Reviewer’s report

Title: Prevalence of initiation of complementary feeding at 6 months of age and associated factors among mothers of children aged 6 to 24 months in Addis Ababa, Ethiopia

Version: 1 Date: 06 Aug 2018

Reviewer: Mekitie Wondafrash

Reviewer's report:

Comments and suggestions to the authors

General comments

The paper "Prevalence of initiation of complementary feeding at 6 months of age and associated factors among mothers of children aged 6 to 24 months in Addis Ababa, Ethiopia" is fairly well written and the statistical model utilized is appropriate. The findings of the study could also be crucial for policy makers and practitioners. However, the conclusions drawn should be adequately supported by the data used and the strengths and limitations should be clearly stated. The authors could have also calculated more indicators using the same study subjects.

There are issues that need to be addressed before publication of this manuscript.

Abstract

Background

Pp2 Line 13-15- Why only initiation of complementary foods while the researchers could assess other IYCF practices?

Method:
Pp2 Line 22-25: How was study subjects recruited using the sampling procedure indicated in this section? Why multistage sampling technique is used in this case? Why not selecting the health institutions in Addis Ababa at random and then proportionally allocate the samples to each institution?

Pp2 Line 25-27: Why not using existing data from DHS, 2016. Was it not possible to get the data from DHS program (https://dhsprogram.com/)?

Conclusion

Pp 2 Line 44-47: The study did not report on practices of other optimal infant and young child feeding and making the conclusion is not entirely supported by the findings.

Background

General comments:

* The study has been fairly well introduced. However, the authors should address some typos.

* The authors introduced about both breast feeding and complementary feeding, however, the emphasis was given only to initiation of complementary feeding at 6 months of age. In my opinion, other indicators of complementary feeding should have been assessed and calculated which could have been the most cost effective approach ( e.g. minimum dietary diversity, minimum meal frequency and minimum acceptable diet ).

Specific comments:
The authors claim that there are only few studies conducted regarding time of initiation of complementary feeding in Ethiopia however, references have not been cited. Moreover, there is at least one study which was cited and conducted in Mekelle town (which is the biggest town in the north of Ethiopia). (Rfr #13).

The authors stated that there are no published studies regarding the timing of initiation of complementary feeding in Addis Ababa; however, Ethiopia DHS has been providing information on various indicators of complementary feeding from samples of target population in Addis Ababa and that could have been used for further analysis.


I do agree that there is a huge difference in terms of practices of IYCF between urban and rural population, however, I do not know why the authors limited themselves in assessing only "initiation of complementary feeding" while other indicators could be calculated using the same survey. Hence, knowing about this indicator may not be enough to inform policy decisions.

It would be difficult to design an intervention program aiming at "improving child feeding practices" in Ethiopia by just looking at initiation of complementary feeding. The quality, frequency and overall safety of complementary feeding should be assessed. Hence, this line should be revised.

Methods

Study design and sample:
Pp 5 Line 12-13: How was the sample frame (sampling frame) determined for this type of study? Are the authors referring to source population, or target population in the study area?

Pp 5 Line 19: How did the authors arrive at a sample size of 600? As indicated above what was the purpose of using a multistage sampling technique for this study?

Pp6: Lines 10-12: What was the source of the questionnaire? Did the authors developed it or adapted from other sources? Did the authors did piloting or pretesting of the questionnaire? The two are different and should be clarified.

Pp6 : Line 34-36: I do not agree that the whole purpose of back translation is to "confirm consistency of questions formulation". Mostly the purpose of back translation to the original language is to make sure that there is cultural and conceptual equivalence in the two texts and should be done by different translators. I would like the authors to comment on this.

Measurement of variables

Pp6  Line 40-42 : What does principal dependent variable refers to? Does this term commonly used to refer to the outcome variable? What are the other outcome variables considered in this survey?

Pp6: Rfr #2 describes "introduction of complementary foods" rather than "initiation of complementary feeding". How this definition was used based on the reference? It is not also included as one of the core indicators of IYCF by WHO or it is used differently (as introduction of solid, semi-solid and soft foods).


Pp7; Line 4 : How was birth preparedness measured? This is a composite variable and it has to be defined in the methods section or as footnote beneath the tables (e.g. Table 2)

Pp 7 Line 9- : How was the different reasons for the timing of initiation of complementary feeding identified? There is no reference cited as well.

Statistical analysis

Pp7 Line 31: Please correct the reference for SPSS for windows 21? SPSS Inc.
Result

Socio-demographic characteristics

Pp 10: Mean and standard deviation should be put together. Mean (± SD).

Table 2:

* The total should be placed at the last column rather than the first column as the authors indicated.
* Definitions should be indicated as footnotes for some variables (e.g. birth preparedness, parity if not indicated in the methods section)
* Last variable: "Have been educated ..." should be replaced with "received information..."

Complementary foods:

Table 3:

* Variables "reasons for early initiation and late initiation of complementary foods" should be indicated as not mutually exclusive and more than one reason is possible. Otherwise, it would be confusing to the reader.

The last variable "kind of commonly introduced foods" has multiple responses and should be indicated in footnote as well. Were these "foods" "considered as complementary foods" by the authors?

Complementary foods are defined as: "any food, whether manufactured or locally prepared, suitable as a complement to breast milk or to a breast-milk substitute, when either becomes insufficient to satisfy the nutritional requirements of the infant." WHO, UNICEF, 2008
How was possible that "injera" is the "first food" given to a child that young? Was it prepared in a different way so that they can take it? I would like the authors to comment on this.

Factors associated with initiation of complementary feeding (CF) at 6 months of age

Table 4:

* The complementary feeding initiation category is missing. I think the authors should include that in the table. The categories are presented but the frequencies and percentages are missing.
* The authors could present only those variables which showed significant association in the final model.
* Association with mother's educational status: why higher educational attainment was not associated with initiation of complementary food at 6 month? Was it due to lack of power (small number of observation?) or other reasons?

Discussion

General comments

The discussion and conclusions made are mostly based on the findings described in the results section. However, the following are some issues to be addressed by the authors;

Pp 14: Line 10-16: the denominator used to calculate the proportion who were initiated with complementary feeding is 6-8 months of age. Hence, there is minimal chance for recall bias. However, the authors used those who are from 6 to 24 months as denominator. How was this potential recall bias prevented or addressed?

Pp14 Line 17-19 : It is also important to mention the denominator used in the calculation of the prevalence of initiation of the complementary feeding at 6 month.
Pp 14 Line 26-29: reference should be provided after "... the importance of key IYCF practices".

Pp 15 Line 4-6: The authors should provide reference for this claim.

Pp 14 Line 24-29: The authors claimed that the possible relatively higher educational status of urban mothers in this studies contributed to the higher level of initiation of complementary feeding. The authors should present reference for this claim.

Pp 14 Line 4-7; "optimal child feeding practice" is broader that what the authors addressed in this study. Hence, this line should be revised.

Pp 14 Line 12-19: Do the authors believe that an intervention study is recommended based on a single study on initiation of complementary feeding?

Pp 14 Line: The authors reported that 'timimg of local events" are used to help mother remember the time of initiation of complementary foods. However, local event calendars are more helpful if we are considering major events like birth, etc. People tend to associate birth and other major milestones with local events rather than initiation of complementary feeding. It would be nice if the authors comment on this.

Conclusion

* As it is an urban setting, health extension workers could be crucial to disseminate information about the time of initiation of complementary foods. However, the whole IYCF practice indicators should be discussed with caregivers/mothers of children 6-24 months of age to be more cost effective. The authors, however, looked into initiation of complementary feeding alone and we do not have any information about other IYCF practices.

* The authors recommended "improving educational opportunities" for girls and women for the purpose of improving the health status of women and children. However, this is not entirely supported by the findings of this study. I would like the authors to comment on this.

References:
The style of referencing should be consistent throughout. I suggest that the journal's referencing style be applied strictly throughout.

See Rfr #1 vs 18.

Overall, infant and young child feeding practices are important determinants of child growth, development and survival. However, the authors took only one indicator despite the possibility that other indicators can be captured in the same study.

Typos: should be addressed in terms of:

* Grammatical errors
* Space between words and between words and brackets (e.g. ".... development of children(2)." should be revisited and corrected.
* Some compound words should be written as recommended: e.g. Undernutrition, not under nutrition.
* Some grammatical errors should be address

**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.

No

**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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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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