Author's response to reviews

Title: Infant feeding practice and associated factors of HIV positive mothers attending prevention of mother to child transmission and antiretroviral therapy clinics in Gondar Town health institutions, Northwest Ethiopia

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Author's response to reviews: see over
To: Reviewer- 1

Dear Lars Thore Fadnes

I have many thanks for your constructive comments and questions. I have tried to incorporate and address the comments and questions which are written in blue font color following comments and questions.

The background and discussion is inadequately up to date, and several important new references are lacking, including:

- We have now tried to include some new references indicated in the comment.

What is meant with "short course anti-retroviral drugs"? Is it single dose nevirapine? That does not "solve" transmission during pregnancy.

- Short course anti-retroviral drugs are not only single dose nevirapine but also include combination of anti-retroviral drugs given to prevent MTCT starting from 28 weeks of pregnancy. Hence it is to say “It is beneficial for prevention of MTCT during pregnancy and delivery but not that much important to prevent MTCT through breast feeding”.

“Approaches that reduce breast-feeding mother-to child transmission of HIV are being explored. These include exclusive breast feeding (EBF) for the infant's first few months of life followed by rapid weaning, treatments of expressed breast milk to inactivate the virus, and antiretroviral prophylaxis taken by the infant or mother during breastfeeding, "which are strategies currently being tested in clinical trials" [8]."

Substantial amounts of knowledge have been acquired since 2007… Please explain what is meant with this section. In the literature it has also been questioned whether rapid weaning is a good solution:

- The overall idea of this section is to explain that a number of trials are ongoing to prevent MTCT through breast milk.

"Mixed Breast feeding during the first month of life and breastfeeding beyond 6 months are strong determinants of HIV transmission and should be avoided when replacement feeding after breastfeeding cessation can be safely and sustainably provided."

This statement does not seem to be completely in line with the most recent WHO guidelines:
• Yes, now we have modified it according to the WHO guideline.

"The fact that EBF carries a significantly lower risk (almost half the risk) of MTCT of HIV than mixed feeding is not surprising because the beneficial immune factors of breast milk are probably counteracted by the damage to the infant's gut wall by contaminants or allergens in mixed feeds [11]."

This sentence is unclear.

• It is to show how mixed feeding facilitates MTCT of HIV and is not recommended for infants born to HIV positive women.

You refer to a study (ref 12) that seems to have many similarities to the current study. What are the main contributions of your study compared to ref 12 in addition to confirming similar findings in Gondar?

• This study is conducted in a population that is not civilized compared to the indicated study conducted three years back.

How was it checked that the assumptions for logistic regression were fulfilled?

• Hosmer and Lomeshow goodness of fit test was fitted and the p value was greater than 0.05 (0.58).

How were the variables in the adjusted model selected?

• Before the adjusted model was fitted, each variable was entered in to the bivariate analysis (Binary logistic regression) and those variables having p value up to 0.2 in the bivaraite analysis was entered in to the multivariate (adjusted) model. Then those variables who have p value less than or equal to 0.05 was considered as significantly associated with the dependent variable. In the adjusted model we also see the 95% CI and variables that didn’t include number one are considered as significant.

How have you measured the feeding patterns? 7-day recall? 24-hour recall? Use of dietary list?

• We didn’t use 7-day recall or 24-hour recall methods. we have collected the information from mothers who have follow up at the institutions by asking questions like “for how many months did you provide only exclusively breast milk?” what does exclusively breast feeding mean also explained briefly.

Please explain what "rural kebeles" is?
Gondar has both urban and some rural kebeles administered through the town. In this paper rural kebeles is used to show the residence of the subjects.

In the presentation of results, please reduce the number of valid digits as it now gives the perception of more accuracy in the estimates than the confidence intervals implies.

Ok. We have now tried to reduce.

"The difference may be also explained by the fact that in both the South Africa and Nigeria studies, infant formula was supplied free of charge unlike in the present study. Deep-rooted family and community norms make it difficult for mothers in Ethiopia as in most developing countries to choose ERF." Is this seen as a problem with the current situation including risks of other infections?

Formula feeding is not free of charge in Ethiopia. Therefore, this paragraph is trying to explain the reason behind less percentage of Exclusively Replacement Feeding users could be.

Please say more about the differences between the Ethiopian guidelines and the most recent WHO guidelines on infant feeding in the context of HIV.

The Ethiopian guideline is almost in line with the recent WHO guidelines on infant feeding in the context of HIV.

"About 98% of respondents had got advice/counseling on infant feeding practice of HIV positive mothers, which is almost consistent with a study conducted in South Africa (94.4%) [16]."

Seen in view of your sample selection, is this surprising?

Probably compared to the total sample size it may not but looking the proportion of the participants may be.

Why is a larger similar study, as suggested in the conclusion, the best solution for the reported challenges?

Having larger sample size is important to come up with better generalization of the results but we are not restricting as a best solution rather we recommend advanced clinical trial studies to be conducted.

Figure 1:

Please spell out the acronyms, write the recall period that was used as basis in the figure text and also include information on which age group that was selected.
• We spelt out the acronyms but concerning to the age group it might be a repetition since it is incorporated to the table.

Table 1:
What does usually a housewife do in Gondar? Aren't they also doing farming activities?
• They are not participating in farming rather they give care for children and do some activities in the house.

Table 2 is confusing as several of the categories are overlapping.
• It seems confusing but each category has feeding options/methods of HIV exposed infants reported by each study participants. There is no overlapping.

Table 3:
The age group 40-45 has too few participants to justify a separate group. Please combine with other group.
• I have merged it.

Figure 1 seems to be included twice.
• Now I have corrected
To: Reviewer- 2

Dear Nyaradzai Edith Kurewa

I have many thanks for your constructive comments and questions. I have tried to incorporate and address the comments and questions as follows:

- Concerning to the sample size, all women with less than two years old children attending the health institutions based on their recorded list were included. Hence, no sample size calculation was used.

- All listed women from the record who fulfilled the criteria were included in the study within the time period (during their follow up).

- We have incorporated operational definition for EBF and other terms used in the text.

- The target of the study was to see the feeding pattern and associated factors only and we did not consider their nutritional status from our objectives.

- For the comment on page 9 about mixed breastfeeding, since we have removed the first paragraph of the discussion it will be corrected now.

- For the comment on page 10 first sentence concerning the grammar “recommended”, we have now incorporated operational definition what recommended way of infant feeding mean.

- Limitation: we have now included.