Reviewer's report

Title: "Nurse-Midwives' Ability to Diagnose Acute Third- and Fourth-Degree Obstetric Lacerations in Western Kenya"

Version: 0 Date: 16 Jan 2017

Reviewer: Amanda Ampt

Reviewer's report:

This paper gives further insight into the problems associated with third/fourth degree diagnosis, and thus repair, in Kenya. It is of high significance given the number of women affected, and provides evidence for improved education and training for birth attendants and midwives. The paper is clear and very well written.

Abstract

1. Please be consistent with naming participants as nurse-midwife educators, or nurse-midwife trainers.

Minor:
Line 71 - comma needed after Kenya

Introduction

2. For an international audience, it would be useful to provide more context regarding usual care in Kenya. Who are the skilled birth attendants and what is their training? Do they provide the majority of birthing care? How do they differ from a nurse-midwife? What training do nurse-midwives have and where do they usually practice? Do Maternal Health Trainers educate and train the skilled birth attendants, and are they a specialised group of midwives? Do they provide ongoing training and what is their ratio to skilled birth attendants? What percentage of women have a skilled birth attendant and what percentage would have a midwife at birth?

3. A clear one sentence statement of the research question always helps to guide the reader and would be beneficial - there needs to be a little more clarity about whether this study is looking into barriers to diagnosis, or once diagnosed, barriers to repair. They are 2 different issues and it is though repair is tacked on at the end when reading the paper as a whole.
4. I would dispute that this study is an assessment of the "practice patterns and competencies…" (Page 5 line 101) as its aim is to explore only one aspect of practice, and provides no details of practice patterns.

Materials & Methods

5. It was not clear why the ten pictures did not include pictures of second degree tears as confusion between second and third/degree tearing is a main issue in diagnosis.

6. It was also not clear what is referred to by "quality repair" in line 134.

Minor:

Page 5 line 118 needs a right sided parenthesis after UK

Results

7. I found the use of MHT distracted from the flow as I am unfamiliar with this acronym - it would make for easier reading to just write it out in full.

8. It was interesting that approx 45% of the Maternal Health Trainers were male - is this a typical percentage of gender breakdown in this workforce?

9. Table 1 - With such small numbers from each sub-county, is there risk of identification of the participants?

10. Why were there missing data in the tables? Eg Data available from only 16 participants regarding mean years of post-training experience. There needs to be an upfront comment about missing data in the results.

11. The data for years of post-training experience, number of deliveries and number of tears is presented as a mean; however, are these data normally distributed? If so why not use standard deviation instead of range? I think the information would be better presented as
number of nurse midwife trainers in the following categories (or similar): <5 yrs, 5-9 yrs, ≥10 yrs.

12. While there was information on the number repairs, there was no information presented on the number of third/fourth tears diagnosed, or even witnessed. Was this not collected?

13. The sub-titles Specific challenges reported should be "Specific challenges to perineal evaluation after delivery". As it is laid out in the table it reads as though it could be challenges to repair also, as it is not immediately clear it follows on from the previous question.

14. Similar to point 11 above for mean distance to referral center.

15. Table 3 - Again, are the scores normally distributed and should mean be used? I found this a bit cumbersome, and there needs to be clarity about whether the denominator is number of participants, or number of questions. There needs to be a little more explanation about how mean was calculated. Or else, reporting could be again by categories, eg the number of midwives who identified >7 correctly was …..X (%). This would be much easier to interpret.

Minor:

Page 6 line 146 "that" should be replaced by "who"

Discussion

16. Page 10 line 194 - do you mean OASIS diagnosis not OASIS repair?

17. Page 11 line 210 - are 'non-trainers' other nurse-midwives, or are they skilled birth attendants (see point 1)
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.
I am able to assess the statistics

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