ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY POSTGRADUATE PROGRAM

INTENTION TO USE MATERNITY WAITING HOME AMONG PREGNANT WOMEN IN METTU DISTRICT, SOUTHWEST ETHIOPIA, 2018:COMMUNITY BASED STUDY

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List of Acronyms and Abbreviations

ANC	Ante-natal care
CSA	Central statistics agency
EDHS	Ethiopian demographic and health survey
EmOC	Emergency obstetrics care
FMOH	Federal ministry of health
FP	Family planning
HEW	Health extension workers
IRB	Institutional review board
MMR	Maternal mortality ratio
MWH	Maternity waiting home
PNC	Post natal care
SBA	Skilled birth attendant
TPB	Theory of planned behavior

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ABSTRACT

Background: Maternity waiting homes are temporary shelters for pregnant women located near to health institutions and endorsed as one component of a comprehensive package to reduce maternal morbidity and mortality rates. Maternal delays in utilization of emergency obstetric care are the contributing factors for high maternal mortality in developing countries. Ethiopia has a high maternal mortality. Maternal waiting home helps to address the first and second delay. Thus, the aim of implementing a MWH strategy is to reduce maternal and perinatal mortality by improving access to skilled birth attendance.

Objective: To assess intention to use maternity waiting home among pregnant women in Mettu district, southwest Ethiopia.

Methods: Community based quantitative cross sectional study design was conducted from March 01-30/2018. Single population proportion formula was used to calculate sample size; 501 pregnant women. Data was collected through face-to-face interview. Data was entered by epi data version 3.1 and analyzed using SPSS version 21. Logistic regression analysis was done to identify independent predictors of intention at 95% confidence level and $P < 0.05$ was used to determine statistically significant predictors.

Result: Intention of pregnant women to use maternity home was 48.8%. In the multivariate logistic regression; age 25-29 years (AOR=0.37, 95%CI: 0.15, 0.90), days stayed in MWH (AOR=11.3, 95%CI: 1.72, 19.29), subjective norm (AOR=2.81, 95%CI: 1.66, 4.75) and perceived behavioral control (AOR=1.99, 95%CI: 1.12, 3.56) were factors associated with intention to use it.

Conclusion and Recommendation: This study revealed that, 48.8% of the participants intended to use maternity home. This indicated that, majority of the study participants were not intended to use it, which is a concern because of not to use it contributes to maternal mortality and morbidity. To increase their intention, which results in increase in utilization we need to give focus on; health education, mobilizing community, work on the barriers, awareness creation of husbands and advocating the home.

Keywords: Maternal waiting home, Intention, Mettu district, pregnant women

CHAPTER 1: INTRODUCTION

1.1. Background

Maternity waiting homes(MWH) are residential facilities where women who live remotely can wait before giving birth at a hospital or health centre(1).It provides skilled delivery, postnatal care, referrals in case of complications, counseling for maternal and newborn care including nutrition and early initiation of breast feeding and FP. Implementing MWH results in reduction of maternal and neonatal mortality mainly by increasing institutional deliveries. As a result, it reduces maternal mortality caused by the delay in reaching obstetric care (2-4).

MWH helps to address the first and second delay in accessing EmOC. The first delay is delay in deciding to seek care, while the second delay is delay to reach obstetric care. So, MWH plays a great role in intervening those delays. Thus, the aim of implementing a MWH strategy is to improve access to skilled birth attendance and emergency obstetric care which ultimately results in reduction of maternal and perinatal mortality, particularly for women in rural and remote areas(1). In most developing countries about 80% of people live in rural areas, where poor access to maternity services accounts for many maternal and perinatal deaths(1, 2).

African countries are confronted by high maternal and infant mortality rates for which there is urgent need for interventions. One of the tested and proven strategies is the establishment of MWH practice for pregnant mother as a component of ANC service, which has been in existence for more than 100 years(5).Also endorsed by WHO as one of the component of a comprehensive package to reduce maternal morbidity and mortality(4).

Women could benefit by staying at a MWH and being closer to a facility that can manage emergency obstetric complications that might otherwise not have access to skilled care due to the constraints posed by distance. Since the beginning of the 20th century MWHs have been implemented in more than 18 countries around the world, including the United States, Canada , Cuba, India and sub-Saharan Africa (Zimbabwe, Nigeria, Uganda, Ethiopia and Malawi) (1, 6).

Faith based organizations have pioneered the construction of the first MWHs in Ethiopia in the late 1980's as a strategy to mitigate against the high maternal morbidity and mortality rates as well as improve postnatal health. Attat Hospital in Gurage zone of SNNPR is the first to start the initiative in 1985(6).

A study in Ethiopia suggested that MWHs may help to improve the management of obstetric complications and access to a safe supply of blood(7). Direct causes of maternal death were considered to be more likely to be promptly diagnosed and treated due to the monitoring of pregnant women in a MWH(8).

There is sufficient observational evidence at MWHs that the facilities assist in the reduction of maternal and neonatal mortality(6). Positive direct attitude, subjective norm, perceived behavioral control and previous experience of using MWH were shown to be important factors to increase intention of using MWH for pregnant women(9). Intention of pregnant women for place of delivery is important predictors of institutional delivery service utilization(10).

1.2. Problem statement

The global maternal mortality ratio is unacceptably high and an estimated 42% of maternal death is intrapartum related(11).About 800 women die from pregnancy or childbirth related complications around the world every day(12). Developing regions account for approximately 302 000 of the global maternal deaths in 2015, with sub-Saharan Africa alone accounting for roughly 201000, followed by southern Asia (66 000) (13).

Maternal delays in utilization of emergency obstetric care are the contributing factors for high maternal mortality in developing countries. Delay in; arrival, receiving adequate treatment and seeking health care(13).

One of the major causes of maternal mortality is the distance and consequent delay in treatment of childbirth complications. Different strategies designed and employed to reduce those delays (3, 13).Some developing countries are attempting to reduce delays in treatment by moving women at risk into MWHs, located near a hospital, a few days prior to the date of confinement(2, 3). WHO has recommended skilled care at every birth, which also includes access to facilities with the capacity for emergency obstetric care(14).

As the report of EDHS 2016 reveals, Ethiopia has a high maternal mortality with an estimated ratio of 412 per 100,000 live births and low institutional delivery which is 26%(15). To reduce maternal mortality in rural areas, WHO suggested MWH for women who live far from a health facility and transport are poor when complications of labor occur, it plays an important role in reducing maternal and prenatal mortality by increasing institutional delivery(13, 16). When access to care is difficult, women with high risk pregnancies should be admitted to a MWH at 36 weeks of pregnancy (13, 16, 17). The FMOH of Ethiopia has recognized lack of skilled birth attendance as a key factor contributing to both high maternal and newborn mortality during pregnancy and delivery(18).

Studies in Ethiopia show that maternal mortality is high particularly in areas where access to hospital is difficult. One way of tackling this problem is to establish MWH(1, 2). Moreover, in Oromia region only 13.3% of mothers getting their delivery at health facility, 21.3% of women stated that health institutions are too far or did not have transportation to utilize it (10, 19).

In addition to this evidence from Jimma district revealed only 38.7% had past experiences on MWH and about 57.3% were intended to use MWH which is proxy indicator of institutional delivery(9).

A study from Horro District implied institutional delivery was very low (8%), this shows us MWH utilization also very low. It identified that geographic access to health centers plays a major role in the utilization of institutional delivery care(10) So, one way of tackling this problem is establishing MWH, which is break the gap of geographic inaccessibility(2, 12, 18).

MWH is considered as an important element of maternity care by the WHO. The ability to recognize and refer women at risk and the utilization of MWH by such women determine the effectiveness of MWH (20).With an established evidence of the benefits of MWHs, Ethiopia has plans to expand the MWHs to avert postpartum complications that could occur during the first 24 hours after delivery, as recommended by WHO and it is one of tested and proven strategy(5, 12).Despite studies showed that utilization of MWH reduce maternal and neonatal mortality, to the investigator knowledge there is no research done in the study area about utilization of MWH and its predictors. So, the aim of this study is to reduce this gap by studying intention to use MWH among pregnant women with the application of theory of planned behavior.

1.3. Significance of the study

Proper monitoring and evaluation of targeted projects and programs by the government and development partners require a wide range of data to track progress. Despite studies showed that utilization of MWH reduce maternal and neonatal mortality; there are limited studies conducted in Ethiopia, particularly in Mettu district about the intention to use MWH and its predictors. So, this study will provide further information on the utilization, intention and predictors of MWH with the ultimate aim of improving maternal health. The maternal waiting homes acts as a proxy for facility based births; hence intention to use MWH is crucial to its utilization.

First the result of the study will be helpful to Mettu district health office, Oromia regional health and the ministry of health in designing and implementing interventions that could increase MWH utilization like work on the barriers; giving support on nutrition, ambulance service for long distance travelers and making the home conducive for the mothers and there by contributing to the reduction in maternal and neonatal mortality. Additionally the result of the study will be helpful to Oromia regional health and ministry of health in developing or reviewing guidelines regarding the utilization of MWH. Moreover it will help Ministry of health in developing or reviewing policy related to MWH. Further it will be used as a reference for researchers.

The information will help health centers to increase institutional delivery by implementing different intervention like health education, community mobilization on its use and conducting discussion with pregnant mothers on MWH use result in achievements of sustainable development goal. It also will help health care providers to identify their strength and gap which helps them to work on concerning MWH utilization that results in reduction in maternal and neonatal mortality. Result from this study will help the community to work on activities that increase MWH utilization like involving husband in MWH use, availing food in MWH by participating the community and by advocating its use to reduce death related to child birth process. It also will assist HEW to focus their intervention area which helps them to achieve free home delivery community. Based on research recommendation, health centers works to make MWH home conducive which will help mothers to use it safely.

CHAPTER 2: LITERATURE REVIEW

2.1. Magnitude of intention to use maternity waiting home

Facilities called MWH by the WHO are also described in literature as maternity villages, maternity waiting shelters and Ante-natal villages. Despite this variety of names, few data are known about the functioning of MWH. African studies on MWHs that stem from Zimbabwe, Zambia and Ethiopia, show better pregnancy outcomes among women using these homes(21).

The MWH was originally intended to be used by women with high risk pregnancies whose homes are in remote and inaccessible rural areas. This original concept is adapted in various ways all over the world. In some studies women with low risk pregnancies also utilize the homes in areas where there is a poor skilled delivery service(20).

A cross-sectional study done in Ethiopia on women staying at the waiting homes during the time of the survey to assess the situation, women's experiences and challenges found that, overall, 94 (70%) health centers-79% in SNNP, 73% in Amhara, 67% in Oromia and 55% in Tigray- had MWHs at the time of the survey mainly to house prenatal mothers(22).

A study done in Zimbabwe on 235 delivered mothers on use of maternal care in a rural area found that Only one-third of respondents did use the MWH. Even if the use of a MWH increased the likelihood of hospital delivery nearly six -fold(23).

A survey done in Zimbabwe on pregnant mothers on use of MWH found two thirds of the women stated that they would use a MWH if provided(24).

A cross-sectional study done on 340 women of reproductive age to identify personal and environmental factors associated with the utilization of maternity waiting homes in rural Zambia found that most of them(70.6%) did not stay in a MWH before delivery(25).

A study conducted in a rural district of Ghana on pregnant mothers to assess their status of maternal health services utilization revealed that 83% of women attended antenatal clinics at least once and 90% of them were willing to stay in a MWH when advised to do so(26).

A survey conducted on 650 women in rural Liberia during postnatal period to assess patient satisfaction with maternity waiting homes revealed that nearly all would utilize the home again (98.8%)(27).

A study conducted in Kenya to assess the knowledge, attitude and practice of women of child bearing age towards skilled delivery services in a maternity waiting home showed that about 61.1% of the mothers said that they would use MWH if they were to give birth(28).

A cross-sectional study done in Ethiopia on women staying at the waiting homes during the time of the survey to assess the situation, women's experiences and challenges found that most women (83%) did not want to stay at MWHs in their postnatal period(22).

A community based cross-sectional study done in Butajira on 428 recently delivered and pregnant women to assess intention and associated factors showed that 55.1% of women were intended to use MWH(29).

A cross-sectional study conducted in Jimma district on 387 pregnant women to assess intention to use maternity waiting home revealed that about 38.7% respondents had past experiences on MWH and 57.3% of the pregnant women were intended to use MWH(9).

2.2. Determinant factors of intention to use MWH: Theory of planned behavior (TPB)

Ajzen in 1988 developed the TPB as an off-shoot of the theory of reasoned action. The TPB predicts an individual's intention to engage in a behavior at a specific time and place. The TPB has been used successfully to predict and explain a wide range of health behaviors and intentions to utilize health services. TPB uses attitudes, subjective norms and perceived behavioral control to predict "intention" with relatively high accuracy. The theory assumes that a person's intention when combined with perceived behavioral control, will help predict behavior with greater accuracy than previous models(30).

Behavioral intention can be determined by: subjective norms associated with the behavior, attitude towards the behavior and perceived behavioral control over the behavior. The more favorable the attitude, subjective norm and perceived behavioral control resulted in higher intention to perform the behavior(31).

2.2.1. Attitude toward intention to use maternity waiting homes

A thematic analysis was conducted using 29 studies across 17 countries to determine the evidence of effectiveness of MWHs on key maternal health outcome and analyze the conditions and factors that affect implementation of MWHs in low and middle-income countries found that poor utilization was due to not accepting MWH among communities and culturally inappropriate care and activities that raise acceptance by community members were facilitators (24, 32).

A literature review done on why women do not utilize maternity services in Nepal reviewed the factors that impede women from utilizing maternity services and those that encourage such use. Twenty-one articles were examined in-depth found that traditional beliefs tended to impact negatively on maternity service uptake(33).

A study done in Zambia on women's of reproductive age(n=176) to identify psychosocial and environmental factors contributing to low utilization of maternal healthcare services revealed that others' negative attitudes towards midwives and the quality of services negatively influenced their decisions to use maternal healthcare services(34).

A cross-sectional study done on 340 women of reproductive age to identify personal and environmental factors associated with the utilization of maternity waiting homes in rural Zambia found that those from centers with MWHs were more likely to express high intention to use MWH and have positive affective attitude towards staying in MWH(25).

A study conducted in Zambia on 340 women of reproductive age to test the association between the presence of MWHs and personal and environmental factors revealed that attitude showed moderate positive associations with intention(35).

A cross-sectional study conducted in Jimma district on 387 pregnant women to assess intention to use maternity waiting home found that about 65.7% of respondents agreed that using MWH help to get better ANC. There were positive and strong correlation between intention and attitude. On multiple linear regression analysis attitude was statistically significant predictor of intention(9).

2.2.2. Subjective norm

A thematic analysis was conducted using 29 studies across 17 countries to determine the effectiveness of MWHs on key maternal health outcome found that poor utilization was due to culturally inappropriate care and facilitators were activities that raise acceptance by community members and integrating culturally appropriate practices at the MWHs(24, 32).

A literature review done on why women do not utilize maternity services in Nepal reviewed the factors that impede women from utilizing maternity services and those that encourage such use. Twenty-one articles were examined in-depth found that traditional customs and low status of women tended to impact negatively on maternity service uptake(33).

A research done in rural Zambia on women of reproductive age to assess women's experiences and beliefs concerning utilization of MWHs found that gender inequalities and socio-cultural norms prevent them from utilizing it. Promotion of partner involvement to support their wife in their utilization of MWHs was the recommended interventions (36).

A research conducted in Zambia on Men aged 18-50 years whose wife was of reproductive age on the decision-making process showed that most of them mentioned (70%) the final decision whether the woman should use the MWH or not was made by the husband. Women's mother and mothers-in law were also involved in the decision-making process(37).

A study done in Zambia on 176 women's of reproductive age to identify psychosocial and environmental factors contributing to low utilization of maternal health care services showed that opinions of important others within the community had a negative influence on the mothers' decision to utilize the services. With regard to barriers that prevented pregnant women from using services they stated that mothers faced various challenges ranging from capability to convince important others about the benefits of giving birth in a health centre (34).

A cross-sectional study done on 340 women of reproductive age to identify personal and environmental factors associated with the utilization of MWH in Zambia found that those from centers with MWHs were more likely to perceive pressure from important others regarding using it(25).

A study done in Zambia on 176 women's of reproductive age to identify psychosocial and environmental factors contributing to low utilization of maternal healthcare services found that older women with many children were more likely to perceive and comply with social pressure from important others to use or not to use a MWH(34).

A study conducted in Zambia on 340 women of reproductive age to test the association between the presence of MWHs and personal and environmental factors revealed that social norm and personal norm showed associations with intention. Perceived social norms regarding male nurse/midwife involvement was predictor of intention(35).

A cross-sectional study done in Kenya on 134 healthcare workers and 327 pregnant women on reasons for low utilization of a maternity waiting home revealed that 95% indicated they would need their husband's permission to use it(38)

A cross-sectional study done in Ethiopia on women staying at the waiting homes to assess the situation, women's experiences and challenges revealed that the commonest factors for not using MWH was husband/family did not allow admission (53%). Women stayed at the MWHs reported that decision to come to the MWHs was made mainly by a joint discussion with family/husband (46%)(22).

A survey done in Ethiopia on MWH attendants to describe the current status of maternity waiting home services showed that disparity in food supplies among differing levels of family and social support were the major challenges that women faced in MWH(6).

A cross-sectional study conducted in Jimma on 387 pregnant women to assess intention to use maternity waiting home found that about 52.9% strongly agreed that HEWs think pregnant women should use MWH and 79.1% agreed that their neighbors think pregnant women should stay in MWH. Subjective norm was found to be statistically significant and strong predictor of intention to use MWH(9).

2.2.3. Perceived behavioral control

A literature review done on why women do not utilize maternity services in Nepal reviewed the factors that impede women from utilizing maternity services and those that encourage such use. Twenty-one articles were examined in-depth found that long distance to facilities tended to impact negatively on maternity service uptake(33).

A research done in rural Zambia on women of reproductive age to assess women's experiences and beliefs concerning utilization of MWHs found that women's lack of decision-making autonomy prevents them from utilizing it. Moreover, concerns about a relative to remain at home, take care of the children and lack of basic social needs in the MWHs such as food prevent women from using MWHs(36).

A thematic analysis was conducted using 29 studies across 17 countries to determine the effectiveness of MWHs on key maternal health outcome and analyze the conditions found that poor utilization was due to long distances to reach MWH. Poor MWH structures were identified by almost all studies as major barrier. Community involvement in the design were facilitators (24, 32).

A study done in Zambia on 176 women's of reproductive age who gave birth within the last year to identify psychosocial and environmental factors contributing to low utilization of maternal healthcare services they stated that long distances to the health centers, poor road network and non-availability of transport prevented many women from utilizing health services(34).

A study conducted in Zambia on 340 women of reproductive age to test the association between the presence of MWHs and personal and environmental factors found that a strong positive association with intention found for perceived behavioral control and distance from home to nearest health center(35).

A cross-sectional study done in Ethiopia on women staying at the waiting homes to assess the situation, women's experiences and challenges found that the commonest factors for not using MWH were absence of caretakers for children (68%), dearth of transportation (26%) and families unable to bring the woman food items and unable to continuously supply food by traveling far distances (19%)(22).

A survey done in Ethiopia on MWH attendants to describe the current status of maternity waiting home services showed that disparity in food supplies among differing levels of family and social support, medical care, lack of facility at the MWH where visiting relatives can stay were the major challenges that women faced in MWH(6).

A cross-sectional study conducted in Jimma on 387 pregnant women to assess intention to use MWH found that about 60.2% reported that its unlikely to get persons that give care for their children to use MWH and 57.1% it is doubtful to get enough food availability in MWH. There are strong correlation between intention and perceived behavioral control. In multiple linear regression analysis perceived behavioral control was statistically significant predictor of intention(9).

2.2.4. Socio-demographic and obstetric predictors of intention

A literature review done on why women do not utilize maternity services in Nepal reviewed the factors that impede women from utilizing maternity services and those that encourage such use. Twenty-one articles were examined in-depth found that the education of couples, their economic status and antenatal check-ups appeared to have positive influences on maternity service uptake. On the other hand women's occupation tended to impact negatively on service uptake(33).

A study conducted in Zambia on 340 women of reproductive age to test the association between the presence of MWHs and personal and environmental factors found that most socio-demographic variables showed moderate to weak negative correlations with intention, except for education which showed a moderate positive correlation. Intention was negatively associated with mother's age.

Past maternal health-seeking behavior (i.e. number of previous antenatal care visits and delivery in a health facility during the previous pregnancy) were positively correlated with intention(35).

A cross-sectional study done on 340 women of reproductive age to identify personal and environmental factors associated with the utilization of maternity waiting homes in rural Zambia found that variables such as; age, number of children, marital status and distance to the nearest health centre did not influence intention to use MWH(25).

A study done in Zambia on women's of reproductive age(n=176) to identify psychosocial and environmental factors contributing to low utilization of maternal healthcare services revealed that older women with many children were more likely to perceive and comply with social pressure from important others to use or not to use a MWH(34).

A community based survey conducted in rural Uganda on 759 recently delivered women to assess the influence of birth preparedness practice and decision making revealed that education, household assets and birth preparedness showed clear synergistic effect on the relationship between decision-maker on location of birth. Other factors which showed statistical significant relationships with assistance by SBAs were ANC attendance, parity and residence(17).

A cross-sectional study conducted in Jimma on 387 pregnant women to assess intention to use MWH found that positive relation between intention and giving childbirth in health institution and past MWH experiences. Having past experience of using MWH and giving childbirth in health institutions were predictors of intention (9).

Conceptual framework

The theory of reasoned action and TPB assume behavior is the result of a conscious decision to act in a certain way. TPB considers volitional control as a variable. By definition, volitional control means a person must have the resources, opportunity and support available to perform a specific behavior(30)

The extent to which individuals view a particular behavior positively (attitude), think that significant others want them to engage in the behavior (subjective norm), and believe that they are able to perform the behavior(perceived behavioral control), serve as direct determinants of the strength of their intention to carry out the behavior(39).

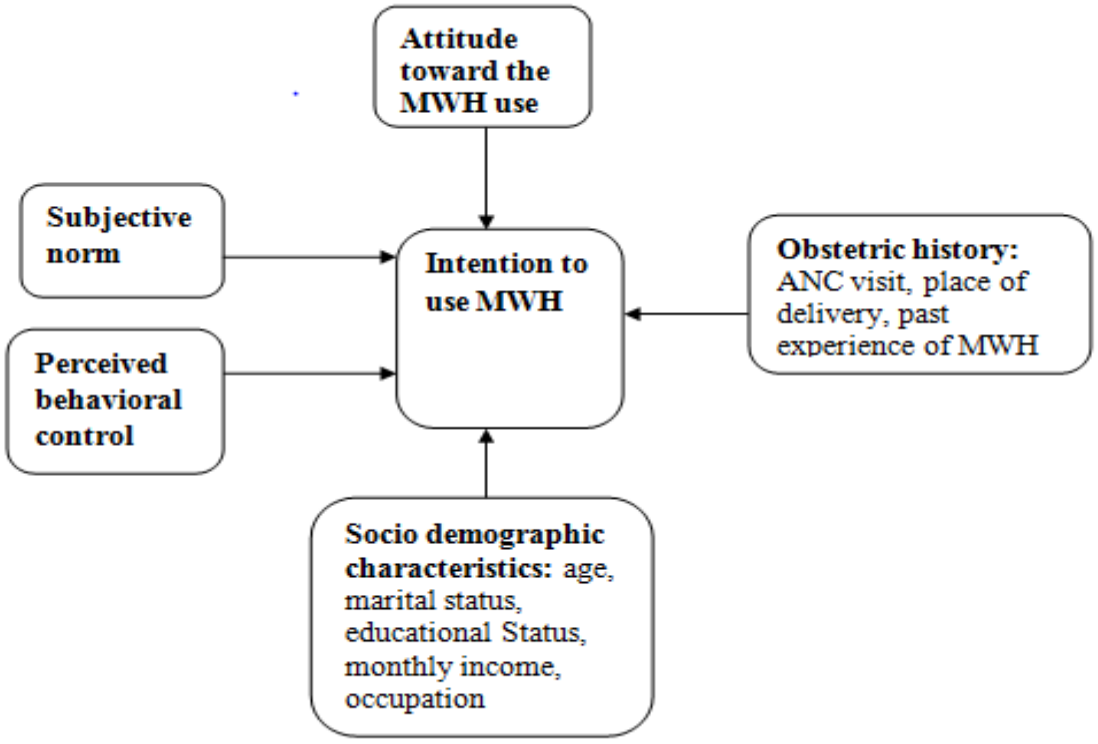

Figure 1 Conceptual framework of intention to use MWH, adapted from the theory of planned behavior.

CHAPTER 3: OBJECTIVES

3.1. General objective:

To assess intention to use maternity waiting home among pregnant women in Mettu district, south west Ethiopia, March 01-30/2018

3.2. Specific objectives:

- To determine intention to use maternity waiting home among pregnant women
- To identify predictors of intention to use maternity waiting home among pregnant women

CHAPTER 4: METHODS AND MATERIALS

4.1. Study area

Mettu district is one of the districts found in the Illu Ababora zone. Illu Ababora is one of the zones of the Oromia region of Ethiopia. It is named for the former province Illubabor. It is bordered on the south by the Southern Nations, Nationalities and Peoples Region, on the southwest by the Gambella Region, on the west by Kellem Wollega Zone, on the north by Mirab Wollega Zone and on the east by Jimma Zone. According to Central Statistical Agency's population projection, the population of Mettu districts is projected to be 78798 by 2017, of whom 39269 are men and 39529 women(40). The district has 18 km distance from the capital of the zone Mettu town(40). The district has twenty eight administrative kebeles. The district has five health centers. The total number of pregnant women in the district is about 2067 first quarter report of Mettu district health office, 2017.

4.2. Study design and period

Community based quantitative cross sectional study design was used. The study was conducted from March 01-30/2018.

4.3. Population

4.3.1. Source population

The source population for this study was all pregnant women living in Mettu district during the study period.

4.3.2. Study population

The study population for this study was all pregnant women of selected kebeles of Mettu district during the study period.

4.3.3. Study unit

The study unit for this study was all sampled pregnant women using systematic random sampling method from selected kebeles during the study period.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria

The inclusion criteria for this study was pregnant woman of selected kebeles and consented to take part in the study were included in the study.

4.4.2. Exclusion criteria

The exclusion criterion for this study was pregnant women who were not able to respond due to severe illness or emergency conditions were excluded from this study.

4.5. Sample size determination

On the study done in Jimma district(9), the proportion was 57.3. P=57.3 %, P which was proportion of mother's intention to use MWH, the assumption of 95% confidence level and 5% marginal error was considered. Sample size was determined using single population proportion based on the following assumptions.

Where; n= the desirable calculated sample size

Z (α/2) =1.96 (95% confidence level for two side)

P = 57.3%

d = degree of accuracy desired setting at (5%)

$$n = \frac{\left(Z_{1-\alpha/2}\right)^2 P(1-P)}{d^2}$$

$$\mathbf{n= \frac{(1.96)^2\ 0.573(0.427)}{(0.05)^2} =376}$$

Since the source population was less than 10, 000, by using population correction formula,

$nf = \frac{n}{1+ n/N}$ $nf = \frac{376}{1+376/2067}$ = **318**

Where, N = Source population all pregnant women of Mettu district, nf = Required Sample size, n=calculated sample size=376, nf=318, considering 5% contingency 334.
By considering sampling design effect 334x 1.5=501 pregnant mothers was involved in the study.

4.6. Sampling procedure and technique

Mettu district has 28 kebeles, by using simple random sampling 9 kebeles were selected from the 28 kebeles. The sample size was proportionally allocated to each kebeles based on the number of pregnant women they have, that I got from the registration of pregnant women from health extension worker (HEW) of respective kebeles one month prior to data collection. By rule of sampling proportionate to population size p=501/1013=0.5 by the number of pregnant mothers in the kebeles to ensure proportionality. Multiplying each of the selected kebeles pregnant number with 0.5 gives us proportionality. Where, 501 is the calculated sample size, 1013 is total number of pregnant in the selected kebeles of Mettu district and 0.5 is the proportion.

Finally, I used the registration number of pregnant women of each kebeles as a sampling frame and systematic random sampling (every second; K=2) method was used for selecting pregnant women fulfilling the inclusion criteria (Figure 2).

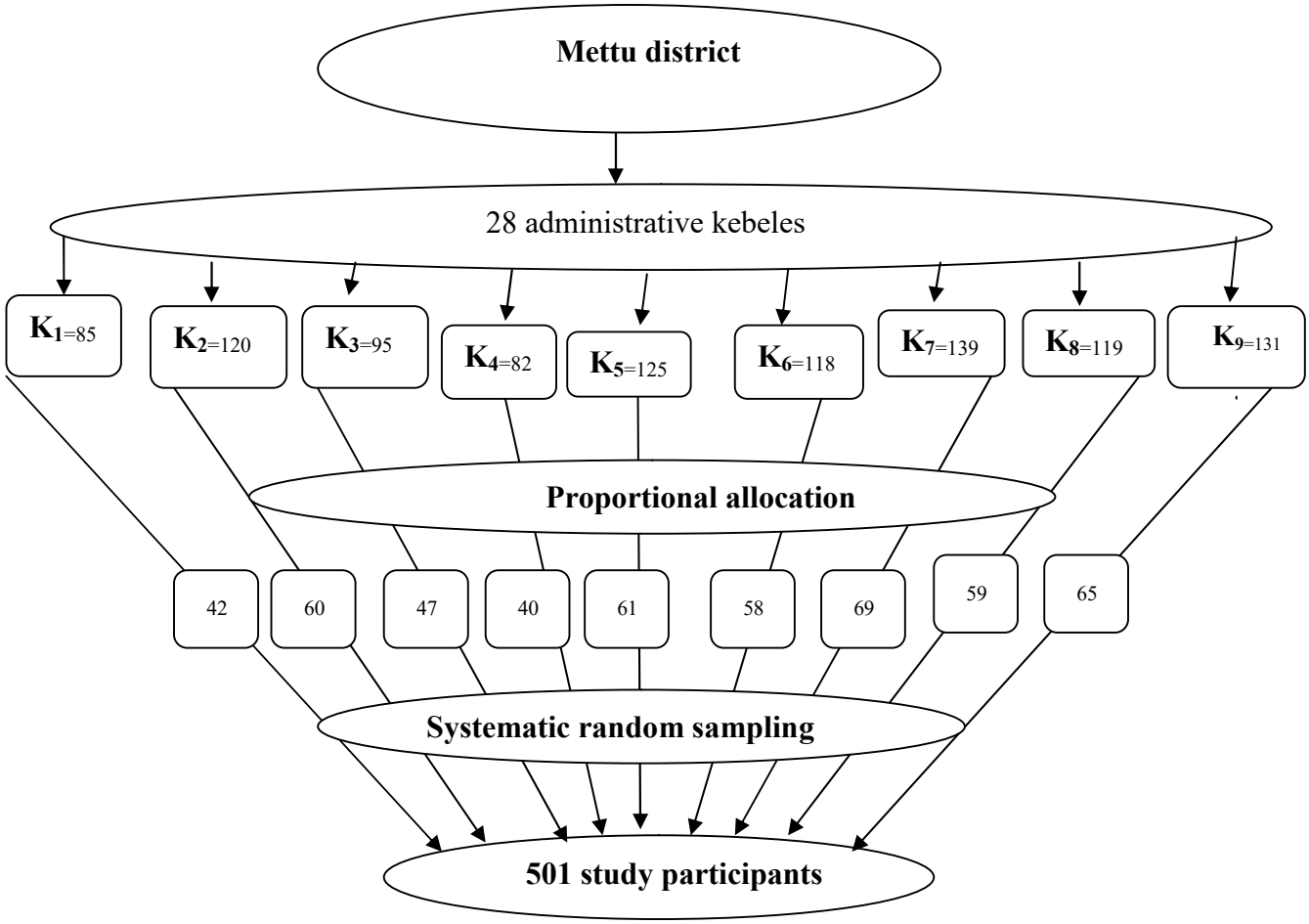

Figure 2 Sampling method

Key; K_1-Sardo, K_2-Bise, K_3-Keso, K_4-Didu, K_5-Guracha, K_6-Gebisa, K_7-chogi, K_8-Chatu and K_9-Hiri

4.7. Study variables

4.7.1. Dependent variable

- ✓ Intention to use maternity waiting home

4.7.2. Independent variables

I. Psychosocial variables: Attitude, subjective norm and perceived behavioral control and indirect psychosocial variables: behavioral, normative, control beliefs

II. Socio demographic characteristics: Age, marital status, educational status, monthly income and occupation.

III. Obstetric history: ANC visit, place of delivery and past experience of MWH.

4.8. Operational definitions and definition of terms

Intension to use MWH: an indication of individual readiness/willing/ to use MWH and how much an effort they are planning to exert, to use MWH. It was measured by question containing five points likert scale. Lastly it's dichotomized using the mean score which was 12.64 into two groups. Those who scored above the mean (12.64) was classified as intended to use and whereas those who scored less than the mean(12.64) was considered as not intended to use the home(9)..

Attitude towards MWH: the degree to which the person has a favorable or unfavorable evaluation of using of MWH. It was measured by four questions containing five point likert scale and they classified into two by using mean as they have good and poor attitude.

Subjective norm: an individual's perception about using MWH, which is influenced by the judgment of significant others. It was measured by four questions containing five point likert scale and they classified into two by using mean as they have favorable and unfavorable subjective norm.

Perceived behavioral control (PBC): the individual's belief concerning how easy or difficult using MWH will be. It was measured by four questions containing five point likert scale and they classified into two by using mean as they have favorable and unfavorable perceived behavioral control.

Behavioral Beliefs: an individual's beliefs about using MWH. It was measured by five questions containing five point likert scales.

Normative Beliefs: an individual's perception of social normative pressures/relevant others'/ beliefs that pregnant mother should or should not use MWH. It was measured by four questions containing five point likert scales.

Control Beliefs: an individual's beliefs about the presence of factors that may facilitate or hinder using MWH. It was measured by four questions containing five point likert scales.

4.9. Data collection tool

The interview questionnaire consists of five parts: **socio-demographic characteristics** and **obstetric history**, **psychosocial variables** have two parts (attitude, subjective norm, and PBC measurement both the direct and indirect measurement for each component), **intention** and **past experiences measurements**. The socio-demographic characteristics and obstetrics is the **first part** of the tool and contains seven items for socio demography and four items for obstetric history part which is composed of multiple choice and blank space items. **Part II** contains four multiple choice questions used to assess attitude. **Part III** contains four multiple choice questions used to assess subjective norm measurement and four for PBC control. **Part IV** deals with intention and measured by four multiple choice questions and **Part V** deals with past experience of MWH utilization contains one yes or no question and two multiple choice questions used to assess past experience.

4.10. Data collection procedures

Data was collected through face-to-face interview with pre-tested structured questionnaire, which was adapted from study conducted in Jimma on Antenatal Mothers(9). Seven data collectors with diploma in midwifery from health center who can speak Afan Oromo and two supervisors with BSC in midwifery were deployed for data collection. They were trained for two days by the principal investigator on the study instrument, consent form and data collection procedure.

4.11. Data quality control management

To keep data quality the questionnaire (English version) was translated into Afan Oromo and translated back to English by two different language experts with the help of a health professional. Two days training was given to the data collectors and supervisors on the objective, relevance of the study, confidentiality of information, respondent's right, about pre-test, informed consent and techniques of interview. A week before actual data collection, the questionnaire was pre-tested on pregnant mothers of Bedele district on 5% (25) of the final sample by principal investigator. The purpose of the pre-testing was to ensure that whether respondents are able to understand the questions or not and to check the wording, logic and skip patterns of the questions in a rational way to the respondents. After pre-testing, amendments were made accordingly. Reliability test was performed for likert scale questions which is Cronbach's alpha=0.81.

After analyzing data from the pre-test, questions which were not clear were rephrased. Questions in the tool were adapted from previous studies conducted in Jimma district(9) and the literature reviewed. The supervisors & the principal investigator have made frequent checks on the data collection process to ensure the completeness & consistency of the gathered information and errors found during the process was corrected.

4.12. Data analysis procedures

After data collection, filled questionnaires were coded. The data was entered using Epi data version 3.1 statistical soft ware and analyzed using SPSS version 21. Data cleaning was performed to check for frequencies, accuracy, and consistencies and missed values and variables. Incomplete and inconsistent data was excluded from the analysis. The descriptive analysis such as proportions, percentages, means, and measures of dispersion, tables, and graphs used to describe the data. Binary logistic regression analysis was performed to assess the association between socio-demographic character, obstetric, attitude, subjective norm, perceived behavioral control and past experiences with intention.

Multivariate logistic regression analysis was performed to identify the independent predictors of intention from the socio-demographic character, obstetric, attitude, subjective norm, perceived behavioral control and past experiences. Significant independent predictor was declared at 95% confidence interval and P-value of less than 0.05 as cut off point.

4.13. Ethical consideration

An ethical approval was obtained from IRB of school of Nursing and Midwifery, Addis Ababa University. Official letter of cooperation was written to Mettu district health office from department of nursing and Midwifery. Then Letter of cooperation was also written to each kebeles administrative from Mettu district health office. Following an explanation of the purpose of the study consent was obtained from participants and oral assent was taken from family of less than 18 years respondents. Also affirmation that they are free to withdraw consent and discontinue participation without any form of prejudices was made. Confidentiality of information and privacy of participants were assured for all the information provided, to preserve the confidentiality the data was not exposed to the third party except the principal investigator and advisor.

4.14. Dissemination of the result

The study findings will be disseminated to the relevant organizations and stakeholders. The plan of diffusion of the research result includes: presentation at Addis Ababa University College of Health sciences, School of Nursing and Midwifery and research conferences. The report paper will also be disseminated to Mettu district health office. Publication in scientific journal and online dissemination will be considered.

CHAPTER 5: RESULTS

5.1 Socio demographic characteristics of the respondents

Four hundred ninety pregnant women participated with a response rate of 97.8%. The mean age of the respondents was 25.34 years with ±5.69 SD. Greater part (59.6%) of the respondents were found in the age between 20-29 years. Two hundred (40.8%) were protestant religion followers. Two hundred eighty eight (58.8%) respondents attended primary education. Four hundred forty nine (91.6%) were married. Two hundred thirty nine (48.8%) were house wife. Four hundred and four (82.4%) were Oromo in ethnicity and two hundred forty four (49.8%) of them earn a monthly income of 501 to 999 birr (Table 1).

Table 1 Socio demographic characteristics of pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

Variable	Category	Frequency	Percent
Age in years	15-19	78	15.9
	20-24	146	29.8
	25-29	146	29.8
	30-34	70	14.3
	35 and above	50	10.2
Religion	Orthodox	162	33.1
	Muslim	128	26.1
	Protestant	200	40.8
Educational status	Unable to read and write	98	20
	Primary education	288	58.8
	Secondary education & above	104	21.2
Marital status	Married	449	91.6
	Single	22	4.5
	Widowed	19	3.9
Current occupation	House wife	239	48.8
	Farmer	213	43.5
	Student	15	3.1
	Government employee	23	4.7
Ethnicity	Oromo	404	82.4
	Amhara	82	16.7
	Tigray	2	0.4
	Gurage	2	0.4
Monthly income	≤500 ETB	72	14.7
	501-999 ETB	244	49.8
	≥ 1000 ETB	174	35.5

5.2 Health service utilization

Regarding maternal health service utilization two hundred forty eight (50.6%) had three and above pregnancy experiences. One hundred fifty eight (32.2%) had three number of antenatal visit and 76 (15.5%) had no visit. Three hundred fifty (71.4%) gave birth before and 186 (53.1%) had their last child in the health institution (Table 2).

Table 2 Health service utilization of pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

Variable	Category	Frequency	Percent
Number of pregnancy	1-2	242	49.4
	≥3	248	50.6
ANC visit	No visit	76	15.5
	1st visit	46	9.4
	2nd visit	122	24.9
	3rd visit	158	32.2
	4th visit	88	18
Gave birth before	No	140	28.6
	Yes	350	71.4
Place of delivery	Home	164	46.9
	Health institution	186	53.1

Past experience of MWH

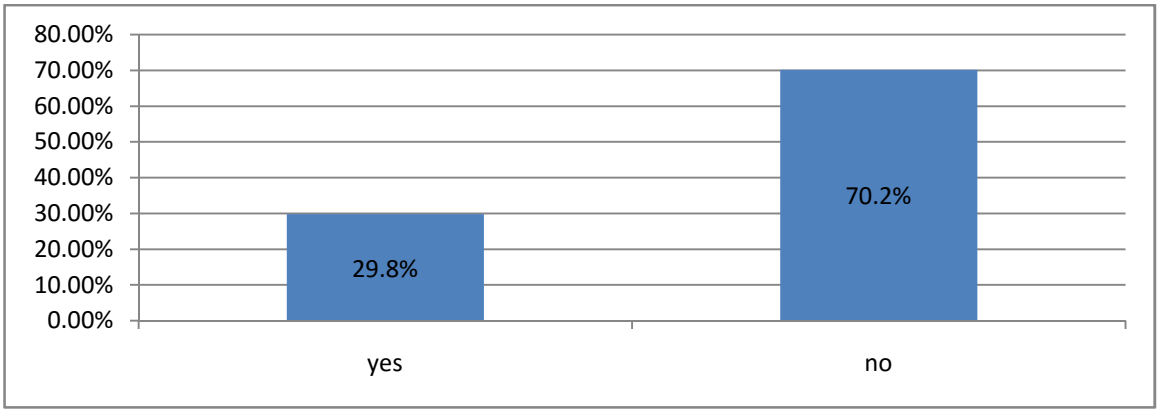

Figure 3 Past experience of MWH utilization among pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

One hundred forty six (29.8%) respondents had past experiences on maternity waiting home.

Reason to use maternity waiting home

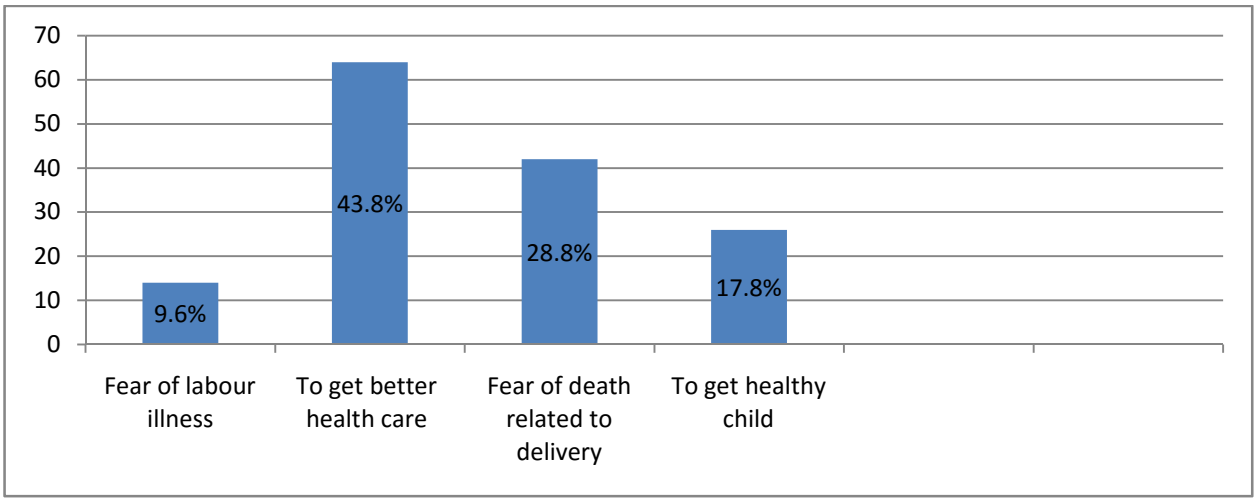

Figure 4 Reason to use MWH among pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=146)

Sixty four (43.8%) of the respondents who ever used MWH mentioned reason to use MWH was to get better health service whereas, fear of death related to delivery was accounts 141(28.8%).

Days stayed in maternity waiting home

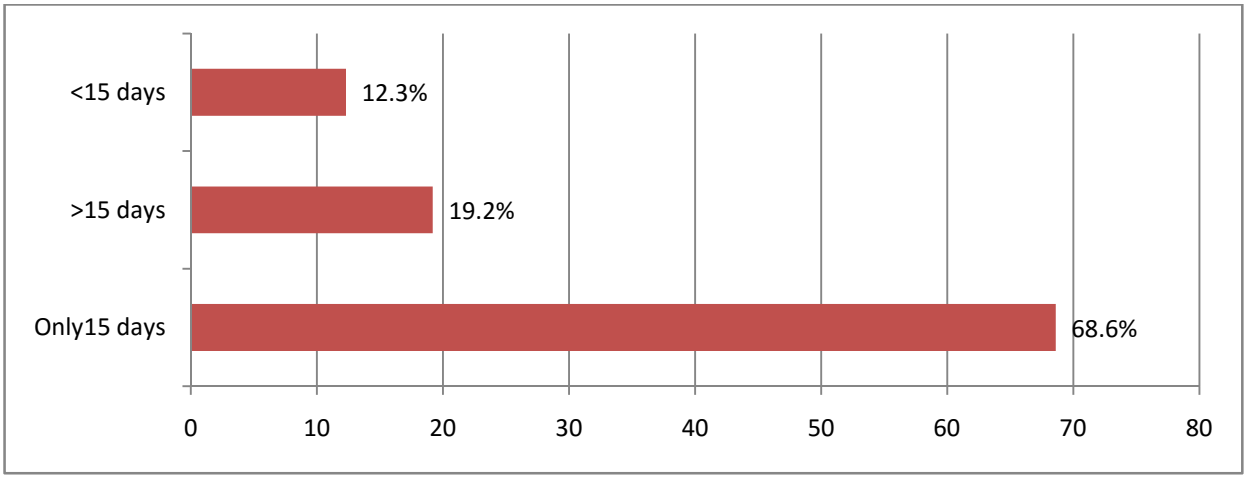

Figure 5 Days stayed in MWH among pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=146)

One hundred of them (68.6%) stayed only fifteen days in MWH and about 94(19.2%) where stayed greater than fifteen days.

5.3 Direct TPB components

5.3.1 Attitude

Regarding attitude towards MWH use 272(55.5%) respondents reported that using MWH was good (Table 3).

Table 3 Attitude measurement result of pregnant women in Mettu district, Ilubabor zone, south west Ethiopia, March, 2018(n=490)

Variable	Frequency	Percent	Mean and SD
Attitude			
Good	272	55.5	16.44(SD±1.945)
Poor	218	44.5	

5.3.2 Subjective norm

Two hundred fifty six (52.2%) respondents agreed that they had favorable subjective norm (Table 4).

Table 4 Subjective norm measurement result of pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

Variable	Frequency	Percent	Mean and SD
Subjective norm			
Favorable	256	52.2	12.4(SD±4.91)
Unfavorable	234	47.8	

5.3.3 Perceived behavioral control

On the other hand 286 (58.4%) of pregnant women reported that as they had favorable perceived behavioral control (Table 5).

Table 5 Perceived behavioral control measurement result of pregnant women in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

Variable	Frequency	Percent	Mean and SD
Perceived behavioral control			
Favorable	286	58.4	13.51(SD± 3.805)
Unfavorable	204	41.6	

5.4 Intention to use maternity waiting home

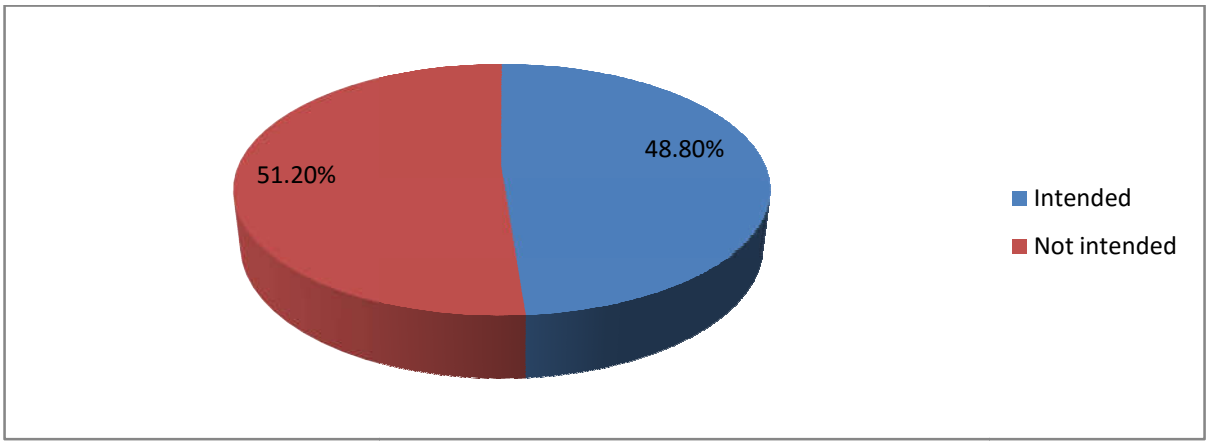

Figure 6 Intention of pregnant women to use MWH in Mettu district, Ilubabor zone, South west Ethiopia, March, 2018 (n=490)

Two hundred thirty nine (48.8%) of them were intended to use MWH. The mean score of intention was 12.64(SD± 4.938).

Challenges reported by pregnant mothers that hinder the utilization of MWH include; about 384(78.4%) of them reported that food insecurity in MWH, 320(65.3%) of the respondents explained that lack of transport /long distance/, 262 (53.5%) reported that it is difficult to get individuals that can give care for their family once they left to it and 198(40.4%)of the respondents mentioned that hardship of staying/desolate surrounding/ makes it more difficult for them to stay in it. Majority of pregnant mother explained that their mother and husbands approval were important to use MWH.

5.5 Indirect TPB components

5.5.1 Behavioral beliefs

It had mean score of 44.38(SD± 2.542).Four hundred seventy three (96.5%) of the respondents agreed that using MWH help to get healthy child. The evaluation of outcome result showed that 475(97%) and 471(96.2%) respondents agreed that using MWH help to get healthy child and health information on immunization, F/p & other health service respectively.

5.5.2 Normative beliefs

It had mean score of 29.81(SD±3.701). Four hundred thirty two (88.1%) agreed that HEW think that pregnant women should use MWH. Around half of them (52.6%) agreed that their husband think that they should stay in MWH. The strength of each thinking evaluated using motivation to comply of each thinking also showed that nearly two third 310(63.3%) of pregnant women reported that their husband approval for using MWH was very much important. Around half of them 250(51%) reported that HEW approval for using MWH was very much important.

5.5.3 Control beliefs

The mean score of control beliefs was 26.98(SD± 6.696)**.**Three hundred forty four (70.2%) of them explained that it's unlikely to get enough food in MWH to use it. About three hundred eighteen (64.9%) respondents reported that it is difficult to get transport to use MWH. The power of control belief measurement result also showed 384(78.4%) and 320(65.3%) respondents agreed that availability of enough food and transport accessibility make easy to use MWH respectively.

5.6. Bi-variate Analysis

In the binary logistic regression: occupation, reason to use MWH, place of birth, number of days stayed in MWH, giving birth before, educational status, age of the respondents, past experience of MWH, number of ANC visit, subjective norm and perceived behavioral control were factors associated with intention to use MWH.

Table 6 Bi-variate analysis results among pregnant women in Mettu district, Ilubabaor Zone, South west Ethiopia, April, 2018(n=490)

Intention to use MWH					
Variable		**Yes**	**No**	**COR(95% CI)**	**p-value**
Occupation	House wife in occupation	88(36.8)	151(63.2)	1	
	Farmer in occupation	137(64.3)	76(35.7)	0.76(0.32, 1.8)	.53
	Student in occupation	4(26.7)	11(73.3)	2.34(0.98, 5.6)	.050
	Government in occupation	10(43.5)	13(56.5)	0.47(0.12, 1.9)	0.298
Reason to use MWH	Fear of labour illness	8(57.1)	6(42.9)	0.40(0.1, 1.62)	.199
	To get better health care	54(84.4)	10(15.6)	1.62(0.52, 5.04)	.405
	Fear of death	22(52.4)	20(47.6)	0.33(0.11, 0.99)	.047
	To get healthy child	20(76.9)	6(23.1)	1	
Place of birth	Giving birth at home	72(43.9)	92(56.1)	1	
	Giving birth in health insti.	114(61.3)	72(38.7)	0.37(0.25, 0.6)	.000
Days stayed in MWH	More than 15 days	72(72)	28(28)	1	
	Only 15 days	16(57.1)	12(42.9)	0.10(0.02, 0.36)	.147
	Less than 15 days	16(88.9)	2(11.1)	0.32(0.07, 1.49)	.001
Giving birth before	No	53(37.9)	87(62.1)	1	
	Yes	186(53.1)	164(46.9)	0.54(0.36, 0.80)	.002
Educational status	Unable to read & write	36(36.7)	62(63.3)	1	
	Primary Education	145(50.3)	143(49.7)	0.46(0.26, 0.81)	.007
	Secondary and above	58(55.8)	46(44.2)	0.80(0.51, 1.26)	.343
Age of the respondents	15-19 years	32(41)	46(59)	1	
	20-24 years	75(51.4)	71(48.6)	0.46(0.23, 0.96)	.037
	25-29 years	64(43.8)	82(56.2)	0.70(0.37, 1.35)	.292
	30-34 years	38(54.3)	32(45.7)	0.52(0.27, 1.10)	.050
	≥ 35 years	30(60)	20(40)	0.79(0.38, 1.65)	.534
Past experience of MWH	No	135(39.2)	209(60.8)	1	
	Yes	104(71.2)	42(28.8)	0.26(0.17, 0.40)	.000
ANC visit	No ANC visit	22(28.9)	54(71.1)	1	
	Only one ANC visit	22(47.8)	24(52.2)	0.32(0.17, 0.62)	.001
	2 number of ANC visit	64(52.5)	58(47.5)	0.73(0.36, 1.49)	.388
	3 number of ANC visit	82(51.9)	76(48.1)	0.88(0.51, 1.52)	.644
	4 number of ANC visit	49(55.7)	39(44.3)	0.86(0.51, 1.45)	.569
Direct attitude	Unfavorable	109(50%)	109(50%)	1	
	Favorable	142(52.2)	130(47.8)	1.09(0.77, 1.56)	.627
Direct subjective norm	Unfavorable	79(33.8)	155(66.2)	1	
	Favorable	160(62.5)	96(37.5)	0.31(0.21, 0.44)	.000
Direct PBC	Unfavorable	79(38.7)	125(61.3)	1	
	Favorable	160(55.9)	126(44.1)	0.50(0.35, 0.72)	.000
Indirect attitude	10-50	44.38		1	
				0.95(0.89, 1.03)	.231
Indirect subjective norm	8-40	29.81		1	
				1.17(1.11, 1.23)	.055
Indirect PBC	8-40	26.98		1	
				0.93(0.90, 0.95)	.120

5.7. Multivariate Analysis

In the multivariable logistic regression; age of the respondents, number of days stayed in MWH, subjective norm and perceived behavioral control maintained their association with intention to use MWH after controlling for confounding factors. Those who stayed less than 15 days in MWH were 11 times more likely intended to use MWH (AOR=11.3, 95%CI: 1.72, 19.29) as compared to those stayed greater than 15 days, those whose age 25-29 years were 63% times more likely intended to use MWH (AOR=0.37, 95%CI: 0.15,0.90) as compared to age 15-19 years, those who had favorable subjective norm were 2.8 times more likely intended to use MWH (AOR=2.81, 95%CI: 1.66, 4.75) as compared to those who had unfavorable subjective norm and those who had favorable perceived behavioral control were 1.99 times more likely intended to use MWH (AOR=1.99, 95%CI: 1.12, 3.56) as compared to those who had unfavorable perceived behavioral control (Table 6).

Table 7 Multivariate analysis results among women in Mettu district, Ilubabor zone, South west Ethiopia, April, 2018(n=490)

Intention to use MWH						
Variable		**Yes**	**No**	**COR(95%CI)**	**AOR(95%CI)**	**p-value**
Age	15-19 years	32(41)	46(59)	1	1	
	20-24 years	75(51.4)	71(48.6)	0.46(0.23, 0.96)	0.76(0.37, 1.55)	.445
	25-29 years	64(43.8)	82(56.2)	0.70(0.37, 1.35)	0.37(0.15, 0.90)*	.029
	30-34 years	38(54.3)	32(45.7)	0.52(0.27, 1.10)	0.73(0.28, 1.95)	.535
	≥ 35 years	30(60)	20(40)	0.79(0.38, 1.65)	1.38(0.49, 3.91)	.540
Days stayed in MWH	>15 days	72(72)	28(28)	1	1	
	15 days	16(57.1)	12(42.9)	0.10(0.02, 0.36)	2.11(0.75, 5.95)	.156
	< 15 days	16(88.9)	2(11.1)	0.32(0.07, 1.49)	11.3(1.72, 19.29)*	.012
Subjective norm	Unfavorable	79(33.8)	155(66.2)	1	1	
	Favorable	160(62.5)	96(37.5)	0.31(0.21, 0.44)	2.81(1.66, 4.75)**	.000
Perceived BC	Unfavorable	79(38.7)	125(61.3)	1	1	
	Favorable	160(55.9)	126(44.1)	0.50(0.35, 0.72)	1.99(1.12, 3.56)*	.020

* Statistically significant predictors **statistically highly significant predictors

CHAPTER 6: DISCUSSION

This study revealed that, 239(48.8 %) of pregnant women intended to use maternity waiting home. This indicated that only less than half of them intended to use, which is low.

This finding is lower than a study done in Jimma district which was 219(57.3%)(9) and a community based study in Butajira which is about 236(55.1%) was intended to stay in MWH(29). The variation could be attributed to difference in study setting; this study is community based whereas the previous was facility based in case of Jimma, sample size; this study is conducted on 501 respondents whereas 387 and 428 in case of Jimma and Butajira respectively, year of study; this study conducted in 2018 and 2014 in case of Butajira. The other reason for the difference may be difference in socio demographic, economic and cultural variability between the study settings.

This finding is higher than the national study conducted in Ethiopia only 22(17%) of women intended to stay in MWH(22). This difference is may be the variability in socio demography and economy, culture since the national study involves women of different societal back ground and additionally may show government efforts done in health education regarding MWH which in turn increase skilled delivery.

This finding is also lower than the study done in Kenya in which 234(61.1%) of women answered that they were willing /intended/ to stay in a MWH(28), a survey done in Zimbabwe, about 157(66.7%) of the women stated that they would use a MWH(24), in rural Zambia, women's from centers with MWHs were more likely to express high intention to use MWHs which is 199(98%)(25) and in a rural district of Ghana, 1080(90%) of them were willing to stay in a MWH(26).The variation may be as a result of difference in study setting; this study is community based whereas the previous were facility based except a study conducted in Kenya, sample size; this study is conducted on 501 respondents whereas 383, 235, 340, 1200 respondents in the studies of Kenya, Zimbabwe, Zambia and Ghana respectively, year of study; this study conducted 2018 and while the previous studies were in 2014, 2012, 2014, 1990 in case of Kenya, Zimbabwe, Zambia and Ghana respectively.

Other reasons for the variation may be differences in socio demography, socio-economic status, culture, infrastructure, health care system and policy.

In this study, about 146(29.8%) of pregnant women had ever used MWH. This implies the utilization is relatively low.

This result was lower than the study done in Jimma which was 148(38.7%) respondents had past experiences(9). The variation could be attributed to difference in study setting; this study is community based whereas the previous was facility based, sample size; this study is done on 501 respondents whereas the previous was on 387. The difference may be also being due to variation in priority given and socio-demography between the two studies.

This result was also lower than the study done in north Liberia and Zimbabwe which were 29(47.5%) and 78(33.2%) respectively(4, 23). The variation may be difference in socio-economy, culture, socio demography, health care system and policy.

This result was higher than the study done in rural Zambia and Kenya which were 27.3% and 33(10%) respectively (28, 36, 38). The discrepancy may be presence of HEW that educate the advantages of staying at MWH, availability of MWH at health centers and presence of community volunteer that advocate importance of utilization of maternal health services in Mettu district.

This study showed that age of the respondents was also found to be statistically significant predictor of intention to use MWH.

Those whose age 25-29 years were 63% times more likely intended to use MWH (AOR=0.37, 95%CI: 0.15,0.90) as compared to age 15-19 years, it implies that as the age increase their intention also increases. In line with this study, a research conducted in Zambia revealed older women with many children were more likely to perceive and comply with social pressure from important others to use or not to use a MWH (34).This is may be, as the age increase they become more concerned about their health and importance of using the home may increase, their ability to convince their husband/family/ on importance of staying in the maternity home may also increase and they may have older children who cares for the young one. Due to this reason, the older ones are more intended to use the home than the young.

This study showed that subjective norm was found to be statistically significant predictor of intention to use MWH. Those who had favorable subjective norm were 2.8 times more likely intended to use MWH (AOR=2.81, 95%CI: 1.66, 4.75) as compared to those who had unfavorable subjective norm. This is in line with the study done in Jimma(9). This is may be, most of the respondents were housewife and they had no their own income and influenced by their husband. So, mostly the husbands need to approve to use the home. About 310(63.3%) of the pregnant women agreed that most important people approve or disprove to use MWH was their husband. This result is higher than the national study in Ethiopia which is 59(46%)(22)and the other study conducted in Jimma which is 208(54.5%)(9). The reason is may be, the first study was conducted at national level. So, there is difference in societal background and year of study; it was conducted in 2015 whereas the difference for the second study may be variability in study setting which was facility based and socio demography.

This study also showed that; mothers, neighbor and health extension workers were also other important individuals that approve the use of MWH. This is in line with the study conducted in Jimma(9) and Zambia(36) in which husbands, mothers, traditional birth attendants and relatives were involved in the decision.

This study revealed that days stayed in MWH were the other predictor of intention to use MWH. Those who stayed less than 15 days in MWH were 11 times more likely intended to use MWH (AOR=11.3, 95%CI: 1.72, 19.29) as compared to those stayed greater than 15 days. This may be, mothers don't want to spend more days in the maternity home.

They want go back within short period of time because they don't get individuals who give care for their children at home, they may not get enough food in MWH and living alone may force them to go back to their home within short period of time. As a result of this, those who stays few days are more intended to use than who stays longer.

This study revealed that perceived behavioral control was found to be statistically significant predictor of intention to use MWH. Those who had favorable perceived behavioral control were 1.99 times more likely intended to use MWH (AOR=1.99, 95%CI: 1.12, 3.56) as compared to those who had unfavorable perceived behavioral control. This is in line with the study done in Jimma and Zambia (9, 35). This may due to women perception that they may

not get individuals that gives care for their family. About 118(24.1%) and 142(28.9%) of respondents reported that, using MWH was difficult and not under their control respectively. This is lower than study conducted in Jimma in which 122(31.9%) and 106(27.7%) of respondents reported using MWH was difficult and not under their control respectively. This difference is may be due to variability in study setting in which the previous study was facility based whereas this study is community based. In this study, 344(70.2%) of them explained that it was unlikely to get enough food in MWH to use it. This is higher than study done in Jimma district and Amhara region (9, 22). The difference is may be variability in socio demography and study setting; the previous two studies were facility based whereas this study is community based.

6.1. Strength and Limitation

6.1.1. Strength

- High response rate was obtained
- Appropriate statistical test was used

6.1.2. Limitation

- Cross-sectional nature of the study**:** the study used cross sectional study design; hence it is not possible to clearly establish cause-effect relationship between the variables.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 Conclusion

The study revealed that, 48.8% of pregnant women were intended to use maternity waiting home. This indicated that majority of the study participants were not intended to use it, which is a concern because of not to use it contributes to maternal mortality and morbidity. Age, number of days stayed, subjective norm and perceived behavioral control were predictors of intention to use the home.

7.2 Recommendations

To increase their intention which results in increase in utilization we need to give focus on; health education, community mobilization on its utilization, work on the barriers, awareness creation of husbands and advocating the home.

Policy makers

To develop guide lines used to monitor, report and track barriers on its utilization

Mettu district health department

It is better if the zone strengthen the monitoring and evaluation on utilization of maternity home and its reporting mechanism.

Health care professionals in the research setting

- It's important to counsel and identify problems with pregnant mothers on maternity home utilization as a component of ANC
- It's recommended to follow those mothers in the home properly and timely discharge to shorten the number days they stay.
- Discussing the importance and barriers of using the home with community
- Conducting discussion on why women don't use the home with pregnant mothers
- Doing community mobilization on MWH utilization
- Promotion of partner involvement to support their wife in their utilization of MWHs

Researchers

It is recommended to do further research on the same issue in the other parts of the country to come up more representative results.

Community leaders; to mobilize the communities on its utilization and advocate MWH

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9. APPENDIX

Annex A Information sheet

Title of the Research Project: Intention to use Maternity Waiting Home among Pregnant Women in Mettu District, Southwest Ethiopia, 2018: community based study

Name of Investigator: Worke Yismaw (BSC Nursing).

Name of the Organization: Mettu district

Name of the Sponsor: AAU, College of Health Sciences, School of Nursing and Midwifery

Introduction: This information sheet is prepared for Mettu district health office. The aim of this form is to make the above concerned office clear about the purpose of research, data collection procedures and get permission to conduct the research.

Purpose of the Research Project: To assess intention to use maternity waiting home among pregnant women in Mettu district, south west Ethiopia.

Procedure: In order to achieve the above objective, information which is necessary for the study will be taken from the mother through interview.

Risk and /or Discomfort: it will not inflict any harm on the patients. The name or any other identifying information will not be recorded on the questionnaire and all information taken from the pregnant mother will be kept strictly confidential and in a safe place. The information taken will only be used for the study purpose.

Benefits: The research may have no direct benefit for one who interviewed. But the indirect benefit of the research for the participant and other pregnant mother in the program is clear. It used for increasing institutional delivery which results in reduction of maternal and neonatal mortality.

Confidentiality: The information collected will be kept confidential and it will not be revealed to anyone except the investigator and it will be kept in key and locked system with computer pass ward.

Person to contact: This research project was reviewed and approved by the institutional review board of AAU, College of Health Sciences, School of Nursing and Midwifery. If you have any question you can contact the investigator with the following address.

Name: Worke Yismaw Cell phone: +251- 971 85 73 E-mail:worke_yismaw@yahoo.com

Institution: AAU, College of Health Sciences, School of Nursing and Midwifery

Annex B Consent form

Dear Participant: My name is Worke Yismaw, I am from Addis Ababa University School of Allied health Sciences, Department of Nursing and Midwifery and I am here to collect data on "Intention to use maternity waiting home among pregnant women" for the purpose of research. The objective of this study is to assess intention to use maternity waiting home among pregnant women in this district. The benefit of your participation in this study is to improve Maternal and neonatal health in your community as well as a country as a whole by increasing institutional delivery by implementing different intervention on MWH utilization. I would like to ask questions related to maternity waiting home utilization in health center 15 days before giving birth among pregnant women and the interview will take 30 minutes. I assure you that whatever information you provide will only be used for the purpose of this research and will not be made available to anyone. I appreciate you too much for your willingness and support to respond the interview. I also assure that the interview process will not bring any harm to you and your family. Your participation is voluntary. If you choose not to answer a particular question, that is your right. You are also permitted to withdraw any time from the study when you feel uncomfortable with it.

Therefore, to participate in this study you: Agree/Not agree

May I know begin the interview? If yes, continue interviewing

If no, thanks and stop interviewing.

Signature of the data collector certifying that the informed consent has been verbally by respondents

Name of the interviewer..... Sign .....date..... Addresses: If you have any question regard to this study, you can ask immediately the interviewer or the investigator (Tell: 0917718573 e-mail: worke_yismaw@yahoo.com)

Annex C English version questionnaires

Part 1 Socio demographic questionnaire

1. Age in years_____
2. What is your Religion? 1. Orthodox 2.Muslim 3.Protestant 4.Catholic 5.Others_____
3. What is your educational status? 1. Unable to read and write 2. Only read and write
   3. Primary education (grade 1-8) 4. Secondary education (grade 9-10)
   5. Preparatory education (grad 11-12) 6. Higher education
4. What is your marital status? 1. Married 2.Single 3.Widowed 4.Divorced
5. What is your occupation? 1. House wife 2. Farmer 3.Merchant 4.Students
   5. Gov't employee 6. Others (Specify) _____
6. What is your ethnicity? 1. Oromo 2.amhara 3.gurage 4.tigray 5. Others (Specify) _____
7. How many pregnancies do you have experiences? _____
8. Monthly income _____birr
9. Do you have ANC follow up? 1. Yes 2.No
10. If yes to question No.9, what is your current ANC follow up visit? 1.1st 2.2nd 3.3rd 4.4th
11. Have you ever give birth before? 1. Yes 2. No
12. If your answer for question no 10 is yes, where did you attend your child birth? _____

Part 2 Attitude measurement

2.1. Direct attitude measurement

1. For me staying in health center for institutional delivery 15 days before giving birth is:

   Bad----------1-------2--------3--------4---------5--------Good

   Useless----------1-------2--------3--------4---------5-------Useful

   Unpleasant--------1-------2--------3--------4---------5--------Pleasant

   Boring----------1------2--------3--------4---------5-------Interesting

2.2. Indirect attitude measurement

A. Behavioral beliefs measurement

1. Staying in health center for institutional delivery 15 days before giving birth will help me to get delivery by health professionals & prevent myself from death related to delivery:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

2. Staying in health center for institutional delivery 15 days before giving birth will help me to get healthy child: 1. strongly disagree 2. Disagree 3.Neutral 4.Agree 5. Strongly agree

3. Staying in health center for institutional delivery 15 days before giving birth will help be to be happy & reduce fear of labor:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

4. Staying in health center for institutional delivery 15 days before giving birth will help me to get better ANC services: 1.strongly disagree 2. Disagree 3. Neutral 4.Agree 5.Strongly agree

5. Staying in health center for institutional delivery 15 days before giving birth will help me to get better health information on child immunization, family planning & personal hygiene:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

B. Evaluation of outcomes

1. For me getting delivery by health professionals & prevent myself from death related to delivery is: 1. Very Bad 2. Bad 3.Neutral 4.Good 5.Very good

2. For me getting healthy child is: 1. Very Bad 2.Bad 3.Neutral 4.Good 5.Very good

3. For me being happy & reduce fear of labor is:

1. Very Bad 2. Bad 3.Neutral 4.Good 5.Very good

4. For me getting better ANC services is:

1. Very Bad 2.Bad 3. Neutral 4.Good 5.Very good

5. For me getting health information on immunization, family planning & other health service is: 1. Very Bad 2.Bad 3.Neutral 4. Good 5.Very good

Part 3.I Subjective norm measurement

3.1. Direct subjective norm measurement

1. Most people who are important to me will approve of my staying in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

2. Most people who are important to me will think that I should stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

3. Most people who like me want my staying in health center for institutional delivery 15 days before giving birth: 1. strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

4. It is expected of me that I have to stay in health center for institutional delivery 15 days before giving birth: 1. strongly disagree 2.Disagree 3.Neutral 4. Agree 5. Strongly agree

3.2. Indirect subjective norm measurement

A. Normative beliefs

1. My mother thinks that I should stay in health center for institutional delivery 15 days before giving birth: 1. strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

2. My husband thinks that I should stay in health center for institutional delivery 15 days before giving birth: 1. strongly disagree 2. Disagree 3. Neutral4. Agree 5. Strongly agree

3. My neighbor thinks that I should stay in health center for institutional delivery 15 days before giving birth: 1.strongly disagree 2. Disagree 3.Neutral 4. Agree 5. Strongly agree

4. Health extension workers approve my staying in health center for institutional delivery 15 days before giving birth: 1.strongly disagree 2.disagree 3. Neutral 4.agree 5.strongly agree

B. Motivation to comply

1. My mother's approval of staying in health center for institutional delivery 15 days before giving birth is important to me:1.Not very much 2. Not Much 3.neutral 4.much 5.very much

2. My husband's approval of staying in health center for institutional delivery 15 days before giving birth is important to me:1.Not very much 2. Not Much 3.neutral 4.much 5. Very much

3. My neighbors' approval of staying in health center for institutional delivery 15 days before giving birth is important to me:1.not very much 2. Not Much 3.neutral 4.much 5.very much

4. Health extension worker's approval of staying in health center for institutional delivery 15 days before giving birth is important to me:

1. Not very much 2. Not Much 3. Neutral 4. Much 5. Very much

Part 3.II Perceived behavioral control measurement

3.1 Direct perceived behavioral control measurement

1. For me staying in health center for institutional delivery 15 days before giving birth is:

Difficult ----------1--------2--------3---------4----------5------Easy

Not under my control------1--------2--------3---------4----------5------under my control

Sudden ----------1--------2-------3---------4----------5------planned

Conditional ----------1--------2-------3---------4----------5-----unconditional

3.2 Indirect perceived behavioral control measurement

A. Control beliefs measurement

1. When my gestational age advances, I cannot get transportation/not walk long distance/ to go & stay in health center for institutional delivery prior to 15 days before giving birth:

1. Very Unlikely 2. Unlikely 3. Neutral 4. Likely 5. Very likely

2. If I stay in health center I could not get enough food to stay in health center for institutional delivery 15 days before giving birth:

1. Very Unlikely 2. Unlikely 3. Neutral 4. Likely 5. Very likely

3. If my gestation increases I cannot get individuals to take to health center for staying in it for institutional delivery 15 days before giving birth:

1. Very Unlikely 2. Unlikely 3. Neutral 4. Likely 5. Very likely

4. Difficult to get individuals that can give care for my family once I left to maternity waiting home 1. Very Unlikely 2.Unlikely 3.Neutral 4.likely 5.Very likely

B. Power of control measurement

1. Lack of transportation /long distance/ makes it difficult for me to go & stay in health center for institutional delivery prior to 15 days before giving birth:

1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree

2. Food insecurity in health center makes it difficult for me to stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5.Strongly agree

3. Hard ship of staying/desolate surrounding makes it more difficult for me to stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2. Disagree 3.Neutral 4. Agree 5.Strongly agree

4. Difficulty to get individuals that can give care for my family makes it difficult for me to stay in health center for institutional delivery prior to 15 days before giving birth:

1. Strongly disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly agree

Part 4 Intention measurements

1. I am intended to stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2.Disagree 3.Neutral 4. Agree 5.Strongly agree

2. I will stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5.Strongly agree

3. I want to stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2.Disagree 3. Neutral 4. Agree 5.Strongly agree

4. I like to stay in health center for institutional delivery 15 days before giving birth:

1. Strongly disagree 2.Disagree 3. Neutral 4. Agree 5.Strongly agree

Part 5 Past experiences

1. Have you ever been used maternity waiting home before? 1. Yes 2. No

2. If your answer for question no 1 is yes, what is your reason to use MWH?

1. Fear of labor illness 2. To get enough rest and free from workload

3. To get better health care from health professionals 4. Fear of death related to delivery

5. To get healthy child 6. Others specify_____

3. If your answer for question no 1 is yes, how many days have you stayed in MWH?

1. Only 15 days 2. Less than 15 days 3. More than 15 days

Annex D Afan Oromo version information sheet

Waraqaa Odeeffannoo

Mata-duree Qorannoo: "Intention to use Maternity Waiting Home among Pregnant Women in Mettu District, Southwest Ethiopia, 2018: community based study"

Maqaa qorataa: Warqee Yismaw (BSC Narsii).

Maqaa Waajjiraa: Aanaa Mattuu Baadiyyaa

Maqaa Sponsaraa: "AAU, College of Health Sciences, School of Nursing and Midwifery"

Seensa: Waraqaan odeeffannoo kun kan qophaa'e Biroo fayyaa aanaa baadiyyaa Mattuutiif yeroo ta'u kaayyoon isaas fayyidaa qorannichaa, hojjimaata odeeffanoo sassaabuu fi haayyama qarannoo gaggesuuf argachuuf dha.

Bu'aa qorrannichaa: Feedha/kaka'umsa/ dubartoota ulfaa aanaa baadiyyaa Mattuu,Kibbaa dhiha Ithoophiyaa gara fulduraatiif bakka turtii haadholii ulfaa fayyadamuuf qaban sakkata'u.

Hojiimaata: Galma ka'amee ga'uuf, odeeffannoon qorannichaaf barbaachisaa ta'e hadhoolii irra gaaffii fi deebbidhaan fuudhama.

Haala hin mijoofne fi rakkoo fiduu irraatti: uumaa midhaa kan fiidnee(namoota qorannoon irratti gaggeffame). Odeeffannoon sassabame eenyutti iyyuu kan darbee hin kenname fi

maqaan isaaniis kan irratti hin galmoofne ta'u isaa. Odeeffannoon sassabameemoo qorannoo kofaaf kan oolu ta'u isaa.

Fayyidaa: Qorannoon bu'a kallatti namoota irratti qo'annoon gaggeffame hin qabu.Garuu bu'a al-kallatti namoota qorannoon irratti gaggeffames ta'ee dubartoota ulfaa biraatiif ifa dha. Lakkoofsa da'umsa dhaabbilee fayyaa keessa dabaluuf fayyada, kun immoo du'a haadholii fi ijoollee kichuu hir'isuuf fayyada.

Iccitii: Odeeffannoon sassaabamee iccitiin isaa kan eegamuu fi qorataan ala eenyutti iyyuu kan hin kennamnee ta'u isaa.

Nama qunnaman: Qorannoon kun "the institutional review board of AAU, College of Health Sciences, School of Nursing and Midwifery" tiin kan ilaalamee fi mirkanaa'e dha. Gaaffii yoo qabaattan qorataa odeeffannoo kanaan gadii fayyadamtanii qunnamuuu dandeessu.

Maqaa: Warqee Yismaw lakk. Bil: +251- 971 85 73 E-melii:worke_yismaw@yahoo.com

Waajjira: "AAU University, College of Health Sciences, School of Nursing and Midwifery"

Annex E Afan oromo version consent form

Gaaffilee Varshinii Afaan Oromoo

Waligaltee/Haayyama Hirmaattota Qu'aannoo irrattii hirmaatan

Kabajamoo hirmaattota: Maqaan koo_____jedhama, ani kanan asitti argamef haadhooleen ulfaa mana yaalaatti bakka isaan tursisuf qopha'ee hanga da`umsaatti ittiin fayyadamuu isaanii irrattii dhimma qo'annootiif odeeffannoo funaanudhaafi. Ani amma gaaffilee waa`ee haadhoolin guyyoota 15 da`umsaan dura jiranitti dhaabbata fayyaatti iddoo isaaniif qopha'eetti turuun fayyadamaa ta'uu isaanii irratti ilaalcha haadhoolee gaafadha. Yaadni isiin naaf kennitan kun qo'annoodhaaf qoofa akka ooluufi icciitidhaan kan qabamu ta'uu isaa isiniif ibsuun barbaada. Dabalataaniis gaaffiin kun isiinii fi warra keessan irratti midhaa tokkollee kan hin geessine ta'uu isaas isiinif ibsuun barbaada, Gaaffii kiyyaaf deebii naaf laachuudhaaf fedha qabaachuun hirmaannaa gootaniif baay'iseen isiinin galateeffadha. Gaaffilee isiinitti hin tolle bira dabru dandeessu.

Yoo gaaffilee gaafatamaniif deebii keennuu dhiisuu barbaaddaniis yeroo feetan dhiistanii bahuu dandeessu. Kanaafuu, qo'annoo kanatti hirmaachuudhaaf feedhii qabduu?

- Eyyeen yookiin Lakki

Annex F Afan oromo version questionnaires

Kutaa 1; Gaaffilee haawaasummaa fi dinagdee ilaala

1. Umriin keessan waggaa meeqa?_____

2. Amantaan keessan maali? 1. Ortodooksii 2.Musliima 3.Pirotestaantii 4.Kaatolikii
5. Kan biroo(ibsi)_____

3. Sadarkaan barumsa keessan? 1. Barressu fi dubbisu kan hin dandenye 2.Barressu fi dubbisu qofa kan dandessu 2.Sadarkaa 1ffaa 3.Sadarkaa 2ffaa 4. Qophaa'ina 5.Barnoota olaanoo

4. Haalli gaa'ilaa keessan maal fakkaataa? 1. Kan heerumte 2. Kan hin heerumne
3. Kan abbaan manaa irra due 4.kan hiktee

5. Hojiin keessan maali? 1. Hojii mana keessa 2. Qonnaan bultu 3. Daldaaltu 4. Barattu 5.Hojii mootumma 6. kan biro yoo ta'e(ibsi)_____

6. Sabni kessan maali? 1. Oromoo 2.amaaraa 3.guraage 4.tigree 5.kan biro (ibsi)_____

7. Hanga ammaa yeroo meqaaf ulfoftee?_____

8. Galiin kessan ji'aan qarshii meeqa?_____

9. Ulfa isa ammaa kanaaf hordooffii ulfaa da'umsaan duraa yeroo meqaaf gootanii?
1. Homa (tokkolle) 2.isa jalqabaa 3.isaa 2ffaa 4.isa 3ffaa 5.isa 4ffaa

10. Kanaan dura deessettaa? 1) Eyyeen 2) Hindeenye

11. Yoo deebiin lakkoofsa 10niif eyyeen ta'e, essatti desse?_____

Kutaa 2: Gaaffille waa'ee safarri ilaalchaa

2.1 Madaalli Ilaalcha kallattii

1. Siif buufata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun.

Gaarii miti ----------1-------2--------3--------4---------5--------Gaarii dha

Hin fayyadu---------1-------2--------3--------4---------5------- Ni fayyada

Namatti hin tolu------1-------2--------3--------4---------5-------Namatti tola

Ni nuffiisisa----------1--------2--------3--------4---------5-------Hin nuffiisisu

2.2 Madaallii ilaalchaa Alkallattii

A. Madaalli ilaalchaa amala amantaan walqabatu

1. Dhaabbata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun kiyyaa akka Ogeessa fayyaatin gargaaramee da'uu fi du'aa da'umsa wajjiin walqabatee dhufu irraa na ittiisa: 1. baay'isee walii hin galu 2. walii hin galu 3.yaada hin qabu
4. ittiin walii gala 5. baay'iseen itti walii gala

2. Dhaabbata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun kiyya akka da'iima fayyaa qabu argadhu na gargaara.1. baay'isee walii hin galu

2. Walii hin galu 3.yaada hin qabu 4. ittiin walii gala 5. baay'iseen itti walii gala

3. Dhaabbata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun kiyyaa akkan gammadu fi sodaa ciniinsu hir'isuuf na gargaara. 1. baay'isee walii hin galu

2. walii hin galu 3. yaada hin qabu 4. ittiin walii gala 5. baay'iseen itti walii gala

4. Dhaabbata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun kiyyaa akkan tajaajila hordoffii da'umsaan duraa foyya'a ta'e argadhu na taasisa.

1. baay'isee walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittiin walii gala

5. baay'iseen itti walii gala

5. Dhaabbata fayyaatti da'uuf da'umsaan dura guyyaa 15niif dhaabbata fayyaa kessa turun kiyyaa akkan talaallii da'iimmanii, qusannoo maatii fi qulqullina ofii eegu irratti odeeffannno gahaa ta'e argadhu na gargaara. 1. baay'isee walii hin galu 2. walii hin galu

3. yaada hin qabu 4. ittiin walii gala 5. baay'iseen itti walii gala

B. Firii madaalli ilaalcha amalaan walqabatu

1. Siif tajaajila da'umsaa Ogeessa fayyaatiin argachuuni fi du'aa da'umsa wajjiin walqabatee dhufu irraa hafuun; 1. baay'isee gaarii miti 2. gaarii miti 3. yaada hin qabu 4. gaarii dha

5. baay'isee gaarii dha

2. Siif da'iima fayyaa qabeessa argachun; 1.baay'isee gaarii miti 2. gaarii miti

3. yaada hin qabu 4. gaarii dha 5. baay'isee gaarii dha

3. Siif sodaa ciniinsu hir'iisuu fi gammadaa ta'uun; 1. baay'isee gaarii miti 2. gaarii miti

3. yaada hin qabu 4. gaarii dha 5. baay'isee gaarii dha

4. Siif tajaajila hordooffi da'umsaan dura foyya'a ta'e argachun kee; 1. baay'isee gaarii miti

2. gaarii miti 3. yaada hin qabu 4. gaarii dha 5. baay'isee gaarii dha

5. Siif odeeffannoo fayyaa kan akka talaallii daa'iimmanii, qusannoo maatii fi qulqulliina ofii eeguu irrattii argachun kee; 1. baay'isee gaarii miti 2. gaarii miti 3. yaada hin qabu

4. gaarii dha 5. baay'isee gaarii dha

3. Madaallii duudhaalee dhuunfaa

3.1 Madaallii duudhaa kallattii

1. Namoonni baayyeen naaf barbaachisoo ta'an dhaabbata fayyaatti da'uuf da'umsa dura guyyaa 15niif dhaabbata fayyaa akkan turuu qabuu ni dhuugomsu/deggaru/.

1. baay'isee itti walii hin galu 2. Walii hin galu 3. yaada hin qabu 4. ittin walii gala

5. baay'iseen itti walii gala

2. Namoonni baayyeen naaf barbaachisoo ta'an dhaabbata fayyaatti da'uuf da'umsa dura guyyaa 15niif dhaabbata fayyaa turuu akkan qabu yaadu. 1. baay'isee itti walii hin galu

2. Walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baay'iseen itti walii gala

3. Namoonni baayyeen najaallatan dhaabbata fayyaatti da'uuf guyyaa 15 dursee akkan buufata fayyaa keessa turu ni barbaadu. 1. baay'isee itti walii hin galu 2. Walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baay'iseen itti walii gala

4. Dhaabbata fayyaatti da'uuf guyyaa 15 dursee buufata fayyaa keessa turuun anarraa eegama

1. baay'isee itti walii hin galu 2. Walii hin galu 3. yaada hin qabu 4. ittin walii gala
5. baay'iseen itti walii gala

3.2 Madaallii duudhaa alkallattii

A. Ilaalcha duudhaalee

1. Haati koo akkan dhaabbata fayyaatti da'uuf da'umsan dura guyyaa 15 dursee buufata fayyaa turuu akkan qabu yaaddi. 1. baay'isee itti walii hin galu 2. walii hin galu

3. yaada hin qabu 4. ittin walii gala 5. baay'iseen itti walii gala

2. Abbaan mana koo akkan dhaabbata fayyaatti da'uuf da'umsan dura guyyaa 15 dursee buufata fayyaa turuu akkan qabu yaada. 1. baay'isee itti walii hin galu 2. walii hin galu

3. yaada hin qabu 4. ittin walii gala 5. baay'iseen itti walii gala

3. Ollaan koo akkan dhaabbata fayyaatti da'uuf da'umsan dura guyyaa 15 dursee buufata fayyaa turuu akkan qabu yaadu. 1. baay'isee itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baay'iseen itti walii gala

4. Hojjettuun Eksteenshinii fayyaa dhaabbata fayyaatti da'uuf da'umsan dura guyyaa 15 buufata fayyaa keessa turu akkan qabu dhugoomsiti(jajjabeessiti).

1. baay'isee itti walii hin galu 2. walii hin galu 3. yaada hin qabu
4. ittin walii gala 5. baay'iseen itti walii gala

B. Kaka'umsa (qophii) raawwachiisummaaf

1. Harmeen koo da'umsa kootiin dura guyyaa 15niif akkan buufata fayyaa turu naa hayyamuun ishee naaf barbaachisaa dha. 1. baayyee hin barbaachisu 2. hinbarbaachisu

3. giddugaleessa 4. barbaachisaadha 5. baayyisee barbaachisaadha

2. Abbaan mana koo da'umsa kootiin dura guyyaa 15niif akkan buufata fayyaa turu naa heyyamuun isaa anaaf: 1. baayyee hin barbaachisu 2. Hin barbaachisu 3. giddugaleessa

4. barbaachisaadha 5. baayyisee barbaachisaadha

3. Ollaan koo da'umsa kootiin dura guyyaa 15niif akkan buufata fayyaa turu na deggaruun isaanii anaaf : 1. baayyee hin barbaachisu 2. Hin barbaachisu 3. giddugaleessa

4. barbaachisaadha 5. baayyisee barbaachisaadha

4. Hojjettuun eksteenshinii fayyaa da'umsa kootiin dura guyyaa 15niif akkan buufata fayyaa turu na deggaruun ishee anaaf : 1. baayyee hin barbaachisu 2. Hin barbaachisu

3. giddugaleessa 4. barbaachisaadha 5. baayyisee barbaachisaadha

3. Madaalli amaloota qayyabannoo dhuunfaa to'atan

3.1 Safartuulee Kallattiin Amaloota qayyabanno dhuunfaa to'atan

1. Anaaf guyyaa da'umsa koo dursee guyyaa 15niif buufata fayyaa keessa turuun:

Ulfaataa----------1--------2--------3---------4------5----- salphaa

Ani murteessa miti---------1--------2--------3---------4-------5-----Anatu murteeffata

Akka tasaa----------1---------2--------3---------4-------5-----karooraani

Haala irratti hunda'a------1---------2--------3---------4-------5------haala irratti hin hunda'u

3.2 Madaalli Amaloota baramoo (Qayyabannoo dhuunfaa) toatan al-Kallattiin

A. madaalli to'annoo ilaalchaa (amantaa)

1. Yeroo guyyaan da'umsa koo dhiyaachaa dhuufu guyyaa 15f buufata fayyaa keessa ture achitti da'uuf tajaajila geejjibaa hin argadhu(ofiis karaa fagoo danda'e hin deemu).

1. tasuma sirrii miti 2. sirrii miti 3. giddu galeessa 4. sirriidha 5. baayyisee sirriidha

2. Buufata fayyaatti da'uuf guyyaa 15 dursee deeme yoon buufata fayyaa keessa ture nyaata ga'aa hin argadhu.

1. tasuma sirrii miti 2. sirrii miti 3. giddu galeessa 4. sirriidha 5. baayyisee sirriidha

3. Yoo ulfikoo guddacha deemuu namni guyyaa 15 dursee akkan buufata fayyaatti da'uuf na geessu hin argadhu:

1. tasuma sirrii miti 2. sirrii miti 3. giddu galeessa 4. sirriidha 5. baayyisee sirriidha

4. Bakka turtii da'uumsa dhaqee turuuf nama maatii koo na kunuunsu argachuun na rakkisa.

1. tasuma sirrii miti 2. sirrii miti 3. giddu galeessa 4. sirriidha 5. baayyisee sirriidha

B. Madaallii to'annoo Aangoo

1. Da'umsa dura guyyaa 15f dursee buufata fayyaa keessa turee achitti da'uuf hanqinni geejjiiba ni rakkisa(ofiis fagoo waan ta'eef deemun natti ulfaata). 1. baayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

2. Nyaatni gahaan buufata fayyaa jiraachu dhabuun isaa guyyaa 15 dursanii deemanii achitti da'uuf rakkisaadha. 1. baayyeen itti walii hin galu 2. walii hin galu

3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

3. Namoota irra adda ba'anii buufata fayyaa keessaa guyyaa 15f turanii achitti dahuun haalli isaa namatti hin tolu. 1. baayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu

4. ittin walii gala 5. baayyeen itti walii gala

4. Nama maatii koo na kunuunsu argachuu rakkisuun isaa buufata fayyaa guyyaa 15 dursee deeme turuun na rakkisa. 1. baayyeen itti walii hin galu 2. walii hin galu

3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

4. Safartuu kaayyoo

1. Dhaabbata fayyaatti da'uuf guyyaa 15 dursee buufata fayyaa keessa turuun qaba(narra eegama 1. bayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

2. Dhaabbata fayyaatti da'uuf guyyaa 15 dursee buufata fayyaa keessa nan tura.

1. bayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

3. Dhaabbata fayyaatti da'uuf guyyaa 15 dursee buufata fayyaa keessa turuu nan barbaada.

1. bayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

4. Dhaabbata fayyaatti da'uuf guyyaa 15 dursee buufata fayyaa keessa utuun turee natti tola.

1. bayyeen itti walii hin galu 2. walii hin galu 3. yaada hin qabu 4. ittin walii gala 5. baayyeen itti walii gala

5. Muuxannoo yeroo darbee

1. Kanaan dura bakka turtii qophii da'umsaa kan buufata fayyaa fayyadamtanii beektu?

1. eeyyee 2. lakki

2. Yoo deebiin keessan kan gaaffii 1 eeyyeen ta'e sababni isaa maalii?

1. sodaa dhukkuba yeroo ciniinsuti 2. hojii irraa fagaattani boqonnaa ga'aa argachuuf 3. tajaajila ga'aa hojjettota fayyaa irraa argachuuf 4. sodaa du'a da'umsaan walqabatuufi 5. Da'iima fayyaa qabu godhachuufi 6. Sababni biraa yoo jiraate_____

3. Yoo deebiin keessan kan gaaffii 1 eeyyeen ta'e guyyaa meqaaf achii turtanii?

1. Guyyaa 15 qofa 2. Guyyaa 15 gadi 3. Guyyaa 15 oli