Reviewer's report

Title: A mixed-method systematic review of interventions, barriers and facilitators to achieving optimal self-care by children and young people with Type 1 Diabetes in educational settings

Version: 1 Date: 6 April 2014

Reviewer: Maartje de Wit

Reviewer's report:

This is an interesting and important topic that has not been well investigated. This review could help develop new interventions. Applying a mixed methods approach is helpful as very few trials are done. I really appreciate the vast amount of work that has gone into this. The review has been thoroughly executed and presented.

This leads to my major compulsory revisions:

1. The manuscript is too long. There is much overlap between tables and text in the results.
   
   For example:
   
   - Additional Table 4 is very informative, and there is no need to repeat the majority of information (e.g. the quality of life domains) in the text. The questionnaire used can be incorporated in the Table, so the main measures and results are described there. The text should only focus on the main results and the details can then be found in the table.
   - Stream 2: Before reporting the results of each section, the guidelines are described. But these can be found in Table 1 as well. Substantially shortening those descriptions or perhaps even deleting those would help the clarity and readability of the manuscript. Sometimes it is unclear whether text relates to guidelines or background information or is a result of the review.
   - The synthesis is very informative, but again there is major overlap between the text and Table 5. I think the text can be shortened.

2. At the end of the introduction, the objectives are stated. The first aims to determine the effectiveness. How is effectiveness defined?

3. Methods/results: In the results it becomes clear that both interventions aiming at the effectiveness on the level of the children as well as on the level of school personnel are included. It would be helpful if this is mentioned in the methods section and becomes more clear in the table as well.

4. In the discussion attention should be paid to these levels. Does an effective intervention on the level of school personnel translate in better outcomes in children with diabetes?

5. Search methods: which databases were searched?
6. Results stream 2: It would be helpful if the subheadings follow the order of the topics in Table 1.

7. Only in the paragraph about school nurses, differences between countries are mentioned. But I suppose there are many more differences. Are there and how do they affect the perceptions of children and parents? If this is difficult to include in the results, address the issue in the discussion.

8. Discussion: what are the limitations of this study?

Minor essential revisions:

9. Table 3: Siminerio et al: The number of Diabetes Educators is missing (9n=xx))

10. Please look at your use of past and present tense (esp. in the results section on stream 2)

Discretionary revisions:

10. Would it be possible to integrate Table 2 in Table 3?

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests