Reviewer’s report

Title: A randomized controlled trial of an intervention delivered by mobile phone app instant messaging to increase the acceptability of effective contraception among young people in Tajikistan

Version: 0 Date: 19 Dec 2017

Reviewer: R. Rima Jolivet

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It is a pity that the control arm was contaminated with intervention material delivered passively through the mobile app to both arms. Given that this contamination made it impossible to answer the primary research question that the trial aimed to answer, perhaps a commentary or a methods review would be a more appropriate format in which to present this study.

It would be good if there were some valid way to present the findings from the data, which do suggest an effect on attitudes toward contraception associated with mobile delivery of targeted health behavioral content. It is, however, unclear what is the value of presenting the original study in such detail, since the failure of the trial resulted from a design flaw in the trial and not from null effect, with the major takeaway as such being related to the study design (make sure there is no contamination of the control arm) and not the intervention itself.

Would it be possible to combine the data on all content that was received by both arms in the trial through the app, and use it to conduct a retrospective matched cohort study?

Alternatively, could the paper be rewritten to condense the failed trial process and outcomes into the background and introduction section of an alternative paper presenting the results of the post hoc non-random McNemar's chi squared test, reporting on the difference between baseline and endline for the whole study cohort in reported acceptability of at least one contraceptive method? In this case the takeaway could be that a mobile application appeared to be effective in changing baseline attitudes toward contraception, with no difference observed when push IM messages were added...

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