Author’s response to reviews

Title: Determinants of Traditional Medicine Utilization for Children: A Parental Level Study in Tole District, Oromia, Ethiopia

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Author’s response to reviews:

Responses to the reviewers’ comments

Date: 04 March 2020

BMC Complementary & Alternative Medicine - Editorial Office
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From: Reta Hailu Belda; reta.hailu@aau.edu.et
Subject: Response to the reviewers’ comments n to BMC Complementary Medicine and Therapies - BCAM-D-19-01836

Dear Editor In-Hyuk Ha,

Thank you for your swift, critical and constructive comments to improve our article (Fekensa Hailu, Amsale Cherie, Tigistu Gebreyohannis, Reta Hailu Belda) entitled ‘Determinants of Traditional Medicine Utilization for Children: A Parental Level Study in Tole District, Oromia, Ethiopia (BCAM-D-19-01836)”. We have highly

Firstly, the authors express their appreciation to the reviewers and Editor of the journal for their time and energy. We have benefited from their critical comments and suggestions. Taking the concerns seriously, the authors have made major revisions to improve the clarity of the manuscript and to address the concerns raised. To this end, each revised words, phrases, or passages are indicated using track change in the revised manuscript. In our reply to the comments hereunder, we first present the original reviewers’/ Editor’s comments followed by our responses in italic. Moreover, the journal style has carefully followed. We fully agree to improve the manuscript as per the direction given by the Editor and comments of Reviewers. Thus, we have fully accepted the reviewers’ comments and Editor’s concerns unanimously.
Editor Comments:

Thankfully, two reviewers gave key and detailed comments. The authors will accept most of these comments. In particular, the subject of this study is Traditional Medicine Utilization and author cannot be argued as “Therefore, the integration of traditional medicine as part of modern medicine should be strengthened.”. Conclusions should be made based on the results obtained from the study. Also, you'll need to adjust this because there are many overlapping figures and tables. In addition, English requires supervision of native speakers and confirmation.

Response: we anonymously accept the comments. They are very constructive and benefited from it.

BMC Complementary Medicine and Therapies operates a policy of open peer review, which means that you will be able to see the names of the reviewers who provided the reports via the online peer review system. We encourage you to also view the reports there, via the action links on the left-hand side of the page, to see the names of the reviewers.

Reviewer reports:

Trkulja V (Reviewer 1)
Comments: I have reviewed BCAM-D-19-0183 - a report on a cross sectional survey on use of TM (respondents: parents) in children in a region in Ethiopia, close to the capital. By all means - the addressed question is a relevant one. In my opinion, the major strength of the study is a part of the methods (some parts are unclear) - i.e., a) the sampling procedure; b) construction and, in a way, validation of the questionnaire; c) data collection process (operative). There are, however, several limitations requiring revision.

Response: The comments are immensely important and considered in subsequent specific comments.

Minor limitations

Comment: Language. English is not my native language, but it seems to me that rather thorough English editing is needed.
Response: The concern is well taken and the manuscript was given to academic editor.

Comment: Figure1 - this is really unusual way to present data. Show percentage (on the y axis)...and you can provide also (n/N) in brackets.
Response: Figure1 is not necessary. It doesn’t add value and replaced by narration to make the manuscript precise.

Comment: There two tables enumerated as Table 1 - correct this.
Response: It is corrected.
Major limitations

Comments: Methods (I suggest that the section is entitled "Subjects and Methods").
Response: Corrected as categorizations and definitions

METHODS

Comment: Sample size calculation - There are some unclear points here. Apparently, the sample (number of households) to be surveyed was determined based on a certain desired precision of the estimated proportions. Actually, a desired precision (i.e., width of the 95% CI around the estimate /i.e., 5% margin of error/) with the expected proportion of 88%, but not a single proportion is reported with CIs. Therefore, the entire work was primarily conceived as descriptive - to provide estimates about prevalence of certain phenomena. Later on in the Methods section - a subsection is added explaining the intention to use logistic regression in order to detect associations between various respondent characteristics and the outcome "ever use TM for your child?". This seems reasonable, but the following should be kept in mind:

a) the whole work was conceived primarily as descriptive, and the sample size was based on this premise;
b) under such circumstances, the logistic regression analysis could only be viewed as "exploratory". If detection of "determinants of the use of TM" was the objective, the study would have been differently designed, at least - sample size calculation would be based on different criteria: e.g., a sample needed for detection of an independent contributing to explanation of the variability of the dependent by e.g., 3% or 5% or similar (R2 0.03, 0.05), or as defined in respect to a certain ORs etc.
c) The part describing the approach to logistic regression is "messy" (i) you should not use wording "statistically significant (P<0.2). If you meant: "all variables with P<0.2 in a univariate analysis were entered into the multivariate model"...then, appropriate wording would be. "variables showing at least a trend towards univariate association with the outcome (defined as P<0.2) were entered into the multivariate model". But I would like to warn you: there has been a lot of literature on the problem of building multivariate models in observation studies. What critera?: P-value or R2? (contribution to the explanation of the variance of the dependent?). OR - include many, and then use a backward selection process. OR...stepwise selection etc. But note - all these strategies are based simply on statistical indices. But...one should first think about PLAUSIBILITY...logic..only then "move" to statistical indices. For example..(at least, reading the Introduction) - it is reasonable to assume that a) age/education (which here could be collapsed to "literate or illiterate"); b) religious beliefs..and c) socio-economic status are factors THAT NEED TO BE CONSIDERED always..regardless of "statistica significance". so..you need to have some "forced" variables in the model..and then maybe select others. But - have in mind, a sample of 267 is not large enough for a meaningful logistic regression with too many independents. Finally, the sentence "In addition, P-value less than 0.05 is considered as significant at 95%CI" - is meaningless. If you wanted to say that the type 1 error rate was set at 0.05 - then state: "All tests were done at two-sided alpha level of 5%"...OVERALL: a) in the Results, provide estimated proportions with 95% CIs; b) in the Methods section - explicitly define logistic regression as "exploratory"]

(no firm inference possible). c) re-consider model-building strategy (and, if needed - re-analyze data).
Response: "all variables with P<0.2 in a univariate analysis were entered into the multivariate model"...changed to "variables showing at least a trend towards univariate association with the outcome (defined as P<0.2) were entered into the multivariate model". Moreover, the logistic regression has defined as exploratory instead of inferential analysis. The 'every used TM' was replaced by “Utilization of traditional medicine for their children for the last 12 months”. We used both model to analyze my data (initially all variables were entered to SPSS and analyzed by univariate model with association with their respective outcome, among them those which have P<0.2 were entered to multivariate model for further analysis whether they have or not relation with outcome variable.

RESULTS

Comment: There are 5 or 6 Tables and 4 Figures - this really not needed. Plus - each table and figure is in extenso elaborated in the text. This should be revised.Try to "condense" the information into less tables and figures and avoid extensive "reading" of data from the tables and figures in the textual part - in the text, point out just MOST PROMINENT data presented in the respective table/figure.

Response: the Tables are reduced to 4 from 6; Figures are reduced to2 from 4; and texts are condensed to avoid repetition and extended reading throughout Result sections.

Comment: Table 5 summarizes univariate and multivariate logistic regression. The table is relative "messy" - always list the reference level of a factor first (i.e., OR=1.0 should always come first. Next, if table states P=0.037 . there is NO NEED to additionally point out that this is "significant p<0.05". Finally, the effect of "monthly income" - OR of 0.08-0.78 P=0.018 for the level 500-850 vs. &lt;500 - DOES NOT MEAN that "higher income was associated with lower odds of having used TM" - since levels 851-1500 and &gt;15000 were NOT associated with lower odds. Suggestion: Pool data for bands &gt;500 together and contrast it vs. &lt;500. But anyhow - the entire logistic regression - requires re-consideration..and, likely, data re-analysis. Be careful with this!

Response: the data are re-analyzed. The reference level of a factor first with OR=1.0 put first. "Significant p<0.05" was taken out from significant variables. The data were pooled for &gt;500 and contrasted with &lt;500 in both Table1 and Table 4. We found out the households with higher income ( &gt;501 Birr) less likely to use TM medicine compared to households with income &lt;500 Birr.

DISCUSSION

Comment: The discussion seems somewhat too extensive. I suggest you should: (i) reconsider you data, think about the main points and (ii) then address this (including limitations etc.) into Discussion. Do not use wording like "data did not show statistical relation.." (or similar) - there is no such thing a "statistical relationship.." - relationships are biological, emotional, culturally or religiously defined etc….Statistical methods just serve as help in an attempt to recognize them…and, if possible, quantify them..:-)"
Response: the discussion was shortened and wordings are corrected. The limitations are indicated and other suggestions are carefully considered in the Discussion section.

Comment: Overall - I believe that the manuscript contains relevant information, but the way in which it is communicated needs to be revised/upgraded.
Response: Major revisions are made to address the concerns and suggestions in all section of the manuscript.

Desiree Jones (Reviewer 2): BCAM-D-19-01836
Determinants of Traditional Medicine Utilization for Children: A Parental Level Study in Tole District, Oromia, Ethiopia

Reviewer: Desiree Jones, PhD

Reviewer Comments

Summary Comments:

This paper presents an assessment of Traditional Medicine (TM) utilization for children up to 18 years old in the Tole District of Oromia, Ethiopia. The study is essentially a survey based descriptive study with a cross-sectional design; consequently, patterns of use of TM may be understood to some extent with this study, but major conclusions cannot be drawn with respect to recommendations for future TM use in this district, given both the study's design and limited sample size.

The authors have made a good effort with data collection and background information; however, the major limitation of this manuscript is that it lacks the tightness and scientific rigor with which a publication of this nature should be written. Three areas that recurrently are noticeable in this regard are: 1) Repetition of results/data multiple times in the paper; 2) English usage - mixing of past and present tenses; missing verbs in many sentences/other grammatical errors, and 3) Difficulty with the overall coherence of several sentences.

I believe with careful editing and attention to the three areas listed above, the paper can be made more concise, less repetitive, and can better convey the results of this otherwise useful study. In the more detailed comments below, I have stated some specific areas where the paper will benefit from such help. Additionally, it should be thoroughly edited to meet the internationally accepted standards of English use in scientific papers so that it may be presented with greater clarity and consistency for an international audience.

Response to the summary comments:

The comments and suggestion are well taken. The three key areas were focused.

1) The repetition in of data in Result sections and Discussion were carefully addressed. The data used in the tables were repeated in text and the data depicted in the result are also appeared in the
discussion. Thus, these aspects are taken seriously and adjusted as indicated in track change in the revised manuscript.

2) In order to improve the English of the manuscript, it was given to academic editor to check it carefully. We believe that it helped us to improve the English of this paper.

3) The coherence and consistency of the manuscript are improved through revising the sentences or paragraphs. Moreover, some unnecessary discussions are taken out and relevant information are added and discussed.

Specific Comments/Areas where manuscript will benefit from suggested changes or additional requested information:

BACKGROUND

Comment: Page 2, Line 17 - Remove "a". It should read: painkiller for longer than…
Response: “a” has removed

Page 3, Line 7 - It should read: the use of herbs as purgatives and anti-dysentery agents…
Response: added “…agents”

Comments: Page 3, Line 7 - It should read: Medical textbooks that were written…(not are)
Response: “are” is changed to “were”.

Page 3, Lines 17-18 - Consider saying: The national health system has given less attention to studying the full therapeutic potential of TM or estimating accurately its potential adverse effects.
Response: Re-written as “The national health system has given less attention to studying the full therapeutic potential of TM or estimating accurately its potential adverse effects”.

Comments: Page 3, Lines 20-21 - The meaning of the sentence here is not clear. Consider saying: there is considerable diversity and TM use varies significantly between regions.
Response: “…there is considerable diversity and TM use varies significantly between regions.”

Comment: Page 4 - Lines 8 and 9: You mention the possibility of integrating TM with modern practice to reduce child mortality. You have not provided any numbers or figures of general child morbidity or mortality in your sample region or in Ethiopia. This section will benefit from more precise background utilizing these numbers and stating how TM, if safe, may potentially fill the gap where modern medicine is presently inaccessible.
Response: This comment is valuable. The data on mortality and morbidity are not available in the area due to poor recording and limited modern health information system delivery. As a result, the background of the paper was seen as: “…of that the professional health service providers advise the community in utilizing Traditional Medicine (TM) hand-in-hand with procuring modern health services”.

METHODS

Comment: Please consider dividing the section into the more commonly used and accepted sub-headings of Study Participants, Measures/Instruments, and Statistical Analysis
Response: the comments are well take. We classified the methods into “Study Participants”, “Instruments”, and “Statistical Analysis”.

Comment: Page 5, Line 6 - Should read: every 12th household was selected (not were)
Response: corrected!

Comment: Page 5, Line 16 - "Priority was given for mothers because mothers are close to their children than fathers": While this may be culturally relevant, it does introduce a type of selection/interview bias. From a research perspective, this is a subjective opinion and should not interfere with data collection. As this can introduce such a bias, it should be mentioned in the study's limitations.
Response: the comments are addressed in limitation as: “One of the limitations of the study was it gave priority for mothers because mothers are close to their children than fathers. Despite it was an attempt to respect the culture of the community, there was a subjective that may introduce a bias.”

Comment: Page 5, Line 14 - The paper should include a copy of the survey measure, i.e., the instrument used to collect the data, which can be included in supplemental materials. You state the questionnaire was adapted from previous research on similar topics with a citation to reference 4. If the instrument was adapted from a previous study, how was its reliability and validity established? Can the source instrument be shown? These data should be presented - there is too much information missing here.
Response: The questionnaire was pretested and revised after pretest. The questionnaire adapted was included in supplementary material separately.

Comment: Page 7, Line 2 - It should read: Health care experience of parents…
Response: corrected as suggested!

Page 7, Line 3 - It should read: fear of side effects…(plural)
Response: Corrected!

RESULTS

Comments: Results can be summarized significantly simply by referring to relevant Table numbers. Except for salient data, most results do not need to be repeated in the text.
Response: the results are summarized to avoid unnecessary repetition. For example, the subheadings under Results section on “Socio-demographic characteristics”, “Prevalence of traditional medicine utilization for children”, “Type of traditional medicine utilization for their children”, and other section of the result are concisely summarize!

Comments: On Page 8, please clarify how the currency "birrs" refers to a standard that readers may follow (example: euros or dollars).
Response: Conversion is made to USD! Birr =0.045611USD or 1USD=21.5irr during data collection

Comment: Page 8, Line 14 - It should read: .Medicine practice for children is 212 (79.4%). Of these 212, 182, that is, 85.9% had used….. (The way you have presented this is not clear)
Response: It was rewritten as “The medicine practice for children is 212 (79.4%). Of these 212, 182, that is, 85.9% had used ….”
Comment: Additionally, it is very important here to define the variables you have used: The reading audience does not know how herbal medicine, bone settler, functional foods, etc. are defined in the context of your study. These terms need clear definitions. How were the parameters established for these terms? Example: for herbal medicine, CAM use, etc., were the standard NCCIH criteria used? It does not appear so. This needs clarification.
Response: the following operational definitions are added:

Operational Definitions

- Herbal medicine: are plants used for the basis for medical treatments and which culturally acceptable.
- Bone settler: is a traditional practitioner who cures the balance of the skeleton, muscles and joint manipulation, who educate themselves from tradition and takes up the practice of healing without having had any formal training.
- Functional foods: are foods that provide both physiological preventive and/or health-promoting effect to reduce the risk of chronic diseases and basic nutrition in the form of small solids or droplets. An example is garlic, onion, ginger, orange juice, red pepper spice, pepper, among many.
- Religious/ prayer therapy: in the study area are used in counseling to invite God's healing presence to come and restore, forgive, erase, transform, and set free the inner life of the client in order to allow him or her to detach from sinful choices and painful trauma, and grow in all that Christ would have.
- Massage: is the practice of applying gentle or strong pressure to the muscles and joints of the body to ease pain and tension using the hand, that is carried out by locally reputable healer.
- Parent: father, mother or/and guardian who nurtures and raises child
- Children: are those who are &lt;18 years old
- Traditional healers/practitioners: health care providers who are not trained in modern medicine science.
- Traditional medicine utilization: includes anything used in the promotion of health, prevention of illness and treatment of diseases and not currently considered to be part of modern medicine but accepted in that community. It is not prescribed by health care professional. It is not commonly used as a diet in that culture.

Comment: Table 1 (Pages 8-9) shows that only 1 participant relied on health professionals for source of information for TM; the majority used family, relatives, etc. This point is quite salient but has not been discussed at all later in the paper under Discussion/Conclusions.
Response: Rewritten as: “….while some obtained from neighborhoods. It was observed that only one person has obtained information from health professional (Table 2).”

Comment: Page 12, Line 1 - It should read: …and relieve symptoms.
Response: corrected!

Comment: Page 12, Line 7 - It should read: treat illness/relief of symptoms.
Response: corrected!

Comments: Page 14, Table 5: Specify abbreviations below the table. COR, AOR should be specified.
DISCUSSION/CONCLUSION

Comments: There is too much repetition of your results in both the Discussion and Conclusion. This whole section needs to be more tight. You have already stated the results in the previous section. Some of the studies you have used for comparison here do not appear relevant or comparable to your sample. For example, the comparison with the Netherlands study. These are not socio-demographically comparable populations. Other studies from Ethiopia you have used provide a more relevant comparison.

Response: the comments are well taken. We have recognized that the whole section need to be concise and comparisons in more or less relevant socio-demographic similarities are considered.

Comments: You have concluded on the basis of your survey that integration of TM as part of modern medicine should be strengthened. However, it appears from your data that accessibility to modern medicine itself is a need that should also be first met. This has not been discussed. Many issues remain here: You have not established clearly the safety or efficacy of TM. Is TM as practiced actually safe and effective in this sample? The subjective perception of very young parents (in your sample) of children's health as fair, good, or very good does not constitute an adequate criterion to meet the more objective standard of health.

Response: Given the context and scope of the study, we have included the discussions below to justify it. “The health professionals rarely provide information on TM to parents. The health professionals often encourage the parents to bring their children to modern medicine despite the use of TM is still prevalent. In case where the availability of modern medical services is a problem either due to costliness or the parents are already using TM, the health professionals could advise the parent considering the effectiveness and the efficacy of the TM. This study is based on the perception of the parents and is not clinical based. As such the safety or efficacy of TM was not established nor the perception of the subjective perception of the parents constituted standard health criteria to evaluate as the study is mainly focus on the utilization of TM.”

Comment: Further, you have established that traditional medicines are in fact used, but your data show that almost none of your sample gets information regarding TM from health professionals. This raises important issues as to why this is so? Perhaps the wide use of TM has the potential to be augmented, improved, and used with greater support and guidance from health professionals and this study can help suggest some avenues how this may be a direction for the future. There is room for much thoughtful discussion here which the authors should present to bring to full meaning the data presented in this paper.

Response: in order to resolve the [problem related to information and the need of the community for TM, we suggested the support of health professionals as follow: “Third, the need of modern medicine is unfulfilled that expansion and accessibility of modern medical services are very important aspect to consider hand-in-hand with closely counseling TM utilization. The health professionals failed to recognize the importance as well as the room to augment both under low health infrastructure.”
Sincerely,

Reta Hailu (PhD), on the behalf of co-authors.