

Peer Review File

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Reviewer A

Comment 1: It was a pleasure to read this very well written manuscript on a valuable study that provides interesting insights into the participant experience of participating in an EMA study on binge eating (e.g., the participant desire to report more in depth on their binge eating episodes is very interesting). I commend the authors on conducting this important work. I am confident that this pilot study will benefit the authors' larger EMA study, as well as others' work in the field.

Reply 1: Thank you for reviewing our manuscript and for this kind feedback.

Changes in the text: None requested.

Reviewer B

Comment 1: This manuscript presents the method and findings from a study designed to obtain qualitative and quantitative feedback on an EMA protocol for assessing binge eating (and triggers) in heterosexual and sexual minority women. The main stated finding was that conducting pilot work in the sample and obtaining feedback prior to initiating a larger study was useful for improving the study procedures. There are few published findings to guide the development of EMA protocols – therefore I think this paper makes a contribution by describing the specific processes used to pilot test numerous aspects of the method.

Reply 1: Thank you for reviewing our manuscript and for this kind feedback.

Changes in the text: None requested.

Comment 2: I think it would be more useful if the authors incorporated more information regarding feedback on specific questions and methods decisions (i.e., timing, length/number of ema assessments, question wording, compensation) into the manuscript text or at least the tables. I saw later that specific questions are included in the Supplement Appendix (embedded in the interview guide), however, I think it would be helpful to provided information about these decisions into the text/tables.

Reply 2: We agree with the reviewer that more concrete examples of changes made would be useful. Regarding some of the specific areas identified above by the reviewer, unfortunately we did not ask for feedback on the compensation amount; we have removed mention of this issue in the introduction to reduce confusion. Regarding the length of the EMA assessments, we present

information about participants' perceptions of the appropriateness of the length in Table 2, including both qualitative and quantitative information. In Table 4, we also include information about how we used this information (e.g., we shortened the Prompted Survey and lengthened the Binge Eating Survey). We do agree that the original manuscript was lacking in specific examples of how EMA questions were changed based on participant feedback. In this revision, we added a second supplement that includes a new table presenting the EMA questions about eating behaviors, identity-related stressors, and appearance-related pressures that were the focus of this study. In the table, we present the questions we asked in the pilot study in the left column, and in the right column we present the revised questions. We have highlighted revised text in red. In Table 4, we more generally describe the types of changes made, and also reference the supplemental file with more details on specific question revisions. We hope that providing more examples and the actual text revisions may be useful for future researchers interested in using EMA to assess these constructs.

Changes in the text: We removed reference to participant feedback on compensation amount in the introduction on page 6 to reduce confusion because this is not something we asked about in this study. We have also added a new table to the supplement that provides examples of revisions to the EMA questions that were made; we now reference this new supplement in Table 4.

Comment 3: Additionally, it would be helpful if more information about the clinical status/severity of the sample was reported in the paper.

Reply 3: This is an excellent point. To be eligible to participate, women could not be in active treatment for an eating disorder, and they had to report binge eating at least two times in the previous two weeks. In the screening survey participants reported an average of 5.35 binge episodes (SD = 2.91, range: 2-14) in the previous two weeks. In the revised manuscript, we have included information about the mean and standard deviation of the number of episodes for the full sample, heterosexual women, and sexual minority women in the demographics table (Table 1).

Changes in the text: The number of binge episodes in the previous 2 weeks was added to Table 1. We have also clarified what information is included in Table 1 in the text on page 11 line 223.

Comment 4: The “key finding” (at the beginning) would be more informative if it included either specific information about the method for piloting/obtaining feedback or what, specifically, was learned from feedback. As it stands it is generic and does not really highlight any specific finding.

Reply 4: We have revised the key finding to include a second bullet that highlights the method (quantitative and qualitative feedback) and that it was important for refining procedures and materials, such as the EMA questions. Although we would like to add additional details, we are unable to do so while staying within the 150 word limit for all of the Highlight Box.

Changes in the text: A second bullet was added that reads: “Qualitative and quantitative feedback was important for refining the study procedures and materials (e.g., EMA questions).”

Comment 5: I also think it could be useful to highlight in the “what is known and what is new” that there is little information to guide methods development for EMA studies, even outside of sexual minority populations (and this is also more consistent with how the authors frame the rest of the paper).

Reply 2: We agree with this point and have added it in the “what is known and what is new” section of the Highlight Box.

Changes in the text: We have added the following bullet point to the “what is known and what is new” section of the Highlight Box: “There is limited empirical evidence available to guide the development of EMA studies more generally.”

Comment 6: Might be helpful to include the rationale for the broader study to put this paper in context – meaning, EMA is not done just to learn more, but rather to improve interventions for specific groups/behaviors. Adding information about the aim of larger study (who it is intended to benefit) would be useful additional rationale.

Reply 6: The reviewer is correct that the longer-term goal of this line of research is to inform interventions for heterosexual and sexual minority young women. We have added information about this point in the introduction.

Changes in the text: Added text on lines 175-177: The longer-term goal of this line of research is to use the information gathered from EMA studies to identify potential intervention targets to reduce binge eating for both heterosexual and sexual minority women.

Comment 7: Add detail re clinical status of participants. ED diagnosis? How assessed? Frequency of binges in past month?

Reply 7: As described in response to this reviewer’s Comment 3 above, participants could not be currently receiving treatment for an eating disorder based on self-report at the time of the screening survey. We did not assess history of eating disorder diagnosis or treatment in this study. To be eligible, participants needed to report binge eating at least two times in the previous two weeks at screening. Overall, participants reported an average of 5.24 (SD=3.37) binge episodes in the previous two weeks.

Changes in the text: The number of binge episodes in the previous 2 weeks was added to Table 1. We have also clarified what information is included in Table 1 in the text on page 11 line 223.

Comment 8: I think the paper would be improved by including specific findings and conclusions about study design, based on what was learned from participants (i.e., about phrasing for questions for each concept, schedules, compensation, etc.). The intro sort of sets the stage that these types of questions might be addressed, but the results mostly emphasize the procedure used to learn this information. Of course findings from this sample would not 100% generalize to all EMA studies,

but could provide starting points. As an EMA researcher, it is helpful to know the process used to evaluate the protocol and design the larger study, but it would be more helpful if concrete examples of participants' feedback on the various components was also provided (i.e., what did they think was sufficient compensation, which binge eating questions were most helpful, etc). As it stands, table 4 and the supplement are helpful in addressing this, but I think the paper would be improved by centering more of the specific findings.

Reply 8: We agree with the reviewer that more concrete examples of changes made would be useful. Unfortunately, we did not ask for feedback on the compensation amount; we have removed mention of this issue in the introduction to reduce confusion. We appreciate that the reviewer thinks that Table 4 and the supplemental file were helpful. Based on the reviewer feedback about concrete examples, in this revision, we added a second supplement that includes a new table presenting the EMA questions about eating behaviors, identity-related stressors, and appearance-related pressures that were the focus of this study. In the table, we present the questions we asked in the pilot study in the left column, and in the right column we present the revised questions. We have highlighted revised text in red. In Table 4 of the main document, we more generally describe the types of changes made, and also reference the new supplement with more details on specific question revisions.

Changes in the text: We removed reference to participant feedback on compensation amount in the introduction on page 6 to reduce confusion because this is not something we asked about in this study. We have also added a new table to the supplement that provides examples of revisions to the EMA questions that were made; we now reference this new supplement in Table 4.

Comment 9: Relatedly, is it worth a paragraph in the intro about difficulties assessing binge eating in general, and, in the results, any takeaways regarding best practices for doing this by ema. I think this would be a significant contribution, as an eating disorders researcher.

Reply 9: We agree that assessing binge eating can be challenging in daily life and that this warrants more attention in our paper. Although we do agree with the reviewer that these points are worth highlighting, we also hesitate to overstate our findings. This was a small pilot study, and thus, we do not think that we can make claims about "best practices" for assessing binge eating via EMA, but we have revised our manuscript to more directly speak to this issue. In the revised manuscript, we have added some additional details around this issue in the introduction (page 10 lines 186-190) and results (page 16 lines 352-359).

Changes in the text: We have added the following text to the introduction (page 10 lines 186-190): "EMA methods have been used for many years to study binge eating and other related disordered eating behaviors (e.g., Smyth et al., 2001). However, it can be challenging for participants to self-identify and record binge episodes in daily life (Stein & Corte, 2003; Wilfley et al., 1997), and thus, as part of this study we sought feedback on participants' experiences regarding reporting on binge eating via EMA." Then, in the results we have added the following text (page 16 lines 352-359): "For the training videos we added a transcript for the videos, added

more specific study information, and created a separate informational video about the binge eating survey. This latter addition was made based on quantitative and qualitative feedback and speaks to the difficulty in defining and clearly communicating with participants about what qualifies as a binge eating episode. Within the binge eating survey, participants expressed interest in providing us with more information about the context for, and reactions to, their binge eating; thus, we added 11 additional questions to the binge eating survey (see the Supplement for questions added).”

Comment 10: I think it is great that the authors include the interview guide in the paper!

Reply 10: Thank you for this feedback, and we hope that this guide will be useful for other researchers as well.

Changes in the text: None requested.

Comment 11: Overall clear, concise, thorough.

Reply 11: Thank you for this positive feedback on our manuscript

Changes in the text: None requested.