

# Level of Awareness on Danger Signs of Pregnancy among Pregnant Women Attending Antenatal Care in Mizan Aman General Hospital, Southwest, Ethiopia: Institution Based Cross-sectional Study

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## Abstract

**Back ground:** Every pregnant woman faces the risk of sudden, unpredictable complication that could end in death or injury to mother or infant. Danger signs of pregnancies are warning signs that women encounter during pregnancy, child birth and postpartum. It is important, to know this warning signs for women. The most common danger signs are: vaginal bleeding, convulsions, abdominal pain, severe headaches, blurred vision, and absence of fetal movements and gush of fluid from vagina. This study aimed at to assess level of awareness on danger signs of pregnancy among women attending antenatal care (ANC) in Mizan Aman General Hospital (MAGH), Southwestern, Ethiopia.

**Methods:** Institutional based cross sectional study was conducted in May 2014. A total of 358 pregnant mothers were included in the study. Systematic random sampling technique was used to select study participants at the exit of ANC service, face to face interviewer technique was used to collect data and descriptive analyze was done.

**Result:** This study shows that 53% of the study participants have poor awareness on danger signs of pregnancy. Educational status, member of ANC visit and occupation of the mother are factors that affect the level of awareness. As education level increase awareness of the mother also increase, 69% of respondent who were at high school and above were aware, while only 10.2% of illiterate have good awareness on danger sign of pregnancy. The study shows government employee are more aware 30.56% than house wives 12.23% and as the number of ANC visit increase the awareness of the mother also increase.

**Conclusion:** Mother's awareness on danger signs of pregnancy was poor and affected by educational status, ANC follow up and occupation. Therefore women must empower to get education by the government. Medias shall better to give health education related to danger signs of pregnancy.

**Keywords:** Danger sign; Mizan aman; Ethiopia

## Introduction

Danger signs of pregnancies are a warning signs that women encounter during pregnancy, child birth and postpartum. It is important, to know this warning signs for women and health care providers to rule out serious complications and initiate treatment immediately [1]. The most common danger signs during pregnancy that can increase the risk of maternal deaths are: vaginal bleeding, convulsions/fits, high fever, abdominal pain, severe headaches, blurred vision, absence of fetal movements, gush of fluid from vagina, foul smelling vaginal discharge [1,2].

WHO estimated that 529,000 women die annually from maternal causes 99% of these deaths occur in less developed countries. The situation is most severe for women in sub Saharan Africa. Where one of every 16 women dies of pregnancy related causes during her life time compared with only 1 in 2,800 women in developed regions. Shockingly, problems in pregnancy and child birth remain the most likely cause of death for teenage girl in sub Saharan Africa above any other disease or accident [3].

Most of the morbidity resulting from neglected or inadequately managed obstetric complication is far greater than mortality often leading to grave consequences like formation of various fistulae, reproductive tract infection and infertility [4].

Every pregnant woman faces the risk of sudden, unpredictable complication that could end in death or injury to herself or to her infant. Hence, it is necessary to employ strategies to overcome such problems as they arise. Lack of advanced planning for use of skilled birth attendant for normal birth and particularly in adequate preparation for

rapid action in the event of obstetric complications are well documented factors contributing to delay in receiving skilled obstetric care. Maternal morbidity and mortality could be prevented significantly if women and their families recognize obstetric danger signs and promptly seek health care [5,6].

Health problem is major challenge to Ethiopia's development. Half the population lack access to basic health services, health care delivery systems are weak, and the population is largely rural, spread across large region that often lack roads [4]. Lack of awareness on the symptoms of obstetric complication is one of the reasons of failure of women to identify and seek appropriate emergency care [7]. Therefore the research aims to assess level of awareness on danger signs of pregnancy among women's attending ANC follow up at Mizan Aman General Hospital (MAGH).

## Methods

Institution based cross-sectional study design was used by

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**Received** November 27, 2015; **Accepted** November 29, 2015; **Published** December 10, 2015

**Citation:** Demissie E, Dessie F, Michael FW, kahsay T, Tadele N (2015) Level of Awareness on Danger Signs of Pregnancy among Pregnant Women Attending Antenatal Care in Mizan Aman General Hospital, Southwest, Ethiopia: Institution Based Cross-sectional Study. J Women's Health Care 4: 288. doi:10.4172/2167-0420.1000288

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employing quantitative data collection methods. The study was conducted in MAGH of Bench-Maji Zone, which are found in Southwestern part of Ethiopia. The study was conducted in May 2014.

358 women who attend ANC service was selected from MAGH. The sample size was determined using single population proportion formula. It was computed by considering 30.4% the proportion of women aware of danger signs of pregnancy from study done at Aleta Wondo in 2010; margin of error of 5%, and 95% confidence level. Then, a 10% non-response was considered to obtain the total sample size of 358. Then study participants were selected by systematic random sampling technique. The sampling interval ( $k^h$ ) value was determined by average total number of women who attend ANC in the hospitals from 2013 data.

The questionnaire was adapted from related studies which includes socio-demographic data and knowledge on danger signs of pregnancy. The data collection instruments were first prepared in English and then translated to Amharic. To check consistency of the translation; back translation to English was done by another person. The questionnaire was pre-tested on 5% of the sample in other health facility with the same context. Based on the findings of the pretest, questions were modified. Two female who had diploma in nurse/midwife were recruited as data collectors. One B.Sc nurses supervised the data collection. Training was given on principles of data collection and study instrument for two days. Data were collected by face-to-face interview. Completed questionnaires were checked daily for completeness, legibility and consistency. Descriptive statistics were computed and presented using Tables and figures. Ethical clearance was get from College of health sciences Mizan-Tepi University. Written permission letter was also obtained from MAGH and oral informed consent was obtained from each study participant. Privacy of respondents and confidentiality of information were kept throughout the study.

## Result

### Socio-demographic characteristics

A total of 358 women attendants ANC in MAGH were participated making response rate of 100%. The mean age was 26 with minimum and maximum age of 16 and 39 years respectively. One hundred twenty seven (35.5%) were within 21-25 years of age. Majority 333(93%) of the clients were married and 285 (79.5%) were house wife in occupation. Regarding the level of educational status 159(44.4%) were illiterate and 72 (19.7%) had attended high school (Table 1).

### Obstetrics characteristics

The obstetric characteristics of the respondent 234 (65.5%) study participants had less than 2 ANC visit at the time of data collection. Among respondents 201 (56.1%) were in the third trimester gestational age. Two hundred eighty four (79.2%) had no previous history of pregnancy (Table 2).

### Knowledge about danger signs of pregnancy

Knowledge of study participants towards danger signs of pregnancy is assessed using structured questions. Majority 239 (66.6%) of the study participants mentioned vaginal bleeding as danger sign and 105(29.4%) were mentioned reduced fetal movement (Table 3).

Study participants who responded correctly for the major danger signs of pregnancy (vaginal bleeding, severe headache, blurring of vision, epigastric or severe abdominal pain, profuse vaginal discharge, absence or reduction of fetal movement) were considered as having knowledge about danger signs of pregnancy, based on this 168(47%)

of respondent have good awareness about danger sign of pregnancy (Figure 1).

### Factors affecting danger signs of pregnancy

The main factors associated with level of awareness on danger signs of pregnancy using descriptive analysis were educational status, occupation and number of visit to ANC service (Table 4). As educational status of women increase the level of awareness on danger signs of pregnancy increase (Figure 2).

Variable	N=358	Frequency	Percent
Age	<20	75	21
	21-25	127	35.6
	26-30	78	21.8
	>30	78	21.6
Marital status	Married	333	93
	Single	25	7
Religion	Protestant	178	49.4
	Muslim	39	10.8
	Orthodox	141	38.8
Educational status	Illiterate	159	44.4
	Read & write	68	19
	Primary school	59	16.1
	High school & above	72	19.7
Occupation	House wife	285	79.5
	Government employee	36	10.1
	Other*	37	10.4
Family size	<3	172	48.1
	4-5	119	33.2
	6-7	45	12.5
	>8	22	6.2

\* non governmental employee, privet work , have no work.

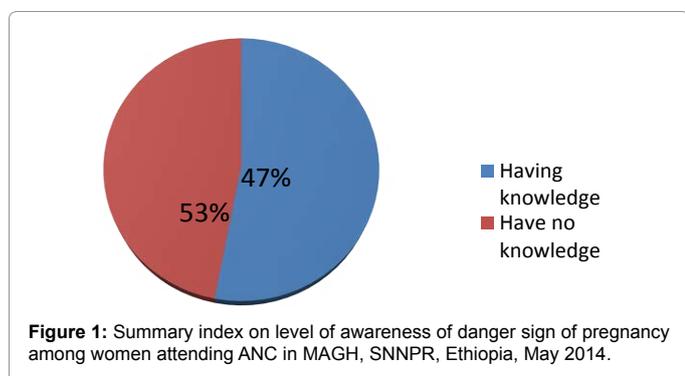
**Table 1:** Socio -demographic characteristics of women attending ANC in MAGH, SNNPR, Ethiopia, May 2014.

Variables		Frequency	Percent
Gravid	1	119	33.3
	2	68	19
	3	67	18.7
	>3	106	29.7
Parity	None	124	34.5
	1	71	19.7
	2	63	17.7
	3	42	11.7
	>3	59	16.4
Previous risk pregnancy	Yes	74	20.8
	No	284	79.2
Gestational age	1 <sup>st</sup> trimester	27	7.5
	2 <sup>nd</sup> trimester	130	36.4
	3 <sup>rd</sup> trimester	201	56.1
Number of ANC visit	<=2	234	65.5
	3	82	22.9
	>=4	42	11.6

**Table 2:** Obstetrics history among women attending ANC in MAGH, SNNPR, Ethiopia, May 2014.

Danger signs of pregnancy	Frequency	Percent
Vaginal bleeding	239	66.8
Reduced fetal movement	105	29.4
Swollen hand and face	86	23.9
Blurred vision	69	18.4
Severe abdominal pain	67	17.7
Membrane rupture	47	13
Loss of consciousness	45	12.7
Difficulty of breathing	45	12.7
Fever	41	11.7
Weakness	40	11.2
Chills	38	10.6

**Table 3:** Knowledge of women on danger signs of pregnancy among ANC attendant in MAGH, SNNPR, Ethiopia, May 2014.



**Figure 1:** Summary index on level of awareness of danger sign of pregnancy among women attending ANC in MAGH, SNNPR, Ethiopia, May 2014.

## Discussion

Danger signs of pregnancy are key parameters for assessing awareness of pregnancy complication. This research showed that 66.8% of respondents know vaginal bleeding, 29.4% reduced fetal movement and 23.9% swollen hand and face as danger sign of pregnancy. This finding is higher than study done at rural Tanzania which revealed 45.9% vagina bleeding, 1.2% reduced fetal movement and 10.7% swollen hand and face [8]. This discrepancy may be due to the difference study areas this study was institutional at urban, study done at Tanzania were rural area.

The result of this study revealed that 53% of the study participant had poor awareness about danger sign of pregnancy which is higher as compared to finding in Egypt in which was 26.8% [9]. This may be due variation in socio-economic difference of study participates. On the contrary this study finding or having poor awareness about danger signs of pregnancy are lower as compared study done Aleta Wondo Ethiopia, which were 69.4% of respondents had poor awareness about danger signs of pregnancy [10]. This could be due to the difference

study area this study was conducted at facility based, but the previous one was community based study.

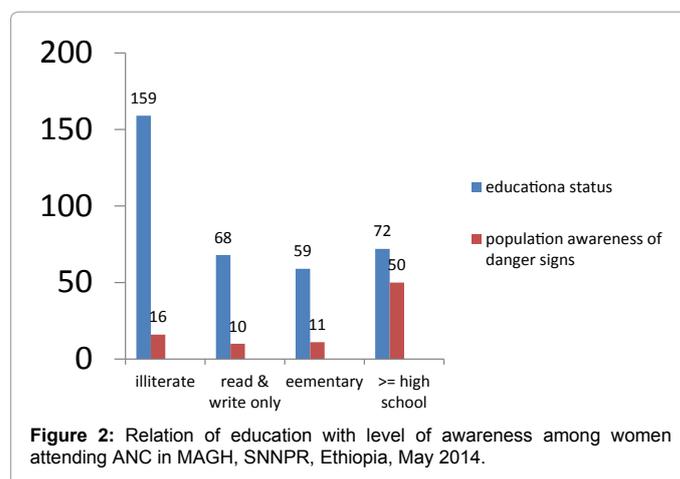
In this study educational status study participants were affect the level of awareness, as educational status increase the level of awareness also increases. Similarly study done in Indonesia showed that as educational status increases awareness also increased, education is believed to be the most powerful influencing factor to increase women's knowledge about danger signs of pregnancy [11,12]. Based on the study done in rural Tanzania low awareness on obstetric danger sign and illiterate are the main barriers for women that prevent from timely decision to seek treatment and people tend to go for option supported by their culture and believes [8].

Occupation also affects the level of awareness of women government employee, which accounts 30.6% and private worker which accounts 24.3% have good awareness compared as to house wife women which were 12.28% aware of danger signs of pregnancy. Study done in Egypt supports this finding which shows that 31.7% of house wives exhibit fair awareness and 90.7% of working women exhibit good awareness [11]. This could be due to the mother work in governmental institution and private institutions have higher educated status and they are accessible to information related to pregnancy through different media.

This study revealed that awareness on danger signs of pregnancy is not affected by marital status. This finding is in line with study done in Tanzania that explained that marital status was not associated with level of awareness on danger sign of pregnancy [8].

## Limitations

The limitations of this study include the following: As this study is confined to women visiting public health institution of Mizan Aman hospital, Ethiopia, the findings may not be generalized to the women



**Figure 2:** Relation of education with level of awareness among women attending ANC in MAGH, SNNPR, Ethiopia, May 2014.

Variables	Frequency	Percent	Level of Awareness				
			Good		Poor		
			Frequency	Percent	Frequency	Percent	
Number of ANC visit	<=2	122	34	46	37.6	76	62.4
	3	157	438	71	45.12	86	54.9
	>=4	79	22	45	57.14	37	42.9
occupation	House wife	285	79.5	35	12.28	160	87.8
	Government employee	36	10.1	11	30.56	25	69.5
	Other	37	10.4	9	24.3	28	75.7

**Table 4:** Factors associated to level of awareness on danger signs of pregnancy among women attending ANC in MAGH, SNNPR, Ethiopia, May 2014.

who did not visit health institution. Using only descriptive statistics is one limitation because it is difficult to identify confounding factors and quantities data only. Using of questioner, recall bias and social desirability bias.

### Conclusion and Recommendation

The study finding shows that poor awareness about danger signs of pregnancy among ANC attendant in the study area is observed and the level of awareness is affected by educational status, occupation and the number of ANC visit. Based on finding of this study the following recommendations are forwarded. As women's awareness about danger signs of pregnancy increase as women educational status increase women must empower to get education by the government. Medias better to give health education related to danger signs of pregnancy to minimize pregnancy related complications.

### Acknowledgements

We are great full to Mizan-Tepi University, college of Health sciences for allowing as conducting the study and other supports. We want also to present our thanks to Mizan Aman, hospitals for their permission to conduct the study. We are very grateful to the study participants for their willingness to participate in this study and to the data collectors for their hard work and sincere contribution.

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