Reviewer’s report

Title: Ethical issues associated with HIV molecular epidemiology: A qualitative exploratory study using inductive analytic approaches

Version: 1 Date: 29 Nov 2018

Reviewer: Keymanthri Moodley

Reviewer's report:

HIV phylogenetic studies are fraught with ethical and legal concerns so this is indeed a very important piece of work!

I have the following comments:

1. Since the journal has a diverse readership, it is important to explain phylogenetic research and molecular epidemiology in simpler terms.

2. References to "HIV network research" is also ambiguous because there is HIV network research conducted by HPTN and HVTN networks and there is network research linked to phylogenetic testing. This must be clarified.

3. Verbal consent is quite concerning. With Skype interviews it is possible to get written consent emailed to and fro. I note that this study was approved by an REC but many bioethicists in SA will not agree with their decision in this case. There is no record of the consent process. Audiotaping was done - this requires specific consent. Please explain why it was so difficult to obtain written consent.

4. HIV phylogenetic research has been conducted in SA. Most of the research participants were from abroad. There was only 1 South African participant.

5. The quotes in the results section reflect the views of 3 participants mainly - 2 from USA and 1 from Belgium. Quotes form others are sparse - all are from the USA and 1 from SA. There are no quotes from 8/14 participants. Hence the claim that the views of scientists with "diverse backgrounds" were captured on page 22 is false.

6. In the discussion section the authors refer to findings being consistent with other studies in the USA. That is because most of the data reflects the views of participants in the USA.

7. On page 17 the authors refer to the USA as having high literacy levels. There are studies that refute this claim. Please explain.
8. The authors do not engage with their findings in the discussion section. What do they think about the first quote, for example? Is it impossible to explain this type of research to participants? or do scientists simply not want to make the effort?

9. In the conclusion the authors refer to ethics standards? What is meant by this?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**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.

No

**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

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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