

Male Partners Involvement and Associated Factors in Prevention of Mother to Child Transmission of HIV in East Badawacho District, Hadiya Zone, Southern Ethiopiac

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Abstract

Background: Transmission of HIV mother-to-child remains a significant problem in the developing world despite the development and growing availability of effective prevention methods appropriate for resource-limited settings. Male involvement has been recognized as a priority focus area to be strengthened in PMTCT but testing male partners for HIV in the context of preventing mother to-child transmission remains a challenge in most low- and middle-income countries.

Objective: To assess male partners involvement in prevention of mother-to-child transmission of HIV and associated factors in East Badawacho woreda, Hadiya Zone, Southern Ethiopia, 2019.

Methods: A community based cross-sectional study was conducted from July 1-30, 2019 on a sample of 402 male partners whose wife attended ANC visit in the past six months.

Results: The overall male involvement in PMTCT of HIV was 52.4% [95% CI (47.6-56.7)]. Good knowledge on PMTCT (AOR=3.27; CI=1.19-9.01), duration of relationship for 11 to 20 years (AOR=0.337; CI=0.14-0.82), attending primary and secondary education, Bad attitude of health professionals towards clients (AOR=0.449; CI=0.21-0.98) and good knowledge on ANC (AOR=6.338; CI=2.13-18.9) are factors significantly associated with male involvement in PMTCT of HIV.

Conclusion: Male involvement in the PMTCT program in East Badawacho district was low (52.4%). Good knowledge on PMTCT and ANC, duration of relationship for 11 to 20 years, attending primary and secondary education, and bad attitude of health professionals were significantly associated with male partner involvement. Community sensitization of men about the benefits of antenatal care and PMTCT and improving client-friendliness in the clinics needs to be prioritized in order to improve low male participation and mitigate the effect of socio-economic and cultural factors.

Keywords: Male partner, Male involvement, PMTCT, ANC

Background

Transmission of HIV mother-to-child remains a significant problem in the developing world regardless of the development and growing accessibility of effective prevention methods appropriate for resource scarce area. Mother-to-child transmission is the

most common mode of human immunodeficiency virus (HIV) transmission in children which can be vertically transmitted from HIV positive pregnant women to their unborn babies during pregnancy, labor, and delivery or through breastfeeding after delivery [1,2].

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The prevention of mother to child transmission of the immunodeficiency virus (HIV) (PMTCT) program offers an opportunity to capture pregnant women with their partners in order to prevent the transmission of HIV to the baby [3].

Male partners play a role not only in women's risk of acquiring HIV but also in terms of her utilization of the PMTCT program: for the mother to test for HIV, for the mother to return for the result, for the couple to use condoms, for the mother to receive medication, and for her to follow the infant feeding advice given [4-6].

Thus, male involvement in the context of PMTCT has evolved from seeking male partner support for HIV-infected pregnant and breastfeeding women to the comprehensive engagement of men in interventions that prevent HIV-uninfected female partners from acquiring HIV, reduce unintended pregnancies, and improve care, treatment, and support for the HIV-infected male partner and the entire family.

According to UNAIDS, There were approximately 36.9 million people worldwide living with HIV/AIDS in 2017. Of this 1.8 million were children (<15 years old) with the majority (71%) located in sub-Saharan Africa (SSA). An estimated 1.8 million individuals worldwide become newly infected with HIV in 2017, about 5000 infections per day. This includes 180,000 children (<15 years). Most of these children live in sub Saharan Africa and were infected by their HIV-positive mothers during pregnancy, childbirth or breastfeeding [7].

In 2017, 80% of pregnant women living with HIV were receiving ART, a significant increase from 2010 levels when only 51 % had access. However 740000 women of reproductive age become HIV positive in 2016. Around 73% of these women live in just 23 countries, the vast majority of which are in sub-Saharan Africa, and are classified as high-priority for PMTCT by UNAIDS [8].

Programs continue to focus primarily on women, despite the fact that men can play a critical role in women's access, uptake and continuation of services. In many cultures, especially in sub-Saharan Africa, men are the primary household decision makers and studies have shown that reproductive health decisions are often influenced by male partners [9].

Materials and Methods

Study area and period

Community based cross sectional study design was employed in East Badawacho which is one of ten administrative Woreda found in Hadiya Zone of the Southern Nations Nationalities and Peoples region (SNNPR). The capital of the Woreda, Shone, is located at a distance of 329 km in the south-west from Addis Ababa and 123 km from Hawassa, the capital of the region, and 97km from Hosanna. Based on population projection 2007 in to 2018/19 the population of East Badawacho Woreda is estimated to be 132,920 from which male accounts 65,662 while female are 67,258, there are 4599 pregnant mothers and expected deliveries annually and 3097 women are in reproductive age group as well. The majority of the population economy depends on traditional agriculture,

the main crop produced in the area is maize. The study was conducted from July 1-30, 2019.

Sample size determination and sampling procedures

The sample size was determined by using a single population proportion formula considering the following assumptions: proportion of male involvement in PMTCT 53% ($p=0.53$), level of significance to be 5% ($\alpha = 0.05$), $Z_{\alpha/2} = 1.96$ margin of error to be 5% ($d = 0.05$). By adding 5% non-response rate, the final sample size was 402.

Data processing and analysis

After the completion of the data collection, the data were checked for its completeness and edited cleaned and entered in to Epi-data version 3.1 and exported into SPSS version 20 statistical software for analysis. Descriptive analysis like mean, frequency, standard deviation and percentage was used to see the overall distribution of the study subject with the variables under the study. Bivariate analysis (binary logistic regression) was carried out to determine the existence of crude association between independent and dependent variables and to select candidate variables for multivariable model. Those variables with p -value ≤ 0.25 in the bivariate analysis was candidates for multivariable logistic regression analysis. Multivariable logistic regression analysis was carried out to identify independently affecting factors and controlling the effects of confounding variables, and then p - value of 0.05 with the corresponding confidence interval was taken as cutoff point to label statistically significance of the variables. The strength of the association was measured by 95% confidence interval.

Data extraction

Data abstraction was performed by two reviewers (WB and BT) using a standardized abstraction form. When there was disagreement, the relevant paper was reviewed and differences were resolved by discussion and consensus [15-18].

Data quality management

To assure the quality of data, the questionnaire was developed in English and are interviewer administered and was translated to the local languages (Amharic and hadiyisa) then their consistency was checked by another person who speaks both languages. The questionnaire was back translated to English to check for its conceptual equivalence. And variables incorporated in the questionnaire was adapted from different literatures that was used for the assessment of similar studies [10].

Ethical consideration

Informed consent was obtained from study participant. All the interviews was made with strict privacy after getting informed consent from the respondents by assuring the confidentiality of the responses. Thus, name and address of the interviewees was not been recorded in the questionnaire. They were also informed that, they have full right to discontinue or refuse to participate in the study. For this purpose, a one-page consent letter was

attached to the cover-page of each questionnaire stating about the general purpose of the study and issues of confidentiality which was discussed by data collectors before proceeding with the interview.

Results

The mean age of the respondents was 39 years (\pm SD of 6.4) and the majority 188(47.8%) of the male partners were in the age group of 30-39. Majority of respondents accounting for 292 (74.3%) were Hadiya ethnic group and 254 (64.6%) were protestants, 42(10.7%) were orthodox and 64(16.3%) were Muslim. The mean family size was 6 with SD of 2. Out of the respondents 244 (62.1%) had less than four children.

The distribution on educational status of the respondents indicates that 87(22.1%) of male partners had no education and 189 (48.1%) were completed primary education and majority 239(60.8%) of them were farmers. Regarding education of mothers majority 283(72%) of mothers were with no formal education and few of them 11(2.8%) are with educational level of college and above. Duration of relationship for 192(48.9%) of respondents were less than 10 years and for 142(36.1%) their duration of relationship was 11 up to 20 years (Table 1).

ANC Knowledge questions	Category	Frequency	Percent
Have you ever heard information about ANC?	Yes	360	91.6
Do you know the appropriate time to start the first ANC visit?	Yes	291	74
How many minimum ANC visit should pregnant mothers attend to the entire pregnancy period?	Yes	51	13
Do you think ANC is important for the mothers and child?	Yes	313	79.6
Should a healthy looking pregnant mothers need to attend ANC clinics?	Yes	298	75.8
Do you know danger signs of pregnancy?	Yes	187	47.6
Do you think that ANC follow up is useful for birth preparedness?	Yes	310	78.9

Table 1: knowledge of respondents on ANC in East Badawacho district, Southern Ethiopia, 2019.

Regarding male opinion in relation to PMTCT, majority of respondents agree that the HIV status of their partner does not represent their HIV sero-status. Nearly 70% of respondents agree in the opinion that, it is better to live with unknown HIV status than live depressed with positive HIV status known.

Regarding Gender role in PMTCT service, more than 75% of respondents do not agree on sharing their health problem to their wife. Similarly, 90% of partner's decisions on the health of the family are not decided through discussion.

Discussion

The main aim of the study was to investigate the prevalence of male partners' involvement in PMTCT of HIV and associated factors, in East Badawacho Woreda, Hadiya Zone, and SNNPR. The prevalence of male involvement was 52.4% [95% CI (47.6-56.7)]. Good knowledge on PMTCT and ANC, duration of relationship for 11 to 20 years, attending primary and secondary education, and bad attitude of health professionals were factors significantly associated with male involvement in PMTCT of HIV.

Level of male involvement was assessed based on a series of questions which are related with partners' involvement on their wife ANC visit. Based on this questions it was found that 52.4% of partners were involved in PMTCT service. This result is consistent with the results of the study which is conducted in Arbaminch Zuria woreda with 53% male involvement. This similarity could be due to that both studies used the same type and number of questions to identify the level of male involvement and both studies are also conducted in rural setting. In contrary, from the study which was conducted in Addis Ababa it has been found that only 28% of males had a high involvement in PMTCT service, which is inconsistent and lower than the current study and this inconsistency may be attributed to that the study is conducted in urban setting while the current study is conducted in rural setting.

The current study was also found that 69.2 percent were gone together with your wife to an ANC/PMTCT clinic and 48.6 percent were counseled and tested for HIV together with their wife and which is very high compared with the study conducted in Addis Ababa with only (39%) of male partners had attended ANC with their partners. Also from the study of Mekele it was found that only 20.1% of mothers are accompanied by their partner which is also in consistent with the results of current study. The study conducted in Lemo district also brought inconsistent result with the current study with 38.9% of male partners were counseled and tested together with their female partner.

In these study duration of relationship was one of the variable which was identified as a factor for male involvement and it showed a significant association. Male partners with more than 10 years of relationship with their wife are 67% less likely to involve in their partners PMTCT program than those who stayed for less than 10 years in relationship. This indicates male partners who are in new relationship are tend to go to their partners ANC visit than their counter parts. This may be due to that relationship with less than ten years are mostly are newly weeded and the current child they had probably be their first or second and they may probably eager to know what goes on ANC services. So that, in these situation interventions should focus on couples who stayed in relationship for longer time. Male partners who already had two or more children were less likely to attend ANC with their partners compared to partners with zero or one child. This suggests that the need for continued emphasis on the importance of men's participation in maternal health care and PMTCT in stable relationships which are likely to have more children to prevent new HIV infections.

Attitude of health professionals is also another variable which is associated with male involvement in PMTCT. From the current study it was found that Male partners who perceived bad or negative attitude of health professionals at facilities are 55% less likely to involve in PMTCT program. Health workers sometimes do not treat patients or clients well. They may abuse clients; some health professionals are rude and harsh towards patients. Consequently this bad attitude may possibly makes males partners not to go to health facilities for any service. In a study in Nigeria found that a significant number of health professionals showed discriminatory attitudes and engaged in unethical behavior towards patients.

Conclusion and Recommendation

The prevalence of male partner's involvement in PMTCT of HIV was low in East Badawacho, Hadiya zone, SNNPR and this low male attendance at ANC with partners represents missed opportunities for the uptake and support of PMTCT interventions towards virtual elimination of new HIV infections among children. Though, the result found from the current study is higher compared with other similar studies in different areas, the finding of this study indicates that male involvement is still an important major problem in prevention of HIV in the study area.

Information regarding PMTCT of HIV should be provided to the public (special attention on male partners) through available channels such as print and electronic media, billboards and posters, and opinion/religious leaders. Promotion messages focusing on male role of PMTCT of HIV and the benefits of participation should be scaled up to the community. Trainings should be given to PMTCT service providers on compassionate, respectful and caring (CRC) health professionals. Further comprehensive research should be done on male involvement in PMTCT services in different settings to compare couples with long and short duration of relationship.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

Teshale Menebo conceived the idea of the study, managed data collection, analyses, and interpretation, drafted the manuscript, and critically reviewed the manuscript. Hussen Mekonnen assisted with data analysis and interpretation and critically reviewed the manuscript. Zeleke Dutamo conceptualized and assisted with design of the study as well as data interpretation and critically reviewed the manuscript. Tekle Ejajo assisted with data analysis and interpretation and critically reviewed the manuscript.

Bealu Betebo assisted with data analysis and interpretation and critically reviewed the manuscript. Dejene Ermias assisted with data analysis and interpretation and critically reviewed the manuscript. All authors read and approved the final manuscript.

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