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Knowledge, Attitude and Practice of Antenatal Care Service among Married Women of Reproductive Age Group in Mizan Health Center, South West Ethiopia

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Abstract
Back ground: Antenatal care is a medical and general care that is provided to pregnant women during pregnancy. In Ethiopia as well as in the world maternal mortality is high. Mostly this occurred due to pregnancy related complication because of lack of ad equate antenatal care service.
Objective: To assess the level of knowledge, attitude and practice of mothers towards antenatal care service in Mizan health center.
Methods: Institutional based descriptive cross sectional study was conducted among married women of reproductive age group who came to Mizan health center from May to August 2014. A Total of 255 women were selected based on systematic random sampling technique after estimating the number of women who came to Mizan health center and they were interviewed by using interviewer administered questionnaire. The data was entered in to Epidata 3.1 and exported to SPSS version 17 for analysis. Finally descriptive analysis was done and data was presented by using tables.
Result: Majority (88.2%) of women know about antenatal care and the rest (11.8%) do not know about antenatal care. About 70.6% of the respondents wanted to follow antenatal care and the remaining 29.4% of women do not want to follow antenatal care if they get pregnant due to negative attitude. Less than half (47.9%) of women practiced antenatal care follow up during their pregnancy time.
Conclusion: Knowledge and attitude of women towards antenatal care was comparatively in better position. But the practice of women was poor. Further research was recommended to identify factors which are associated with practice.
Keywords: knowledge, attitude, practice, antenatal care, Mizan

Introduction

Antenatal care is a medical and general care that is provided to pregnant women during pregnancy. It is goal oriented provided with the aim of meeting both psychological and medical needs of pregnant women within the context of health care delivery system, culture and religion in which the women live. It is based on local situation and addresses risk assessment, health promotion and care provision. It has been found to be effective in the treatment of anemia, hypertension and sexually transmitted diseases (WHO, 2008).

Pregnancy and child birth is a natural process which in most cases comes to good end even without any intervention; however in a relatively high proportion of pregnancies there are complications. Some of which are very serious and of a life threatening nature. Some of these complications may be anticipated, because risk factors are present (Ochola-Ayaya, 2009).

Antenatal care may take place in hospital, health center or clinic by health professionals, the aim is to ensure that the mother reach the end of pregnancy as healthy as, or even healthier than she was before (MOH, 2004).

Word wide nearly 600,000 women aged between 15 and 49 die each year as the result of complications arising from pregnancy and child birth. Most of these deaths would be avoided if adequate ANC (Antenatal Care) and intra partum care were available. Totally the burden of maternal morbidity and mortality is greatest in SSA (Sub Saharan Africa) (HyescD, 2006).

Complications associated with various maternal issues are indeed major contributors to reproductive health among millions of women worldwide. Most of the women in 15 -49 years of age were without proper health care services, this group is highly vulnerable to problems relating to pregnancy. Death and illness from pregnancy related causes are highest among poor women everywhere in societies where women are disproportionally poor, illiterate and politically powerless (Ocholla-Ayayo, 2004).

The risk of dying as a result of pregnancy or child birth during her life time is about one in six in the poorest part of the world compared with about one in 30,000 in Northern Europe. Such a discrepancy possesses a huge challenge to meeting the fifth millennium development goal to reduce maternal mortality by 75% between 1990 and 2015. Some developed and transitional countries have managed to reduce their maternal mortality during the past 25 years few of these however, began with the very high rate that are estimated for the poorest countries in which further progress is jeopardized by weak health system, contributing high fertility and poor

availability of data (M/P, 2004).

Ethiopia is known for poor health care system, in adequate maternal and child health care, illiteracy and poor socio economic status including the current pandemic HIV/AIDS. Also Ethiopia, like other developing countries has an ambitious primary health care program, which however, faces tremendous challenge in achieving national wide coverage on maternal and child birth care (USAID, 2006).

In Ethiopia, Hospital records indicate that 70% of maternal deaths are directly attributable to complications of pregnancy, labor & delivery, while 30% are from infections occurs during pregnancy. About 90% of the maternal deaths are considered preventable provided that community knowledge is sufficiently raised and basic health services are made accessible. Maternal mortality rate are reportedly 2.7 times higher in women who do not received ANC. The situation is much worse in rural Ethiopia where maternal mortality rates are found to be two or three times higher due to unavailability of ANC and obstetrics management for high risk pregnancy (John hooking, 2006).

According to MDG, improving the health status and health care system of the country be 2015 and beyond is the main concern. And from these, reducing maternal mortality rate by 75% is one of the MDG- Goal five.

Therefore, assessment of knowledge, attitude and practice of ANC service among married women of reproductive age group can indirectly indicate the impact of the past and ongoing ANC activities in the study area.

The finding of this study is importance to generate information on formulating and designing appropriate strategy for interventions on the gap between Knowledge, attitude and practice of the target population and ANC care program utilization. The finding of this study also may help us as baseline information for further studies that is related to ANC.

Methods and materials

Study area and period

This study was conducted in Mizan health center which is found in Mizan town, Bench Maji Zone, Southwest Ethiopia. It is located in about 561km far from Addis Ababa in Southwest direction. Based on 2007 census conducted by CSA (Central statistical Agency of Ethiopia), woreda of Mizan has a total population of 34,080 of whom 18,138 were men and 15,942 were women. The study was conducted from May to August 2014.

Study design

Institutional based cross sectional study design was employed.

Sample size

The sample size for the study was calculated by using single population proportion formula

$n= [(z/2)^2 p (1-p)]/d^2$

where n=number of sample

$n= [(1.96)^2(0.5)(1-0.5)]/(0.05)^2$

z= 1.96, d= margin of error=0.05

n=384 then by adding 5% of nonresponse n= 422

By using correction formula for finite population (n < 10,000)

nf =Ni/ (1+ni/n)

nf =422/ (1+422/637) =255

Sampling technique

Sample was taken based on systematic random sampling after estimating the number of women who came to Mizan health center during the study period. The estimated number of women were 637 and the study subject were 255 then the sample size was selected every k^{th} interval (k=2) so every other women was selected for the study.

Data collection procedures

The data was collected by using questionnaire which was developed in English language latter translated to the Amharic language (local language). The pretest was conducted at Mizan health center among those who were not selected for the actual data collection. Then data was collected by interviewer administered questionnaire.

Data analysis procedures

Data was checked for completeness and consistency and corrected accordingly. Then the data was coded and entered in to Epidata 3.1 and later transported to SPSS (Statistical Package for Social Science) version 17 for analysis. The data was analyzed and presented by using tables and graphs.

Data quality control measure

The quality of data was assured by pretesting the questionnaire, training data collectors, and checking collected data on daily basis by principal investigators.

Ethical consideration

Ethical clearance was obtained from college of health sciences, Mizan-Tepi University. Permission for the study

was obtained from Mizan-Tepi University, college of health science and from Mizan health centre. Informed consent was obtained from study participants and they have been told on confidentiality and objective of the study

Result

Sociodemographic characteristics

A total of 225 married women in the reproductive age group were successfully interviewed, giving response rate of 100%. The majority of the respondents 140(54.9%) were in the age group 25-34 years, followed by 18-24 years (27.45%) with mean age of 29.1 years. Most were protestant religion followers 110(43.1%) followed by orthodox 75(29.4%). The predominant ethnic group in this study area were Bench (43.1%) followed by Sheka (17.7%). Regarding educational background 100(39.2%) attended primary education and 70(27.5%) were illiterate. Regarding occupation most were housewives 70(27.7%) followed by farmers 45(17.6%) and students 45(17.6%). One hundred ten (43.1%) of the respondents had monthly income of >1000 birr. Majority of mothers 145(56.9%) had numbers of children 1-2 and 55(21.5%) had no child. From the respondents 130(51%) were rural residents. Majority of women 160(62.7%) had history of 1-3 pregnancy (Table 2).

Table 1 Sociodemographic Characteristics of mothers at Mizan health center, 2014.

Variables		Frequency	Percentage (%)
Age of mothers	18-24	70	27.45
	25-34	140	54.9
	35-44	30	11.76
	45-49	15	5.89
	Total	255	100
Religion	Orthodox	75	29.4
	Muslim	55	21.56
	Protestant	110	43.1
	Catholic	15	5.89
	Total	255	100
Ethnicity	Amhara	45	17.6
	Tigre	15	5.9
	Kefa	40	15.7
	Sheka	45	17.7
	Bench	110	43.1
	Total	255	100
Educational status	Illiterate	70	27.5
	Primary	100	39.2
	Secondary	45	17.6
	Higher	40	15.7
	Total	255	100
Occupation	House wife	70	27.5
	Student	45	17.6
	Merchant	40	15.7
	Farmer	45	17.6
	Government Employee	55	21.6
	Total	255	100
Monthly Income (birr)	<400	60	23.6
	401-700	15	5.9
	701-1000	70	27.5
	>1000	110	43.1
	Total	255	100
Number of Children	No	55	21.5
	1-2	145	56.9
	≥4	55	21.6
	Total	255	100
Residence	Urban	125	49
	Rural	130	51
	Total	255	100
Parity	0	45	17.6
	1-3	155	60.8
	>3	55	21.6
	Total	25	100
Gravidity	0	25	9.8
	1-3	160	62.7
	>3	70	27.5
	Total	255	100

Knowledge towards Antenatal Care Service

Majority of mothers 225(88.2%) ever heard about ANC service. Among the respondents who ever heard about ANC service 110(48.9%) reported that the mother should get ANC service four times and above during the pregnancy. From the respondents who knew about ANC majority 210(93.3%) said ANC service should be given

at health institution. Majority 170(75.6%)) of women who ever heard about ANC service knew the danger sign of pregnancy. Among these, majority listed vaginal bleeding (44.1%) and decreased fetal movement (42.1%) as danger sign of pregnancy. Among the women who did not hear about ANC service they did not hear about ANC service because of unavailability of media 15(50 %), lack of time to get the information 10(33%) and lack of information from the health worker during visit for other services 5(17%). Majority, 185(72.5%) of women knew when one pregnant mother should get ANC service. Among mothers who ever heard about ANC majority (66.7%) know about the impact of not following ANC. Among this majority listed abortion (76.5%) and fetal morbidity (17.6%) as impact of not following ANC (Table 2).

Table 2 Mothers' knowledge about ANC at Mizan health center, 2014

Variables		Frequency	Percentage %
Do you Know about ANC service	Yes	225	88.2
	No	30	11.8
	Total	255	100
What services are given?	Detection of Pregnancy	15	6.7
	Maternal health service	80	35.5
	Fetal health service	130	57.8
	Total	225	100
Where is the service given?	Health institution	210	93.3
	Private clinic	-	-
	Traditional attendant	15	6.7
	Total	225	100
How many times mothers should get ANC service during their pregnancy?	Once	30	13.3
	Twice	30	13.3
	There times	55	24.5
	Four and above	110	48.9
	Total	225	100
Do you know the danger sign of pregnancy?	Yes	170	75.5
	No	55	24.4
	Total	225	100
What are the danger sign of pregnancy?	Excessive vomiting	10	5.9
	Vaginal bleeding	75	44.1
	Vaginal fluid leaking	15	8.8
	Decrease fetal movement	70	41.2
	Total	170	100
Why did not know about ANC service?	Unavailability of media	15	50
	Lack of information from health worker	5	17
	Lack of time to get information	10	33
	Total	30	100
Do you know the heath impact of not following ANC?	Yes	170	66.7
	No	85	33.3
	Total	225	100
What are the health impacts?	Maternal morbidity and mortality	10	5.9
	Fetal morbidity	30	17.6
	Abortion	130	76.5
	Total	170	100
Do you know when one pregnant mother should get ANC service?	Yes	185	72.5
	No	70	27.5
	Total	225	100
When she get ANC service?	During illness	75	40.5
	At any time	80	43.2
	Both	30	16.3
	Total	185	100

Attitudes about ANC service

Among respondents who ever heard about ANC 29.4% do not want to follow ANC when they get pregnant. Among those who want to follow majority (83.4%) want to follow in health institution, and private clinic and traditional attendant each accounted for 8.3%. Among those who do not want to follow, majority (60%) was due to religious factor. More than one third (35.3%) of those who ever heard about ANC do not think that their

family or society support them to follow ANC and About two third (67.7%) put religious factor as reason not to support (Table 3)

Table 3 Mothers' attitudes about ANC service at Mizan health center, 2014.

Variables		Frequency	Percentage (%)
When you are pregnant do you want to follow ANC?	Yes	180	70.5
	No	75	29.4
	Total	225	100
Where do you go to get the service?	Health institution	150	83.4
	Private clinic	15	8.3
	Traditional attendant	15	8.3
	Total	180	100
Why you do not want to follow ANC?	Cultural factor	15	20
	Religious factor	45	60
	Not satisfied with the service	15	20
	Total	75	100
Do you think that your family or the society support you to follow ANC?	Yes	165	64.7
	No	90	35.3
	Total	225	100
Why they do not support you?	ANC service is not important	30	33.3
	Religious not allowed	60	67.7
	Total	90	100

Practice of ANC service

Majority of the respondents 240(94.1%) ever had pregnancy. From those women who have ever been pregnant only 125(47.9%) followed ANC service. Among the respondents who followed ANC 100(80%) got the service at health institution. From the respondents who had ANC 70(56%) got the service four times and above and only 85(35.4%) delivered at health institution. Among the women who did not follow ANC service, about two third 75(65.2%) faced abortion and other pregnancy complications (Table 4).

Table 4 Mothers' practice about ANC at Mizan health center, 2014

Variables		**Frequency**	**Percentage(%)**
Have you ever had pregnancy?	Yes	240	94.1
	No	15	5.9
	Total	255	100
Have you followed ANC service?	Yes	125	47.9
	No	115	52.1
	Total	240	100
Where did get the service?	Health institution	100	80
	Privet clinic	25	20
	Traditional attendant	125	100
	Other		
	Total		
How many times did you get the service?	One times	15	12
	Two times	15	12
	Three times	25	20
	Four and above	70	56
	Total	125	100
Where did you delivered?	Home	70	29.2
	Health institution	85	35.4
	Traditional attendant	45	18.8
	Privets clinic	40	16.6
	Total	240	100
Why did not follow ANC service?	Distance of health institution	40	34.8
		60	52.2
	Lack of transport	15	13
	Lack of time	115	100
	Total		
Have you ever had abortion or other pregnancy complication?	Yes	75	65.2
	No	40	34.8
	Total	115	100

Discussion

This study tried to assess the knowledge, attitude and practice of women towards antenatal care. According to this study 11.8% of the respondents do not know about antenatal care. This result was lower than the study

conducted in Assiut General Hospital which was 25.5%. This difference could be due to difference in source population and time of study and the other reason is difference in operational definition (el-Sherbini, 19933). But our result was comparable with the result of study conducted in Libya Benghazi in 2014 (14.5%) (Ibrahim HK, 2014). The other study conducted in Kahm district hospital reported that 73% of the respondent lacked basic and essential knowledge about antenatal care (AAU, 2004). This result was extremely higher than our study. In this study 29.4% of the respondent had negative attitude towards ANC service. This result was lower than the result of the study conducted in Kahm district hospital which reported that 61.9% of respondents had negative attitude towards to Antenatal care (AAU, 2004). In this study from among respondents who were ever been pregnant only 47.9% of women followed Antenatal care service. This finding was lower than the study conducted in Debark health center. The study conducted in debark health center showed that the antenatal care coverage was 71.5%. Our study was also higher than the study reported in EDHS (Ethiopian Demographic and Health Survey) 2005 and 2011, which indicated that percentages of mother who had antenatal care follow up at least one time were 28% and 34% respectively (EDHS, 2005, EDHS, 2011). The result of our study was also lower than the study conducted in Tanzania, Rwanda and Malawi. The 2010 demographic and health survey of Tanzania indicated that the proportion of pregnant women who ever had at least one antenatal care visit was 96%. The demographic and health survey of Rwanda and Malawi reported similar results. This figure was 98% and 97.6% in Rwanda and Malawi respectively (MDHS, 2010, RDHS, 2010, TDHS, 2010). This indicates that practice of antenatal care in in our study area was low despite good knowledge and attitude towards antenatal care.

Conclusion

In conclusion, this study demonstrated that the knowledge and attitude of women towards antenatal care was comparatively in better position. But the practice of women was poor. Further research was recommended to identify factors which are associated with practice.

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