Reviewer’s report

Title: Requiring smartphone ownership for mHealth interventions: Who could be left out?

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Reviewer: Richard Lester

Reviewer's report:

The authors present a paper that examines smartphone ownership and its associations as a secondary analysis of a VDOT study of 151 TB patients qualifying for standard DOT in San Diego, San Francisco, and New York City. It is a simple but very important study as it provides the literature with critical data on access to smartphone related technology for mHealth. I think readers will find it a useful reference. The analysis is appropriate, and the message is clear. The found that patients who were older, male, less educated, or had lower annual income were less likely to own smartphones. While unsurprising, it is an important reference backed by data.

I have a few minor points to be addressed:

Discussion

line 30. This data did not suggest the gender gap is decreasing, it suggested it may actually be reversing. On the same point, the next paragraph, while interesting, sounds like it was written prior to seeing the data since the data showed that men were less likely to own smartphones than women. Perhaps they can discuss why this might have been the case. An analysis of the associations between gender and income and education in their own data may be helpful. Were women more educated in these cohorts?

The discussion about non-smartphone owners being more likely to value in-person DOT or encounters with healthcare providers is interesting. It was still the majority of them who found VDOT useful but supports that the use of technology is probably not best as an 'all or none' approach.

In the limitations section discussion on generalizability, it should be noted that these findings were in the US. Most of the global burden of TB is in other more resource limited settings, that may also have different levels of cellular phone and internet infrastructure as well as cultural and societal factors such as literacy. In the US, providing smartphones was a solution used in the parent study, but this may not be feasible or possible in some other high burden TB settings. In parts of Africa, for example, especially in rural areas, basic cellular phone access and use is very high which would allow texting and voice calling, but smartphone access required for video is much less. Providing smartphones in these settings may not be as feasible.

The conclusions is well written and balance, but perhaps the term 'resource-limited populations' or some other terminology to reflect the resource limited aspect within US public health would be more accurate that resource-limited settings for this study's findings since it was in the US which is not a resource limited setting by global TB setting standards.
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.

Yes

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I am a clinician scientist and academic researcher, and co-founder of a mobile digital health non-profit and company, WelTel International mHealth Society and WelTel Incorporated which seek to scale up evidence based mobile health.

I have not interest in products related to this publication.

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