Reviewer’s report

Title: Mobile Health in the Management of Type 1 Diabetes

Version: 1 Date: 21 Sep 2018

Reviewer: Reviewer 2

Reviewer's report:

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

REVIEWER COMMENTS FROM REPORT: This paper provides evidence in the form of a systematic review as to the effectiveness of mHealth interventions for glycaemic control in patients with type 1 diabetes. This answers an interesting and novel question and the methodology for extracting and analysing the data is of a good standard. The manuscript is structured appropriately and presents data in a clear manner, however I find some sentences a little hard to read and there are instances where statements are not supported by evidence or citations (as pointed out below).

REQUESTED REVISIONS:
I have a handful of comments that would improve the overall readability of the paper and communicate an appropriate justification for the study and interpretation of the results:

Title: It might be helpful to indicate in the title of the paper the study design (A systematic review and meta-analysis).

P5,L2-4: The first two statements need citations and on line 4 there is a typographical error '...adolescents with...'

P5,L10: this is not a clear sentence - perhaps the word 'includes' is missing before failure but I am not sure?

P5,L13: it would be nice if you could give evidence in support of the statement that T1DM incurs an economic burden - what are the stats on this?

P5,L15-20: You mention Studies have shown... but do not tell the reader which studies. Please add appropriate citations to support all of your claims here.

P6,L3-4: this sentence needs revising to make more sense.

P6,L4-8: A definition of what exactly is meant by mobile health (mHealth) would be useful here. I would also change the phrase well documented as the evidence you cite is not conclusive - change to 'A number of studies have shown...' perhaps?
P6,L17: It would be helpful to stick to one term so as not to confuse the reader (e.g. Glycaemic index control, HbA1c, glycated haemoglobin).

P7,L13: Justify why interventions greater than 3 months was selected as a criteria.

P7,L16: Justify why patients had to have the literacy to complete measures independently.

P8,L5: Could you elaborate or rephrase what is meant by (5) consisted of previously published literature [do you mean no secondary data analyses were included?]

P8,L11: This sentence needs modifying - delete 'they used' at the start.

P8,L13-14: you do not need to include this again, it would be better to say 'included studies that met our inclusion criteria'.

P8,L17-18: Could you be clearer about what 'redundant publications' means?

P10,L10: does not read very well, change to something like "...completed the respective intervention studies, of which there were..."

P11-12: throughout the results section please state the exact p value rather than P< 0.05. Also tell the reader that the results you report are the mean difference and 95% CI(at least in the first instance).

P11,L1: You need a citation to support the statement "t1DM is managed differently in different groups"

P11,L18: again stick to reporting HbA1c not 'glycated haemoglobin'

P13,L10: Rephrase this sentence as it does not quite make sense..."...meta-analysis showed that using mHealth interventions reduced HbA1c relative to no mHealth control groups

P13,L17: tell us which study you refer to here

P14,L2-5: this needs rewriting to be more clear for the reader what the point is you are making.

P14,L15-16: Please include a citation giving evidence to support the claim that teenagers have a poor understanding of the use and content of mobile phones compared with adults. Also elaborate on how these factors affect glycaemic control (next sentence).

P14,L20: delete the word 'our' and change 'accepted' to something like 'has potential but needs to be refined' in accordance with the rest of your argument.

P15,L6;L10: what studies - need citations!
P15,L12-14: delete the word ‘our’ and expand to include reference to mHealth as this was the subject of your study

P15,L17: this has flagged up that from your table and tables and the text that we do not know if intervention duration is defined as the time the experimental group used the mHealth programme or to a a follow-up measurement period that occurred after the intervention had stopped. Please clarify where relevant

P16,L14: I would suggest putting the sub group comment after the sample size limitation as this is part of that original point you raise.

P16,L17-20: It isn't clear what you mean here, do you mean rather than the mHealth programme itself? please rephrase to clarify.

Table 1 and Table 2: Pick a better term than 'intervention way'. You call it intervention type in the text, which is better but should be defined in the legend (i.e. what the difference between text message and application is by your definition).

ADDITIONAL REQUESTS/SUGGESTIONS:
see comments above

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:
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