

# Factors Affecting Women's Perception Towards ANC and Institutional Delivery Service Utilization in Boditi Town, SNNPR, Ethiopia

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## Abstract

**Background;** Reduction of maternal mortality is a global priority particularly in developing countries including Ethiopia, where maternal mortality ratio is one of the highest in the world. The key to reducing maternal mortality ratio and improving maternal health is increasing attendance by skilled health personnel throughout pregnancy and delivery service. However, maternal health service utilization throughout the country is extremely low. Therefore, this study aimed to assess factors affecting maternal health service utilization associated to women's perspective. **Methods:** A community based cross sectional study was conducted on 310 married women in Boditi town, SNNPR, Ethiopia which were selected by using systematic random sampling method. The study was conducted from September up to October, 2015. Mean score was calculated for each respondent and categorized by 50 quartiles. **Result:** The study result showed that 305(98.39%) respondents thought ANC service is important while 230(74.19%) said ID is important and 310 (100%) thought childbearing is not only women's responsibility. Based on the mean score of the respondents 78.7% of them have good perception towards utilization of antenatal care service and 77.4% of the respondents have good perception towards institutional delivery services. Education, occupation, income and age of married women were found to have significant impact on perception of institutional delivery and ANC service utilization. **Conclusion:** The final conclusion of this study had revealed that the majority of women had good perception towards maternal service utilization including antenatal care and institutional delivery. Moreover educational status, income level, occupational status and age of married women has significant association with perception of maternal services both ANC and institutional delivery services. Policy makers should have to advocate formal education for women and design strategy to make women utilize the existing maternal health service including ANC follow up and institutional delivery.

## Introduction

Sub-Saharan Africa had the highest MMR, at 500 maternal deaths per 100 000 live births. In Ethiopia, it is the case that 676 maternal death per 100,000 live birth; which is among the highest in the world. (1) In spite of this, pregnancy and child birth continue to be regarded as exclusively women's affairs in most African countries including Ethiopia. Men generally do not accompany their wives for antenatal care and are not expected to be in the labor room. (2)

The World Health Organization (WHO) estimated that skilled attendance have reached 99.5% in developed countries whereas that of developing countries is 46.5% for Africa and 65.4% for Asia (WHO 2008). (3)

According to the Ethiopian Demographic and Health survey done in 2011 only 34% of women who gave birth in the five years preceding the survey received antenatal care from a skilled provider, that is, from a doctor, nurse, or midwife, for their most recent birth. This is a marked improvement from 28 percent in 2005. among this only 10% of births in the past five years were delivered by a skilled provider. The PNC utilization in Ethiopia is also very low, with only 7% of women having postnatal care service in the first 2 days after delivery. (1)

The fifth MDG calls for a reduction in the maternal mortality ratio by 75% between 1990 and 2015. The key indicators to measure this goal are the proportion of pregnant mothers who received ANC and the proportion of births attended by skilled delivery attendants. (4)

Ethiopia is one of the countries with high maternal mortality. The MMR was 871 per 100,000 in the year 2000; it was 673 per 100,000 live births in 2005 and 676 per 100,000 in 2011. Maternal deaths represent 30% of all deaths to women age 15–49, compared with 21% in the 2005 EDHS and 25% in the 2000 EDHS (1, 5-6).

Considerable attention has been placed on maternal health outcomes as the 5th Millennium Goal. The 1994 International Conference on Population Development in Cairo was among the first international declarations of the importance of involvement of men in reproductive health

Programs. Men impact women's reproductive health through their role as partners, fathers and healthcare workers. (7)

Throughout sub-Saharan Africa, the area of pregnancy and childbirth is considered to be the responsibility of the woman. Therefore, it is rare to see men accompany women to antenatal care and be present for delivery (8)

Reproductive health in its broader sense should be a concern for all and not for just that of women, and reproductive health matters needs the attention of entire family and the society at large.(9) Historically most reproductive health programs focused mainly on women and offered their services exclusively to women's. Most viewed women as the target group and paying little attention to the role that men might have with respect to women's reproductive decision making and behavior. The behaviors of husband and male sexual partners have significant impact on the contraceptive use of their wives and partners. (10)

Most cultures, especially in Africa, regard pregnancy and delivery as a female domain; therefore, men are often not expected to accompany their wives to the antenatal care (ANC) clinic or be present during delivery (2, 11)As decision maker for the family, decisions around when, where and even if, a woman should have access to healthcare often fall to men. Particularly in patriarchal societies, the health status of women and children suffer especially where women have little control over family finances, little say in decision making and restricted freedom of movement. (12)

Although men play a key role in the family as the main decision-makers, many studies on determinants of utilization of SBAs have focused largely on socio-demographic and maternal characteristics. Additionally, most of the efforts to address these determinants, and thus to increase uptake of maternal health services have mainly addressed women. Little has been done to involve the male partner in maternal health. In this study we looked for an association between the utilization of an SBA and some form of male involvement, either direct attendance at ANC or a favorable perception of professional delivery care services. (13)

The involvement of male in reproductive health has recently been promoted as a promising new strategy to improve maternal and child health. This is because men can also act as supportive caretakers and promoters of family health. (14)While, their roles in maternal health decisions are substantial, the role of male partners in other reproductive health behaviors remains largely unknown. (15)

## **Objectives of the Study**

### **General objectives**

To assess factors affecting women's perception towards ANC and institutional delivery service utilization, in Boditti town SNNP, Ethiopia2015.

### **Specific objectives**

1. To assess women's perception towards ANC service utilization.
2. To assess women's perception towards institutional delivery service utilization
3. To determine factors associated with women's perception on ANC and delivery service utilization.

## **Methods**

**Design and study area:** Community based Cross-sectional study was conducted in Boditi town, SNNPR, Ethiopia from September up to October , 2015

### **Study population and sampling procedure**

The study population comprises of 310 married women, who is residing more than six months in Boditi town that was selected from source population by using systematic random sampling techniques.

Boditi is a town in wolaita Zone, SNNPR region, which is located 247 km from Addis Ababa capital city. It is the administrative center of Damot Gale woreda. Boditi town has an estimated total population of 35116 of whom 18061(51.4%) are men and 17055(48.6%) are women. It has two sub cities five kebele administrative such as Hagaza, Korke ,Gido, Chawkere, and Doge .

The sample was determined proportional to the size of the total house hold population of each kebele. Systematic random sampling method was used to select the households from each kebele, where the sampling interval were the total number of households in each kebele divided by the corresponding number of households to be interviewed in each kebele.

The first household interviewed was determined from the kebele house number register using lottery method. The next household was identified by systematically adding the number of interval to the preceding one. If more than one eligible respondent were found in the selected household, only one respondent was chosen by lottery method. In cases where no eligible is identified in the selected household, the interviewer was moving to the next household. Data were collected using pretested structured questionnaires, which was administered by the trained data collectors.

### **Operational Definitions**

- **Women's Good perception:** a woman who support utilization of maternal and child health services and who score above the mean.
- **Women's poor perception:** a woman who does not support utilization of maternal and child health services and those who score below the mean.
- **Institutional Delivery:** pregnant women who had attended delivery in the health facility during the recent delivery

### **Data analysis**

After insuring completeness of each questionnaire, data was entered into the computer and analyzed using EPI Info version 5.3.5 and SPSS version 20 statistical packages. During the analysis, frequencies of different variables were determined, followed by cross-tabulation to compare the frequencies. Mean score was calculated for each respondent and categorized by 50 quartiles.

OR [with confidence interval] was used to measure the association between selected variables and to see statistical significances. Multiple regression analysis was carried out to assess the relative effect of explanatory variables on dependent variables.

### **Ethical consideration**

Ethical approval was obtained from the school of public health, and Wolaita Sodo University College of health science and Medicine ethical committee. A formal letter was also submitted to all the concerned bodies to obtain their co-operation. The right and autonomy of all participants were respected. Moreover verbal informed consent was obtained from all study participants after explaining the purpose of the study. The participation was voluntarily and they could withdraw from the study at any time without explanation and without penalty or loss of benefit. Confidentiality was assured and no personality identifying details were recorded.

## **RESULTS**

### **Socio demographic**

A total of 310 married women were interviewed. The minimum age of the respondents was 18 years and the maximum was 50 years and the mean age is 28.5. Among the total respondents, the predominant religion is protestant comprising 174 (56.1%) and woliata ethnic group covers 240(77.4%) of the respondents. Around 134(43.2%) of respondents attended primary and secondary education, while 140(45.2%) of women's attended diploma or degree education in contrast to this 36(11.6%) are illiterates with no education. Among the respondents majority of them 118(38.1%) of women were government employee and 19(6.1%) were unemployed. Economically most of the respondents 134(43.2%) of them had monthly income 1000-4999ETB, and followed by 95(30.6%) who earn 500-999 monthly income.

**Table.1: Socio demographic variables of women's (n=310) in Boditti Town, SNNPR, Ethiopia, 2015**

Variables	Frequency	Percent (%)	
<b>Ethnicity</b>	Amhara	27	8.7
	Oromo	14	4.5
	Wolaita	240	77.4
	Tigre	7	2.3
	Others	22	7.1
<b>Religion</b>	Orthodox	82	26.5
	Protestant	174	56.1
	Catholic	22	7.1
	Muslim	31	10.0
	Others	1	0.3
<b>Education</b>	Illiterate	36	11.6
	Grade 1-6	42	13.5
	Grade7-12	92	29.7
	Diploma	69	22.3
	Degree and above	71	22.9
<b>Occupation</b>	Farmer	47	15.2
	Gov't employee	118	38.1
	unemployed	19	6.1
	merchant	60	19.4
	Student	4	1.3
	Others	62	20.0
<b>Income</b>	<500 ETB	52	16.8
	500-999 ETB	95	30.6
	1000-4999ETB	134	43.2
	5000 and above	29	9.4

### Perception towards Antenatal Care and institutional delivery Service Utilization

Majority of respondents 299(96.4%) had believed that antenatal care service utilization is very important during pregnancy for mother and baby health. In addition to this, 296(95.5%) of respondents think that husband's have significant influence on their wife to use antenatal care service.

Around 297 (95.8%) women's believe that being accompanied by their husband during antenatal care follow up is very important. 288(92.9%) of respondents agreed that there is different health outcome of women's who have antenatal care follow up and who have not.

As the study indicates 234(69%) of women's agreed that female providers are better than male but 96(30.9%) disagreed on this issue. In preference of professional in service provision almost all 100% had prefer service provided by doctors and midwifery. About 140(45.2%) of interviewed respondents were not interested on service given by health extension workers for pregnant mothers on antenatal care service.

Almost all of respondents 310(100%) had believed that institutional delivery is important for pregnant mother and the baby health. On the other hand 306(98.7%) of married women's disagreed that child bearing is the only responsibility of women.

Around 305 (98.4%) women's believe that being accompanied by their husband during institutional delivery is very important. 291(93.8%) of respondents agreed that there is different health outcome of women's who have practiced institutional delivery and who have not.

The mean score of respondent's perception towards antenatal care service is 42 where as the mean score of respondent's perception towards institutional delivery service is 43 respectively.

Based on the mean score of the respondents 78.7% of them have good perception towards utilization of antenatal care service whereas the left 21.3% of them have poor perception towards antenatal care services.

On the other hand 77.4% of the respondents have good perception towards institutional delivery services where as the rest 22.6% of them have poor perception towards institutional delivery service.

**Table2: Cross tab women perception on ANC and ID services in Boditti Town, SNNPR, Ethiopia, 2015**

Variables		perception of ANC		Perception of ID	
		Poor	good	poor	good
<b>Ethnicity</b>	Amhara	16	11	16	11
	Oromo	8	6	7	7
	Wolaita	120	120	126	114
	Tigre	4	3	2	5
	Others	11	11	12	10
<b>Religion</b>	Orthodox	40	42	40	42
	Protestant	93	81	98	76
	Catholic	10	12	10	12
	Muslim	15	16	14	17
	Others	1	0	1	0
<b>Education</b>	Illiterate	22	14	27	9
	Grade 1-6	19	23	18	24
	Grade7-12	49	43	45	47
	Diploma	35	34	36	33
	Degree and above	34	37	37	34
<b>Occupation</b>	Farmer	21	26	26	21
	Gov't employee	60	58	69	49
	unemployed	7	12	6	13
	merchant	32	28	30	30
	Student	3	1	3	1
	Others	36	26	29	33
<b>Income</b>	<500 ETB	30	22	30	22
	500-999 ETB	48	47	52	43
	1000-4999ETB	74	60	71	63
	>5000	7	22	10	19
<b>Age</b>	15-24	3	9	2	10
	25-34	56	66	55	67
	35-44	45	50	49	46
	45-54	34	20	38	16
	55-64	17	5	16	6
	65+	4	1	3	2

### Determinants of married men's perception towards ANC utilization

Analysis of the independent variables in relation to perception towards antenatal care utilization showed that income and age of married women were found to have significant impact on perception of antenatal care service utilization (Table2). Odds ratio (OR) with their corresponding 95% confidence interval (CI) were adjusted for education, occupation income and age of married women.

Married women who had income more than 5000 ETB were 4.53times more likely to have good perception towards antenatal care service utilization than those women who earn less than 500ETB per month. (OR=4.53CI (1.53-13.41))

Married women whom their age is between 15-24 were 4.35 times more likely to have good perception towards antenatal care service utilization than women whose age is greater than 35. (OR=4.35 CI (1.11-17.01))

Analysis of the independent variables in relation to perception towards institutional delivery service utilization showed that education, occupation, income and age of married women were found to have significant impact on perception of institutional delivery service utilization (Table2 ). Odds ratio (OR) with their corresponding 95% confidence interval (CI) were adjusted for education, occupation income and age of married men.

Married women who are literate were 3.31times more likely to have good perception towards institutional delivery service utilization than those women who are illiterate. (OR=3.31CI (1.38-7.95))

Married women who are employed were 2.16times more likely to have good perception towards institutional delivery service utilization than those women who are unemployed. (OR=2.16CI (1.22-3.82))

Married women who had income more than 5000 ETB were 3.23times more likely to have good perception towards institutional delivery service utilization than those women who earn less than 500ETB per month. (OR=3.23CI (1.12-9.33))

Married women whom their age is between 15-24 were 6.55times more likely to have good perception towards institutional delivery service utilization than women whose age is greater than 35. (OR=6.55CI (1.36-31.53)

Table 3: Determinants of married women’s perception towards ANC utilization in Boditti Town, SNNPR, Ethiopia, 2015

Variables		perception of ANC			OR	AOR	p-va
		Poor	good	total			
Education	Illiterate	22	14	36	1	1	
	Literate	137	137	274	1.57(.77-3.19)	1.28(0.57-2.86)	0.55
Occupation	Unemployed	99	93	192	1	1	
	Employed	60	58	118	1.03(0.65-1.63)	0.99(0.57-1.73)	0.97
Income	<500 ETB	30	22	52	1	1	
	500-999 ETB	48	47	95	1.34(0.68-2.64)	1.22(0.58-2.58)	0.595
	1000-4999ETB	74	60	134	1.12(0.58-2.11)	1.09(0.50-2.36)	0.83
	>5000	7	22	29	4.29(1.56-11.80)	4.53(1.53-13.41)	0.006*
Age	15-24	3	9	12	3.95(1.03-15.08)	4.35(1.11-17.01)	0.035*
	25-34	56	66	122	1.55(0.98-2.47)	1.61(0.99-2.59)	0.52
	35+	100	76	176	1	1	

Table 4: Determinants of married women’s perception towards ID utilization in Boditti Town, SNNPR, Ethiopia, 2015

Variables		perception of ID			OR	AOR	p-va
		Poor	good	total			
Education	Illiterate	22	14	36	1	1	
	Literate	137	137	274	3.04(1.38-6.71)	3.31(1.38-7.95)	0.007*
Occupation	Unemployed	99	93	192	1	1	
	Employed	60	58	118	1.47(0.9-2.33)	2.16(1.22-3.82)	0.008*
Income	<500 ETB	30	22	52	1	1	
	500-999 ETB	48	47	95	1.13(0.57-2.23)	0.87(0.40-1.88)	0.724
	1000-4999ETB	74	60	134	1.21(0.63-2.31)	1.42(0.64-3.16)	0.387
	>5000	7	22	29	2.59(1.01-6.65)	3.23(1.12-9.33)	0.031*
Age	15-24	3	9	12	7.57(1.61-35.59)	6.55(1.36-31.53)	0.019*
	25-34	56	66	122	1.86(1.16-2.94)	1.86(1.15-3.03)	0.012*
	35+	100	76	176	1	1	

## Discussion

The minimum age of the respondents was 18 years and the maximum was 50 years and the mean age is 28.5

This study shows that based on the mean score of the women respondents 78.7% of them have good perception towards utilization of antenatal care service whereas the rest 21.3% of them have poor perception towards antenatal care services.

On the other hand the study revealed that 77.4% of the respondents have good perception towards institutional delivery services where as the rest 22.6% of them have poor perception towards institutional delivery service.

Community beliefs and attitudes about maternal health behaviors have been shown to influence a woman’s individual decision to seek care. For example, in a study of six countries in sub-Saharan Africa, Stephenson and colleagues found that community norms about facility based delivery and women’s decision-making autonomy were potential pathways that influenced the decision to deliver a child in a health facility. In rural Tanzania, community beliefs that facility delivery is important for the health of the mother and baby were associated with use of facility-based delivery. (16)

Analysis of the independent variables in relation to perception towards antenatal care utilization showed that income and age of married women were found to have significant impact on perception of antenatal care service utilization.

The study done in Tigray North Ethiopia also shows that Income status, knowledge on danger sign during pregnancy, husbands education and place of delivery were the determinant factors for ANC service utilization. (17)

This study is also in agreement with study done in northern part of Ethiopia which reported maternal educations, family education, low parity, marital status, previous experience of obstructed labor and attended



ANC were enabling factors for utilization of these services (18)

It shows that utilization of maternal health services in Ethiopia is very low and is affected by a number of socio cultural, perceived benefits and accessibility-related factors. Education level of women and their husbands is one of the strongest determinants of the use of maternal health services. Service utilization increased consistently as the education level of women and their husbands increase. Household wealth and level of autonomy of women on health spending are important determinants of service utilization. (19)

Analysis of the independent variables in relation to perception towards institutional delivery service utilization showed that education, occupation, income and age of married women were found to have significant impact on perception of institutional delivery service utilization.

In agreement with this study in Kenya reported that maternal characteristics that had a statistically significant association with delivery by an SBA included educational level, employment, number of ANC visits, and parity. The province where the couple resided also was statistically significant.(20)

The study done in Ghana also revealed that Maternal education, occupation and household income as well as religion showed statistical association with the utilization of skilled delivery. The barriers to utilization of skilled delivery identified in the study include: transportation difficulties 43%, high cost of care 27.7%, others include: the influence of family decisions, poor attitude of health workers and poor quality care as some of the challenges. The rest were traditional / cultural or religious reasons. (21)

Moreover evidences from EDHS 2000 and 2005 showed that women residing in urban areas, women with secondary and higher education, and women from the wealthiest households were most likely to utilize delivery care services. (22)

### **Conclusion**

The final conclusion of this study had revealed that the majority of women had good perception towards maternal service utilization including antenatal care and institutional delivery. In addition to this most of the respondent agreed that ANC and ID service utilization was very important and they also thought that the influence of husband on ANC and ID service utilization is significant. Moreover educational status, income level, occupational status and age of married women has significant association with maternal services both ANC and institutional delivery services. Policy makers should have to advocate formal education for women and design strategy to make women utilize the existing maternal health service including ANC follow up and institutional delivery.

### **Competing interests**

The author declares that he has no competing interest.

### **Author's contributions**

C.W. was responsible for the development of study design, implementation, analysis, interpretation, writing, critical revision of the paper for intellectual content and the preparation of the draft manuscript.

The author read and approved the final manuscript.

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