Reviewer's report

Title: Handheld Computers for Self-Administered Sensitive Data Collection: A Comparative Study in Peru

Version: 2 Date: 18 December 2007

Reviewer: Michael A Grasso

Reviewer's report:

General
This revised manuscript presents two studies on the use of handheld computers to collect sexual behavior data, and assesses how well this new approach compares to paper-based questionnaires. The topic is relevant and the paper address an important question.

The background section is adequate, and presents a reasonable overview of past efforts. It also summarizes some of the unique challenges of collecting sensitive behavior data. The study methods, results, and discussion are well-written and easy to understand. Several modifications were made, as noted by the authors. These include a clarification of the demographics of the participants, selection criteria, tables, and potential confounding factors. There are, however, a few problems which should be addresses before publication. This includes a misunderstanding of the term open source, assumptions about the limitations of the study, and clarification of the significance of the results.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

As stated in the first review, the authors DID NOT develop an open source program. The developed a software program using open source tools. But this is very much NOT THE SAME THING. The authors’ statement that the major strength of their study was the use of open source software for collecting data is incorrect, as was pointed out in the first review. Did the authors make their source code is available to others? Did the authors allow others to use, change, and improve the software, as well as to redistribute it in modified or unmodified form? If these questions are not true, then the authors DID NOT develop an open source program.

The term "almost perfect" at the start of the discussion section is subjective, especially to those not familiar with (or who do not agree with) Landis and Koch. A more accurate statement might be that their kappa coefficient of (put value here) suggests an almost perfect agreement between paper and PDA responses.

The critical flaw in the study design is that of recall bias. The variation between the handheld computer and paper-based surveys may all be simply due to this
effect. The same variation might have been present if the participants were asked to fill out paper-based surveys twice (or handheld computer surveys twice). This was noted in the first review, and the authors' addressed this in their review. However, their statement in the second of the last paragraph of page 10 is not based on their data and cannot be substantiated in any way. Although this was not the authors' intent, this sentence seems to dismiss what is the most important limitation of their research.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The word "etc" in the last paragraph of page 5 should have a period after it.

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Discretionary Revisions (which the author can choose to ignore)

None.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no known competing interests.