Reviewer’s report

Title: Determinants of Infant Feeding Practices among Mothers Living with HIV Attending Prevention of Mother to Child Transmission Clinic at Kiambu Level 4 Hospital, Kenya: A Cross-Sectional Study

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Reviewer: Giovanna Gatica-Domínguez

Reviewer's report:

REVIEWER COMMENTS

TITLED PAPER: Determinants of Infant Feeding Practices among Mothers Attending Prevention of Mother to Child Clinic at Kiambu Level 4 Hospital, Kenya: A Cross-Sectional Study

This study is relevant in the Kenyan context to create useful evidence for the stakeholders in reducing MTCT. The paper in general is well written, but results interpretation should be improved and the discussion should be written accordingly to the correct interpretation of the results.

MAIOR COMMENTS

TITLE
1. Would be better to include in the title that are mothers living with HIV, so it would be more evident to the readers.
2. Which would be the correct one 'Prevention of Mother to Child Clinic' or 'Prevention of Mother to Child Transmission Clinic' or 'Prevention of Mother to Child'? In my understanding, it would be the second one, since in other parts of the paper is like "PMTCT clinic".

ABSTRACT
1. The abbreviation COR should be defined in the abstract ('crude odd ratio'), not only in the abbreviation list because there is a high probability that readers revise just the abstract of a paper.
2. Authors do not include information obtained from qualitative data, which complement the quantitative findings.
3. Line 40: Is it just 'knowledge' or 'maternal inadequate knowledge'?

BACKGROUND
1. In the paragraph from line 72-76: The Mother to Child Transmission (MTCT) of HIV due to breastfeeding was in mothers without ART? If that so, it should be clarify in the text because the way that it is contrast with the WHO recommendation and it could be confusing for the readers.
2. Line 78-81, page 4: The authors gave information about Kiambu County. However, it would be informative for the readers to know the access to PMTCT services in Kiambu County knowing the context.
3. The abbreviation ART is used in the paper just once (line 82, page 4) and is not in the 'Abbreviation list'. However, the authors used the abbreviation ARV after that in the paper. It should be standardized the abbreviation. Alternatively, it could be written in extenso instead the abbreviation in the paragraph that mentions the WHO recommendation.

4. Evidence about the coverage of ARV for pregnant women in Kenya should be informative for the readers.

METHODS

1. The sentence in the lines 104-105, page 4: "The purpose of this study was to assess the infant feeding practices and its determinants among mothers living with HIV with infants 0 - 12 months old attending PMTCT clinic at the Kiambu Level 4 Hospital" should be at the end of the Background section. Then, authors should consider re-write the sentence "This study explored gaps on determinants of infant feeding practices of mothers for effective expansion of appropriate and safe infant feeding practices in the context of HIV" (lines 101-102, page 4).

2. Although it is explained in the subsection 'Sample size and sampling techniques' how the predeterminate number of participants was obtained. In the sentence from 115-116 lines should also include the number '180'.

3. Line 119-120, page 6: The sentence is not clear. What means "...using [10] equation..."? The equation used has a name? Authors can cite the equation's authors or explain a little about how was created.

4. To analyze qualitative data, did the authors use any software?

RESULTS

1. Table 1: Authors could be omitting the word 'maternal' and only write 'Age group (years)'. Also, omit the words 'year' after that age group, since it was specified into parenthesis.

2. Table 2: It is unusual that for some categories the 95% CI was included and for other was not. Perhaps, it could be more explicit to present the N in one column and % with the 95% CI in another column.

3. Table 2: Instead of "Mode of feeding..." should be consider "Feeding practice..."

4. Table 2: Instead of "Have you ever breastfed your baby" should be consider "Ever breastfed"

5. Subsection named "Infant feeding decision" could be "Infant feeding practice decision"

6. Lines 217-219, page 11: this part should be part of the methods' section. I encourage the authors to include in the methods' section how they obtained the maternal knowledge score that is written as part of the results (lines 229-232, page 11).

7. Table 4: The complement information is unnecessary (i.e., Inadequate knowledge).

8. "Maternal knowledge categories" could be omitted or changed to "Mothers with a child aged (months)" and use the following categories: 0-5 (n=77), 6-12 (n=103) and 0-12 (n=180)

9. Lines 239-240: The sentence is more accurate for the discussion section.

10. Lines 244-246 (see also Table 5): The statement "mothers with inadequate knowledge on infant feeding were more likely to practice mixed feeding (COR 1.00; 95% CI 0.21, 4.85)" is rare, since the
95% CI includes the unit. Authors should revise the p-value. Also, the category of reference of maternal knowledge in the column of mixed feeding seems that was swapped because it is different from the other feeding practices in the table. If it is not the case, a note would be useful to clarify the reason to change the reference group.

11. Table 5: it is missing the number 1, which indicates the category of reference of maternal knowledge in the column "Complementary feeding with breastfeeding"

12. Table 5: The N of any of the subcategories could be too small. Thus, for the readers could be useful to include the N for each subcategory (since -> 77 children received exclusive breastfeeding, replacement feeding or mixed feeding; and 65 children received complementary feeding with breastfeeding) in the table or as supplementary table. If any N is lower than 25, the estimate should not be presented and if the N is between 25 and 50 should be interpreted with precaution.

13. Authors interpret different cOR similarly: "Younger mothers were more likely to practice exclusive breastfeeding (COR 0.24; 95% CI 0.06, 0.97) and mothers with adequate knowledge had greater chances of practicing exclusive breastfeeding (COR 1.82; 95% CI 0.06, 0.57)." In this case, younger mothers had 76% less chances of practicing exclusive breastfeeding comparing with the reference group (older mothers) and mothers with 26 - 34 years were more likely to practice exclusive breastfeeding but this was no statistically significant. Younger mother usually does not give exclusive breast feeding because the lack of knowledge.

14. Line 249: It is "(COR 0.00; 95% CI 0.00, 0.90)" and should be "(COR 0.05; 95% CI 0.00, 0.90)"

DISCUSSION

1. The authors wrote the following: "In this study, complementary feeding with continued breastfeeding for children older than 6 months was practiced by majority (63.1%) of the mothers living with HIV. This finding supports the current WHO recommendation for mothers living with HIV to breastfeed for at least 12 months with appropriate complementary feeding, if both mother and child are on ARV therapy." However, in this study there is no information about the adherence to ARV therapy from the participants (mothers and children). Authors only mention that mothers from the study had a good understanding of the use of ARVs in the prevention of MTCT.

2. Line 305: Is the information in parenthesis "(Maru, 2009)" a reference?

3. About the studies mentioned in the lines 318-325: Was the association between maternal age and exclusive breastfeeding practice adjusted for maternal socioeconomic characteristics?

4. Authors should revise the discussion accordingly to the correct interpretation of the cOR.

MINOR COMMENTS

1. Lines 47-49: Suggested changes in underlined and bold text: "Ministry of Health should come up with strategies on infant feeding counseling that are aligned to A local context, to allow mothers TO understand the importance of recommended infant feeding options for HIV-exposed infants."

2. Line 72, page 4: the author could consider changing the word "by" for "of" in the following text "...a reduction by 66% since 2010."

3. Line 95, page 4: omit the word "only".

4. FGD (line 127, page 6) and KII abbreviations are only explained in the abbreviation list. It
should be specified in the text the first time that was used by the authors (Line 147, page 7).

5. Line 222, page 11: A number 6 is twice and it seems that was a mistake "…6 months 6 old (Table 3)"

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