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Research Article

Factors Affecting Choice of Place for Childbirth among Women's in Ahferom Woreda, Tigray, 2013

Haftom Gebrehiwot
Department of Midwifery, College of Health Sciences, Mekelle University, Ethiopia

***Corresponding author**
Haftom Gebrehiwot
Email: haftom1224@yahoo.com

Abstract: Reduction of maternal mortality is a global priority. The key to reducing maternal mortality ratio is increasing attendance by skilled health personnel throughout pregnancy and delivery. However, delivery service is significantly lower in Tigray region. Therefore, this study aimed to assess factors affecting choice of place of child birth among women in Ahferom woreda. A community based cross-sectional study both quantitative and qualitative method was employed among 458 women of age 15-49 years that experienced child birth and pregnancy in Ahferom woreda, Ethiopia. Multi stage stratified sampling technique with Probabilities proportional to size was used to select the study subjects for quantitative and focus group discussions (FGDs) for the qualitative survey. Study subjects again were selected by systematic random sampling technique from randomly selected kebelle's in the Woreda. Data was collected using structured interview questionnaire and analyzed using SPPS version 16.0. A total of 458 women participated in the quantitative survey. One third of women were age 35 and above, 118(25.8%) were aged between 25-29 years. 247(53.9%) of women were illiterate, and 58.7% of women choice home as place of birth and 41.3% choice health facilities. Women whose husbands illiterate were less likely to choice health facility as place of child birth when compared to women whose husbands were receive secondary education and above[AOR(95%CI).23(.173-.76)]. Regardless of women having health information; women who get health information about the benefit of institutional deliveries increase the probability of choosing health institution 3.6 times higher than those who did not get the information [COR,95% CI 17 (6.9-44.3)],& [AOR,95% CI 3.6 (1.017-12.7)]. Age of the respondents, women and husband education, attending ANC, having information on the benefit of health institution delivery, distance and provider approach towards laboring women were significant predictors for the choice of place of child birth. Therefore, government and other responsible bodies should make efforts to increase community based health education, awareness creation and improve better access to information for women regarding maternal health care services. Moreover, Tigray health bureau in collaboration with the woreda and other stakeholders should provide means of transport (ambulance) to encourage referral between communities and health care providers.
Keywords: Child birth, women, factors, Ahferom woreda

INTRODUCTION

Maternal mortality is one of the indicators in the millennium development goal that is raising concern in achieving the set target of reducing the rate by three-fourth by 2015. Women who die due to pregnancy-related causes are in the prime of their lives and are responsible for the health and well-being of their families. The World Health Organization (WHO) estimates that about 536,000 women of reproductive age die each year from pregnancy related complications. Nearly all of these deaths (99%) occur in the developing world [1, 2].

Ethiopia is predominantly rural, low-income country in Eastern Africa. The most recent estimate of Ethiopia's maternal mortality ratio of 676 per 100,000 live births, however, remains among the highest in the world and has fallen little if at all since 2001. Maternal mortality in Ethiopia is likely linked both to extremely low utilization of skilled birth attendants, low facility delivery and to even lower use of emergency obstetric care. The 2005 Demographic and Health Survey found that only 25% of all Ethiopian mothers living in rural areas received any antenatal care from a health professional in their last pregnancy, 3% delivered in a health facility, and 0.3% delivered by Caesarean section [3].

Promoting delivery in health facilities is a core strategy to reduce maternal mortality in Ethiopia [4]. Choice and preference for childbirth location are not merely a matter of women's unrestricted ability to specify preference and act accordingly, but are shaped and modified by the tempering socio-economic effects

of the contextual environment in which they arise. They are likely to be at least partially determined by available options, possibilities, and limitations on the realization of preference [5].

Pregnancy is a wonderful and personal experience. There is no way to know how quickly one will progress through labor, what complications that may arise, and what emotions one will go through during the process. Some of the complications that arise during child birth can be avoided simply by making the right choice in terms of preferred place of child birth [6, 7].

Moreover, there is no tangible study that has been done in the woreda to explore the determinants of institutional delivery.

Thus, therefore, the aim of this study is to elucidate the factors that determine women's choice of place of child birth in Ahferom woreda, Tigray regional state, Ethiopia.

METHODS

Study area and period

The study was conducted from February to October, in Ahferom woreda, Tigray Regional state, Northern Ethiopia, situated about 960 km North of Addis Ababa.

Ahferom is one of woredas in the Tigray Region of Ethiopia. Part of the Mehakelegnaw Zone, The administrative center of this woreda is Enticho; Enticho is bordered on the south by Werie Lehe, on the southwest by Adwa, on the west by Mereb Lehe, on the north by Eritrea, and on the east by the Misraqawi (Eastern) Zone.

Based on the 2007 national census conducted by the Central Statistical Agency of Ethiopia (CSA), this woreda has a total population of 173,700, an increase of 32.43% over the 1994 census, of whom 84,014 are men and 89,686 women; 23,421 or 13.48% are urban inhabitants. With an area of 2,367.84 square kilometers, Enticho has a population density of 73.36, which is greater than the Zone average of 56.29 persons per square kilometer. A total of 38,934 households were counted in this woreda, resulting in an average of 4.46 persons to a household, and 37,483 housing units.

Study Design and Population

A descriptive community based cross sectional study which employed both quantitative and qualitative method was used.

All women of child bearing age groups who had experience in pregnancy and delivery were included in the study while women who were never been pregnant, who weren't physically and mentally capable to be interviewed were excluded from the study.

Sample size and sampling technique

The sample of 458 women were determined using single population proportion formula with 95% level of confidence, 5% margin of error and Proportion of deliveries attended by skilled birth personnel of Tigray region is 12% (EDHS, 2011). Adding non response rate of 10%, & multiplying by a design effect of 2 due to the multistage nature of the sampling method. The required samples based on the usual formula were 462.

Multi stage stratified sampling technique with Probabilities proportional to size was used to select the study subjects for quantitative and focus group discussions (FGDs) for the qualitative survey. Kebeles were selected by simple random sampling, and the sample size was distributed to Kebeles by population proportion to size (PPS) formula. Then, the households in the selected Kebeles were selected by using systematic sampling procedure with a random start.

Qualitative Survey

Purposive sampling was used to select respondents from four Kebeles for a focus group discussion. A series of two focus group discussions were conducted. The recruitment of the participants was assisted by the chairpersons of the kebeles. The study participants had who practice delivery and pregnancy.

Data Collection and Analysis

Quantitative survey

Structured questionnaire which was prepared in English and translated by language teacher to the local language Tigrigna used to collect data. Household census was done by trained health extension workers and interview was done by trained midwives after training is given to them.

The questionnaires were checked for completeness, coded and entered into SPSS version 16 software package for cleaning and analysis. Crude & adjusted odds ratio were used to control the possible confounding variables.

Qualitative survey

Focus group discussion (FGD) was chosen as the tool for data collection. It aimed to explore and to share the experiences, thoughts, feelings, attitudes and ideas of participants on determinants to choice of place of child birth. Two series of FGDs were held by 18 women who were volunteered and one TBA and one TTBA each contained 10 participants. The group members were not knows each other and homogenous in terms of gender and fulfilled inclusion criteria. Before the FGDs, the moderator introduced all participants, explained the general purpose of the study and topic of the discussions. The participants were informed about the tape-recorder and permission to be recorded was requested. Informed verbal consent was obtained from all individuals participating in the discussion. Then, participants' conversations were audio taped, transcribed verbatim and translated.

RESULTS

Quantitative results of respondents

A total of 458 women age 15-49 years who had experience pregnancy and delivery were participated in the study with 99.1% response rate. One third of women were age 35 and above, 118(25.8%) were aged between 25-29years. The mean and median age of participants were 30.8, 30, respectively.

Majority of them 368(80.3%) were married, 35(7.6%) were divorced and 32(7%) were widowed. About 438 (95.6%) of the total respondents were orthodox, and 11(2.3%) were Muslim by religion.

Regarding educational status of the women 247(53.9%) of them were illiterate 109(23.8%) get primary education, only 55(12%) attend secondary education and above. About 278(60.7%) of them were house wife 60(13.1%) were merchant. With regard to husband educational status 192(41.9%) was found illiterate, 80(17.5%) able to read and write, 86 (18.8%) getting primary education, 100(21.8%) were attend secondary education and above. About 63(13.8%) of the women had monthly income less then 320ETB, 135(29.5%) earn between 320-600ETB. 351(76.6%) of the women where live above five kilometers from the nearby health institution, 99(21.6%) were live below two kilometers (Table 1).

According to the choice of place of birth; out of total respondents, 269(58.7%) of women choice home and 189 (41.3%) were health institution.

Regardless of Women's reason for their choice of place of child birth; for these who choice home delivery were asked about the main reason for their choice among those 228(49.8%) of them replied due to distance from home to the health facility is too far, 224(48.8%) trust on TBA and 164(35.8%) said due to no means of transportation, 99(21.6%) were no need for labor and delivery. Most frequently reason giving for choice of health institution delivery was that the health facilities were safe and clean 184 (40.2%), for better service144(31.4%), 97(21.2%) replied due to fear of complication and 86(18.8%) of them said due to having information about health institution delivery (Table 2).

Concerning decision on place of child birth 155(33.8%) of respondents replied that both husband and wife made decision on place of child birth, 132(28.8%) replied decision was made by their husband, 122(26.6%) decided by themselves and the rest 49(10.7%) of them said decision was made by traditional birth attendant. Among the study participants 291(63.5%) of respondent said the last delivery took place at home where as 167(36.5%) of them give last birth at health unit. From the total study participants 336(79.9%) of them had information about the benefit of giving birth at health institution from them 207(45.2%) of respondents said that the primary source of information were health workers, 99(21.6%) replied primary source of information were friends or neighbors and 60(13.1%) of them said media ***(Table - 3).***

All the participants responded that the presence of health unit which gives delivery service in their area.340 (74.2%) of them were satisfied with the delivery service given at health unit, 118(25.8%) of them were not satisfied, from them 58(12.7%) found that the reason of un satisfaction were due to unpleasant approach of health worker, 52(11.4%) were said that it kill time. 399(87.1%) of the respondent think that there is a difference between giving birth at home and health facility. Regarding the attitude of health workers toward laboring mother 248(54.1%) of them replied that it was satisfactory 97(21.25) were said poor (Table 4).

According to the association of socio-demographic variables with women choice of place of child birth, there is strong association between women age, educational status of women, husband educational status, husband occupation with women choice of delivery place.

Age group of women was found to be associated with choice of delivery place. Those who were in the age group twenty to twenty four and twenty five to twenty nine were respectively 2.1 and 1.4 times more likely to choice health facility as delivery place than women who were in the age group of thirty five and above [AOR(95%CI) 2.1(1.2-5.5) and1.4(1.1-3.1)].

Educational status of the women was found as one of significant predictors for choice of delivery place. Women who were illiterate were less likely to choice health facility as delivery place compared to women who were secondary and above education [AOR (95%CI) 0.06(.008-.408)] and also women who were able to read and write less likely to choice health facility than women who receive secondary education and above [AOR (95%CI) 0.15(.14-.186)].

Husband educational status also found to be statistical significant association. Those women whose husbands illiterate were less likely to choice health facility as delivery place when compared to women whose husbands were receive secondary education and above[AOR(95%CI).23(.173-.76)].

In crud analysis monthly house hold income was found to be association with women choice of delivery place. Those women whose household income less than three hundred twenty and from three hundred twenty to six hundred Ethiopian birr were less likely to choice health facility compared to women of house hold income greater than one thousand Ethiopia birr [COR (95%CI .38(.035-.96)] and [COR (95%CI).24(.144-.4.4)] respectively. But the association was insignificant after adjusting for possible confounder (Table 5).

Regardless of women having health information on the benefit of give birth at health institution Versus choice of place of child birth; women who get health information about the benefit of institutional deliveries increase the probability of choosing health institution 3.6 times higher than those who did not get the information [COR at 95% CI 17 (6.9-44.3)], and [AOR at 95% CI 3.6 (1.017-12.7)] P<0.04 (Table 6).

Regarding traditional remedies given to women during child birth at home those women responded for the presence of remedies were less likely to choice health facility delivery compared to women those responded for the absence of remedies [AOR(95%CI) .3(.059-.756)]. Geographical accessibility of health unit was one factor on choice of delivery place. Women who where live below two kilometers to the nearby health institution were more likely to choice health facilities as delivery place than women who live greater than five kilometers[COR (95%CI)4.3(2.6-6.9)] but statically insignificant when adjusted (Table 7).

Table 1: Socio-Demographic characteristics of respondents in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variable N=458	Frequency	%
Age		
15-19	6	1.3
20-24	89	19.4
25-29	118	25.8
30-34	94	20.5
35+	151	33
Marital Status		
Married	368	80.3
Divorced	35	7.7
Separated	23	5
Widowed	32	7
Religions		
Orthodox	438	87.8
Muslim	11	2.3
Others	10	2.1
Respondent occupation		
House wife	278	60.7
Merchant	60	13.1
Civil servant	42	9.2
Farmer	33	7.2
Daily labors	21	4.6
Student's	24	5.2
Respondent's educational status		
Illiterate	247	53.9
Read and writes	47	10.3
Primary education (1-8)	109	23.8
Secondary education and above	55	12
Husband educational status		
Illiterate	192	41.9
Read and writes	80	17.5
Primary education (1-8)	86	18.8
Secondary education and above	100	21.8
Monthly house hold income		
<320	63	13.8
320-600	135	29.5
601-1000	127	27.7
>1000	133	29
Estimated distance to the nearby health institution		
below 2km	99	21.6
2-5km	8	1.7
>5km	351	76.6

Table 2: Women's reasons for their choice of place of child birth in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variables	Frequency	Percentage
Reason for choosing home delivery		
Distance of health institution	228	49.8
Trust on TBA	224	48.9
No means of transportation	164	35.5
Not necessary for labor & delivery	99	21.6
Have no money to pay	51	11.1
Dislike the behavior of health workers	28	6.1
Have bad experience delivery in health institution	22	4.8
Reason for choosing health institution delivery		
Safe and clean delivery	184	40.5
Better service	144	31.4
Fear of complication	97	21.2
Informed to deliver in health unit	86	18.8
close to home	11	2.4
Approach of health worker is best	3	0.7

*More than one possible answer was used

Table 3: Women decision making and source of information on place of child birth in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variables	Frequency	Percentage
Who decides on place of your child birth/delivery		
Just me	122	26.6
My husband	132	28.8
Both	155	33.8
TBA	49	10.7
Last delivery take place		
Home	291	63.5
Health unit	176	36.5
Information about the benefit of delivery in health institution	366	79.9
Yes	92	20.1
No		
Source of information		
Health workers	207	45.2
Friends, neighbors	99	21.6
Media	60	13.1

Table 4: Health service factors that affect women choice of place of child birth in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variables	Frequency	Percentage
Presence of health institution which gives delivery service in your area	458	100
Yes	0	0
No		
Satisfaction with delivery services given at health units?		
Yes	340	74.2
No	118	25.8
If No what is the reason		
It kills time	52	11.4
Unable to perform cultural ceremonies	8	1.7
Unpleasant approach of health workers	58	12.7
There is a difference giving birth at home and health facility		
Yes	399	87.1
No	59	12.9

Which one is the best place of child birth		
Health facility	261	57
Home	138	30.1
Health Provider attitude toward laboring women		
Very good	28	6.1
Good	85	18.6
Satisfactory	248	54.1
Poor	97	21.2

Table 5: Association of selected socio-demographic variables with women choice place of child birth in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variables	n%	Delivery place choice		COR at 95%CI	AOR at 95% CI
		Home n%	Health unit n%		
Age					
15-19	6(1.3)	2(0 .4)	4(0.9)	5.4(.947-30.4)	.23(.15-3.6)
20-24	89(19.4)	29(6.3)	60(13.1)	4.1(2.3-7.2)*	2.1(1.2-5.5)*
25-29	118(25.8)	40(8.7)	78(17.1)	2.6(1.5-4.3)*	1.4(1.1-3.1)*
30-34	94((20.5)	62(13.5)	32(7)	1.39(.793-2.4)	.45(.19-1.08)
35+	151(33)	110(24)	41(9)	1.00	
Respondents Education					
Illiterate	247(53.9)	200(43.7)	47(10.3)	0.14(.004-.045)*	.06(.008-.408)*
Read and writes	47(10.3)	25(5.5)	22(4.8)	0.015 (014-.186)*	.07(.01-.51)*
Primary education (1-8)	109(23.8)	41(9)	68(14.8)	.096(.028-.33)*	.16(.24-1.02)
≥ Secondary education	55(12)	3(.7)	52(11.3)	1.00	
Respondent occupation					
House wife	278(60.7)	192(41.9)	86(18.8)	.149(.057-.389)*	1.1(.302-3.85)
Civil servant	42(9.2)	5(1.1)	37(8.1)	2.5(.663-9.18)	4.9(.63-39.4)
Merchant	60(13.1)	29(6.3)	31(6.8)	.36(.124-1.02)	2.6(.62-11.15)
Farmer	33(7.2)	28(6.1)	5(1.1)	.06(.016-.224)*	1.3(.23-7.37)
Daily labors	21(4.6)	9(2)	12(2.6)	.444(.125-1.58)	4.09(.75-22.4)
Student's	24(5.2)	6(1.3)	18(3.9)	1.00	
Husband educational status					
Illiterate	192(42)	161(35.2)	31(6.8)	.02(.009-.042)*	.23(.073-.76)*
Read and writes	80(17.5)	55(12)	25(5.5)	.05(.02-.11)*	.34(.108-1.054)
Primary education (1-8)	86(18.8)	44(9.6)	42(9.2)	.09(.043-..214)*	.33(.117-.925)
≥ Secondary education	100(21.7)	9(2)	90(19.7)	1.00	
Monthly household income					
<320	63(13.8)	56(12.2)	7(1.5)	.083(.035-.196)*	.64(.18-2.36)
320-600	135(29.5)	99(21.6)	36(7.9)	. 241(.144-.404)*	.65(.27-1.56)
601-1000	127(27.7)	61(13.3)	66(14.4)	.717(.438-1.172)	.92(.45-1.87)
.>1000	133(29)	53(11.6)	80(17.5)	1.00	

*Adjusted for all significant variables p <0.05

Table 6: Cross tabulation of women having health information on the benefit of give birth at health institution Versus choice of place of child birth in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Having health information on the benefit of institutional delivery	Choice of delivery place		
	Home	Health institution	Total
Yes	182(39.7%)	184(40.2%)	366(79.9%)
No	87(19%)	5(1.1%)	92(20.1%)
Total	269(58.7%)	189(41.3%)	458(100%)

Table 7: The association between traditional remedies and geographical accessibility of health care with women choice of delivery place in Ahferom Woreda, Tigray region, Ethiopia, February, 2013 (N=458)

Variables	N (%)	Delivery place choice		COR at 95%CI	AOR at 95%CI
		Home n%	Health unit n%		
traditional remedies given to the mother during child birth at home					
Yes	47(10.3)	41(9)	6(1.3)	.187(.076-.439)*	.3(.059-.756)*
No	411(89.7)	228(49.7)	183(40)	1.00	
Distance from home to health facility below 2km	99(21.6)	31(6.8)	68(14.8)	4.3(2.6-6.9)*	.109(.514-2.32)
2-5km	8(1.7)	6(1.3)	2(.4)	.65(.129-3.27)	.46(.06-3.55)
>5km	351(76.6)	232(50.7)	119(26)	1.00	

*Adjusted for all significant variables p <0.05

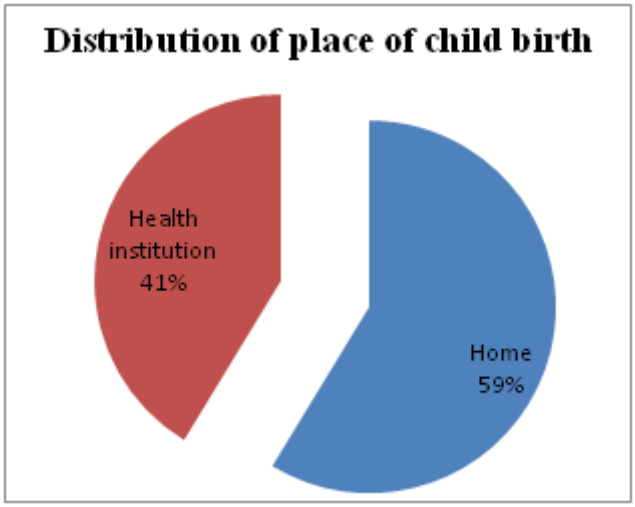

Fig. 1: Distribution of choice of place of birth of women in Ahferom woreda, 2013

Qualitative results

Two focus group discussions were conducted involving a total of 20 participants, approximately 10 in each group with an age range of 19-46years old. The discussion was held using discussion guides and relevant information was collected. Discussants had freely and actively expressed their idea.

Influence from decision makers

Most of the women narrated that if they could choose, they would prefer to deliver in the health institution assisted by professional health person. They pointed out that a woman should ask permissions for her husband before she goes to the health facilities. Some did not know whether delivery needs a decision since most of them were illiterate they did not know when their delivery day was. All the participants agreed that most of the time decisions were made by their husbands and TBA. They commented that since most of them were illiterate and it has cultural value to accept their husband decision. Some of them said as the parents were also involved in decision making. They believed that this is correct. Unless labor is complicated and decided by TBA, their husband would not allow her to go health facilities.

"I don't think delivery needs decision because it is a sudden onset and it is a natural process.

From my experience labour starts suddenly. When I gave birth for my second child the labour was started when I was in the field to fetch water. Then my neighbors were with me and supported me to back home; then I gave birth in short time. I think it needs to be lucky to have easy delivery, and it depends on the willingness of St. merry. No need to think and discuss about delivery. (Widowed women 42 years from Menadik village)

Transport problem

Participants described transport as one of the major problems during child birth and when emergency referral by TBA was decided. Occurrences of maternal deaths caused by the delay in receiving care due to inability to pay for the transport were discussed in the FGDs; because most of the villages are far from the main road, the cost of transport is not affordable and also to get public transport they go above three kilometers by foot.

"we know how home delivery is dangerous when labour is complicated, but our health facility is too far,

because we do not have transport access and it is difficult to transport a laboring mother by manpower and carry for at least 2-3 hr, she might give birth in the way; it happens we saw when mothers gave birth in the way before reaching to the health facility.

Perception, belief and practices surrounding pregnancy and child birth

They perceive and belief pregnancy and child birth is a natural gift of God and most of the time ends up with short and easy deliveries even the one who is in neighbor without hearing that the women is in labor. There is a cultural belief regarding the pregnant women that blessing her to end in good outcomes saying that "*God makes your labor like stone that fall from the mountain"*

Provider approach

All the participants showed that not all health workers but few were as such hostile. They also perceived that the health workers were not good on handling and respecting the laboring mothers.

"I have an experience when I delivered my last child the nurse slashes my face whenever I oppose my position on my back (25 years married women from Bete Gebez village) but some other were friendly and so kind as a matter of chance "for then it is better to die at home" she concluded.

One of the participants was said that the health staff sometimes has a rough behavior towards the women e.g. slapping their thighs during labour, yelling at them when they come in a late stage of labour or do something wrong etc. Fear of impartiality and discrimination also stated they said that *"health professionals were not concerned for the oppressed and the poor women like us who were not dress well rather treat those who dressed well respected like you (pointing the facilitator)" being insolent and harsh (45 years old married women from Enticho town, Dillala kebele)*

Economic factors

The FGD respondents argued that the majority of mothers were poor. This might be the main reason for the selection of home delivery. Transport service and other out-of pocket costs were mentioned as constraints.

The fear of possible referral to Adwa hospital in a case of complication during delivery, keeps some pregnant women from using the health center.*" I would prefer to go to the health center because they have everything to make your delivery easy. The only reason that I do not want to go to the health center is that they would transfer me to Adwa hospital or any else"* (married 39 years old women from Enticho town, Dillala Kebele).

During our discussions some women said that even on a particular labor situation, a woman was referred to Adwa hospital, too far, actually she refused to go. The negative aspects of possible referral occurred several time in relation to cost, inconvenience, fear of cesarean section delivery and other complications.

DISCUSSION

This community-based study both quantitative and qualitative method was used to assess factors affecting choice of place of child birth in Ahferom Woreda, Central zone of Tigray regional state, Ethiopia.

This study showed that Educational status of the women was found as one of significant predictors for choice of place of child birth. Women who were illiterate were less likely to choice health facility as delivery place compared to women who were secondary and above education. Other studies have shown comparable results with this finding. Study conducted in Syrian women indicated that the demographic variables like woman's education were statistically related to preference of place of child birth. Literate women preferred a hospital delivery compared with illiterate women conducted study in Nigeria [8]

Educated women are expected to have knowledge and awareness about the advantages of institutional deliveries. They are more likely to seek modern health care than those who are not. Education is likely to improve the general status of women and help them to build up confidence to make decisions about their own health. Educated women could have better access to information through reading and following media about maternal health care and they could have better knowledge about the advantages of maternal health care and pregnancy related complications [8, 9].

Husband educational status was found as one of significant predictors on choice of delivery place. Those women whose husbands illiterate were less likely to choice health facility as delivery place when compared to women whose husbands were receive secondary education and above. This finding was comparable with other study conducted in Syrian [9, 10].

Of the total respondents, 76.6% of them live in line with greater than five kilometer from the nearby health institution. Women who whose residence where below two kilometers from the nearby health institution were more likely to choice health facilities as delivery place than women who live greater than five kilometers. Similar findings were done in Malawi [11]. The physical distance from their house to the health care centers imposes another cost to the pregnant women that is opportunity cost time spent obtaining these services and accessibility of health service in terms of distance is very important in the use of reproductive health services.

In this study having health information on the benefit of health institution delivery was significant predictors for choice of delivery place. Women who get health information about the benefit of institutional deliveries increase the probability of choosing health institution 3.6 times higher than those who did not get the information. The finding appeared to be similar with other study done in Debre Markos town [12]. In qualitative survey the FGDs indicated that decision making power had a key influence on the choice of delivery place. Majority of women requests permission from their husbands and relatives to go to the health facilities. In any case the husband seems to be the most key person in the decision-making process. The participant also stated that unless labor is complicated and decided by TBA, their husband would not allow her to go health facilities. This finding has also been described in many studies like study conducted in Tanzania and study conducted in Malawi [9, 11].

According to the FGDs participants transport facility was described as one of the major problems during child birth and when emergency referral was decided. They stated also there were poor basic infrastructures like road, and inaccessibility of public transports. In most cases, laboring mothers were taken to the health facility if delivery was complicated.

Transport in rural areas is extremely hard for different factors: most villages are far from the main road, to get public transport they go above three kilometers by foot, the cost of transport is not affordable and during the rainy season the roads are washed away and too muddy or impassable. This finding is consistent with study done in Northern Nigeria [13]. *"we know how home delivery is dangerous when labor is complicated, but our health facility is too far, because we do not have transport access and it is difficult to transport a laboring mother by manpower and carry for at least 2-3 hr, she might give birth in the way; it happens we saw when mothers gave birth in the way before reaching to the health facility.*

Women perceived however that to deliver at a health facility was supposed to be advantageous for prolonged and obstructed labor but the nature of road is difficult to reach laboring women to health facilities especially during rainy season.

Based on the FGDs discussions, the deep rooted traditional and cultural practices were negatively influencing the health seeking behavior of the mother. They strongly emphasized that the delivery was up to the willingness of God, not up to the continuous support of health professionals. It was also generally perceived that pregnancy and child birth were a normal phenomenon. They did not consider that it required special attention. This could be the explanation for why the majority of mothers gave birth at home.

The participant identified provider approach toward laboring women as major barrier to the use of maternal care. They showed that not all health workers but few were as such hostile. Women perceived that the health workers were not good on handling and respecting the laboring mothers. *"I have an experience when I delivered my last child the nurse slashes my face whenever I oppose my position on my back (25 years married women from Bete Gebez village) but some other were friendly and so kind as a matter of chance "for then it is better to die at home" she concluded.* Fear of impartiality and discrimination were also discussed by the participant. "*health professionals were not concerned for the oppressed and the poor women like us who were not dress well rather treat those who dressed well respected like you (pointing the facilitator)" being insolent and harsh (45 years old married women from Enticho town,Dillala kebelle).* Other study conducted in Ghana and in Malawi also indicated the same result [11, 14].

CONCLUSION AND RECOMMENDATION

In general, the study has revealed that age of the respondent, women educational status, husband educational status, attending ANC, having information on the benefit of health institution delivery, reliance on tradition, distance and provider approach toward laboring women were significant predictors for women choice of place of child birth.

The results from multivariate analysis confirmed maternal education was significant predictor variable for choice of place of child birth, it is implicated that an enormous variation on choice of maternal health care among the educated and illiterate women.

A high proportion of women are resident far from health institution. 76.6% of the sampled women live in line with above five kilometer from the nearby health facilities. WHO recommended that for every 5kms distance, there should be a health facility? However, this recommendation is still not met. The effect of the distance to health facility is a contributory factor to the low number of deliveries at the health facilities. Transportation problem and nature of road were an important factor discussed by focus group discussant.

The finding FGDs revealed that influence from decision-makers was also found to be an important obstacle for choice of delivery place. There is a strong and persistent cultural beliefs regarding child birth, considering it as if no illness by itself which influence the women health seeking behavior. Beliefs in normality of labor and child delivery at home cause women to arrive at health institution only in complicated labor.

Therefore, the government and other responsible bodies should make efforts to increase community

based health education, awareness creation and improve better access to information for women's regarding maternal health care will be imperative.

Traditional beliefs were negatively influencing the community and women on the selection of place of child birth. Accordingly, efforts should be made to create awareness on the advantage of health unit delivery and possible complication that occur during child birth at home through mobilizing the general public and involvement of elderly mothers and religious leaders.

Moreover, Tigray regional health bureau in collaboration with the woreda and other stakeholders should provide means of transport (ambulance) to encourage referral between communities and health care providers.

Finally, further studies, more qualitative studies will be needed to explore the factors that affect the women's choice of place of child birth.

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