



Effect of Gender on the Utilization of Maternal and Child Health Services among Pastoralist Caregivers in Somali Region of Ethiopia

Olusola Oladeji^{1*}, Bibilola Oladeji², Dick Chamla³, Ann Robins⁴ and Vololomanitra Belalahy⁵

¹UNICEF Somali Field Office, Ethiopia.

²College of Medicine, University of Ibadan, Nigeria.

³UNICEF Country Office, Afghanistan.

⁴UNICEF Country Office, Ethiopia.

⁵UNICEF Country Office, Angola.

Authors' contributions

This work was carried out in collaboration among all authors. Author OO conceived the development of the manuscript and drafted and finalized the manuscript. All the authors read, reviewed and approved the final draft of the manuscript.

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ABSTRACT

Ethiopia has made great effort in recent years to improve maternal and child health outcomes, however the uptake of services by women in the pastoralist communities of the country is still very low. This study was a cross-sectional study aimed to identify the effect of gender on the utilization of health services among pastoralists women. The study was conducted in Somali Region of Ethiopia between February and March 2020. A mix of qualitative and quantitative methods was used, and study population were married caregivers aged 15years and above. Bivariate analysis was done using t test and chi-square to test association among variables and p value was set at significant level of 5%. Husbands were reported as the main influence of the respondents' decision about almost all the key households' activities including health care seeking and financial decision making. Almost all caregivers (93.6%) who used the health facility took permission from their

*Corresponding author: Email: ooladeji@unicef.org;

husbands and the test of association shows significant relationship between level of education and permission from respondents' husbands which decreases with increasing level of education, $p < 0.05$) but not affected by age. The care givers visited the health facilities because of their children more than themselves (58 per cent compared to 49.5 per cent for themselves) due to fear of being attended to by male health work. The study demonstrated the negative effect of gender inequities on health care seeking behaviours with women having limited control over family resources and decision-making over their health or that of their children.

Keywords: Caregivers; decision making; utilization; health services; maternal and child health.

1. INTRODUCTION

Ethiopia has made effort in recent years to improve maternal, newborn, child health (MNCH) outcomes. The implementation of the country's health-sector transformation plan and other strategic initiatives have driven a steady decline in maternal, newborn, infant, child and under five mortality.[1] Improvements in health outcomes have been positively influenced by the government's policy support for the Health Extension Program (HEP). The engagement of the Health Extension Workers (HEWs) has contributed to health promotion, disease prevention and community-based disease case management, which, in turn, has led to the reduction of morbidity and mortality. Ethiopia was one of the low-income countries to have achieved the fourth Millennium Development Goal (MDG 4) target of reducing child mortality by two-thirds (from 204 per 100,000 in 1990, to 68 per 100,000 in 2012) [1], while maternal mortality also significantly reduced to about 412 per 100,000 live births in 2016 from 676 per 100,000 livebirths in 2011 and this has been attributed to the successful implementation of the country flagship health extension program [2,3].

However, the uptake of reproductive maternal neonatal and child health (RMNCH) services by women in the pastoralist communities of Ethiopia is still very low compared to the uptake by women living in the agrarian communities of the country. For example, Somali region predominantly inhabited by pastoralists (85%) and classified as one of the Developing Regional States (DRS) have shown less improvement in key health outcomes compared to the national average [4]. The region is characterised by geographical disparities and visible developmental inequities and has the lowest percentage of fully vaccinated children, with only 18.2% received all basic vaccinations, and 48.8% received no vaccinations at all while the proportion of pregnant women who received at least four antenatal care services(ANC4) and

delivered by skilled birth attendant is 11.1% and 26% respectively and post-natal care rate (10.3 per cent) and only 18.6% of pregnant women received Iron Fesolate [5].

This study aimed at identifying gender-related barriers that affect the utilization of maternal and child health services in the region.

2. MATERIALS AND METHODS

2.1 Design

The study was cross-sectional survey using both qualitative and quantitative methods and conducted between February and March 2020

2.2 Study Population and Setting

The study was conducted in Somali Region of Ethiopia. The study population were married pastoralist women aged 15 years and above who were primary caregivers to children aged less than 5 years.

Sample size calculation was done using the formula for cross sectional study with cluster sampling [6]

$$n = \frac{Z^2 - \alpha / 2^2 P(1-P) \times Df}{d^2}$$

n= required minimum sample size
 P=estimated proportion of women who seeking permission to use health services (50%)
 α =level of significance (5%)
 Z= z score corresponding to the degree of confidence (1.96)
 d= desired precision(5%)
 Df; design effect (1.98)
 N= 760

A stratified multi-stage cluster sampling technique was used to select the target sample

size of 760 caregivers. The sampling frame was based on the enumeration areas (EAs) created for the national population census of Ethiopia. The Somali region has both urban and rural areas, however, more than 85% of the region is rural with 608 EAs in urban and 5,211 EAs in rural areas of the region [7].

In the first stage of the sampling, the list of EAs with rural population which were mostly pastoralists were selected for the study and a total of 50 EAs were selected with probability proportional to EA size. For the second stage, a household listing was carried out in all selected EAs which was used as a sampling frame for the selection of households. Each household on the list was screened for eligibility based on having one or more children under 5 years old. A fixed number of 16 households in each of the EAs were equally selected using tables of random numbers from the household listing data. In all selected households, eligible married caregivers were recruited into the study.

2.3 Data Collection and Statistical Analysis

The study used a mix of quantitative and qualitative methods. The quantitative interview used a structured questionnaire administered by trained interviewers. The qualitative data was collected using focus groups discussions (FGDs) among married caregivers and used to explore factors that could affect utilization of healthcare services. Two FGDs were conducted, one among those who reported they utilized health services and the second among those who didn't use the health services in two randomly selected enumeration areas where the quantitative surveys were conducted. The FGDs were audio-taped and notes taken with oral consents from all the participants.

The quantitative data were entered using Epidata 3.0 and analysed using SPSS version 21. The FGD data were triangulated and transcribed verbatim to produce transcripts of narrative text for thematic analysis. The data were coded according to the types of themes and issues and thematic analysis was used and comprised a mix of inductive and deductive coding.

Descriptive data is presented with qualitative variables as proportions and quantitative variables summarized as means with their standard deviations. Univariate analysis was done by generating frequencies of the variables and bivariate analysis was done using t test and

chi-square to test association among variables and p value was set at significant level of 5%. The outcome of the study was gender related factors associated with the utilization of services by the caregivers.

3. RESULTS AND DISCUSSION

3.1 Sociodemographic Profile of the Respondents

Table 1 describes socio-demographic characteristics of the 753 respondents. Majority of the respondents 652(86.6%) had no formal education, about half (56.2%) were between the ages of 20 and 29 years (mean age of 28.2±0.7 years). They were all housewives and not actively employed apart from supporting husband with their cattle.

3.2 Gender Power Relationships in the Households

Table 2 illustrates gender power relationships in the households and show different degrees of autonomy for the caregivers depending on the decision. Husbands were reported as the main influence of the respondents' decision about almost all the key households' activities including health care seeking and financial decision making. The caregivers more often identified themselves as decision-makers for getting health care for children (74.7 per cent compared to 72.4 per cent for husbands). However, caregivers reported greater decision-making power of husbands for decisions about her own health (70.3 per cent compared to 74.7 per cent for husbands).

The decision on when to have baby and household spending were reported to be influenced by husbands by 81.4 percent and 85percent of the respondents compared with the caregivers' influence as reported by 63.9percent and 40.3percent respondents respectively.

Fig. 1 shows poor utilization of health services with 437(58%) of the 753 respondents reported use of the health facilities within 12 months prior to the study to obtain services for their children and 373 (49.5%) of the respondents for themselves. Among those who used the health facility for their children, as proxy for utilization of services, 409(93.6%) of the 437 respondents claimed they sought permission from their husbands before visiting the health facilities.

Table 1. Sociodemographic status of the respondents (N=753)

Variables	n(%)
Level of Education	
No formal education	652(86.6)
Primary	64(8.5)
Post primary education	37 (4.9)
Age(years)	
10- 19	57(7.5)
20- 29	423(56.2)
30-39	197(26.2)
≥40	76(10.1)
Mean age 28.2±0.7	

Table 2. Influence of on key households’ decision making (N=753).

Key household areas	Self (%)	Husband (%)
What the family eat daily	77.4	48.7
Taking children to health facilities	74.7	72.4
Caregivers visiting health facilities	70.3	74.7
Sending female children to school	67.1	77.1
Sending male children to school	64.5	82.5
When to have a baby	63.9	81.4
What to listen to on the radio	60.0	64.4
Spending household money	40.3	85.5

***Multiple response for each of the key household areas

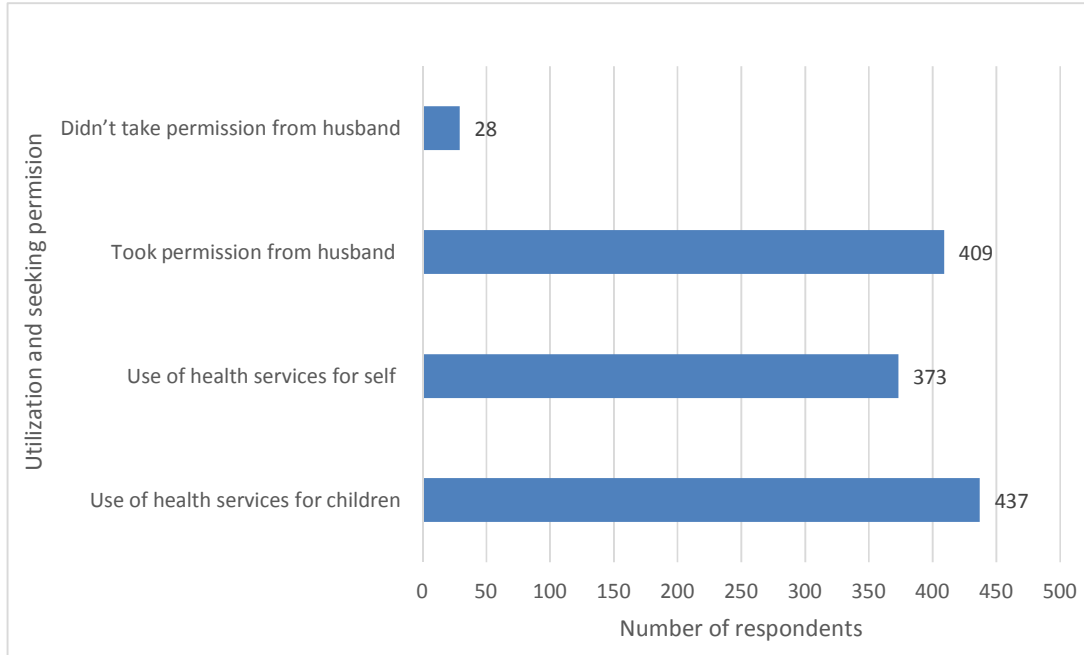


Fig. 1. Utilization of health services and seeking permission before use among care givers

The women in the focus group discussions revealed the challenges they faced in seeking health care services both from their homes and

the health facilities. Some of the caregivers expressed their concern:

‘We need to take permission from our husbands before we go to the clinic for his approval or also to provide us with money either for transportation or for drugs to be bought in the clinic. Sometimes if they refuse or they are not around we will not go or use local methods ’

‘Caregiver during FGD’

Women also expressed reservations related to the gender of the health care providers as a reason given for their reluctance to seek health services for themselves especially when pregnant . They expressed the fear of being attended to by male health extension workers when they go to the health facilities as this is regarded as a social taboo.

“In our culture, women should expose our body only to our husbands. It is a shame to be naked in front of others especially males so when we are pregnant, we usually go to the traditional birth attendants or seek help from the old women in our communities if there are no female health workers in our clinic ”

‘Caregiver during FGD’

Table 3 presents the results of the relationship between age of the respondents and taking permission from their husbands. The mean age of those who sought permission is 28.87±7.65 years while that of those who didn't seek permission is 26.37±10.67 years , t test = 1.626 and p value of 0.1047(p>0.05) which shows that there is no significant relationship between age and taking permission from husbands.

Table 4 shows the association between taking permission from husbands and level of education. A total of 372(99.5%) of 409

respondents with no formal education who visited the health facility reported taking permission from their husbands compared with 28(71.8%) of the respondents who had primary education and 9(37.5%) of the respondents with post primary education. The chi-square was 11.67 and p value of 0.00635(p<0.05) and shows that there is significant relationship between level of education and permission from respondents' husbands which decreases with increasing level of education.

3.3 Discussion

The study shows the effect of gender on utilization of services by care givers both at the household and institutional level.

The study shows that the caregivers are not the only decision makers about their own health and that of their children and other key households decisions including when to get pregnant and use of household resources.The finding illustrates gender power relationships in the households and the extent to which women lack autonomy over reproductive health and financial decision making. The household decision-making power of the husband is an important gender norm that influences care-seeking behaviour.

These findings in our study on men holding the balance of power in the household on most decisions is similar to the findings from previous studies in Ethiopia and other studies in Ghana and Senegal which reported that very few women had decision-making autonomy in relation to their health and reported that men were predominant decision makers with regards to women's health and health care seeking [2,8-10]

Table 3. Association between permission from husband and age of respondents

Variable	N	Mean Age	SD	Test statistic (t test)	p value	95% CI Lower (%) Upper (%)	
Permission from Husbands							
No	28	26.37	10.67	1.626	0.1047	-5.522	0.5221
Yes	409	28.87	7.65				

Table 4. Association between permission from husband and level of education

Variable	Permission from Husbands Yes (%)	No (%)	X ²	p-value
Level of Education				
No formal education	372(99.5)	2(0.5)		
Primary education	28(71.8)	11(38.2)	173.33	*0.0001
Post primary	9(37.5)	15(62.5)		

*p < 0.05

This is also consistent with the findings from studies in Bangladesh and rural India that showed that more than half of the women interviewed were not involved in decision-making about their own health care [11,12]. The limited autonomy or lack of decision-making power over their health or that of their children has been reported as a major barrier to women's ability to access maternal health care services [13 -15]. Other studies including a systematic review in sub-Saharan Africa countries showed that women who had autonomy on decision-making for their own health care were more likely to receive health care than women with no autonomy on decision making [16,17].

In our study, most of the caregivers who visited the health facilities reported they sought permission from their husbands before they could visit, this is similar to other studies which also identified the need to seek permission or approval from their husbands as important barrier to accessing care services [18,19].

The study found that women with higher level of education took less permission from their husbands similar to other studies that examined factors such as age, education and socioeconomic and cultural factors and their influence on women's decision-making autonomy. Studies in Bangladesh, Ethiopia and Nepal found that increased level of education among women is positively associated with women's autonomy in decision-making [20,21]. However, a study in Tajikistan reported no statistically significant relationship between women's autonomy and their educational attainment [22].

The study found no relationship between age of the care giver and seeking permission from husband to visit health facilities similar to the study in Tajikistan [23]. However most other studies reported that increased age positively associated with women's autonomy in decision-making [20-22].

The influence of the husbands in determining the household expenditure as reported in this study has been found to reduce the decision power of women to seek health care in the absence of their husbands especially if cost will be incurred. This usually leads to the women not being able to seek medical services for themselves or children when needed or seek help using traditional methods instead of orthodox medical services [19,24]. This problem is compounded due to the fact that nomadic women generally do not have

financial autonomy, as their work caring for children and family members does not generate income and they must rely solely on their husbands to provide money to access healthcare [25-27].

Financial autonomy among women has been found to improve their utilization of health care services. Studies in Tajikistan, India and rural Nepal reported that women who had some control over their earnings are more likely to utilize health services than that of women with no control over their earnings [12,23,28]. Similarly, a study in Ethiopia which assessed factors associated with women's autonomy regarding maternal and child health care utilization reported that improved autonomy among women who had access to money and were able to use the money for health services utilizations without consulting others [21]. In contrast to most studies on the effect of autonomy on improving access to health services a study in Kenya however did not find any relationship between utilization of maternal health services for delivery and high levels of women's overall autonomy or decision-making [29].

Our study shows that caregivers visited the health facilities to seek health services for their children more than for themselves and one of the reasons mentioned during the focus group discussions was because of fear of being attended to by male health extension workers when they go to the health facilities which is regarded as a social taboo which makes the use of traditional birth attendants preferred option for care and delivery when pregnant. This corroborates findings reported in other studies that female clients tend to prefer accessing maternal, newborn and child health services from female health workers, especially in primary healthcare settings [30-32]. A study in India reported that health facilities with higher availability of female health workers were found to be associated with higher maternal health care utilization than child health care utilization and suggested that improving gender parity in the health workforce especially in rural areas may improve maternal health care use [33]. This is similar to a study in Ethiopia which reported that increased inclusion of women in the health workforce are important to addressing the persistent gender-related barriers to health utilization of health services. [8]

However bearing in mind the low literacy rate among women in the region that is responsible

for the limited number of female health workers it may be difficult in short term to have adequate number of female health workers until the more women are supported and encouraged to go to school and the cultural barriers responsible for the low female literacy are addressed.

LIMITATION OF THE STUDY

The findings in the study depend on the feedback provided by the respondents which may be subject to various form of respondent bias. This was however controlled by ensuring the questionnaire and interview guide with open ended questions were field tested, validated and administered by trained interviewers and confidentiality of the respondents assured while the quantitative data was triangulated using focal group discussion.

4. CONCLUSION

In the context of this study, without support from the husbands and improved decision making and financial autonomy for the women, utilization of health services may remain poor with its consequent effect of maternal and child morbidity and mortality. In order to address gendered inequities affecting women's access and utilization to health services, interventions which include social behavioral change communication strategy targeted at men are needed which challenge unequal gender roles and relations that perpetuate inequities in maternal health access and utilization.

CONSENT

As per international standard oral consent was obtained from the participants before interviews were conducted

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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