Author's response to reviews

Title: Cultural Competence among maternal health care providers in Bahir dar city Administration, Northwest Ethiopia: Cross Sectional Study

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Version: 5
Date: 14 August 2015

Author's response to reviews: see over
Response for editorial comments

Point by point response is given in the table below

1. copy edition

The changes we made include: re-sequeencing to improve flow and coherence; editing and rephrasing and cutting redundant ideas.

Words, statements or punctuations in the first column are changed to and /or substituted with or/replaced by words or statements stated in column 3 of the table below. Column 2 and 3 are referring the placement of ideas modified, inserted to or removed from with respect to the line numbers of the previous and the current versions, respectively.

2. Update ethics statement

The ethics committee that approved the study is updated

<table>
<thead>
<tr>
<th>Section</th>
<th>Line Number in the previous version</th>
<th>Line Number in the this version</th>
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<tbody>
<tr>
<td>Title:</td>
<td>1,2</td>
<td></td>
<td>Corrected as follows (by Capitalizing the initials of words); Cultural Competence among Maternal Healthcare Providers in Bahir Dar City Administration, Northwest Ethiopia: Cross sectional study</td>
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<tr>
<td>Cultural competence among maternal healthcare providers in Bahir dar city Administration, Northwest Ethiopia: cross sectional study</td>
<td>19-20</td>
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<td>Abstract section</td>
<td>22</td>
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<tr>
<td>Institutional based….</td>
<td>25 23 Replaced by “institution” based…</td>
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<tr>
<td>Background</td>
<td>57-59 67-69 Moved down and rearranged to improve the flow and coherence</td>
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<tr>
<td>Cultural competence in health care describes the ability of systems to provide care to Patients with diverse values, beliefs and behaviors, including tailoring delivery to meet Patients’ social, cultural, and linguistic needs [2, 3].</td>
<td>60-62 94-96 Rearranged to improve the flow and coherence</td>
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<td>…despite numerous strategies devised by the international community to curb it.</td>
<td>63-64 - Removed</td>
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</table>
Maternal mortality 64 53 Replaced by the word “it”

… Of which 99% occur...

Utilization of maternity care services has paramount importance; it affects the well-being of the mothers as well as their children [4, 5]. This being the case, however, utilization of maternity care services in Ethiopia is extremely low even by the standards of most African countries [15]. Recent data showed that Ethiopian antenatal coverage was 33.9% and delivery service by trained health professional was only 10%. [8].

Childbearing practices (antenatal, labor and postnatal) are highly influenced by cultural values and beliefs

In Ethiopia, most of the few available health facilities are underutilized by the women for maternal health care

Of a set of complex factors the socio-cultural milieu are among obstacles that need to be overcome …

Community based …

… and they are then denied proper medical…

Cultural competence is an educative process involving developing self-awareness, appreciate difference, valuing cultural practices other than one’s own, and acting flexibly in ways that accommodate these values [3]. Understanding clients' beliefs can help providers align their services with their ideas or, when necessary, address local misconceptions. Providers can also bridge gaps by expressing respect for the clients' beliefs and drawing connections between these beliefs and medical models of health [12]. On the other hand, lack of understanding and sensitivity to cultural beliefs and traditions on the part of providers can become barrier to use of maternal health services [13].

Most of the women deferred ……… because they believed …

However, regardless of its importance, the few studies done on the use of maternal care services have largely overlooked cultural competence of health workers and there are no published studies that studied cultural competence of maternal health care providers in Ethiopia. Hence, we assessed cultural competence of maternal health care providers working in Bahir Dar City, the capital of the second largest regional state in Ethiopia.

**Methods**

**Data collection**
Study population and sampling

Qualitative data were collected from women who were attending prenatal services, delivered mothers in their waiting room, and women who came for postnatal visit using purposive sampling technique. Women who were believed to explain themselves and give rich information were selected to participate in the study. The participants were those that had at least one antenatal contact with health care providers prior to the current visit by assuming that they have had previous exposure with health care providers and give the fullest information. Interviewing was continued until redundancy of ideas by the study subjects. Questions that reached saturation were removed and new questions were added whenever an information gap was identified and a total of seven women were participated in the qualitative study.

Data were collected using both a structured cultural diversity questionnaire adapted from Campinha-Bacote’s model for cultural competency [3] for the quantitative method, and a semi-structured interview guide for qualitative part. The quantitative instrument consisted of two sections: demographic characteristics of the health care providers and five point scale Likert type items intended to measure the respondents’ level of cultural competence [i.e., cultural awareness, cultural knowledge, cultural skills, cultural encounters and cultural desire].

Operational definition

The qualitative data were collected by exit in-depth interview of women who were exiting health facilities after receiving prenatal, delivery and postnatal services during the time of data collection.

Operating definition of terms is included

Analysis

The qualitative data were collected by exit in-depth interview of women who were exiting health facilities for prenatal, delivery and postnatal services during the time of data collection.

ETHICS

Before the commencement of the study ethical clearance was obtained from the University of Gondar, Institute of Public Health. Then, permission letters from officials of districts and health institutions were processed before starting data collection.

The study was ethically approved by research ethical committee review board of university of Gondar. Before Commencing data collection legal permission was obtained from officials of districts and health institutions.

Result

Three items with Corrected Item-Total Correlation factor of greater than 0.3 were removed from the subscale.

Revised as: Three items, number 6, 7 and 10 as indicated in table 2, which had rather item-total correlations less than 0.3 were removed from the sub scale.
40.2% were culturally aware, 20% were found to be culturally incompetent, 17.2% culturally competent and the least were proficient [2.2%]

| 220-21 | 209-210 | 40.2% were culturally aware, 20% were found to be culturally incompetent, 60.2% were culturally aware, 17.2% culturally competent, and the 2.2% were proficient. |

The result of Inventory for Assessing the Process of Cultural Competence among Health Care Professionals-Revised [IAPCC-R] for this subscale showed that 10.2% were found to be culturally incompetent; 49.6% were culturally aware; 19.7% culturally competent and the 20.4% were proficient.

| 221-24 | 220-21 | To have consistence of reporting the result in each subscale the paragraph is added: |

Around twenty percent [19.7%], one third [33.9%), and 35% of the health workers did not give chance for hygienic procedures to be taken by mothers or their families; restricted mothers on back lying position during delivery; and stick to use delivery couches respectively.

| 227-229 | 238-240 | Nineteen point seven percent of the health workers did not give chance for hygienic procedures to be taken by mothers or their families. One third (33.9 %) restricted mothers from back lying position during delivery, and 35% allowed only delivery couches. |

Result of IAPCC-R of the subscale showed that 42.7%, 28.1%, 16.4%, and 12.8% of the participants were culturally competent, proficient, aware, and incompetent respectively.

| 231-32 | 243-244 | Result of IAPCC-R of the subscale showed 28.1% of the participants were culturally proficient, 42.7% were competent, 16.4% were aware and 12.8% were culturally incompetent. |

Near to seventy percent (69.3%) of the participants never asked to know the traditional needs of families or delivered women on burial of placenta before throwing away it.

| 236-37 | 250-52 | About 7 out of 10 (69.3%) participants never asked to know the traditional needs of mothers or families on burial of placenta before throwing it away. |

For the items that were intended to measure cultural encounter participants’ cultural engagement in this subscale was low; while 84.3% were incompetent and 12.0% aware, only 1.8%, and 1.5% respectively were competent and proficient.

| 238-40 | 253-55 | Results of the IAPCC-R for the cultural encounter subscale found that 84.3% were culturally incompetent, 12.0% were aware, and only 1.8% and 1.5% were competent and proficient, respectively. |

….were not in a position to agree to incorporate culture to …..

| 244 | 261 | …. did not agree to incorporate culture into ….. |

The overall culturally competence of the total study participants revealed that 229 [83.6%] of the respondents were culturally competent while the remaining 45 [16.4 %] were culturally incompetent. However, further disaggregation of the competence level indicated that the mean score for the IAPCC-R was 73.0, which falls within the ‘culturally aware’ category in the continuum of culturally incompetent, culturally aware, culturally competent, and culturally proficient.

| 248-55 | 265-70 | Revised and rewritten as follows: The result of cultural competence in the continuum of Campinha-Bacote’s Inventory for Assessing the Process of Cultural Competence-Revised (IAPCC-R) indicated that 28 (10.2%) of maternal healthcare providers were culturally proficient, 129 (47.1%) culturally competent; 92(33.6%) culturally aware, and 25 (9.1%) culturally incompetent. And, the overall cultural competence of the total study participants showed that 157 (57.3%) of the respondents were culturally competent while the remaining 117 (42.7 %) were culturally incompetent. The mean score for the IAPCC-R was 73.0. A score of 73 falls within the “culturally aware” category in the continuum of culturally incompetent, culturally aware, culturally competent, and culturally proficient. |
Synthesized as follows: Logistic regression analysis was conducted to identify predictors for cultural competence. Multivariate analysis found gender, place of birth; facility type and opportunity for in-service training were associated with cultural competence of maternal healthcare providers. Female health care workers were 3.3 times more likely to be competent than males and the association was also strongly significant \([p=0.003]\). There was a positive association between competence level and place of birth \([p=0.009]\). Health care providers who were born in rural area were 3.60 \([95\% \text{ CI}: 1.37, 9.40]\) times more likely to be culturally competent compared to their urban counterparts. Health care providers who worked in hospital were 63% less likely to be culturally competent compared to those who worked in other health care facilities \([\text{AOR} 0.37; 95\%, \text{ CI}: 0.14, 0.97]\). Health care providers who got in-service training related to maternal care were 3.5 times \((1.40, 8.64)\) more competent than those who did not get training \([p=0.007]\) \([\text{Table 3}]\).

Bivariate and multivariate logistic regression analyses were conducted to identify main predictors for cultural competence. Variables with values <0.2 in the bivariate analysis were fit into the logistic regression model. Both the crude and adjusted Odds showed that cultural competence was lower among maternal health care professionals working in hospital than other healthcare facilities. The adjusted Odds ratio showed health care providers who worked at hospital were 63% less competent compared to those who worked in other health care facilities \([\text{AOR} 0.37; 95\%, \text{ CI}: 0.14, 0.97]\), and the association was also significant \([p=0.04]\). There was a positive association between competence level and place of birth \([p=0.009]\). Health care providers who were born in rural area were 3.60 \([95\% \text{ CI}: 1.37, 9.40]\) times more likely to be culturally competent compared to their urban counterparts. Female health care workers were 3.3 times more competent than males and the association was also strongly significant \([p=0.003]\).

Health care providers who got in service training related to maternal care were 3.5 times \((1.40, 8.64)\) more competent than those who did not get training \([p=0.007]\) \([\text{Table 3}]\).

Rewritten as follows: Majority of women in this study claimed that they did not receive warm greetings from healthcare professionals. Women also mentioned that health care providers didn’t tell their health care roles in the institution and were 

**Patient preferences and respect**

Major complaint voiced by women who came for delivery service in this study was they were forced to deliver in the supine position. None of participants were asked about their favorite position from their health care providers. Even, those women who asked their preferred position to health workers blamed healthcare providers as unresponsive and rude with this regard. For example one participant expressed her sorrow for being prevented from her preferred position during delivery saying:

“My preferred position was Kneeling, but since I am her in hospital (meaning if I were at home I would do what I need), I was obliged in back lying position out of my interest.” (25 years, merchant post natal mother)

One of the aspects of maternity care about which women were most dissatisfied was that family member were not allowed to be present during birth in all of the women asked before and after delivery. For example, one ANC follower expressed that she was extremely dissatisfied in previous birth at hospital. She described her previous experience of giving birth in a governmental hospital and her reason for preferring the families and traditional birth attendant over hospital staff:

“As for the health workers, when you are in labor and get there (hospital), they start to shout at you as if you are a kid. But you know, your relatives are relatives, and as for traditional birth attendants, whether she knows you or not, she respects and communicates you politely.” (34years, urban dweller during her ANC follow up)

One major complaint voiced by delivered women in this study was the supine position in which they were forced to deliver. However, none of participants were asked about their favorite position from their health care providers. Even, those women who asked their preferred position to health workers blamed healthcare providers as unresponsive and rude with this regard. For example one participant expressed her sorrow for being prevented from her preferred position during delivery saying:

“My preferred position was Kneeling, but since I am here in hospital (meaning if I were at home I would do what I need), I was obliged in back lying position out of my interest.” (25 years, merchant post natal mother)

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However, in this study while only one participant preferred females, others had no gender preference. They said that, as far as the service was given, they did not mind whether they were examined by males or females.

<table>
<thead>
<tr>
<th>323-25</th>
<th>292-94</th>
<th>Rephrased as:</th>
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<tr>
<td>Except for one study participant, all had no gender preference for the healthcare provider. They said that, as far as the service was given, they did not mind whether they were examined by males or females.</td>
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Some foods were restricted believing that eating such inhibited foods would bring prolonged labor, brings hypertension, over weight new born. Among foods restricted include: like banana, mango, sugar cane and other sweet foods and fruits [11]. Despite these beliefs however, many of the study participants did not get appropriate advice about their diet during pregnancy and even those who were advised said that it was shallow and not enough.

<table>
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<tr>
<th>327-333</th>
<th>296-302</th>
<th>Rewritten as follows:</th>
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<td>Women were asked to express their beliefs whether there is a kind of food restriction during their pregnancy and the response indicated that larger proportion of them still believe in old unscientific tales. Foods like banana, mango, sugar cane and other sweet foods and fruits were not added to their diet as a way of safeguarding their lives and that of the unborn baby. Majority of women believed that eating such inhibited foods would cause prolonged labor, hypertension, and overweight new born. Despite these beliefs however, many of the study participants did not get appropriate advice about their diet during pregnancy.</td>
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References

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<td>Reordered: this is because of rearrangement of contents within the body of the manuscript</td>
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