Reviewer's report

Title: Developing a tablet computer based application ('App') to measure self-reported alcohol consumption in Indigenous Australians

Version: 0 Date: 04 Sep 2017

Reviewer: Thomas Wills

Reviewer's report:

This methodological Ms describes the conceptual basis for, and development, a computer-based program to assess alcohol consumption among an indigenous population. Overall I found this a fascinating Ms. The discussion of the issues for measuring alcohol consumption in a population that may not have consistently high verbal or numerical literacy seemed well taken. Also the discussion of how drinking practices may vary (e.g., group-based drinking) was also interesting and one can see how one must go extra steps to have valid reports in this kind of population. Likewise the discussion of adapting standard TLFB strategies to an indigenous context, and the use of visuals to illustrate drinks and reference points seemed valuable. I could go on but my point is that the derivation of the measure was logically thoughtful while also being informed by close familiarity with the culture of the respondents.

A few points for clarification or discussion could be raised.

Page 10 line 12: 20 minutes seemed a long time for a clinic administration. In my area the typical clinic visit is 10 minutes or less. Please elaborate.

Page 10 lines 27 ff: How many items were in the assessment? I was never completely clear on this. If it is essentially a 4-item inventory, how justify spending 20 minutes to do this.

Page 11 lines 16 ff: Will all these reference points be equally salient for different respondent? What about those who are not Christians or football fans. I am a notable dullard on the latter area, beyond knowing that football occurs in the fall and baseball in the spring.

Page 12 lines 1-2: same point again, I am familiar with the "blue moon" saying but I wonder how many others would be.

Page 14 lines 32 ff: The use of cases as a unit of consumption was a bit jarring to me. Is this level of consumption common in the target population, or Australia in general? I know that the local stores have generally dropped 6 packs for 12 packs. But cases? I admit that I sometimes observe people carrying a case or two of beer out of the local supermarket and some of these are Polynesians but still I wondered if this is typical consumption. Please elaborate.

Page 15 line 27: I didn't get what SA, NT and WA meant. Are these Britishisms?
Page 17 line 27: Here and elsewhere I didn't understand the confidentiality issues. If the data are anonymous that who would they be transmitted to, and how, and for what purpose. And if they are truly anonymous, how could they be used for clinical purposes, as the authors seem to suggest at some points.

Page 18 line 12: Perhaps the authors should say more about the Torres Strait Islanders. I happen to know something about their status as a discriminated group but many readers might not, and could have difficulty understanding why they are put in the same category as mainland Aborigines.

Page 19 line 44: The extension to use with refugees seemed a stretch. Many readers could construe this as African boat people trying to reach Greece or Italy. I know that Australia has a different kind of refugee problem but this may just be part of my fund of arcane knowledge. Please clarify. Also, if a different language must be used each time then wouldn't this become rapidly an expensive proposition? I admired how the authors translated the program into Pitjantjatjara but I wondered how many researchers would have these kinds of resources. It is likely true that various researchers would be familiar with the language(s) of ethnic minorities in their area so this may not be a general problem. But try to convince the reader that it isn't.

**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.

Unable to assess

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

Yes

**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

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