Author’s response to reviews

Title: Suicide prevention and depression apps’ suicide risk assessment and management: a systematic assessment of adherence to clinical guidelines

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Author’s response to reviews:

Please find below our responses to reviewers' comments (we have attached the original document as Supplementary Material - Authors response to reviewers comments):

Reviewer 2, Question 1: "Authors only cited a few apps. It would be useful if all the selected apps could easily reached by giving the link. As they did for some of them Moodpath - Depression & Anxiety Test. 571 https://play.google.com/store/apps/details?id=de.moodpath.android&hl=en_SG. Wysa: stress & anxiety therapy chatbot. Youper - Anxiety & Depression. Cups - Anxiety & Stress Chat. Pacifica - Stress & Anxiety."
Authors' response: Thank you very much for your suggestion. We have added the hyperlink to the app store description for each app in Supplementary Table 1. Changes to manuscript: No changes made to the manuscript

Reviewer 2, Question 2: "A clear table providing a summary of each selected app would be also useful for the reader."
Authors' response: Thank you very much for your suggestion. We have included: Supplementary Table 1: Characteristics of included apps, lists all the apps assessed in this study, the platform, app category, type of developer, and the suicide prevention strategies the app offers to users. We have also added to this table the hyperlink to the app store description for each app as referred to in the previous comment. We mention Supplementary Table 1 in the section “Strategies to manage a person at risk of suicide” (page 12, lines 244-245) that reads: “Supplementary Table 1 provides a detailed description of the strategies used by each app”. We have also included a new mention of the supplementary table at the beginning of the results section (page 10, lines 211-212)
Changes to manuscript: Page 10, lines 212-213: We added the following statement: “Supplementary table 1 lists all the assessed apps and the suicide prevention strategies offered by each app.”

Reviewer 2, Question 3: "Some statement in the text could be better referenced, especially in the result section. E.G "Two depression management apps (2/20, 10%), 3/3 (100%) depression management" (ref? which apps?)"
Authors' response: Thank you very much for your thoughtful suggestion. We have included a supplementary table (Supplementary Table 1) where readers have access to the names, platform and URL link to the apps store descriptions for each app assessed in this paper. This table lists all the suicide prevention strategies offered by each of the 69 apps, in a binary Yes/No answer format. As such, we consider that citing each app in the main report is not necessary, and it may affect the paper’s readability.
Changes to manuscript: No changes made to the manuscript

Reviewer 3, Question 1: "The conclusion seems short and a bit underdeveloped. Unless there are word count limitations, it would be nice to see the authors push their comments further. Are there current public-private efforts that they could highlight for apps? Is the APA's App Evaluation Model a step in the right direction? What about the FDA's approval of several mental health apps?"
Authors' response: Thank you very much for your important questions. We have addressed these questions in the discussion section of our paper, where we included new references for available app libraries and the paper by Torous et al. referring to the new APA App Evaluation Model.
The paragraph includes a short description of the app library models, highlighting that although they provide a useful, valuable service the number of assessed apps (173 for Psyberguide and 76 for NHS App Library as per 18 October 2019) limit their usability. Similarly, regulatory bodies (FDA and European CE marking directives), have approved only eight mental health apps to date.
On the other hand, the APA App Evaluation Model, as well as other app assessment tools are for clinicians (or users), are end user dependent, and do not prevent low quality apps from reaching the market.
We have not modified the paper’s conclusions which we believe summarize our most important findings.
Changes to manuscript: Pages 20-21, lines 386-392 now reads: “App libraries, such as Psyberguide(59) or the new NHS Apps Library(63), provide a curated, although very limited collection of apps for users to choose from, while official regulatory bodies (FDA and European CE marking directives) have to date approved only eight mental health apps(64). On the other hand, apps assessments tools, such as the newly developed APA framework(60) place the onus of assessing apps quality and efficacy on the app users or their healthcare providers. Although these are important steps toward improved app quality, they are post-launch assessments that do not prevent low-quality apps from reaching end users.”
We added the following references:

Reviewer 3, Question 2: "Would it be possible to profile one or more of the apps that was adherent of all six strategies - say in a box? This would enliven the text."
Authors' response: Thank you very much for your suggestion. We have added a box (Box 1) with an
We have renamed “Box 2” the box previously included in our paper.

Changes to manuscript: Page 12, lines 245-246 now reads: “(Box 1 presents examples of apps complying with all suicide prevention strategies).”

Page 17, line 333: “Box 1 Examples of apps offering six suicide prevention strategies to users” reads: “Stay Alive(50) is an app developed by a UK-based non-government organisation (NGO) (Grassroots Suicide Prevention) that provide users a comprehensive, customizable safety plan template that includes adding contact data for key members of the user’s support network, suicide-related information, grounding and relaxation exercises and direct access to emergency helplines through the app.

ReMinder App(51) is an app developed by an Australia-based NGO (On the Line) that offers users a customizable template to develop their safety plan using a combination of free text and pre-added options for users to choose from. This app assess the user’s mood using a self-reported depression test (K-10), allows users to save multimedia files to use when in crisis, provides information through Tweeter feed and access to emergency helplines and members of the user’s support network through the app.” We have also included screenshots to illustrate some of the characteristics of both apps.

We added references for both apps:


Authors' response: Thank you very much for your suggestion. We have cited Shen et al., and included a short sentence to the paper describing one of the conclusions of their paper referring to the challenges faced by users when selecting a health app from the app stores.

Changes to manuscript: Page 5, lines 91-92 now reads: “..., making selection of an appropriate app cumbersome, particularly for lay users(21)…”