



**Wolkite University College of Medicine and Health Science Department  
of Public Health Knowledge of obstetric danger sign and associating factor  
among Mather attending ANC clinic in Wolkite University Specialized  
Hospital, Wolkite, SNNPR, ETHIOPIA 2021**

by

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## APPROVAL SHEET

This is to certify that the student research paper entitled Knowledge of obstetric danger sign and associating factor among Mather attending ANC clinic in Wolkite University Specialized Hospital, Wolkite , SNNPR, ETHIOPIA 2021 submitted to wolkite University College of Medicine and Health science School of Public and Environmental Health partial fulfillment of the requirements for the degree of public Health undergraduate program College of Medicine and Health Sciences, wolkite University is recorded as original work carried out by Ayalnesh Getu , Ashenafi Malash and Tesifaye Gudeta . The assistance and help received during the course of this work have been duly acknowledged. Therefore, I advisor, recommends that it has been accepted as fulfilling the requirements.

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## Acronyms and Abbreviations

ANC Ante Natal Care

KM Kilo Meter

MDG Millennium Development Goal

MMR Maternal Mortality Rate

SNNPR Southern Nation Nationalities and Peoples Region

SPSS Statistical Package for Social Science

UN United Nations

WHO World Health Organization

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## Abstract

**Background:** Avoidable mortality and morbidity remains a challenging in many developing countries like Ethiopia. Every pregnant woman faces the danger of unexpected, unpredictable complications that could end up with death or injury to her or to her infant. Awareness creation about obstetric danger sign is essential first step for appropriate and timely referral to obstetric and newborn care. The aim of the study is to assess knowledge of obstetric danger signs among mothers who has ANC follow up in wolkite town in WKUSTH. The danger signs includes persistent vomiting, severe persistent abdominal pain, vaginal bleeding during pregnancy, severe vaginal bleeding after delivery, swelling of face and feet, blurring of vision, severe recurrent frontal headache, high grade fever, marked change in fetal movement, high blood pressure, sudden escape of fluid from the vagina, dysuria, oliguria or anuria, prolonged labor, loss of consciousness and retained placenta.

**Objective** To asses Knowledge of obstetric danger sign among Mather attending ANC clinic in WKUSTH, Wolkite, SNNPR, ETHIOPIA, 2021

**Method:** A cross-sectional study was conducted among 296 mothers in wolkite university specialized teaching hospital of Wolkite Town administration from March 7 to June 15. Simple random sampling and systematic technique were used to identify the study subjects. Data was collected using interviewer administered structured questionnaire.

**Result :** A total of 296 pregnant women were included in the study. About 264 (89.2%) women were knowledgeable about obstetric danger signs. Attending formal education, rural residence, time taken greater than 30 min to reach health facility by transport. A pregnant women in the study area were good knowledge about obstetric danger signs.

**Conclusion and Recommendation:** The main factors that resulted good knowledge of obstetric danger signs were maternal education, maternal age, paternal occupation paternal education and time taken to reach health facilities. maternal education and income generating activities needs to be give emphasis by all concern

## Chapter one

### 1. INTRODUCTION

#### 1.1 Background information

Pregnancy is a normal process that results in a series of both physiological and psychological changes in expectant mothers. However, normal pregnancy may be accompanied by some problems and complications which are possibly life threatening to the mother and / or the fetus. Obstetric Danger Signs are problems that face the mother during pregnancy, labor and the post - partum period and need early management. This includes any bleeding from the vagina, no matter how slight, swelling or puffiness of the face or hands or severe swelling of the legs, Severe or continuous headache, dimness or blurring of vision, Severe or continuous pain in the abdomen (belly). In addition, it includes severe or continuous vomiting, chills or fever, Pain or burning with urination, sudden escape of fluid from the vagina in the second half of pregnancy, if the baby (fetus) moves less than you are used to, or stops moving and pelvic or abdominal pain Worldwide, about 287,000 women die from pregnancy and childbirth related complications in 2010 (1).

It is estimated to be about 99 percent of these deaths occur in Sub-Saharan Africa (2). According to World Health Organization (WHO), maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental causes. Maternal death could be prevented if action is taken early and promptly. Most countries within Sub-Saharan region have high rates of maternal mortality for example Ethiopia stands at a rate of 454 deaths per 100,000 live birth (3).

The major complications that account for 80 percent of all maternal deaths are severe bleeding, infections, high blood pressure during pregnancy, obstructed labor and unsafe abortion (4). Women are expected to receive health education about pregnancy including outcomes, danger signs during pregnancy, nutrition and family planning as well as other services when they attend

health center for antenatal care. However other women do not attend antenatal clinic and they may receive the information about danger signs through media or close friends/relatives (5). Despite various safe motherhood initiatives and interventions in East Africa, studies in Tanzania, Ethiopia and Uganda have shown that even within the last five years awareness of danger signs during pregnancy was still low (6) especially in rural populations.

Ethiopia demographic health survey report (2011) shows 53 percent of pregnant women were told about danger signs of pregnancy during ANC visits. Additionally, the issue of health seeking actions after identifying a danger sign during pregnancy was not investigated. These studies set out to show a clear picture of the problem in health delivery systems. Since every pregnant woman is at risk of developing pregnancy related complication, education on danger signs of pregnancy should be provided to all women who are attending the health center for antenatal care.

The danger signs that normally occur during pregnancy include vaginal bleeding, severe headache, trouble with vision, high fever, swollen hands/face, and reduced fetal movement (7). During attendance at the health center women are given an antenatal card where all the information about the services provided during each visit are recorded. The risk factors for pregnancy complications are listed. For example; maternal age below 18, maternal age above 35, and history of chronic diseases such as hypertension and diabetes mellitus. However, there are many danger signs that are not listed in the antenatal card and hence for those pregnant women who are able to read will still lack the information.

Women are also told to go to a nearby health facility so as to seek care in case they experience any danger signs but everyone tends to behave differently. Some can take no action while others do go to a health facility. Others can visit a traditional birth attendant/healer while others ask help from a friend or relative (8). Therefore, this study will investigate how the level of knowledge regarding danger signs during pregnancy is related to health seeking actions.

## 1.2 Statement of the problem

Pregnant women in the study area WHO estimates that 40% of pregnant women (50 million per year) experience pregnancy related health problems during / or after pregnancy and child birth. About 300 million women in the developing countries suffer from short and long-term illnesses due to complications related to pregnancy and childbirth. (9)In Ethiopia, the levels of maternal mortality and morbidity are among the highest in the world and the current estimate of MMR is 673 per 100, 000 live births and it is reported that Maternal deaths accounted for 21% of all deaths (10)

The national reproductive strategy of Ethiopia has given emphasis to maternal and newborn health so as to reduce the high maternal and neonatal mortality. The strategy focuses on the need to empower women, men families and communities to recognize pregnancy related risks, and to take responsibility for developing and implementing appropriate response to them. One of the targets in the strategies is to ensure that 80% of all families recognize at least three danger signs (These danger signs include vaginal bleeding, severe headache, vision problems, high fever, swollen hands/ face, and reduced fetal movement)associated with pregnancy related complications by 2010 in areas where health extension program is fully implemented(11)

Even with the fact that emphasis is given by the national strategy to raise knowledge of obstetric danger signs little is known about the current level of knowledge and the influencing factors in Ethiopia.

The low knowledge is compounded by the limited access in rural areas, less skilled health workers that are available in rural areas, but the problem still persists even in urban areas where it is acknowledged to have more health facilities, improved infrastructure and transport. Irrespective of cost and easier access of health facilities, low level of knowledge is also highly likely caused by inadequate dissemination of information on danger signs at the health facilities (12). It contributes to significant delay in seeking health care and compromises the survival of the mother and expected new born. This may ultimately result into the persistent high maternal morbidity and mortality rate within Gubre health center. Furthermore, little is known about knowledge on danger signs during pregnancy and its correlation with appropriate health seeking actions. The maternal mortality is still high and one of the contributing factors is low knowledge

of the danger signs. The proposal will focus on the actions taken after experiencing a danger sign. The other problem is that much as people have the knowledge they may have negative attitude; no finances or partners may affect their decisions.

This study will be at estimating the magnitude of knowledge on danger signs during pregnancy within the WKUSTH to establish if low level of knowledge is also an important factor that facilitate women's health care seeking. To improve maternal health, barriers that limit access to quality maternal health services must be identified and addressed at all levels of health system, hence this study.

### **.3 Significance of the study**

Women need not to die in childbirth. Women die from a wide range of complications in pregnancy, childbirth or the postpartum period. These life threatening complications are

treatable, and thus most of these deaths are avoidable if women with the complications are able to identify and seek appropriate emergency obstetric care which makes a difference between life and death. So this study is intended to enhance knowledge of women towards obstetric danger sign in the study area which will enable them to protect severe life threatening conditions from happening, provide base line data for health policy makers that help them to design a strategy to build on mother's awareness concerning the general danger sign, provide a base line data for governmental and nongovernmental organization involved in maternal health care services for designing appropriate strategies and providing information for better planning of maternal health care services which could leads to reduced morbidity and mortality, and be used as a reference for further research that would be done on the same topic for other researcher

## **Chapter two**

### **2. Literature Review**

Maternal mortality is unacceptably high. About 800 women die from pregnancy or childbirth related complications around the world every day (The Federal Democratic Republic of Ethiopia, Service Delivery Policy in the Civil Service, April 2001). The high number of maternal deaths in some areas of the world reflects inequities in access to health services, and highlights the gap

between rich and poor (13). Factors that prevent women from receiving or seeking care during pregnancy and childbirth are poverty, distance, lack of information, inadequate services and cultural practices (14). This section will involve review of different studies which have been conducted on knowledge and health seeking actions. Through these literature what is known and unknown about knowledge on danger signs and health seeking actions will be identified. The literatures have been reviewed according to the objectives.

## **2.1 Knowledge of danger signs during pregnancy**

Most of the studies have shown low level of knowledge on danger signs not only during pregnancy but also during delivery and after childbirth. In a study done in Uganda and Ethiopia, knowledge of danger signs was relatively low (15.). During antenatal care, health care workers are expected to educate pregnant women on danger signs of pregnancy so that women could understand and seek help immediately when they experience one or more of the symptoms.

The same was also found in Tanzania on a study on rural women's awareness of danger signs (16). The study recommended to improve the quality of counseling and also to involve family members in the care of pregnant women during pregnancy and delivery.

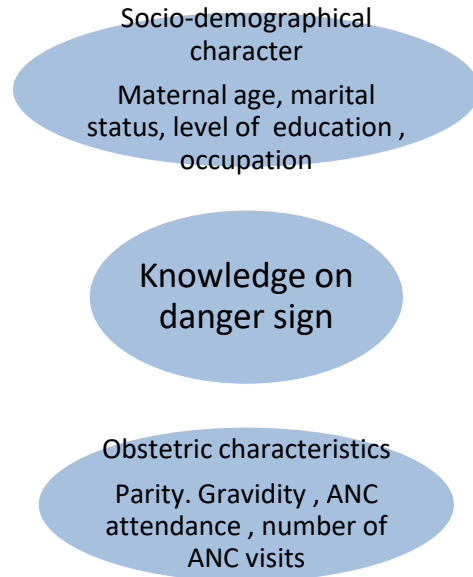
A study on knowledge about danger signs in pregnancy among pregnant women was conducted in Southern Ethiopia. It indicated that the knowledge was low and affected by residential area whereby those who lived in urban were more knowledgeable than those who lived in rural areas (17). The most common danger sign to be mentioned was vaginal bleeding. Additionally, another study in Uganda shows similar results about knowledge and residential area (17).

Some studies have shown the relationship between level of education and knowledge on danger signs of pregnancy. Women with higher education level have been found to have more knowledge on danger signs compared to those with no formal education (18). This is speculated to be due to having high literacy hence an ability to understand the information given and also be able to look for details from other sources such as the internet and magazines.

In Gambia, a delay in recognizing danger signs of pregnancy/labor or decision to seek care outside the home was the second important contributor of prenatal deaths (19). A study was also conducted by Rashad (2010) in Albeheira Governorate, the researcher suggested that there is a

need to establish strategic plan to increase the awareness to shape health seeking actions of the public related to signs of obstetric complications.

## **2.2 conceptual frame work**



**Figure 1: Conceptual framework on knowledge of danger signs**

## Chapter three

### 3 Objective

Knowledge of obstetric danger sign among Mother attending ANC clinic in Wolkite University Specialized Hospital,

### 3.1 General objective

- To assess Knowledge of obstetric danger sign among Mother attending ANC clinic in WKUSTH, Wolkite, SNNPRG, ETHIOPIA

### 3.2 Specifies objective

- To determine the magnitude of mothers having knowledge on obstetric danger sign during pregnancy
- To identify major danger sign during pregnancy
- To draw lesson for the future about obstetric danger sign for health facility
- To identify whether the limitation is financial, partner decision or negative attitude for obstetric danger sign WKUSTH

## Chapter four

### 4 Methodology

#### 4.1 study area and Study period

The study was conducted in Wolkite University specialized teaching hospital located in Wolkite town Gubre sub city in Gurage zone SNNPRG Region. Wolkite university specialized teaching hospital is highest maternal mortality indices (529/100,000 live births). The health facilities were purposively selected since they provide services to majority of the population with different socioeconomic status in the district. This is conducted from October 19- October 30 -2021

## 4.2 Study design

Cross-sectional study design was conducted

## 4.3 population

All pregnant women attending ANC follow up at WKUSTH

### 4.3.1 source of population

The source population for this study was all pregnant mothers attending ANC at Wolkite University specialized teaching hospital.

### 4.3.2 Study population

The study population was randomly selected reproductive age group mothers who came for ANC follow up in WKUSTH.

## 4.4 Eligibility criteria

### 4.4.1 Inclusion criteria

Pregnant mothers attending ANC at Wolkite University specialized teaching hospital gubre sub city and the study population was randomly select reproductive age group mothers who come for ANC follow up in select WKUSTH.

### 4.4.2 Exclusion criteria

Pregnant mothers attending ANC at selected health centers in wolkite Town and the study population were randomly selected reproductive age group mothers who came for ANC follow up in selected health center who were not found in the Health Center during data collection time and, mentally ill mothers, severely ill mothers who could not tell.

## 4.5 Sample size determination and sampling procedures

### 4.5.1 Sample size determination

Sample size for this study was determined by using formula for single population proportion by considering the following assumption a 95% confidence level, 5% margin of error and Proportion of knowledge about obstetric danger sign in previous study 26%

$$n = \frac{Z^2 P(1-P)}{}$$

$$D^2$$

$$\text{Substituting; } N = \frac{1.96^2 \times 0.26(1-0.26)}{0.05^2}$$

$$= 296$$

Therefore, the estimate sample size will be 296 women.

**Where:**

**a** = the level of significance which can be obtained as 1-confidence level

**p** = best estimate of population proportion 26 percent (A. B. Pembe, et al., 2009)

**d** = maximum acceptable difference 5%

**Z<sub>a/2</sub>** = the value under standard normal table for a given value of confidence level

#### 4.5.2 Sampling Procedure

In Wolkite University specialized teaching hospital was select by using simple random sampling method. Study participants from this health facilities is select using systematic random sampling method each women health facilities depending on the number of pregnant women who attain ANC.

### 4.6 variable

#### 4.6.1 Dependent variable

Knowledge of obstetric danger sign during pregnancy good or poor

#### 4.6.2 Independent variable

- Socio-demographic characteristics (Age, sex, ethnicity, religion, educational status, and occupational status).
- Reproductive history (Duration of pregnancy, Place of delivery, Number of parity)

## 4.7 Operational definition

**Knowledge**-Is defined as information, skills and understanding that person has acquired through learning or experience ("Longman dictionary of contemporary English," 2003).In this study knowledge will be defined as being aware of and mentioning danger signs seen during pregnancy.

**Danger signs**- Danger sign during pregnancy refers to alerts of obstetric complications that occur commonly in the middle and late pregnancy. The danger signs that will be looked at in this study include severe vaginal bleeding, convulsions, severe headache with blurred vision, severe abdominal pain, and fever, swelling of fingers, face and legs (20).

**Knowledgeable of danger sign** in this research a woman was considered as knowledgeable if she can mention at least three key danger signs for pregnancy.

**Knowledgeable on key danger signs of labor/childbirth:** In this research a woman will considered as knowledgeable/having good knowledge if she can mention at least four key danger signs for Labor/childbirth spontaneously or after prompting. (21)

**Knowledgeable on key danger signs of post partum:** In this research a woman will considered Knowledgeable if she can mention at least the three key danger signs for postpartum spontaneously or after prompting.

## 4.8 data collection tools and procedures

### 4.8.1. Data collection tools

The questionnaire was prepare in order to gather relevant primary data from Wolkite town wolkite university specialized teaching hospital The questionnaire was preparing originally in English, and then was translate to Amharic.

### 4.8.2 Data collection procedures

The questioner contains socio demographic characteristics, reproductive characteristics, obstetric danger signs, and birth preparedness. Finally, by using the final Amharic version of the questionnaire face to face interview was conducted by open end.

#### **4.9 data quality control measure**

The data quality control was facilitated by

- By collecting data using different methods, like combining interview with direct observation.
- Evaluation of the completeness of the questionnaire.

#### **4.10 data processing and analysis**

After data collection, each questionnaire was checked for completeness and code was given before data entry and data was processed and analyzed by using SPSS version 22 Computer software system.

#### **4.11 Ethical consideration**

Throughout the research, the researcher needs to assure that keeping appropriate Citation and valuing the work of others in order to avoid plagiarism, so that, the work of others was appropriately cited in this research paper by the researcher.

#### **4.12 Dissemination plan**

The study results were disseminated to Wolkite University college of medicine and other health science, department of public health WKUSTH. And also this study can serve as a baseline for those who want to make further research on this area.

## Results

### **Socio demographic and Economic Characteristics**

A total of 296 mothers were included in the study with a response rate of 90%. The minimum and the maximum age of the respondents were 17 years and 36 years, respectively. The mean age of the study subjects was 26.62 years

Almost half 153(51.7%) of the respondents were orthodox by religion followed by muslim 110(37.2%) and 190(64.2%) were Gurageby ethnicity. Of the total study participants 284(95.9%) were married.

Concerning education status, nearly one among four 130(43.3%) mothers attended primary school .

Almost one among four study participants 79(26.7%) were private employed by occupation and 76(25.7%) their counterpart were merchant . 159 study participants(53.7%) were living in rural areas.

On the other hand, the estimated mean income and living of the study subjects were 204 (68.9%) 901-3500 ETB and 228 (77.0%) live with their partner.

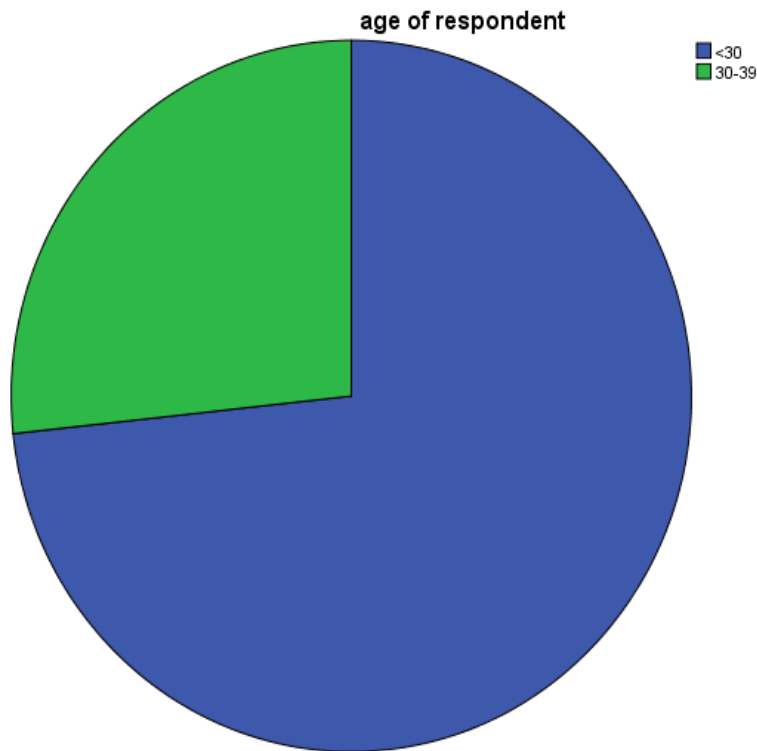
**Table 1 Background characteristics of the study participants Respondents of WKUSTH, gurage zone, Ethiopia 2021**

Variable	Frequency	Percentage
<b>Age</b>		
<b>&lt;30</b>	198	66.9
<b>30-39</b>	98	33.1
<b>Religion</b>		
<b>Orthodox</b>	153	51.7
<b>Muslim</b>	110	37.2
<b>Protestant</b>	29	9.8
<b>Catholic</b>	4	1.4
<b>Ethnicity</b>		
<b>Gurage</b>	190	64.2
<b>Amhara</b>	77	26.0
<b>Oromo</b>	27	9.1
<b>Hadiya</b>	2	0.7
<b>Occupation</b>		
<b>Farmer</b>	69	23.3
<b>Merchant</b>	76	25.7
<b>Private employee</b>	79	26.7
<b>Government employee</b>	72	24.3
<b>Marital status</b>		
<b>Single</b>	10	3.4
<b>Married</b>	284	95.7

<b>Divorce</b>	2	0.7
<b>Maternal education</b>		
<b>Unable to read and write</b>	221	74.7
<b>Read and write</b>	47	15.9
<b>Grade 1-8</b>	19	6.4
<b>Grade 9-12</b>	7	2.4
<b>Collage and above</b>	2	0.6
<b>Father education</b>		
<b>Unable to read and write</b>	173	58.4
<b>Read and write</b>	91	30.7
<b>Grade 1-8</b>	14	4.7
<b>Grade 9-12</b>	10	3.4
<b>Collage and above</b>	8	2.7
<b>Maternal occupation</b>		
<b>Farmer</b>	181	61.1
<b>Merchant</b>	53	17.9
<b>Private employee</b>	48	16.2
<b>Government employee</b>	14	4.7
<b>Father occupation</b>		
<b>Farmer</b>	205	69.3
<b>Merchant</b>	45	15.2
<b>Private employee</b>	24	8.1
<b>Government employee</b>	22	7.4
<b>Residence</b>		
<b>Urban</b>	137	46.3
<b>Rural</b>	159	53.7
<b>Monthly income</b>		

<b>100-900</b>	26	8.8
<b>901-3500</b>	204	68.9
<b>3501-5000</b>	55	18.6
<b>&gt;5000</b>	11	3.7

Figure 2 shows the age of the respondent 73.3 of the respondent are less than the age of 30 and 26.7 of above the age of 30



Reproductive history

Two hundred thirty one (78.0 %) of the study participants were in the age group 15-24 years old during their first pregnancy. Three among four (19.9%) had history of two and above pregnancy. Nearly three among five 263(88.9%) study participants delivered their last child in health institution. Majority, 216 (73.0%) of participants reported that above thirty minute is required to reach the health institution. 163(55.1%) and 133(44.9%) of the study participants had first and fourth ANC visit during their pregnancy period.

**Table 2: Reproductive history study participants in WKUSTH, gurage zone, Ethiopia 2021**

Variable	Frequency	Percent
<b>Duration of pregnancy</b>		
<b>1-3month</b>	55	18.6
<b>4-6month</b>	105	35.5
<b>7-9 month</b>	136	49.9
<b>Age at first pregnancy</b>		
<b>15-24</b>	231	78.0
<b>25-34</b>	59	19.9
<b>&gt;35</b>	6	2
<b>Number of pregnancy</b>		
<b>1</b>	165	55.7
<b>≥2</b>	131	44.3
<b>Number of parity</b>		
<b>1-4</b>	271	92.9
<b>&gt;4</b>	25	7.1
<b>Place of delivery</b>		
<b>Home</b>	89	26.6
<b>Health institution</b>	203	59.4
<b>Time taken from home to health institution</b>		
<b>&lt;30</b>	80	27.0

<b>≥30</b>	216	73.0
<b>ANC follow up</b>		
<b>Yes</b>	296	100
<b>No</b>	0	0
<b>Number of ANC follow up</b>		
<b>1-2</b>	163	55.1
<b>3-4</b>	133	44.9

### **Knowledge of Study participants/mother/ about obstetric Danger signs**

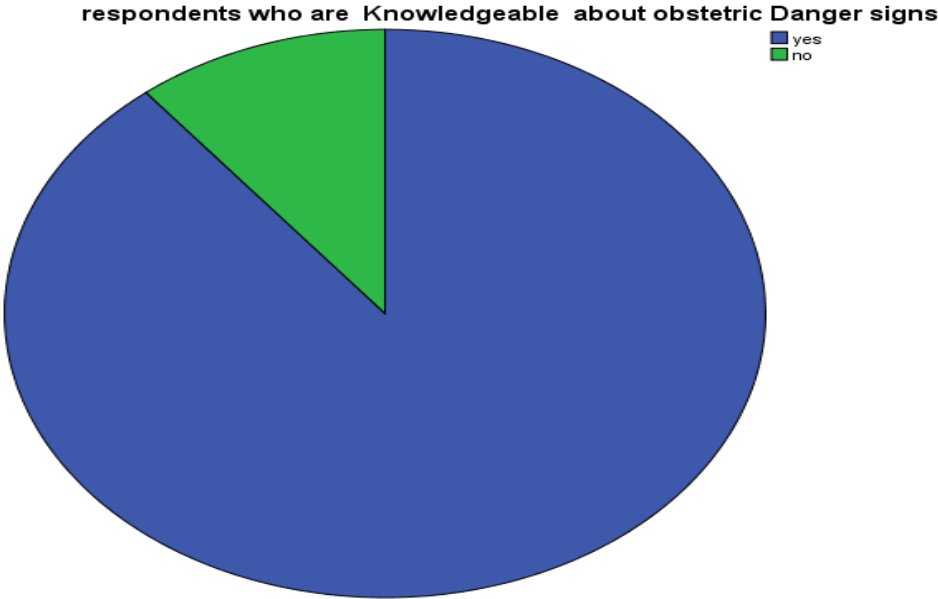
Almost above the half of the study subjects, 264(89.2%) were found to be knowledgeable about danger sign during pregnancy. It was also found that 239 (80.7%) participants were found knowledgeable about danger sign during child birth and 57(19.3%) were not knowledgeable. Additionally about 273(92.2%) study participant were found knowledgeable and 23 (7.8%) were not knowledgeable about danger sign during post partum Period.

Severe vaginal bleeding was the most frequently known complication mentioned by study participants during pregnancy 256(86.5) and 246(83.1%) during labor and child birth and postpartum period 261(88.2%)

**Table 3 Knowledge of mothers about obstetric danger Signs during pregnancy of gurage zone, Ethiopia 2021**

Danger sign	Number	%
<b>Bleeding</b>	256	86.5
<b>High grade fever</b>	253	85.5
<b>Loss of consciousness</b>	236	79.7
<b>Severe headache</b>	241	81.4
<b>Severe abdominal pain</b>	208	70.3
<b>Blurred vision</b>	191	64.5
<b>Convulsion</b>	171	57.8
<b>Swollen hand / face</b>	190	64.2

Figure 3 show that 296 respondet 89.2 are good knowledge about obstetric danger sign and 10.2 are poor knowledge about obstatric danger sign of preгнаancy



**Table 4 Knowledge of mothers about obstetric danger Signs during labor and child birth**

Danger sign	Number	%
<b>Sever Bleeding</b>	246	83.1
<b>Retained placenta</b>	189	63.9
<b>Labor lasting &gt;12 hrs.</b>	207	69.9
<b>Loss of consciousness</b>	208	70.3
<b>Severe headache</b>	222	75.0
<b>High fever</b>	239	80.7
<b>Convulsion</b>	214	72.3
<b>Malposition/presentation</b>	168	56.8

**Table 5 Knowledge of mothers about obstetric danger signs during postnatal period**

Danger sign	Number	%
<b>Sever Bleeding</b>	261	88.2

<b>Loss of consciousness</b>	235	79.4
<b>Sever weakness</b>	237	80.1
<b>Malodorous vaginal discharge</b>	190	64.2
<b>Severe headache</b>	238	80.4
<b>Visual disturbance</b>	229	77.4

## DISCUSSION

Every pregnant woman is at risk of developing sudden, unpredictable pregnancy and pregnancy related complication. This is mainly lack of awareness therefore; the aim of this study was to determine the awareness of women attending ANC follow up in WKUSTH

This study showed that the overall women’s knowledge of obstetric danger signs was 89.2%.

Ethiopia (30.9%) (22), Tanzania (31.3%) (23) and Debre Birhan, Ethiopia (38.6%) (24). However, the result of this study is lower than studies done in Nepal (66%) (25) and Tigray region, Ethiopia (49.5%) (26). A lower women’s knowledge of obstetric danger signs was reported in similar cross sectional study conducted in Somali region of Ethiopia (27). These differences in the findings could be due to socio-cultural differences and variation in the implementation of relevant health intervention programs in the study areas. The present study indicated that majority of the respondents mentioned vaginal bleeding as danger sign during pregnancy (86.5%), delivery (83.1%), and post partum period (88.2%). This result is in agreement with previous studies done in different countries [28–29]. The study also revealed that prolonged labor (69.9%) and high fever (80.7%) were other commonly mentioned danger sign during pregnancy, delivery and postpartum period, respectively. While these danger signs are reported as other commonly mentioned danger signs, the figures are lower than a study conducted in Raya Kobo district of Ethiopia (30). However, while women who can mention the danger signs are correctly classified, other women who might not be able to label those signs when asked would recognize them if they occurred.

In this study, maternal educational status was found to have a significant association with being knowledgeable about obstetric danger signs. Knowledge of obstetric danger signs was higher among women who attended formal education as compared to illiterate women. In line with this finding, other studies (23-31) showed that an increased maternal educational status was associated with increased women's knowledge of obstetric danger signs. This might be due to the fact that education provides appropriate information about pregnancy and thus educated women are better informed and make better choices (31). Moreover, this study indicated that knowledge of obstetric danger signs was more likely to increase among women who received maternal health education during pregnancy as compared to their counterparts. Thus, continuous health education should be provided for pregnant women and also for other relevant parties (traditional birth attendants, community health workers, partners and pregnant women's relatives) to take prompt measures when the danger signs arise.

As the result of this study the knowledge among the women was different during pregnancy, child birth and postnatal. The overall knowledge was good.

## CONCLUSION

According to this study there is good level of knowledge about the danger sign that occur during pregnancy, childbirth and postpartum among women who had ANC follow up at WKUSTH. The most known complication among the participants were vaginal bleeding, according to this good level of knowledge about the other danger signs makes the women's to sick less medical care. As stated by the participant ANC follow up play a major role for the improvement of their knowledge therefore every woman should be aware of ANC follow up and its benefits. The intervention that are concerned on maternal health should focus on the quality, appropriate information and content of the health education given by the health provider on ANC follow up is recommended.

## **Recommendation**

Male based health education on obstetric danger sign should be introduced in all health institutions and the community should be mobilized through mass media by wolkite town health office Age based education on danger signs should be encourage in all health institution in wolkite town

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