



COMPARATIVE STUDY ON COMMUNITY BASED HEALTH CARE STRUCTURE AND MATERNAL HEALTH IN AWURAMBA AND ITS NEIGHBORING VILLAGE, MAKSEGN

Research Article

¹*Awoke Dagne Kassahun

**¹GRADUATE PROGRAM,
DEPARTMENT OF
SOCIAL WORK,
FACULTY OF SOCIAL
SCIENCES, BAHIR DAR
UNIVERSITY.**

***Corresponding author
email: awoke.d.k@gmail.com**

ABSTRACT

Little research has examined community-based healthcare structures and maternity health in Ethiopia. With the purpose of exploring services a community health care structure provides for mothers; maternal health service utilization and examining the degree of association among socio-demographic characteristics with antenatal service and institutional delivery, a sequential mixed method design study was conducted at Awuramba and Maksegn villages. A total of 150 target mothers were participated. Quantitative data were collected using pretested questionnaire and for triangulation purpose qualitative data were collected from 33 purposively selected mothers and key informants using semi-structured interview guide. Quantitative data were analyzed using percentage, frequency, crosstab, chi-square test and binary logistic regression and the qualitative using thematic technique as well. The result revealed that, information education services regarding personal hygiene, birth preparedness and nutrition as well as referral-linkage are major maternal health services provided by the community care structures. Mothers' antenatal follow-up at least once was 93.3%. Whereas, four and above rounds antenatal follow-up remains 49.3% at Awuramba and 26.1% at Maksegn, and institutional delivery was 73.3% and 85.3% respectively. Age, educational status of mothers' and their husband, number of children, age of the last child and occupation were significantly associated with antenatal care and institutional delivery. Consequently, it was concluded that continuous antenatal follow-up is lower even though progresses are shown in institutional delivery. Improving service delivery, maintaining health seeking behavior of mothers and empowering community care structures through technical support were recommended.

Key words: Maternity health, Community health care structure, Continuum of care

INTRODUCTION

Maternal health is regarded as an indicator for health and wellbeing of the general community in a nation. Globally, 350,000 mothers /women die annually due to pregnancies and maternity complications during pregnancy and child bearing periods (WHO, 2010). From this total number of maternal death, 99% occurs in the developing countries. According to Duga (2015), Ethiopia, Democratic Republic of Congo, Nigeria, India, Pakistan, and Afghanistan are the six forefront countries where greater than 50% of the total maternal deaths worldwide occur.

In Ethiopia, the problem of maternal death and mortality rates are the highest compared with other

countries globally. Even though, the magnitude of the problem has shown a steady decline in 2016, from the EDHS findings of 2000, 2005, and 2011, it is still persistently affecting the life of a number of mothers. The Central Statistical Agency (2016) report revealed maternal mortality ratio per 100,000 live births is 412 deaths. This means, for every 1000 live births in Ethiopia, there are four maternal deaths.

In addition to facility level health care services provided for mothers, the contribution of community level healthcare structures is also vital for safe motherhood and wellbeing (USAID, 2015). Community health care /nursing can be defined as a synthesis of care applied for the promotion and protection of health needs of a community through combining the basic



elements of professional clinical nursing with public health and community practices. The role of community health care /nursing according to Mengistu and Misganaw (2006) are: clinician role to prevent and protect health problems, educator, advocator, case management and referral, collaborator, leader, and researcher roles. Thus, the role of community level health care groups is providing maternal health information including birth preparedness, mobilizing resources and creating referral linkage with health facilities during the continuum of care in maternity period (Mengistu and Misganaw, 2006). The continuum of care for maternity health, according to WHO (2003), can be categorized into three; these are antenatal (pregnancy), peri-natal (delivery) and postnatal (postpartum) caring periods. Therefore, maternity health service provision means making the most effective use of integrated material, human and financial resources interventions from the community to health facility level.

In Awuramba community, as other developmental activities, maternal health service provision for pregnant and postpartum mothers is also aligned with other developmental arenas and getting emphasis by community healthcare structures. Having twelve community-based development committees, in Awuramba, mothers got maternity care and support services by postpartum mothers caring committee. In the previous years, according to the health extension worker assigned for community members and community leaders, they believe in giving birth at home with the help of traditional birth attendants. Meanwhile, they understood that mothers should get professional health service and give birth in a health facility (Awuramba Health Extension Worker, 2017).

Ensuring the provision of continuum of care for pregnant and postnatal mothers should primarily be the responsibility of family and community level care structures (USAID, 2015). In this regard, the practice made at Awuramba community to improve maternity health is enormously conveyed encouraging effects which caught the attention of the researcher to investigate on the issue. Nonetheless, issues of community-based healthcare structure and maternal health are poorly studied. Therefore, the aim of the current study was intended to investigate the community-based healthcare structure and maternal health in Awuramba and its neighboring village, Maksegn in an integrative way to find out some of their preminent practices and draw potential evidence-based experiences.

MATERIALS AND METHODS

Wojiarbamba is a kebele which is found in Amhara National Regional State, South Gondar Zone, Fogera woreda. It is located 69 KM to the north western part of the capital city of Amhara Region – Bahir Dar and 10 KM away from Woreta town. According to Yihenew, the Kebele is characterized agro-ecologically as moist Woina-Dega, the annual rainfall is mono modal ranging from 1103 mm to 1336 mm and the temperature ranges between 19 and 20⁰C (Yihenew, 2011).

The aim of the study was emphasized on assessing community-based healthcare structures and maternity health situations among mothers comparatively in two different villages in Wojiarbamba kebele of Fogera woreda. Thus, sequential mixed method research design was employed. The purpose of sequential mixed method research design was explanatory as it assessed quantitative investigation followed by the qualitative exploration to enrich the numeric findings with the views of key informants and targeted mothers. As it is stated by Creswell (2009), the research findings of one method supported further explanation of the problem through other approach findings. Accordingly, by this study, quantitative data was collected first followed by the qualitative data for the purpose of explaining quantitative findings.

A pretested questionnaire was used to collect quantitative data from respondents and semi-structured interview questions were also used to the qualitative data. The design followed for the quantitative study was cross-sectional and case study design to the qualitative research approach. The aim of using qualitative approach in addition to the quantitative one was to assess the experiences and personal thoughts of targets.

Samples were drawn by employing total census for the small number of study population at Awuramba and simple random sampling method in the neighboring village, Maksegn. Accordingly, 75 women who were pregnant and /or give birth for a child five year prior to the study from each research areas were selected to collect quantitative data. A total of 33 mothers and key informants were selected purposively to collect qualitative information using focus group discussion and in-depth interview techniques. In the course of analysis of the quantitative data, both descriptive and inferential analysis methods were employed using SPSS statistical software version 21. Descriptive statistics such as percentage, frequency, cross-tabulation and chi-square tests and inferential statistical method, i.e., binary logistic regression was used to analyze



numerical data. Interpretation of findings were done by defining 95% confidence interval i.e., p value less than 0.05 as significant. The qualitative data were analyzed using thematic analysis technique.

RESULTS AND DISCUSSION

In this study, a total of 150 mothers (75 at Awuramba and the same number of respondents at the neighboring village, Maksegn) participated. Among these, all of them were females as the research focused on reproductive aged mothers who gave birth for a child five year prior to this study and/or currently pregnant women. They are between the age range of 18-49 and the majorities are above 25 years of age. The educational status of majority of research participants are illiterate and 1-4 graders. Most of them (more than 92% of targets) are married. Respondents' religious belief result revealed that, 66.7% of the Awuramba community believes in "One Lord" – do not follow either Christianity or Muslim that differentiated them from the neighboring village. Whereas, the neighboring village, Maksegn, respondents are predominantly the followers of Orthodox Christianity (62.3%). The research was conducted from August 20, 2017 to October 25, 2017.

The first purpose of the study was exploration of the major maternity services provided by the community-based healthcare structures during pregnancy and postpartum period. As a result, comprehensive information and educational services such as the importance of HIV testing for pregnant women, family planning services for postpartum mothers, hygiene and sanitation protection and its benefits in maintaining the health of mothers', styles of nourishment during pregnancy and postpartum periods and proper utilization of professionally prescribed drugs are the major ones. In addition, counseling and advices, pregnancy and birth preparedness, referral-linkage to health facilities, and resource mobilization in the form of cash and grains to support mothers during delivery in a health institution are also found the prominent services provided by the community-based healthcare structures in the research areas. Corresponding to this study, USAID (2015) reported that, home level care can play a role in prevention: early diagnosis; referrals; and increased coverage of healthcare services. Such care can also facilitate collection of previously unavailable data on health needs. Community level care can mobilize community resources to provide preventive or curative care at accessible locations, as well as to monitor and collect data on community-level health risks to respond adequately. In addition, a study by **Betemariam et al (2017)** also reveals that, the health

development army - a community-based health care structure in Ethiopia, foster community engagement through a network of voluntary community that can improve the efficiency of community-based health programs. The study further added that, a well strengthened health development army in a particular community can improve antenatal care and institutional delivery by 12.4% and 10% from its current status which signifies the finding of this study that community-based health care structures in Awuramba and the neighboring village, Maksegn are contributing towards improved health service utilization of mothers' during their pregnancy, delivery and postpartum periods.

The second aim of the research was assessing the extent of maternity health service utilization among mothers' in the study areas. Antenatal health facility visit at least once is 94.7% in Awuramba and 92% in its neighboring village, Maksegn. In addition, those mothers who visited a health facility for four and above rounds in Awuramba and its neighboring village, Maksegn accounts for 49.3% and 26.1% respectively. The result, when compared with in the research target areas/villages, shows that, mothers in Awuramba are by far better in attending the recommended level of health facility visit for their most recent pregnancy. Most enviably with this study, the research findings of other scholars such as: Kifle, Azale, Assefa, and Alemu (2017) in Haramaya district; Zelalem, Belayihun, Teji and Admassu (2015) in Kombolcha of Eastern Harargheand Medhanyie (2012) in northern rural villages of Ethiopia reported that antenatal maternity service utilization at least once were 74.3%, 86.1%, and 85% in that respective order. Moreover, according to **Medhanyie (2012)**, four and above rounds of antenatal health service utilization is slightly below 48% in the northern rural parts of Ethiopia that demonstrated similarity with the finding of this study. Although maintaining the standard level of antenatal health facility visit seems unmet, institutional delivery of respondents was 73.3% in Awuramba and 85.3 in the neighboring village Maksegn. With moderate disparity among the villages, institutional delivery was higher when compared with the national CSA (2016) finding which is below 30% of mothers who attended institutional delivery.

The last but definitely not the least, the presence of association of socio-demographic characteristics with mothers' antenatal health service utilizations and institutional delivery was computed by a binary logistic regression analysis technique to meet the third objective of the study. The binary logistic analysis result revealed

that, in both study populations, educational status of the woman and husband; religious belief; and age of the last child affects the likelihood of antenatal health facility visit. Moreover, the mothers' tendency of attending birth at a health facility was also affected by age of the mothers', educational status of both the woman and husband, marital status, number of children and occupational status of mothers'. The socio-demographic factors in Maksegn are much higher than in Awuramba. Similarly, the scholarly articles of Duga (2015) and Zelalem, Belayihun, Teji and Admassu (2015), found that age of mothers', educational level of women and husbands, and socio-cultural characteristics are strongly associated with antenatal health service utilizations and attending birth in a health institution.

CONCLUSION

Substantial numbers of mothers were died due to pregnancy related and complications ariseduring birth. One of the mechanism to respond to these rampant problems is using the efforts of the community through

establishing a community-based healthcare structure. In the study areas, community-based healthcare structures were established by their own initiatives in Awuramba and with minimal support from government authorities in the neighboring village, Maksegn, they are providing information education communication, referral-linkage, pregnancy and birth preparedness, psychosocial support and counseling and resource mobilization services for mothers. A positive impact has been observed on community-based healthcare structures effort in improving mothers' antenatal health service utilization and institutional delivery. The various socio-demographic characteristics of respondents particularly age, educational status of the family, religious factors and occupational status of the woman were found having strong association with antenatal health facility visit and attending birth in a health institution. Therefore, recommendations ofempowering the community-based healthcare structures, increasing mothers' health seeking behavior and improving service friendliness were actions suggested by this study.

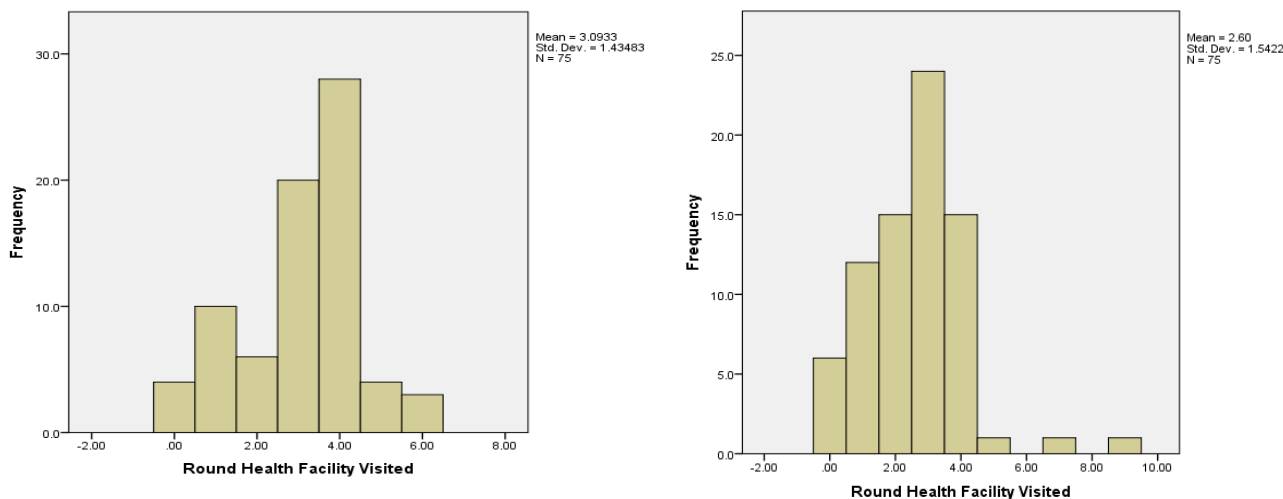


Figure 1: Mothers' antenatal health facility visit for their most recent pregnancy at Awuramba (left side) and the neighboring village, Maksegn (right side).

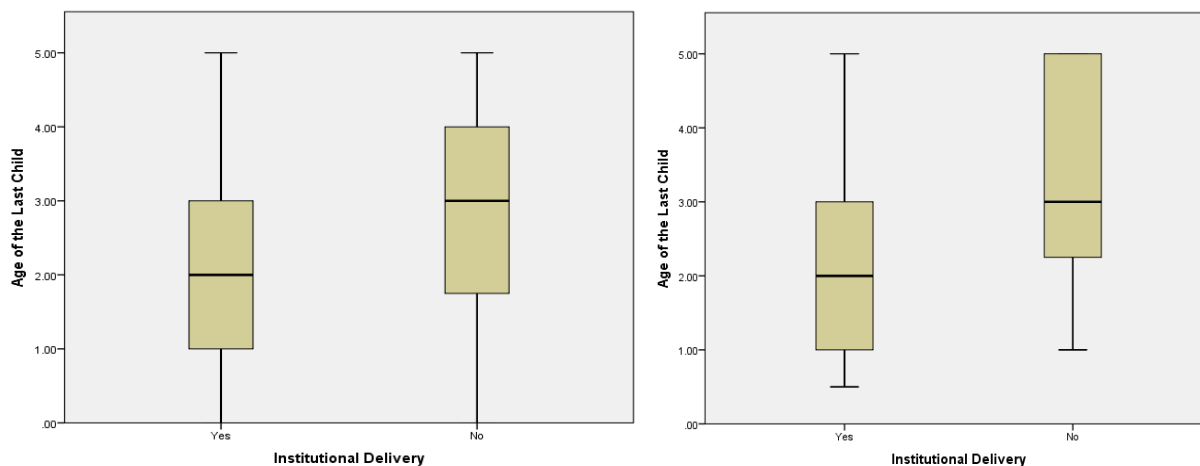


Figure 2: Box plots chart showing age of the last child and mothers' institutional delivery (the frequently observed age of a child when mothers attended institutional delivery)

The left figure information is for Awuramba and the right for neighboring village, Maksegn.

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