# PEER REVIEW HISTORY

## ARTICLE DETAILS

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| **TITLE (PROVISIONAL)** | Women's satisfaction with existing labor and delivery services in Ethiopia: a systematic review and meta-analysis |
| **AUTHORS** | Demis, Asmamaw; Getie, Addisu; Wondmieneh, Adam; Bimerew, Melaku; Alemnew, Birhan; Gedefaw, Getnet |

## VERSION 1 – REVIEW

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| **REVIEWER** | Kyllike Christensson<br>Karolinska Instutet, Sweden |
| **REVIEW RETURNED** | 20-Jan-2020 |

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| **GENERAL COMMENTS** | Although it is very impressive that a lot of students begin their research training in a master or PhD program by doing a literature review in the topic of interest all these efforts are not necessary suitable for publication.<br>The present literature review aiming to assess maternal satisfaction with present antenatal and delivery care consist only of cross sectional studies of published (if published) in not so highly ranked journals.<br>The introduction gives a lot of statements mostly coming from UN publications or nor and the "red thread" towards the aim is missing. There are also a lot of repetitions why the study has to be done. This also goes for the discussion which also miss a critical view of the results and how they can be understood and analyzed towards international literature inclusive qualitative studies. Also the language has to be improved and checked before re-submission. |

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| **REVIEWER** | Manila Bonciani<br>Sant'Anna, School of Advanced Studies, Pisa – Italy |
| **REVIEW RETURNED** | 17-Feb-2020 |

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| **GENERAL COMMENTS** | The paper should be improved in different parts:<br>- the literature review of the backgrond and discussion paragraphs could be more deeply argued<br>- methods can be presented more clearly (for instance: the logic of the search algorithm could be better introduced, results should not be anticipated in the data analysis paragraph)<br>- results could be presented in a more structured way and provide more information conserning the possibility to combine the studies for the meta-analysis (for instance: how satisfaction is measured into the studied selected?) |

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| **REVIEWER** | Justice Moses Kwaku Aheto<br>UNIVERSITY OF GHANA, GHANA |
| **REVIEW RETURNED** | 30-Mar-2020 |

| GENERAL COMMENTS | Demis and colleagues examine women's satisfaction with existing labor and delivery services in Ethiopia using systematic review and meta-analysis approach. Studies of this nature are crucial to the promotion and management of maternal health in this population. |
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| | Given that such apparently different studies (I2 = 99.3%) have been combined to reach the overall pooled prevalence for Ethiopia, the meaningfulness of this overall estimate is questioned. The high heterogeneity warrants more attention in the discussion. |
| | See more details below: |
| | Methods: |
| | a) Generally, the methods appear sound. |
| | b) Given the large heterogeneity (I2 statistic = 99.3%) among studies that have been combined to reach the overall pooled prevalence for Ethiopia, readers will question the meaningfulness of this overall estimate. In fact, the high heterogeneity in studies require more attention in the discussion. Doing the sub-group analysis as presented in this work is fine BUT it lacks the ability to generalise the findings. Thus, results from the sub-group analysis will be limited to such groups alone (e.g. by year, study location/region etc). |
| | c) Was inter-rater reliability assessed in this study? It was clear that AD and GG assessed the quality of the articles included in the study and it will be useful to know the estimate for the inter-rater reliability coefficient. |
| | Results: |
| | d) The data supports the results presented. |
| | Discussion and conclusion: |
| | e) Generally, the results are discussed in a way that support the data. The high heterogeneity in studies require more attention in the discussion. This should be one of the limitations of the study and properly discussed. |
| | f) Also, are there new findings in this study that are yet to be reported in the available literature? This should be discussed (if any). |

## VERSION 1 – AUTHOR RESPONSE

Response for Kyllike Christensson (Reviewer: 1)

1. Although it is very impressive that a lot of students begin their research training in a master or PhD program by doing a literature review in the topic of interest all these efforts are not necessary suitable for publication. The present literature review aiming to assess maternal satisfaction with present antenatal and delivery care consist only of cross sectional studies of published (if published) in not so highly ranked journals.

Response: We thank you for your comment. We did a systematic review and meta-analysis not for the purpose of MSc or PhD program rather to assess the current magnitude of women satisfaction with existing labor and delivery service in Ethiopia which has multiple benefit for government, policy makers and health care providers to plan interventions for raising maternal satisfaction as well as minimizing home delivery related to those factors that leads to dissatisfaction. So our study has high valuable input for the country as well as for the scientific community. We used different search engines from databases and we assessed the quality of papers published in different journals as well as unpublished papers from different university repository. Two authors independently assessed the

quality of each studies using Newcastle-Ottawa-scale (NOS) for cross-sectional studies. The methodological quality, comparability, outcome and statistical analysis of the study were the major assessment tools that we used to declare the quality of the study. Moreover, studies scored a scale of ≥ 7 out of 10 was considered as having good quality.

2. The introduction gives a lot of statements mostly coming from UN publications or nor and the "red thread" towards the aim is missing. There are also a lot of repetitions why the study has to be done. This also goes for the discussion which also miss a critical view of the results and how they can be understood and analysed towards international literature inclusive qualitative studies. Also the language has to be improved and checked before re-submission.

Response: We accepted your comments. We amended the introduction section of the manuscript in the revised clean version of the manuscript.

Response for Manila Bonciani Pisa (Reviewer 2)

1. The literature review of the background and discussion paragraphs could be more deeply argued, methods can be presented more clearly (for instance: the logic of the search algorithm could be better introduced, results should not be anticipated in the data analysis paragraph), - results could be presented in a more structured way and provide more information concerning the possibility to combine the studies for the meta-analysis (for instance: how satisfaction is measured into the studied selected?)

Response: We appreciated your constructive comments. We incorporate those studies that had an outcome of women satisfaction which is measured similarly. Those studies which determine the outcome of interest different from the selected one are not included in the final meta-analysis result. We amended the whole manuscript which is clearly indicated in the revised clean version of the manuscript.

Response for Justice Moses Kwaku Aheto (Reviewer 3)

1. Demis and colleagues examine women's satisfaction with existing labor and delivery services in Ethiopia using systematic review and meta-analysis approach. Studies of this nature are crucial to the promotion and management of maternal health in this population. Given that such apparently different studies (I2 = 99.3%) have been combined to reach the overall pooled prevalence for Ethiopia, the meaningfulness of this overall estimate is questioned. The high heterogeneity warrants more attention in the discussion. Given the large heterogeneity (I2 statistic = 99.3%) among studies that have been combined to reach the overall pooled prevalence for Ethiopia, readers will question the meaningfulness of this overall estimate. In fact, the high heterogeneity in studies require more attention in the discussion. Doing the sub-group analysis as presented in this work is fine BUT it lacks the ability to generalise the findings. Thus, results from the sub-group analysis will be limited to such groups alone (e.g. by year, study location/region etc).

Response: We appreciated your constructive comments. Thank you very much for your suggestions. As far as our all authors' knowledge concerned in systematic review and meta-analysis we have to do pooled prevalence first in order to determine the presence of heterogeneity by objective statistical methods like I2. If there is significant heterogeneity we have to again run the subgroup analysis. While we test the presence of heterogeneity we have to use Visual (subjective) techniques like Galbraith plot (to check whether all the points lie within the 95% confidence bounds), Forest plot (to check whether the confidence intervals of studies (the summary effects) overlap with each other?) and Statistical (objective) methods like Cochran's Q statistic is a chi-square statistic with k-1 degree of freedom where k is the number of studies. If the test is significant, it shows that the variation is larger than would be expected by chance and we also used I-Squared (I2) is the percentage of heterogeneity accounted for by the between studies variance but not chance. Roughly, the values of I-squared ranged 0-40%, 30-60%, 50-90%, and 75-100% may represent low, moderate, substantial and considerable heterogeneity respectively (Cochrane Handbook). Our result I-Squared (I2) is (I2 = 99.3, P<0.001) which suggested the presence of considerable heterogeneity. So we authors concluded that there is statistically significant heterogeneity in the study even if we can't quantify how

much heterogeneity exists in a helpful way and we decide to do subgroup analysis. We considered your comment and analyzed in addition to subgroup analysis, we did sensitivity analysis with the evidence of marked heterogeneity.

2. Was inter-rater reliability assessed in this study? It was clear that AD and GG assessed the quality of the articles included in the study and it will be useful to know the estimate for the inter-rater reliability coefficient.

Response: We appreciated your constructive comments. We already assessed the quality of those included articles by two authors (AD and GG) independently assessed the quality of each original study using the quality assessment tool. During quality appraisal of the articles, any discrepancies between the two authors were resolved by taking the second group authors (AW, AG, MB and BA). We also estimate inter-rater reliability coefficient (Cohen's kappa) of 0.95 which suggested that there was almost perfect level of agreement between two authors indicating that (McHugh M.L, 2012) McHugh M.L. Interrater reliability: the kappa statistic; Biochemia Medica 2012;22(3):276-82.

3. Generally, the results are discussed in a way that support the data. The high heterogeneity in studies require more attention in the discussion. This should be one of the limitations of the study and properly discussed. Also, are there new findings in this study that are yet to be reported in the available literature? This should be discussed (if any).

Response: We appreciated and accepted your constructive comments. We incorporated in the revised clean version of the manuscript.