Author’s response to reviews

Title: Barriers and facilitators to taking on diabetes self-management tasks in pre-adolescent children with type 1 diabetes: a qualitative study

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Author’s response to reviews:

Response to reviewers’ comments

Author response:

Thank you very much for sending our paper out for review. We are very pleased that both Reviewers were supportive of our paper. In responding to their helpful comments, we have made a number of revisions which we believe have strengthened our manuscript. To free up words to address the Reviewers’ comments we have also undertaken a tighter editing of the manuscript without making any substantive changes to the original submission. Our responses to the Reviewers’ points are as follows.

Reviewer reports:

Margaret Grey (Reviewer 1): In this manuscript, the authors present the results of a qualitative study of 24 children between the ages of 9 and 12 with type 1 diabetes. This topic is important as more and more aspects of self-management need to be shared between parents/caregivers and the children. Importantly, the results of the study highlight the need to address the concern about whether these children are capable of making complex mathematical calculations to determine bolus doses.
Response: Thank you for acknowledging the importance of our findings.

That said, there are a number of areas that are not included or are unclear. For example, previous reports have suggested that children diagnosed in early childhood have more difficulty with the transition to self-management. As presented, it is difficult to discern whether age at diagnosis influenced some of their care decisions. It might be useful to add a table with descriptions of each of the participants (e.g., age, pubertal status, time since diagnosis). Such a table will help the reader to understand these relationships. Similarly, children in this age group vary a great deal in their developmental and pubertal status. Again, it would be important to understand if some of these characteristics influence their decisions.

Response: We would like to thank the Reviewer for this suggestion. However, we would prefer not to include a table with individual participants’ ages and diabetes durations as to do so might risk breaching their confidentiality. This is because we interviewed a relatively small number of children and because Scotland, which is where the research took place, is a small country in terms of the number of children aged 9-12yrs who have type 1 diabetes. While we would rather not include such material in the paper, the Reviewer has made an interesting point and we have brought into our Discussion an additional recommendation that future quantitative research be conducted, using a larger sample size, to explore whether age at diagnosis, duration of diabetes and pubertal status might influence self-management decisions (p18, line 12-15).

The description of the qualitative approach is confusing. The authors say that an 'inductive, descriptive' approach was used, but the reference supporting this statement is for grounded theory. The purpose of grounded theory approaches is to develop theory about a phenomenon. No theory was determined here. This appears to be more of a 'qualitative descriptive' study, per Sandelowski.

Response: We agree that the reporting of our methods in the original submission was confusing. We have reworded our methods to clarify our use of a thematic approach informed by the method of constant comparison in line with principles used in grounded theory research (see p6 (line 18-19) to p7 (line 1-3).

The approach to data collection is appropriate, but it is unclear how the play tasks were conducted and use to achieve the aims of the study. More clarity is necessary.

Response: Thank you for bringing this to our attention. While we offered children the opportunity to use play-based activities to help elicit discussion about type 1 diabetes, all but one of our participants chose to take part in a conventional face-to-face interview. We have added a sentence in the introduction to our reporting of the results to clarify this (p7, line 18-20).

It is curious that the Standards for Diabetes Care referenced were from 2006. These standards have changed a great deal since then, and the ADA as well as ISPAD have issued standards for
the care of children and adolescents with type 1 diabetes. These findings should be informed by the current standards for children.

Response: Thank you for identifying this error. We have updated the manuscript to include an up-to-date reference for standards of medical care in diabetes for children and adolescents.

Reviewer 2 (Reviewer 2): PEER REVIEWER COMMENTS: To view the full report from the academic peer reviewer, please see the attached file.

REVIEWER COMMENTS FROM REPORT: My overall impression is that it is done well methodologically. At first, I thought that studies like this have been done before, but my review of the literature shows that most existing studies span ages 5-18 and thus do not focus on this age group. Thus, this work may shed some light on this pre-adolescent group, in contrast to other studies.

Response: Thank you for acknowledging the contribution of our study.

REQUESTED REVISIONS:

In the methods section, the authors mentioned that ways to engage participants in discussion were drawing and game-playing tasks. I am wondering what these tasks included and whether one could also analyze the results of the drawings with the data set. I do not know the content of the drawings or games, but it would be an idea to consider. If nothing else, please add a sentence or two about the drawings and games and how they were used to elicit discussion.

Response: Thank you for raising this point. As we have indicated in our response to Reviewer 1, we have added a sentence to our results section to clarify that all but one participant opted to take part in a conventional interview, hence we have opted not to report how play-based activities were used.