" to on pg 8 line 208 and "at baseline". We also tried to clarify what data was collected at each time point. Pg 9, lines 219-220 clarifies which questions from the NHANES Diet Behavior Nutrition Questionnaire.

Why was the health belief model used? An explanation/justification would be helpful.

Reply 7: We were reluctant to include this here because the qualitative results come later in the paper.

Changes in text 7: However, we have tried to address this here briefly without presenting too many results. We indicated in pg 7, line 173 that this was based on the qualitative data. In addition, we have added a short explanation to pg 13, line 313-314.

Once the text messages were developed, were they shared and vetted by parents?

Reply 8: A subset of the messages were piloted with parents before the study. After these were piloted, the rest were not shared back to parents as there were many.

Changes in text 8: This is described on pg 8 in lines 191-193.

Results

On page 8, line 217, what is meant by "no minority themes were identified?"

Reply 9: This comment about minority themes was required by the Checklist. It just

means that there were no themes with few parents endorsing the theme.

No changes in text.

It's unclear how the findings from the qualitative are connected to the RCT.

Reply 10: We appreciate the comment:

Changes in the text 10: We have moved this explanation from the discussion to the results, pg 12-13, lines 299-314 and tried to make the relationship more clear.

For the RCT, why were only 44 participants recruited, what is the justification for the sample size.

Reply 11: The sample size was justified on pages 9-10, lines 235-238 in the power calculation. In retrospect, we probably should have set a lower effect size, which would have required a higher number of participants, as suggested by the other reviewer.

No changes in the text.

Discussion

On page 12, lines 404 to 419, this section should be part of the results as it indicates how the focus group data informed the development of the text messages.

Reply 12: We agree that this is a better place for it.

Changes in the text 12: We have added a new heading in the results to transition from the qualitative results to the RCT titled "Formation of the Pilot Study" on line pg 12, line 298. We moved these lines to this location: pg 12, lines 299-313, also including a line to emphasize the role of the qualitative study in choosing the HBM to inform the trial.

WIC needs to be spelled out when first introduced.

Reply 13: We apologize.

Changes in text 13: We have addressed this on pg 13, line 325-326.

On page 12, line 438, the authors indicate continued breastfeeding is lower among racial/ethnic minorities—why is that the case?

Reply 14: This is thought to relate to higher rates of low SES among racial/ethnic minorities due to systemic racism.

Changes in the text 14: We have included a comment on pg 19, lines 452-455 to address the ascendant theory about why this relationship exists.

The limitation of the small sample size is not addressed- this may be why the anticipated results were not found.

Reply 15: We mentioned the small sample size in the revised manuscript on what is now pg 16, line 380 and line 388. (limitations earlier in discussion in new format)

No changes in text.

Given that parents often did not respond to the survey via text—what can be learned and offered to other investigators using text messages as part of interventions?

Reply 16: Excellent point.

Changes in the text 16: We added a comment about this on pg 21 lines 510-512.

The section on page 14, lines 456 to 468 is important—how do your study findings contribute to this body of literature?

Reply 17: Excellent point.

Changes in the text 17: We have added comments on pg 20, lines 480-483 to put this in context.

The paragraph on page 14, lines 470 to 477, should be placed with the paragraph on page 12 lines 421 to 441 (continuing on page 13) as the information represents the limitations of the study. Additionally, the information on page 15, lines 502 to 508 are limitations of the study and should also be placed in with the other limitations.

Reply 18: Because of the new journal formatting requirements, much of this has been moved. The limitations and strengths come second in the discussion now. Where we have mention of limitations in other sections, they are just intended to summarize the limitations as part of the conclusion. They do not provide new information.

Changes in text: Added "qualitative on pg 16, line 380. Limitations moved to section 4.2.