Peer Review File

The purpose of this study is to review the published literature on interventions that combine internet and communication technologies (ICT) and social support to improve diabetes self-care for adults. Overall, this study addresses a significant topic, but it has significant methodological issues that impact its contribution to the literature. For these reasons this study did not merit further review of the Results, Discussion or Conclusion sections since these issues are critical enough to void their potential impact. Finally, authors use some terms in the manuscript that do not align with the language guidance for diabetes-related research, education, and practice (Dickinson, 2017). Throughout the manuscript there are multiple terms used that do not align with these guidelines such as use of "medication adherence" and "glycemic control" and it is suggested that authors edit their manuscript to better align with suggested language. This is particularly questionable given this guidance is not new.

Diabetes language guidance: https://www.diabeteseducator.org/practice/practice-tools/app-resources/diabetes-language-paper

Dickinson, J. K., Guzman, S. J., Maryniuk, M. D., O'Brian, C. A., Kadohiro, J. K., Jackson, R. A., D'Hondt, N., Montgomery, B., Close, K. L., & Funnell, M. M. (2017). The Use of Language in Diabetes Care and Education. The Diabetes Educator, 43(6), 551–564. https://doi.org/10.1177/0145721717735535

Introduction:
1) Reviewer A, Comment 1: Please add citations to support the statements made on page 3 lines 76-79.
   a. *Reply 1: Thank you for the careful review, and identifying an area we need to add*

citations to support our claims.

   b. *Changes in the text: Authors have updated citations. Please see page 4 lines 68-73.*

2) Reviewer A, Comment 2: Authors cite two systematic reviews (#11 and 12) as showing that social support is associated with improved health behaviors and A1c values for people with diabetes. Please report in a few sentences on what specifically the results of these reviews showed.

   a. Reply 2: Thank you for the suggestion, reference 11 & 12 are now reference 17 & 18 (Strom & Egede & Spencer-Bonilla et al. respectively). We have elaborated on the description of these studies.

   b. *Changes in the text: Authors have added a few sentences on what specifically the results of these reviews showed. Please see pages 4-5 lines 75-90.*

3) Reviewer A, Comment 3: Please add citations to many of the statements in the third paragraph of the Introduction section (page 4, lines 96-113).

   a. *Reply 3: Thank you for the careful review, and identifying an area we need to add citations to support our claims.*

   b. *Changes in the text: Authors have included citations. Please see pages 5-6 lines 92-96.*

4) Reviewer A, Comment 4: Authors state that ICT interventions could overcome barriers facing in-person interventions but do not address the technology issues that many people face. Please address this issue and provide rationale for why these barriers are fewer than the barriers to in-person interventions.

   a. *Reply 4: Thank you for noting this important barrier to all mHealth and ICT interventions, we have elaborated on the technology issues that many people face in a new paragraph.*

   b. *Changes in the text: Authors have included this in the discussion section. Please see page 19-20 lines 418-430.*

5) Reviewer A, Comment 5: Authors state that currently the impact of ICT diabetes interventions on changing health beliefs, behaviors, and clinical outcomes is unknown (page 4, Lines 115-117), which is not accurate. While citations for numerous other systematic reviews and meta-analysis that have been done on these topics could be provided, it would behoove the authors to become more familiar with the evidence base

themselves as they work to include these findings into the manuscript.

    a. *Reply 5: Thank you for pointing out this discrepancy.*

    b. *Changes in the text: Authors have incorporated findings from current literature, as suggested by the reviewer. Please see page 6 lines 105-118.*

Methods:

1) Reviewer A, Comment 6: Was only one database (e.g., Pubmed) searched? It is suggested that authors include other databases such as Medline, Web of Science, ACM digital library, etc.

    a. *Reply 6: Thank you, we revised our search strategy to examine additional databases and screened, identifying additional relevant studies.*

    b. *Changes in the text: Authors have updated search to include PubMed, OVID, CINAHL, and ACM Digital Library. Please see page 7 line 134.*

2) Reviewer A, Comment 7: For your search why were no MESH terms or key words used? Currently, it appears as though authors only searched title/abstract, which is not a robust search strategy. It is suggested that you re-run your search with MESH terms and all your terms also as key words to see if new articles are identified. Further, it is suggested that authors work with a research librarian to craft a comprehensive search strategy.

    a. *Reply 7: Thank you, we re-ran all searches with the assistance of a research librarian who assisted the authors in crafting a comprehensive search strategy.*

    b. *Changes in the text: Please see Appendix 1 for search terms.*

3) Reviewer A, Comment 8: The exclusion criteria states that video-based or telehealth meetings were excluded, with no clear rationale why. Authors need to provide why this does not count as an ICT intervention.

    a. *Reply 8: Thank you so much for your careful review and for pointing this out.*

    b. *Changes in the text: Authors have updated the manuscript to include a rationale. Please see pages 18-19 lines 394-404.*

4) Reviewer A, Comment 9: The rationale provided for not doing a quality appraisal does not make sense (page 6, lines 167-168). Appraisal of study quality has nothing to do with the decision to conduct a meta-analysis (e.g., a quantitative synthesis of study outcomes.). High quality systematic reviews that follow PRISMA guidelines should conduct an appraisal of

study quality using appropriate tools/checklists, so that the overall quality of the evidence base is known. Without a quality appraisal the review results are not meaningful as there is no way to discern if the results from the sample are from well done rigorous studies or not.

    a. *Reply 9: Thank you so much for indicating the importance of a quality appraisal. The authors completed a quality appraisal of randomized controlled trials (RCTs) following the updated search containing multiple databases. However, as only 15 RCTs were identified out of the 39 studies reported, we did not include the quality appraisal in this version of the manuscript for the sake of brevity.*

Reviewer B

I have reviewed your manuscript titled "Social Support via Internet Communication Technology for Diabetes Self-Management: A Systematic Review" and would like to provide you with some feedback to enhance the clarity, consistency, and overall organization of your work. Please find below a revised version of your comments and suggestions with improved language and organization:

General:

Reviewer 2, Comment 1: Throughout the paper, significant inconsistencies exist regarding the numbers of papers screened, excluded, and ultimately included. Different figures are reported in the results section, text, tables, and figures. To ensure accuracy, please carefully revise and align all these numbers across the results, PRISMA diagram, and tables. Also, kindly update the Checklist table to reflect the correct number of pages.

Reply 1: Thank you for catching the discrepancy. We have updated the results section, text, tables, and figures.

Changes in the text: Authors have updated the text accordingly. Please see pages 7-8, lines 144-155, Table 1, Table 2, Table 3, Table 4, and Table 5, and the PRISMA-ScR Checklist.

Abstract:

Reviewer 2, Comment 2: The reported number of included studies appears to be incorrect. Please revise this number for accuracy. In your conclusions, I recommend focusing primarily on highlighting the main findings rather than expressing future research and implications.

Reply 2: Thank you so much for your invaluable attention to detail regarding the included number of studies, and for your feedback regarding the content of our main findings.

Changes in the text: Authors have updated the abstract and revised the number of included papers for accuracy. Please see page 2 lines 37-38. The conclusion has also been updated to highlight main findings rather than future research and implications. Please see pages 2-3 lines 45-53.

Introduction:

Reviewer 2, Comment 3: Page 4, lines 96-113: This paragraph lacks proper referencing. It would greatly benefit from acknowledging relevant literature that supports your claims. Consider referencing papers such as Brew-Sam (2020) and Kim (2023) to strengthen your argument.

Reply 3: Thank you for catching this error in missing citation. We have revised said paragraph and added citations, including Brew-Sam (2020).

Changes in text: The authors have included three citations in said paragraph. Please see page 5, lines 94-96.

Reviewer 2, Comment 4: Furthermore, the introduction should provide a more comprehensive rationale for the need for this review. It seems that your study aligns more with a scoping review, as per the guidance provided by Arksey and O'Malley, rather than a systematic review, as its aim is to map current interventions and their characteristics, rather than evaluating their effectiveness. I suggest revising your methodology report to better align with this scoping review approach, focusing on examining the current landscape of interventions combining ICT and social support for improving diabetes self-care in adults. Also, maintain consistency in terms such as "self-care" and "self-management", as they can not be used interchangeably.

Reply 4: Thank you, we spent quite a bit of time reflecting on this comment and rethinking how we were structuring the search and the rationale. We now accurately describe this review as a scoping review and have displayed our findings in a data mapping format.

Changes in text: The authors have explicitly changed the title to a scoping review and have added a rationale for this review. Please see page 2 line 2 and page 7 lines 123-128, respectively. Additionally, all "self-care" terms have been changed to "self-management."

Reviewer 2, Comment 5: It is crucial to present existing evidence on the topic, including any relevant reviews, or if none are available, provide a rationale for conducting this review and highlight its contribution to the field.

Reply 5: Thank you for the comment, we have added a rationale for this review as described in the comment above.

Changes in the text: Please see page 7 lines 123-128 for rationale.

Methods:

Reviewer 2, Comment 6: Limiting the search to a single database poses a significant limitation to the rigor of your review. To enhance the validity of your results, I recommend expanding your search to include 4-5 databases. Be mindful of important studies that might have been omitted, such as Plotnikoff (2017).

Reply 6: Thank you, we revised our search strategy to examine additional databases and screened, identifying additional relevant studies. Plotnikoff (2017) was captured in our initial search but was excluded for non-scalability (more than 2 synchronous training visits required of supporters).

Changes in the text: The authors have updated the literature search to include PubMed, OVID, CINAHL, and ACM Digital Library. Please see page 7 line 134.

Reviewer 2, Comment 7: Please consider revising the repetitive language in the statement about reaching consensus among authors (page 5, line 133-136)

Reply 7: Thank you for your attention to detail, we appreciate you pointing out this redundancy.

Changes to the text: We have updated the language to reduce redundancy. Please see page 7 lines 138-145.

Results:

Reviewer 2, Comment 8: Please ensure consistency in reporting the number of papers. For example, on page 6, line 173, you mention 279 articles selected, while PRISMA indicates 277. Similarly, on line 176, you state 28 articles selected, but PRISMA indicates 27. The number of unique articles represented also needs clarification, especially for the 4 articles unaccounted for from the initial 28.

> *Reply 8: Thank you for your attention to detail. The authors have updated the consistency in reporting the number of papers throughout the manuscript and tables.*
>
> *Changes in the text: Throughout manuscript, Figure 1, Appendix 1, and Tables 1-5.*

Reviewer 2, Comment 9: Regarding Figure 1, provide a detailed breakdown of the 320 papers that were removed after identifying them as non-duplicates. After that in the screening phase you say there were left 3170 papers, however 5807-320=5487. Please explain the rationale for the exclusion of 2893 studies in the screening phase.

> *Reply 9: Thank you very much for your careful review and calculation of each set of papers. Figure 1 has been updated so that each phase of the screening and review process are consistent.*
>
> *Changes in the text: Please see Figure 1.*

Reviewer 2, Comment 10: On page 9, line 189, you mention eight articles, but there appear to be 13 papers for the first group of interventions based on modality. Similarly, on page 10, line 223, you mention five articles for the second modality, though only four are evident. Additionally, ensure that all references are correctly cited, including Heister (2005), which seems to be missing.

> *Reply 10: Thank you for your comment and attention to detail. The authors have made changes accordingly.*
>
> *Changes in the text: Authors have updated the number of articles for each modality so that it is uniform throughout the results section.*

Discussion:

Reviewer 2, Comment 11: Engage more with existing literature, especially studies addressing the same topic under different conditions. Incorporating insights from related scoping reviews (e.g., DeHoff, 2012; Clayton, 2019) can help underscore the significance and implications of your findings.

Reply 11: Thank you for your feedback, and for your explicit recommendation of DeHoff, 2012 and Clayton, 2019. We have incorporated both.

Changes in the text: Please see page 4 line 7 6and page 18 line 383 for our references to DeHoff and Clayton, respectively.

Reviewer 2, Comment 12: When discussing previous work, refer to papers using the authors' names (e.g., Lari et al., Heisler et al.) instead of using phrases like "Lari and Heisler show."

Reply 12: Authors have updated the manuscript throughout so that when there are 3+ authors for an article, it is phrased as 'First Author et al.' For articles with one or two authors, the authors were explicitly listed.

Changes in the text: The changes described in Reply 12 above can particularly be seen in the results and discussion sections. See pages 9-16 and 16-20, respectively.

Reviewer 2, Comment 13: Strengthen your discussion by emphasizing the unique strengths of your review and addressing important limitations. For instance, consider discussing the limited depth of analysis inherent to scoping reviews and the potential for bias in study selection and classification.

Reply 13: Thank you for your suggestion regarding ways to improve our manuscript. Our limitations have been updated accordingly.

Changes in the text: Please see page 19 lines 406-416 for updated language.

Conclusion:

Reviewer 2, Comment 14: In your conclusion, refrain from suggesting further research and implications. Focus solely on summarizing your findings to ensure clarity and precision.

Reply 14: Thank you for your feedback regarding out conclusion. As a result of your feedback, the conclusion has been updated so that future implications are not mentioned. Rather, the authors now focus on the main findings of the scoping review.

Changes in the text: Please see page 21, lines 443-454 for the changes mentioned in Reply 14.