



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCE**  
**SCHOOL OF PUBLIC HEALTH**

**ASSESSMENT OF MAGNITUDE AND FACTORS ASSOCIATED WITH  
UNINTENDED PREGNANCY AMONG WOMEN ATTENDING ANTENATAL  
CARE AT GHANDI MEMORIAL HOSPITAL**

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Assessment of magnitude and factors associated with unintended pregnancy among women attending antenatal care at Ghandi Memorial Hospital

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## **ACRONYMS**

ANC- Antenatal care

AOR- Adjusted Odds Ratio

CDC-Centers for Disease Control and Prevention

CI- Confidence interval

COR- Crude Odds Ratio

CSA- Central Statistical Agency

EC- Emergency Contraception

EDHS- Ethiopian Demographic Health Survey

FGAE-Family Guidance Association of Ethiopia

FP- Family Planning

FPMs- Family Planning Methods

GMH- Gandi Memorial Hospital

IUCD- Intra Uterine Contraceptive Device

KAP- Knowledge Attitude & Practice

MFPs- Modern Family Planning

NGO- Non Government Organization

NHS- National Health Survey

OCP- Oral Contraceptive Pills

SPSS- Statistical Package for Social Sciences

STD- Sexually Transmitted Disease

TASRH- Tikur Anbessa Specialized Referral Hospital

WHO- World Health Organization

## **ABSTRACT**

**Background-** Unintended pregnancy is an important public health issue in developed and developing countries because of its negative association with the social and health outcomes for mothers, children, the family and the nation. In Ethiopia, a study conducted at selected public health centers of Addis Ababa reported that the magnitude of unintended pregnancy was 38.7%; this indicates that it is one of the major reproductive health problems in the city.

**Objective-**The objective of this study was to assess magnitude and factors associated with unintended pregnancy among women attending antenatal care at Gandhi memorial hospital in Addis Ababa.

**Methods-**A facility based cross sectional survey design using quantitative method was used to conduct this study. Systematic random sampling technique was used to select participants for the assessment. A total of 627 women attending antenatal care were interviewed to examine sets of variables using questionnaire. Magnitude of unintended pregnancy was determined along with the corresponding 95%CI. Bivariate and multivariate logistic regressions were employed to assess factors associated with unintended pregnancy.

**Result-** Out of the total 627 pregnancies, 395(63%) were intended and 232(37%) were reported to be unintended. The statistically significant independent predictors for unintended pregnancy found in this study were family size and number of pregnancy. Women with family size of three or less had 66% (AOR=0.34, 95% CI=0.13, 0.79) lower chance of having unintended pregnancy than those women with family size of four or more. Those women with two or less pregnancies had 55% (AOR=0.45, 95%CI=0.21, 0.91) lower chance of having unintended pregnancy than those women with three or more pregnancies.

**Conclusion-** Findings of this study indicated that unintended pregnancy is one of the reproductive health problems in the study area. Family size and number of pregnancies a woman had were negative predictors of unintended pregnancy.

**Recommendation-** Reproductive health programs should give emphasis on mass media messages addressing on the advantages of small family size and low number of pregnancies by creating the awareness of the people on family planning with full availability and accessibility family planning methods in the health facilities.

# 1. INTRODUCTION

**1.1 Background-**Unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception (1, 2). It is an important public health issue in developed and developing countries because of its negative association with the social and health outcomes for mothers, children, the family and the nation (2, 3). It is a potential hazard for every sexually active woman (2). Every year in the world an estimated 210 million pregnancies occur (1). Out of these pregnancies about 62% is intended and the rest 38% is unintended and 22% of the unintended pregnancies end in abortion (1). Unintended pregnancy ends in spontaneous termination, induced abortion or unintended births (4). Globally 4 million unintended pregnancy ends in spontaneous termination, 42 million in induced abortion and 34 million in unintended births each year (4).

Ninety-five percent of unsafe abortions occur in developing countries (2). Millions more suffer long-term injuries from often life-threatening complications (2,5). Various studies conducted in the world on the issue indicated it is a major reproductive health problem.

Although several international declarations were passed on the problem, many women in sub-Saharan Africa are suffering from unwanted pregnancies (6). Unsafe abortions accounted for 14% of all maternal deaths in sub-Saharan Africa, where half of the world's maternal deaths occur (6,7). In Ethiopia according to the DHS-2011, the level of unintended pregnancy was 28% and the maternal mortality ratio (MMR) was 676 deaths per 100,000 live births (8). A study conducted at selected public health centers of Addis Ababa also reported that the magnitude of unintended pregnancy was 38.7% (9). According to WHO, Ethiopia has the fifth largest number of maternal deaths in the world. (5, 6). A nationally representative study conducted in Ethiopia in 2008 also reported that the annual abortion rate was 23 per 1,000 women aged 15–44, and in Addis Ababa it was 49 per 1,000 women which is twice the national level (10). So the underlying cause of high prevalence of unintended pregnancy needs further investigation and exploration in order to be better understood and appropriately addressed by reproductive health programs. This study was conducted to provide evidence and source of information on the prevalence and factors associated with unintended pregnancy in the study area.

## **1.2 Statement of the problem**

The decreasing of maternal morbidity and mortality will be accomplished through effective prevention of unintended pregnancy. The most common cause of maternal morbidity and mortality is induced abortion which is caused by unintended pregnancy. Maternal mortality is high in countries where induced abortion is common.

A similar study conducted at selected public health centers of Addis Ababa showed that the prevalence of unintended pregnancy was 38.7% (9). This indicates that it is a major reproductive health problem in the city. Although every pregnancy is risk, pregnant mothers with obstetrical and medical problems are more risk and the occurrence of unintended pregnancy on these mothers would increase the tendency of maternal morbidity and mortality. Hence unintended pregnancy is a critical challenge facing the reproductive health program. Therefore, this study can contribute by identifying the main factors associated with unintended pregnancy based on findings it is possible to design strategies in order to decrease unintended pregnancy.

## **1.3 Rationale of the study**

Decreasing maternal morbidity and mortality is a priority issue to meet the Millennium Development Goals (MDGs). Preventing unintended pregnancy through effective reproductive health care will contribute to attain three Millennium Development Goals (MDGs): reducing child mortality, improving maternal health and promoting women's empowerment and equality. So the rationale for selecting this problem area was due to the fact that assessing of the prevalence of unintended pregnancy and identification of predictor factors for it among women attending ANC at hospital level or on mothers with medical and obstetrical problems is so significant to prevent unintended pregnancy which leads to induced abortion and unintended births which further leads to maternal morbidity and mortality. It is obvious that maternal morbidity and mortality due to unintended pregnancy is higher among these women than women with normal pregnancy. Hence there was a need to do this research on this topic. The outcomes of this study are believed to determine the magnitude and factors associated with unintended pregnancy and assist reproductive health program planners and policy makers to design effective strategies to reduce unintended pregnancy and its consequences induced abortion and unintended births.

## **2. Literature review**

### **2.1 Unintended pregnancy and contraception**

Despite the fact that different modern contraceptives exist worldwide, the problem of unintended pregnancy is still large, which could be due to gap in awareness, negative attitudes towards contraception, low accessibility or as a result of rape (5, 14). At times, the knowledge and practice might be there but no contraceptive is 100% effective (5). Ineffective contraceptive use, rather than nonuse, contributes to unintended pregnancy (15). For many eastern European and south Asian countries, two-thirds of abortions are due to contraceptive failure. The contraceptive method failure is mostly from using traditional methods, and one-third is due to unmet need for contraceptives (15). Helping women practice contraception to reduce their risk of having unplanned pregnancies can go a long way toward bringing down levels of unsafe abortion (16). Contraceptives when used properly are highly effective in preventing unintended pregnancy (16, 17,18). If contraceptive services were provided to 201 million women at risk of unintended pregnancies world wide-52 million of unintended pregnancies were prevented, Abortions reduced by 64% and 1.5 million maternal and child deaths prevented, 2.7 million pregnancy related illness reduced and healthy lives preserved globally each year (10). In Sub-Saharan Africa there is high fertility rate with low contraceptive prevalence rate in the world (19).

Increased contraceptive uptake is generally associated with reduced numbers of abortions (15).

Many studies conducted on the relation of contraception and unintended pregnancy showed that: two-thirds of pregnancies in the developing world occur to women not using contraceptives (12). In Uganda, for example, current use of contraception, compared with no contraceptive use at all, has resulted in 150,000 fewer abortions (13). The 2011 EDHS revealed that 25.3% of married women have an unmet need for family planning (8). This will increase the tendency of unintended pregnancy and so the prevalence of induced abortion. In one of the surveys conducted in Ethiopia, among 1075 women who presented with abortion, non use of contraceptive contributed to 78% of these pregnancies and rape accounted for 3% of the abortions (5). A similar study finding in Ethiopia at selected public health centers of Addis Ababa revealed a prevalence of 38.7% and large proportion (72.4%) of unintended pregnancy was due to none use of contraceptive (9).

In general helping women and couples plan their families and have healthy babies by increased access to contraceptive services and improved reproductive health care would contribute directly

to attaining three Millennium Development Goals (MDGs): reducing child mortality, improving maternal health and promoting women's empowerment and equality (20). Improved contraceptive services would also make meeting three other MDGs—achieving universal primary education, ensuring environmental sustainability and combating HIV/AIDS easier and more affordable (20).

## **2.2 Socio demographic characteristics**

### **2.2.1 Education**

In the study conducted in different regions of the world, the relationship of education and unintended pregnancy showed that education decreases the odds of unintended pregnancy (6, 19, 21, 22). A multinational study in the world revealed that unintended pregnancy reduced with the length of education and literate women were more aware of the value of a small family size and contraceptive methods than illiterate women (3). Women in low socioeconomic positions have many more unintended pregnancies than better educated women(19,21).The 2011 EDHS revealed that unmet need is nearly four times higher among women with no education or primary education than among women with more than secondary education (8). Therefore, illiterate women have the risk of not using any family planning methods and prone to develop unintended pregnancy (3).

### **2.2.2 Maternal Age**

Generally age is a measure of both biological and social maturity (22).The age of the woman at the time of conception could influence whether the pregnancy is mistimed or unwanted because age may indirectly reflect a woman's preparedness to material, biological, social and emotional for child bearing (22). Increase women's age at first marriage reduces the likelihood of mistimed pregnancy (2, 22) and when the age of the women is highly increased the tendency to experience unwanted pregnancy will increase. Previous studies have found that the age of a woman at the time of pregnancy is associated with a tendency to describe a pregnancy as intended (23). Studies conducted in Ethiopia showed the proportion of unwanted pregnancy increased as age increased and got pick among the age group of 40 and above(6,24).

### **2.2.3 Marital status**

Although the meaning and definition of marriage is undergoing under rapid change in various cultures, previous studies especially in developed countries have found that a woman's current

marital status was consistently a strong predictor of unintended pregnancies (21). Never married women were more likely than ever married ones to describe their pregnancies as unintended (19, 21). However it has been noted that when the social stigmatization of out-of-wedlock birth is diminished single women may be less likely to describe their pregnancy as unintended (20). A study conducted in 10 countries of the world 8 countries (from sub-Saharan Africa and in Latin America and the Caribbean) have data on never married women .Egypt (North Africa) and Indonesia (Asia) have data on ever married only (21).The prevalence of mistiming is highest among never- married women and tends to be low in currently married women (21, 25). Over all mistimed pregnancy is highest in sub-Saharan Africa (usually about 60% or more of births in the preceding 3 years) and lowest in North Africa (21).In general unintended pregnancy is more frequent in young, poor, or unmarried women(17,19,22).

#### **2.2.4 Number of living children and parity**

The prevalence of unwanted pregnancy typically increases with age and parity because women who have already achieved their desired family size do not want any more pregnancies (1, 3, 6, 23).The number of living children a woman has is associated with women's experience of unintended pregnancy (22, 23, 24).Women with large number of living children are more likely to report their previous birth as unintended (23, 24). This may be due to the fact that women who have attained their desired number of children will regard any additional child as unwanted (24).Similarly, considering the fertility preferences of women, women who do not want any more children are nearly two times more likely to report their previous birth as unintended as compared to those who want more children (6). Studies from Nigeria and Ghana have also reported that higher parity is associated with women's experiences of unintended pregnancy (23). Ethiopian men, on average, prefer to have larger families than women (8). Women with more than secondary education desire fewer children than women with no education (8).

#### **2.2 .5 Women's exposure to mass media**

In almost all countries of the world, people with no access to media source experienced higher levels of unintended pregnancy than those who had access (22, 24). When all other variables are taken into account the relationship between media exposure and pregnancy is statistically significant; the greater the number of media a woman is exposed, the lower the odds of developing unintended pregnancy (22, 26).There are studies which showed relation of mass media exposure and unintended pregnancy. Example a study conducted in Nepal showed that

those who were exposed to the radio were less likely to have unintended pregnancy compared to those who were not (2). Furthermore, those women who had higher level of knowledge about family planning methods were less likely to experience unintended pregnancy compared to those having lower level of knowledge (2, 24, 26). In Ethiopia a study conducted in Damot Gale district in Southern Ethiopia also revealed that respondents who were exposed to radio were nearly 69% less likely to report unintended pregnancy compared to those who were not exposed (24).

### **2.2.6 Unintended pregnancy and Religion, culture and sexual partner's opposition of using Family planning Methods**

More than 200 million women in developing countries would like to delay their next pregnancy or even stop bearing children altogether, but many of them still rely on traditional and less effective methods of family planning or use no method at all (4). Women in the developing countries have different barriers of prevention unintended pregnancies. These barriers are cultural factors, religion, sexual partners or family members' opposition and lack of awareness of using family planning methods (4).

All over the world and across most of the settings, Muslims have more children, are more likely to want another child, and, if they want no more children, are consistently less likely to be using contraception (3,4). Moreover Muslim communities are characterized by less autonomy for women (3, 15). According to an Indian national survey, family planning adoption rate was significantly low among Muslim as compared to Hindu women (3). In Ethiopia a study conducted in Kersa, Eastern Ethiopia reported that the level of unintended pregnancy found to be lower than that of the Ethiopian DHS estimation (6). This may be explained by the fact that the study was conducted in Muslim dominated area, where every child is taken as gift of God and the belief that every child is living his own fate is held (6). Women in developing countries are either under collective decision making with their partners or completely rely on the male partner's decision on issues that affect their reproductive life (27). Study in Ethiopia showed that because of the male dominance in the culture, women would be forced to bear large number of children (28). Studies in sub-Saharan Africa showed also that secret use of contraceptives among women accounts for between 6 and 20% of all contraceptive use which indicates problem of decision making power of women on contraceptive use (27). Study from a Damot Gale district in Southern Ethiopia reported that two striking reasons (husband disapproval and lack of

knowledge) account for more than 65% of the rationale given by the respondents, suggesting that husbands have pivotal role in the occurrence of the events(24).

## Conceptual Frame work of unintended pregnancy

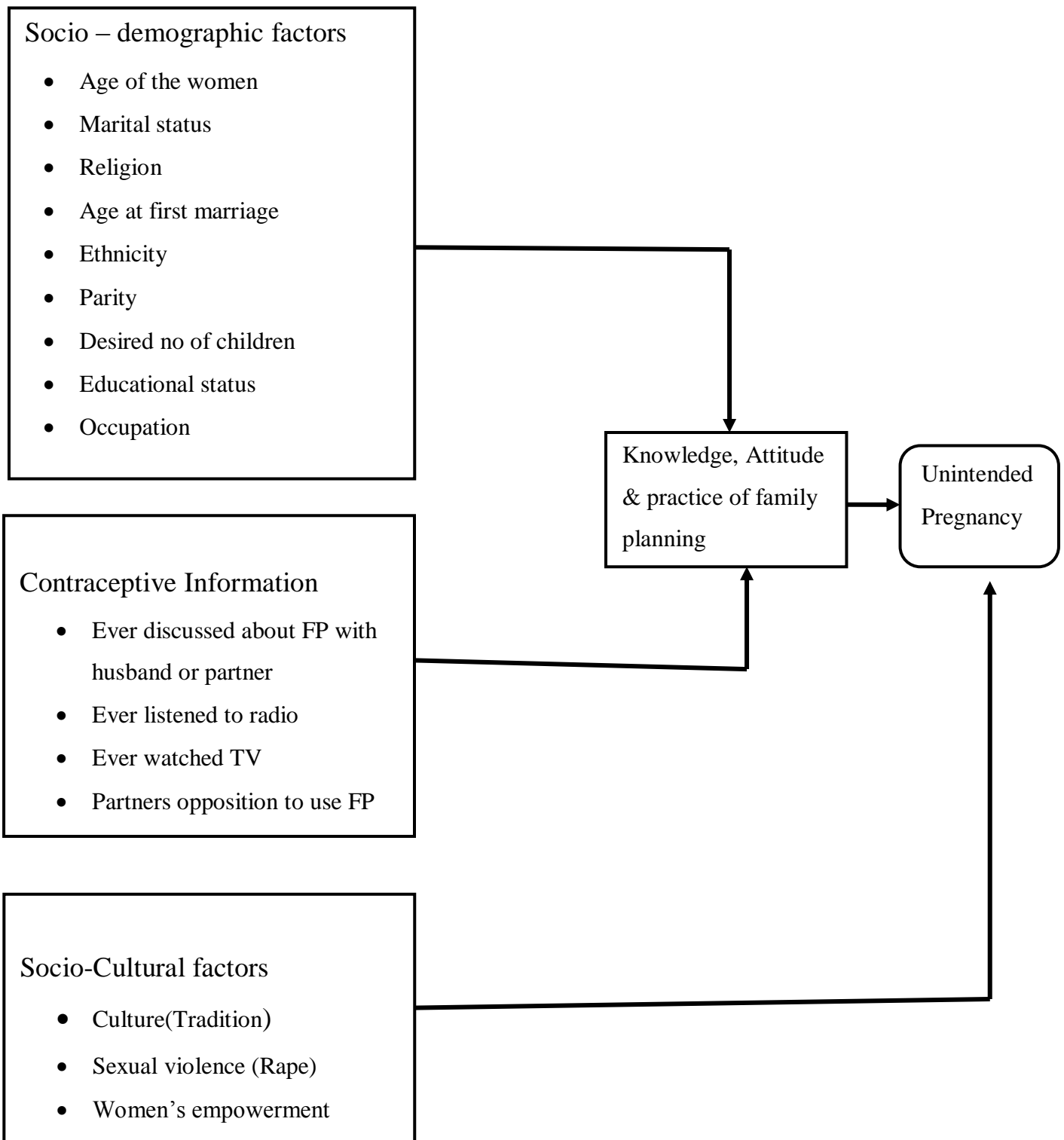


Fig.1 Factors associated with unintended pregnancy

## **4. Objectives**

### **General Objective**

The main objective of this study was to assess the magnitude and factors associated with unintended pregnancy among women attending antenatal care at Gandhi Memorial Hospital.

### **Specific objectives**

-To determine the magnitude of unintended pregnancy among women attending antenatal care at Gandhi Memorial Hospital.

-To assess the factors associated with unintended pregnancy among women attending antenatal care at Gandhi Memorial hospital.

## **5. Methods and Materials**

### **5.1 Study Area**

The study was conducted at Gandhi Memorial hospital from May to June 2013. Gandhi Memorial hospital is situated in Addis Ababa administrative city. It is a governmental hospital owned by Addis Ababa health bureau at which only maternal and child health service is given. Pregnant mothers attending ANC at Gandhi memorial hospital are high risk pregnant mothers (mothers with medical and obstetrical problems) referred from health centers. So it was easier to get enough sample size for this study than any other governmental hospital in Addis Ababa. Addis Ababa is the capital city of Ethiopia and Africa. It is constructed in an area of 540 Sq.Kms. According to July 2013 CSA projection, Addis Ababa has total population of 3,130,673 consisting of 1,478,890 males and 1,624,783 females (29). In Addis Ababa there are about 51 hospitals. Among these hospitals 6 are owned by Addis Ababa health bureau, 4 hospitals' by federal ministry of health, 1 by A.A.U, 2 by NGOs, 1 by ministry of defense, 1 by police force and 36 by private owner. There are also 63 health centers which are owned by Addis Ababa health bureau and 2 health centers owned by NGOs(30).

### **5.2 Study design**

Facility based cross sectional study design employed by quantitative data collection methods at Gandhi Memorial hospital among currently pregnant women attending antenatal care.

### **5.3 Population**

**5.3.1 Source population:** All pregnant women attending antenatal care at Gandhi memorial hospital.

#### **5.3.2 Study population**

All pregnant women attending antenatal care at Gandhi memorial hospital during the time of study who are selected from the source population.

### **5.4 Inclusion and Exclusion criteria**

**5.4.1 Inclusion Criteria:** Women being pregnant with age of 15-49 years.

**5.4.2 Exclusion criteria:** Pregnant women who are not able to communicate due to sickness.

## 5.5 Sample size determination

The sample size for the first objective i.e. on the magnitude of unintended pregnancy was calculated using 38.7% proportion (38.7 % proportion of respondents were being unintended pregnancy) which was reported from a study conducted in Addis Ababa at selected health centers (9). A precision of 4% and 95% confidence level was considered.

$$n = \frac{Z (\alpha/2)^2 p(1-p)}{d^2}$$

Where

n= the desirable sample size

Z ( $\alpha/2$ ) =the critical value at 95% level of significance (1.96)

p=proportion of pregnant women with unintended pregnancy

d=precision of measurement (acceptable marginal error)

p=0.387

d=0.04

$$n = \frac{1.96^2 \times 0.387 \times 0.613}{0.04^2} = 570$$

After adding a 10% non response rate 57, the total sample size was 627.

For the second objective on factors associated with unintended pregnancy, the following assumptions were made: unintended pregnancy among illiterate mother being 53.5%, unintended pregnancy among literate mother 39.5% (6). A type I error of 5%, power to detect the assumed difference 80% and a 10% non response rate, the sample size required for the study was 234 in each group, a total of 468.

$$n_1 = \frac{[Z_{\alpha/2} \sqrt{2pq} + Z_{1-\beta} \sqrt{p_1 q_1 + p_2 q_2}]^2}{(P_1 - p_2)^2}$$

$$n_2 = n_1, \quad n = n_1 + n_2$$

Where  $n_1$  = number of illiterate women

$n_2$  = number of literate women

$p_1$ = proportion of unintended pregnancy in illiterate women

$p_2$ =proportion of unintended pregnancy in literate women

$$p = \frac{p_1 + p_2}{2}, \quad q = 1 - p = 0.535$$

$$= 0.465$$

$\frac{z \alpha}{2}$  = critical value at 95% level of significance

$\alpha$  is type I error with a value of 5%

$z_{1-\beta}$  = standard normal distribution value corresponding to 80% power to detect the assumed difference = 0.84.

$$n_1 = \frac{\left[ 1.96\sqrt{2 \times 0.465 \times 0.535} + 0.84\sqrt{0.535 \times 0.465 + 0.395 \times 0.605} \right]^2}{(0.535 - 0.395)^2}$$

= 234 (illiterate women)

$n_2 = n_1$

= 234 (literate women). Therefore the total sample size (n) = 468 with 10% non-response rate.

Since the sample size for the first objective is the maximum, 627 was taken as a final sample size for this study.

## 5.6 Sampling procedures

### Sampling method

The study participants were selected from the list of the pregnant women using systematic random sampling technique. The interval “K” was used to select the study participants from the sample frame. It was identified by dividing the total no of pregnant women attending antenatal care during the study by the number of sample size i.e.  $K = N/n$ . To estimate the number of women visiting per day, the previous month registration or the sums of the number of women coming in each month in a year divided by the sample size was taken (because there was no much difference between the sum of the number of women coming in each month in a year divided by the sample size with the number of the previous month registration). Once the interval was determined, every day, every  $K^{\text{th}}$  mother coming for ANC service and fulfilling the inclusion criteria was included in the study. The data was collected for seven weeks.

## **5.7 Study Variables**

### **Independent Variables**

The independent variables of the study were socio-demographic factors, reproductive history of the women, health information like discussion about family planning with husband or sexual partner; listen to radio, watching TV and knowledge, attitude and practice of family planning.

### **Dependent Variable**

The dependent variable of the study was unintended pregnancy.

## **5.8 Data Collection, Processing and Analysis**

### **5.8.1 Data collection method, Personnel and Instrument**

Quantitative data collection method with a structured questionnaire was employed. The questionnaire was prepared by reviewing different literatures for data collection. The questionnaire contained information on socio-demographic variables (age, marital status, family size, educational level, religion, ethnic group), health information (ever discussed with your husband or sexual partner about FP, listened to radio, ever watched TV), reproductive history and knowledge, attitude and practice of the women about family planning. The structured questionnaire was prepared with English and translated in to Amharic for data collection purpose and then retranslated in to English for its consistency. Female BSc graduated nurses giving free service at Tikur Anbessa specialized referral hospital were trained to collect data. The completeness of the data was checked by trained supervisors and principal investigator daily. The data collection instrument was pre-tested before the actual data collection at TASRH.

### **5.8.2 Data processing and analysis**

After the data collected it was entered in to Epi-info version 3.5.1. The entered data was cleaned and then transferred to SPSS for windows version 16.0 for analysis. It was checked for missing values and outliers. Descriptive analysis was used to calculate basic client characteristics. Chi-square test and odds ratios with their 95% confidence interval were used to see the strength of the association between the dependent and independent variables. Bivariate analysis was carried

out to determine statistical association between explanatory variables and outcome variables. All explanatory variables that had outcomes in bivariate analysis at  $P < 0.02$  were included in the final model. To identify the predictors of unintended pregnancy, a multivariate logistic regression model was used. Variables that showed significant association with unintended pregnancy on the Bivariate analysis with  $P\text{-value} < 0.02$  were entered into the final adjusted logistic regression model.

## **5.9 Data quality Management**

To ensure data quality training of data collectors and supervisors was done on the objective of the study and how to complete the data with its consistency for three days. Pre-test of the questionnaire was done for its clarity and ambiguity on 5% of the sample size in black lion specialized referral hospital before the actual data collection was done. The interview was conducted in free room to keep privacy and confidentiality of the patient. After the data was collected by the data collectors, the questionnaire was checked for its completeness and consistency by the supervisors and principal investigator daily.

## **5.10 Operational definitions**

**Unintended Pregnancy:** unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception.

**Unwanted Pregnancy:** is a pregnancy which has occurred after a woman has reached her desired family size and did not want a child or any more children.

**Mistimed pregnancy:** is a pregnancy which has occurred without the wish of the woman at the specific time of occurrence of the pregnancy, but she has a desire to be pregnant and have a child or children sometime in the future.

**Knowledge:** awareness of the existence of family planning, its importance and effectiveness.

**Attitude:** Intention of using or recommending family planning when a need arises. Intending to use or recommend is considered as a positive attitude, and no intention as a negative attitude.

**Practice:** Any previous history of family planning usage.

## **5.11 Ethical clearance**

Ethical clearance was obtained from the Institutional Review Board (IRB) of the Addis Ababa University, school of public health. After getting this ethical clearance, the Addis Ababa University, school of public health had written a formal letter to the Addis Ababa health Bureau and the Addis Ababa health Bureau wrote a formal letter to Gandhi Memorial hospital. Written permission was obtained from the hospital administration before starting data collection. During the data collection written informed consent was obtained from each respondent by explaining the objective of the study and the rights of the respondent to participate or not and they can refuse at some point of the questionnaire. To keep confidentiality of the client's personal identifiers were not used in the questionnaire format.

### **5.12 Dissemination of study results**

The findings of the study will be presented at the school of Public Health College of health sciences, at workshops, Seminars. It will be also communicated to concerned bodies and publication will also be considered.

## **6. Result**

### **6.1 Socio –demographic characteristics**

A total of 627 currently pregnant women were selected for the study in the study area and interviewed. The response rate was 100%. The largest proportion of the study respondents 277(44.2%) were in the age group of 25-29 while 147 (23.4%) and 103 (16.4%) were in the age groups of 30-34 and 20-24 respectively. The mean age was found to be  $28.43 \pm 4.87$  with median of 28 years (Table 1). The majority of the study respondents 578(92.2%) were urban dwellers and 49(7.8%) lived in rural areas (Table 1).

As to the marital status of the respondents, the largest proportion of the study subjects 572(91.2%) were currently married. Concerning the ethnic group of the respondents 302(48.2%) were Amhara followed by Oromo 138(22.0%) (Table I).

As to the religious composition of the respondents the majority of the study respondents 451(71.9%) were Orthodox followed by Muslims 121(19.3%). Two hundred three (32.3%) of the study subjects attended College/University while 190 (30.3%) and 143(22.8%) attended secondary and primary level respectively. The rest 20 (3.2%) and 143(22.8%) were able to read and write and no education respectively (Table 1). The majority 565 (92.6%) of the study subjects had family size of three or less and 45(7.5%) had four or above (n=610) (Table 1).

The mean age of the first marriage for ever married women was  $22.54 \pm 4.00$  years (n=596). The majority 381(63.9%) were married at the age of < 25 years and 215(36.1%) married at the age of  $\geq 25$  years (Table 1). The mean duration of marriage was  $5.96 \pm 5.05$ . Concerning the occupation of the women 315(50.2%) were housewives and 146(29.9%) were an employees of private institution followed by government employees 62(14.7%) and 41(6.5%) merchant. The largest proportion of the ever married study subjects 374(62.8%) had five or less years duration of marriage followed by 222(37.2 %) six years or above (n=596) (Table 1).

**Table 1:** Socio-demographic Characteristics of survey respondents at Gandhi Memorial Hospital, May-June 2013 (n=627)

Variables	Frequency	Percent (%)
<b>Age</b>		
15-19	15	2.4
20-24	103	16.4
25-29	277	44.2
30- 34	147	23.4
35-39	71	11.3
40-49	14	2.2
Mean $\pm$ SD = 28.4 $\pm$ 4.87		
<b>Residence</b>		
Urban	578	92.2
Rural	49	7.8
<b>Marital status</b>		
Currently married	572	91.2
Single	13	2.1
Divorced/ Separated	24	3.8
Cohabiting	18	2.9
Age at 1 <sup>st</sup> marriage (n=596)		
< 25 years	381	63.9
$\geq$ 25 years	215	36.1
Mean $\pm$ SD = 22.54 $\pm$ 4.0		
Duration of marriage(n=596)		
$\leq$ 5 years	374	62.8
> 5 years	222	37.2
Mean $\pm$ SD = 5.96 $\pm$ 5.06		
<b>Educational status</b>		
No education	71	11.3
Able to read & write	20	3.2
Primary	143	22.8
Secondary	190	30.3
College/University	203	32.3
Family size (n=610)		
Three or less	565	92.6
Four or more	45	7.4

## **6.2 Reproductive history of surveyed respondents**

Among the surveyed respondents 180(28.7%) of them the pregnancy was their first pregnancy while the largest proportion of the respondents 378(60.3%) had been pregnant for three or less times and 69 (11%) of the study subjects had frequency of pregnancy four or more times. Two hundred eight (33.1%) of the total respondents who had been pregnant one or more times had history of abortion. Out of the total abortions 113(54.3%) were induced type of abortion and 97(46.7%) were spontaneous type of abortion (Table 2).

Women who had the experience of unintended pregnancy in their previous pregnancy had more history of induced abortion. In this study 169 (26.9%) of the women who had been pregnant one or more times had an experience of unintended pregnancy (Table 2). Hundred thirteen (66.9%) of those women with the experience of unintended pregnancy (n=169) had history of induced abortion to stop the pregnancy while 44(26%) of the women with experience of unintended pregnancy did not take any action and gave birth the rest 12(7.1%) of the women had attempted induced abortion but failed and gave birth (Table 2).

Concerning the ideal desired number of children 371(59.2%) of them reported that their ideal desired number of children was three to four while 161(25.7%) of them reported that their ideal desired number was two or less children and sixty (9.6%) of them responded that as they had a desire of five or more children during their life. In general, their ideal desired number of children was ranged from one to ten with mean of  $3.43 \pm 1.93$  children (Table 2).

Concerning the inter pregnancy gap, among all the respondents 483(77.0%) reported that their inter pregnancy gap to be two years or more while 14(3.7%) and 117(18.7%) to be one year and between one & two years respectively (Table 2).

## **6.3 Results of current pregnancy**

Out of the total surveyed respondents (currently pregnant women) 395(63%) with 95%CI (59.2%, 66.8%) were intended pregnancies and 232(37%) of them reported that their current pregnancy was unintended pregnancy (95%CI: (33.2%, 40.8%)). Out of these unintended pregnancies 156(67.2%) were mistimed and 76(32.8%) were unwanted type of pregnancy.

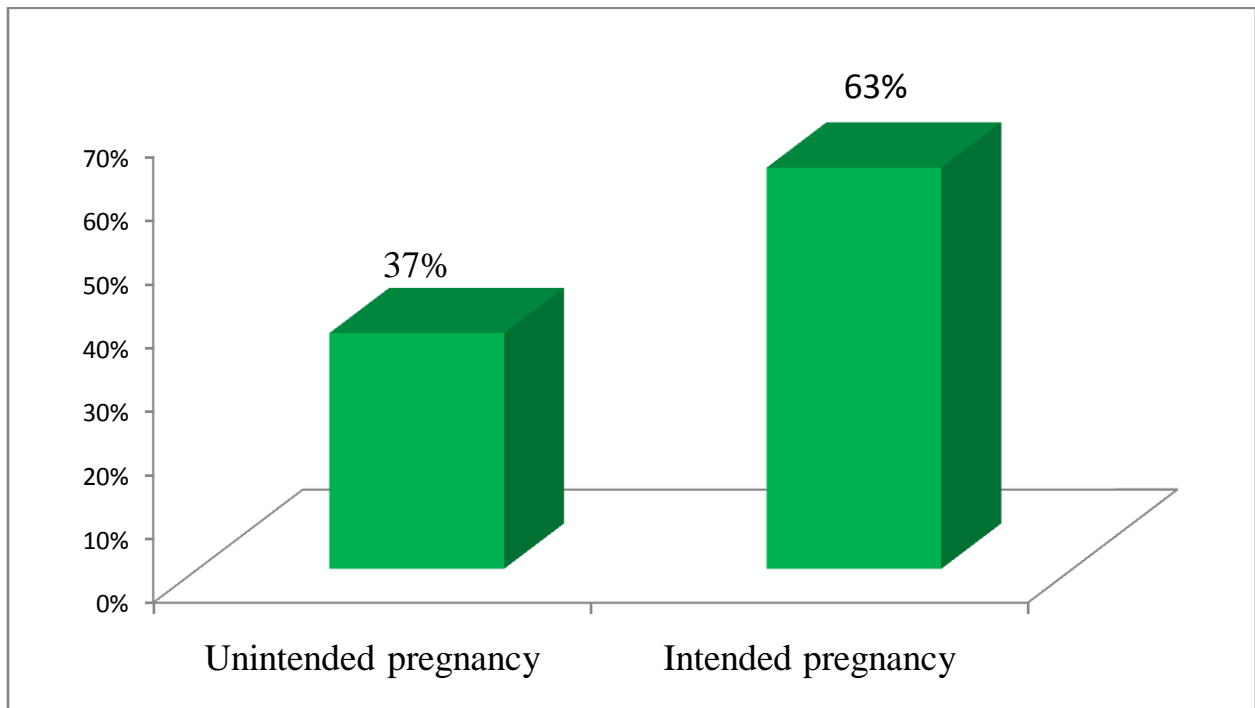


Figure 2: Percentage distribution of intended and unintended pregnancies among surveyed respondents at Gandhi Memorial hospital, May- June 2013.

**Table 2:** Unintended pregnancy and reproductive characteristics of study respondents at Gandhi memorial hospital, May-June 2013 (n=627).

<b>Reproductive Characteristics</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Current pregnancy unintended</b>		
Yes	232	37.0
No	395	63.0
<b>No of pregnancy</b>		
Current pregnancy	180	28.7
Three or less	378	60.3
Four or more	69	11.0
<b>Have history of abortion (n=627)</b>		
Yes	208	33.1
No	419	66.9
<b>Frequency of abortion (n=208)</b>		
Two or less	203	97.6
Three or more	5	2.4
<b>Type of abortion(n=208)</b>		
Spontaneous	97	46.7
Induced	113	54.3
<b>Do you have child/ren (n=447)</b>		
Yes	364	81.4
No	83	18.6
<b>No of living child/ren (n=364)</b>		
Two or less	287	78.8
Three or more	77	21.2
<b>Total no of desired Children</b>		
Two or less	161	25.7
Three or four	371	59.2
Five or more	60	9.6
Not stated	35	5.5
<b>Desired inter pregnancy gap (n=627)</b>		
One year	27	4.3
B/n one & two tear	117	18.7
Two years & more	483	77.0

#### **6.4 KAP of survey respondents on Family planning:**

The majority of study participants 572 (88.0%) of them reported that they had ever heard about family planning method and 428(68.3%) of them mentioned at least two methods of FP. Among all the surveyed respondents 437(70.0%) of them reported that they had ever listened to radio and 532(85.5%) of them replied that they had ever watched to TV (Table 3).

As to the source of information for family planning methods, TV constitutes 417(66.5%), radio 256(40.8%) and health care providers 417(66.5%). The proportion of the respondents who mentioned the commonest sources of modern contraception, 478(79.4%) of them mentioned health center, 274(43.7%) hospital, 152(24.2%) FGAE and 17(9.1%) mentioned pharmacy

The large proportion 523(83.4%) of the study participants had ever discussed about family planning methods with their husband /sexual partner. Four hundred seventy three (75.6%) had previously used modern contraception and 153(24.4%) had never used any modern contraception (Table 3). The most frequently used method was injectables (Depo-Provera) 394(62.8%) followed by OCP 358 (57%).

The most commonly reported reasons for non-use of modern contraception were (n=153): lack of awareness about modern contraceptive methods 75(49.0%), use traditional methods 17(11.1%), unacceptable in my religion/culture, fear of infertility and husband /partner/disapproval of using FP 16(10.5%), 12(7.8%) and 33(21.6%) respectively (Table 3).

The majority of the study respondents 490(78.1%) knew at least one advantage of modern contraception and 473 (75.6%) have positive attitude of using modern contraception, 52(9.1%) had no opinion and 27(4.7%) have negative attitude of using modern contraception. The proportion of the study participants who ever heard about emergency contraception was 326(52.0%) and the most frequently mentioned emergency contraception was emergency contraceptive pills (Table 3).

The most frequently reasons reported by the study respondents with unintended pregnancy failed to avoid the occurrence of unintended pregnancies were (n=232) none use of contraception 91(39.2%), contraceptive method failure 55(23.7%), husband/sexual partner/ disapproval to use contraception 50(21.6%), discontinuation of the method 31(13.4%) and due to rape 5(2.2%) (Table 3).The most frequently failed method reported by the respondents was OCP. Of those

study participants who reported contraceptive failure (n = 55), twenty eight (51%) were instructed but had not taken according to instruction 17 (31%) were instructed and had taken accordingly and 10 (18%) were not instructed appropriately about specific methods used.

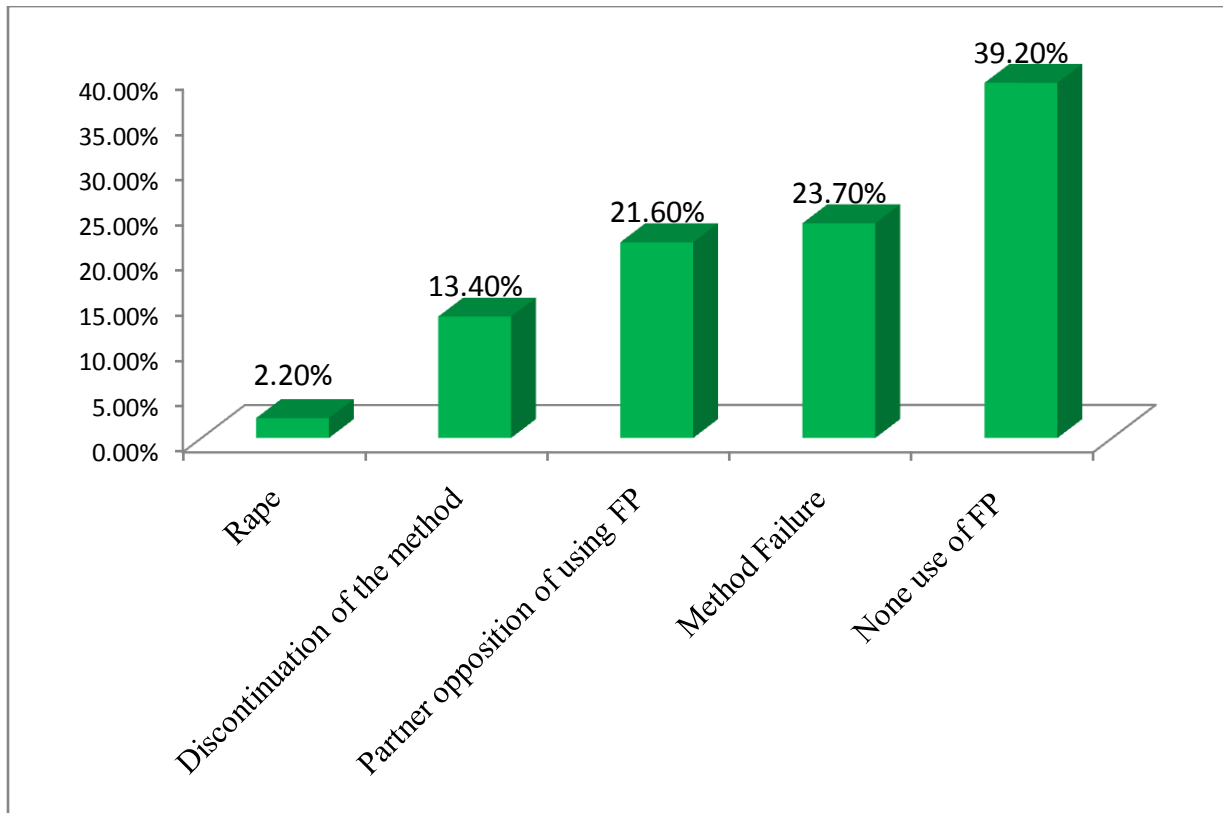


Figure 3: Reasons for the occurrence of unintended pregnancy unintended pregnancies among study participants at Gandhi memorial hospital, May-June 2013.

**Table 3:** Family planning knowledge, attitude and Practice of survey respondents at Gandhi memorial hospital, May-June 2013 (n=627).

<b>Characteristics</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Ever heard about FP</b>		
Yes	572	88.0
No	75	12.0
<b>Knowledge of MFPMs :</b>		
Mentioned at least two methods	428	68.3
Mentioned three or more methods	204	32.5
Mentioned no method	79	12.6
<b>Ever Listened to Radio ( n=624)</b>		
Yes	437	70.0
No	187	30.0
<b>Ever watched to TV (n=623)</b>		
Yes	532	85.4
No	91	14.6
<b>Ever use FP</b>		
Yes	474	75.6
No	153	24.4
<b>Ever discussed about FP with husband(n=627)</b>		
Yes	523	83.4
No	104	16.6
<b>Reason for non-use of MFP (n=153)</b>		
Unaware of MFPMs	75	49.0
Use traditional methods	17	11.1
Unacceptable of FP in my religion/culture	16	10.5
Fear of infertility	12	7.8
Husband/sexual partner/ disapproval	33	21.6
<b>Knowledge about Emergency Contraception</b>		
Yes	326	52.0
No	301	48.0
<b>Type of EC mentioned (n=326)</b>		
Emergency contraceptive pill	294	90.1
IUCD	9	2.7
Pill & IUCD	23	7.2

## **6.5 Bivariate & Multivariate analyses result of dependent variable (unintended pregnancy) with independent variables (socio-demographic, reproductive history & KAP on FP characteristics):**

Bivariate and multivariate logistic regression analyses were done to analyze factors associated with unintended pregnancy. On the bivariate logistic regression analysis: educational status of the women, Women's marital status, women's age at first marriage, Family size, duration of marriage, number of pregnancy, watch to TV, and ever use of family planning were associated with unintended pregnancy at  $P < 0.2$  (Table 4). After controlling the effects of potentially confounding variables using multivariate logistic regression model, family size and number of pregnancy were found to be statistically significant independent predictors for unintended for unintended pregnancy (Table 5).

**Table 4:** Bivariate analysis result of dependent variable (unintended pregnancy) with independent variables (socio-demographic, reproductive history & KAP on FP characteristics).

Variables	Unintended pregnancy		COR (95%)	P-Value
	Yes (%)	No (%)		
<b>Educational status</b>				
Illiterate	44(62.0)	27(38.0)	3.19(1.92,5.31)	0.000
Primary level & above	188(33.8%)	368(66.2%)	1	
<b>Current marital status</b>				
Married	198(34.6%)	374(65.4%)	0.33(0.19,0.58)	0.000
Single	34(61.8%)	21(38.2%)	1	
<b>Family size</b>				
Three or less	184(32.6%)	381(67.6%)	0.16(0.08,0.32)	0.000
Four or more	34(75.6%)	11(24.4%)	1	
<b>Age at first marriage</b>				
< 25 years	155(40.7)	226(59.3)	2.05(1.42,2.95)	0.000
≥ 25 years	56(25.1)	167(74.9)	1	
<b>Duration of marriage</b>				
5 years or less	111(29.7%)	263(70.3%)	1	
6 years or above	100(43.5%)	130(56.5%)	1.82(1.29,2.57)	0.001
<b>No of pregnancy</b>				
Two or less	116(30.7)	262(69.3)	0.21(0.12,0.36)	0.000
Three or more	47(68.1)	22(31.9)	1	
<b>Watched TV</b>				
Yes	132(34.7)	248(65.3)	0.35(0.23,0.56)	0.000
No	100(40.5)	147(59.5)	1	
<b>Ever used FP</b>				
Yes	165(34.9)	308(65.1)	0.21(0.12,0.36)	0.000
No	67(43.8)	86(56.2)	1	

COR-crude odds ratio

**Table 5** Multivariate analysis result of dependent variable (unintended pregnancy) with independent variables (socio-demographic, reproductive history & KAP on FP characteristics).

Variables	Unintended pregnancy		COR(95% CI)	AOR(95% CI)
	Yes n (%)	No n (%)		
<b>Educational status</b>				
Illiterate	44(62.0)	27(38.0)	3.19(1.92-5.31)**	1.88(0.89-3.95)
Primary level & above	188(33.8%)	368(66.2%)	1	1
<b>Current marital status</b>				
Married	198(34.6%)	374(65.4%)	0.33(0.19-0.58)**	1.14(0.44-2.98)
Single	34(61.8%)	21(38.2%)	1	1
<b>Family size</b>				
Three & less	184(32.6%)	381(67.6%)	0.16(0.0-0.32)**	<b>0.34(0.14-0.83)*</b>
Four & more	34(75.6%)	11(24.4%)	1	1
<b>Age at first marriage</b>				
≤ 24 years	155(40.7)	226(59.3)	2.05(1.42-2.95)**	1.07(0.67-1.72)
≥ 25 years	56(25.1)	167(74.9)	1	1
<b>Duration of marriage</b>				
Five years & less	111(29.7%)	263(70.3%)	1	1
Six years & above	100(43.5%)	130(56.5%)	1.82(1.29-2.57)*	0.81(0.50-1.31)
<b>No of pregnancy</b>				
Two and less	116(30.7)	262(69.3)	0.21(0.12-0.36)**	<b>0.45(0.22-0.92)*</b>
Three and more	47(68.1)	22(31.9)	1	1
<b>Watched TV</b>				
Yes	132(34.7)	248(65.3)	0.35(0.23-0.56)**	0.81(0.39-1.71)
No	100(40.5)	147(59.5)	1	1
<b>Ever used FP</b>				
Yes	165(34.9)	308(65.1)	0.21(0.12-0.36)**	0.92(0.51-1.65)
No	67(43.8)	86(56.2)	1	1

\*p-value significant at level of P<0.05, \*\* p- value significant at level of P <0.001. COR (Crude odds ratio), AOR (adjusted odds ratio).

## 7. Discussion

This study assessed the magnitude of unintended pregnancy and factors associated with it, such as socio-demographic, socio-cultural, reproductive characteristics, and knowledge, attitude and practice of contraceptive methods on unintended pregnancy.

The prevalence of unintended pregnancy among study participants was found to be 37%. This finding is relatively comparable with a similar study conducted at selected health centers of A.A in 2011(8) in which the prevalence was 38.7%. and lower as compared to the studies conducted in Damote Gale woreda ,Southern Ethiopia in 2011(24), Nepal National Demographic Health Survey in 2009 (2) and Cordoba, Argentina in 2009 (31) which was 42.4%, 41% and 59.5% respectively. But it is higher as compared to a similar study conducted in Hosanna town in 2012 Southern Ethiopia ( 1 ), the EDHS of 2011 ( 7 ) and a study conducted in Kersa. Eastern Ethiopia in 2012 (5) which reported that the prevalence were 34%, 28% and 27.9 % respectively.

However, this prevalence is high in contrast to the availability of health care providers, availability of health services and contraceptive prevalence rate. This indicates that having contraceptives and services by themselves will not avoid unintended pregnancy. Giving appropriate counseling and instruction of the methods with proper chosen methods is necessary.

Among socio-demographic characteristics of the women family size was found to be negatively associated with unintended pregnancy. Those women who had family size of three or less were 66% (AOR 0.34, 95%CI=0.14, 0.83) lower chance of having unintended pregnancy than women with family size of four or more. This may be a desire to limit family size to enable the family to provide a better education for the children and the increased participation of women in the labor force (7, 9).

Among reproductive history of the women, number of pregnancy was negatively associated with unintended pregnancy. Those women who had two or less pregnancies had 55% (AOR 0.45, 95%CI=0.22, 0.92) lower chance of having unintended pregnancy than those women with three or more pregnancies. As the number of times a woman become pregnant increases, tendency to experience unintended pregnancy increases. This study finding is supported by the study conducted in Hosanna town, Southern Ethiopia, in which women with three or more pregnancies

had a significantly increased likelihood of the pregnancy being unintended than women with 1–2 pregnancies (1).

## **8. Strengths and limitations of the study**

### **8.1 Strengths**

1. The study is one of the problems of many women so that they actively participated in the study.
2. Provision of appropriate information on the aim and advantage of the study to the participants.

### **8.2 Limitations**

1. Limitations related to cross-sectional studies.
2. Convenience sample.

## **9. Conclusion**

This study assessed the magnitude of unintended pregnancy and factors associated with it and it showed that the magnitude of unintended pregnancy among currently pregnant women in the study area is high.

No single factor accounted for the high rates of unintended pregnancy; more than one factor was associated with for this regard. Family size and number of pregnancies of a woman had were among statistically significant associated factors with unintended pregnancy.

## **10. Recommendation**

### **10.1 Government and stake holders in the study area**

- The result shows that the women with higher number of pregnancy were more likely to experience unintended pregnancy. So reproductive health programs should give appropriate information on the advantage of low number of pregnancy with different types of mass media with full availability and accessibility of family planning methods. So that women of reproductive age can use the methods they preferred and prevent high number of pregnancy.
- Emphasis should be given on mass media messages addressing on the advantage of small family size and creating the awareness of the people on family planning. Because all women of childbearing age who are sexually active can benefit from planning pregnancies.

### **10.2 Health Care providers**

- Health care providers should give appropriate counseling for the women and their sexual partner to limit their family size by using appropriate family planning methods.
- Health care providers should create the awareness of the women on the advantage of low number of pregnancy for the health of the mother and children through health education and encourage them to decrease their pregnancy by using different options of FP.

### **10.3 Researchers**

Further study with strong design is needed to assess factors related to high prevalence of unintended pregnancy (quantitative study supplemented with qualitative study).

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## 12. ANNEXES

### 12.1 ANNEX I Information Sheet

Good morning/ Good afternoon. My name is \_\_\_\_\_, I am working as data collector in this study that assess the magnitude and factors associated with unintended pregnancy among currently pregnant women attending antenatal care at Mahteme Gandhi Memorial hospital for an investigator doing her thesis for the partial fulfillment of Masers degree in public health. You are kindly requested to participate in this study and provide the information required from you. Your participation in this study is completely on voluntary bases and you have the right to refuse, to take part or to interrupt at any time. But your participation will give us quite useful information to take preventive strategies to the unintended pregnancy. There are no incentives to participate in this study.

We would like to assure you, your name will not be mentioned in anywhere. The information that you will give us will be kept confidential and only used for the research purpose. The questionnaire will take 25-30minutes.

So are you willing to participate in this study?

Yes       No

If the answer is yes, Thanks! Conduct

If the answer is no, transfer to the next respondent.

Questionnaire code number \_\_\_\_\_

Name of the data collector \_\_\_\_\_ Date of interview \_\_\_\_\_

Signature \_\_\_\_\_

Name of the supervisor \_\_\_\_\_ Date of checking \_\_\_\_\_

Signature \_\_\_\_\_

## 12.2 ANNEX II Consent form

I have read the information sheet and I understood the purpose and the expected benefit of the research of this study. I hereby need to assure with my signature that I have signed without any coercion & I have decided to participate voluntarily to take part my contribution to the study which will help in decreasing of unintended pregnancy and its quensquencies abortion.

Signature \_\_\_\_\_

Date \_\_\_\_\_

*In case you want to contact the investigator, below is the address.*

*Sefrash Asridew      Tel- 0911721839.*

*AAU      Tel- 0115157701*

### 12.3 ANNEX III English version questionnaire

English version questionnaire on the magnitude and associated factors of unintended pregnancy on currently pregnant women attending ANC at M.Gandi Memorial hospital A.A Ethiopia.

#### Part I: Socio-demographic questions

S.No	Questions	Codes and answers
1.1	Age of respondent	_____ Years.
1.2	Where is your residence?	1.Urban 2.Rural
1.3	What is Your educational status?	1.Can't read & write 2.Only read and write 3.Primary level 4.Secondary level 5.College/University
1.4	Which religion are you following?	1 .Orthodox 2.Islam 3. Protestant 4. Catholic 5. Others
1.5	What is your ethnic group?	1.Amhara 2.Oromo 3.Tigre 4.Gurage 5.Others (specify) _____
1.6	What is your current marital status?	1.married 2.Single 3.Divorced 4.Separated 5.Widowed 6.unmarried but in stable union
1.7	If you are married, at what age were you married?	Age in years _____


## Part I. Socio-demographic cont...

1.8	What is your duration of marriage /union?	Enter duration in years _____
1.9	What is your occupation?	1.Governmentt employee 2.private institution employee 3.House wife 4.student 5.House maid 6.Trader 7.unemplyed
1.10	How much is your monthly income?	_____ Birr.
1.11	How many family members do you have/including you?	Enter the number of family members _____


## Part II: Reproductive characteristics of study respondents

S.No	Questions	Codes and answers	Skip
2.1	Is this pregnancy your first pregnancy?	1.Yes _____→ 2.No	2.8
2.2	For how many times you have been pregnant?	1.One 2.two 3.Three 4.Four 5.Five and above	
2.3	Do you have living children?	1.Yes 2.No _____→	2.5
2.4	How many are males and females?	No of males _____ No of females _____	
2.5	Do you have history of abortion?	1.Yes 2.No _____→	2.8
2.6	If Yes to Q 2.5, for how many times do you have history of abortion?	1.One 2.Tw 3.Three 4.Four & above	

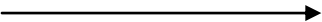
Part II Reproductive characteristics cont...

2.7	How many of the previous abortions were induced and how many were spontaneous?	Induced _____ Spontaneous _____	
2.8	Before you became pregnant the current pregnancy, did you want to have a child at any time in the future?	1.Yes 2.No	
2.9	If Yes to Q 2.8, do you think that you became pregnant at the right time?	1.Yes 2.No	
2.10	Right before you become pregnant, did you think not to have any child /children in the future?	1.Yes 2.No	
2.11	Did you experience unintended pregnancy/pregnancies before this pregnancy?	1.Yes 2.No 	2.15
2.12	If yes to Q 2.11, when did the last unintended pregnancy/pregnancies you had occurred?	1.With in the last three years 2.before three years ago	
2.13	How many unintended pregnancy/pregnancies you have had with in the last three years?	1.One 2.Two or more	
2.14	What did you do for the unintended pregnancy/pregnancies that you had?	1.Nothing, pregnancy continued & I gave birth. 2.Attempted to stop pregnancy but failed. 3 .Attempted to stop pregnancy & succeeded.	
2.15	How many live births you have had?	Enter the number _____	
2.16	How many of the live births you had were unintended?	Enter the number _____	

### Part III- KAP of study respondents on family planning

S.No	Questions	Codes & Answers	Skip
3.1	Do you listen to radio?	1.Yes 2.No	
3.2	Do watch TV?	1.Yes 2.No	
3.3	Have you ever heard about family planning service?	1.Yes 2.No 	3.11
3.4	If yes to Q 3.3, where do you get the information about the service?	From 1.Radio 2.TV 3.friends 4.Health care providers 5.from women who use FP	
3.5	Do you know any MFPMs that women or men can use to prevent or delay pregnancy?	1.Yes 2.No	
3.6	Which of the following FPMs do you know about? (Tick all MFPMs mentioned by the women).	1.Pills 2.Injectable 3.IUCD 4.Norplant 5.Condom 6.Spermicidal 7.Female sterilization 8.Male sterilization 9.Other specify	
3.7	Where do you think to get the above MFPMs?	1.Hospital 2.Health center 3.FGAE 4.Health post 5.Pharmacy 6.Other specify _____	
3.8	Are these MFPMs accessible?	1.Yes 2.No	

Part III KAP of study respondents' cont...

3.9	Have you ever used FPMs?	1.Yes 2.No 	3.15
3.10	What MFPM you used then?	1.Pills 2.Injectables 3.IUCD 4.Condom 5.Female sterilization 6.Male sterilization 7.Norplant 8.Rythm method 9. Other specify _____	
3.11	Have you ever discussed about FP methods with your husband/sexual partner?	1.Yes 2.No	
3.12	So what do you think you became pregnant now?	1.Due to discontinuation of FPMs 2 Due to contraceptive failure 3.Partner disapproval to use FPMs 4.Due to rape 5.Other (specify) _____	
3.13	If it was due to contraceptive failure, what contraceptive you used then?	1.Pills 2.Injectables 3.IUCD 4.Condom 5.Norplant 6.Female sterilization 7.Male sterilization 8. Rhythm method 9.Other specify _____	
3.14	Have you ever been using the specified method appropriately according to the instruction provided?	1. Yes 2. No 3. I was not instructed correctly	

Part III KAP of study respondents' cont...

3.15	If you are non-user of modern FPMs, why you don't use it?	1.Not aware of modern Contraceptive methods 2.Use traditional methods 3.Unacceptable in my culture /religion 4. Fear of infertility 5. Husband/partner disapproval	
3.16	What advantage(s) of the modern contraceptive methods do you know?	1.To prevent unwanted pregnancy 2.To delay mistimed pregnancy 3.To prevent STDs 4.Regularion of menstrual cycle	
3.17	Do you know how to prevent unintended pregnancy following unprotected sexual intercourse/rape?	1.Yes 2. No $\longrightarrow$	3.17
3.18	If Yes to Q 3.14, what methods can be used?	1.Emergency contraceptive pills 2.IUCD 3.ECPs & IUCD	
3.19	What methods do you think is the best method to prevent unwanted or mistimed pregnancy?	1.Modern contraceptive methods 2.Calender methods 3.I don't know	
3.20	Do you approve or disapprove of couples using FPMs to prevent unintended pregnancy?	1.Approve 2.Disapprove 3.No opinion	
3.21	If you have two or more children, would you like to have any more children?	1.Yes 2.No 3.God knows 4.Not applicable	
3.22	How many children do you want to have in your life?	Enter the number _____	
3.23	How much gap between two consecutive pregnancies do you prefer to have?	1. One year 2. Between one & two year 3 .More than two year	

## 12.4 ANNEX IV Amharic version questionnaire

በጋንዲ መታሰቢያ ሆስፒታል የእርግዝና ክትትል በሚያደርጉ ንፍሰ-ጡር እናቶች ላይ ባልታቀዱ እርግዝናዎች መጠንና ምክንያታቸውን በተመለከተ ለሚደረግ የዳሰሳ ጥናት የተዘጋጀ መጠይቅ።

### መግቢያ፡

በቅድሚያ ወደ መጠይቁ እንኳን ደኅና መጡ።

ስሜ \_\_\_\_\_ ይባላል።አሁን በዚህ ሆስፒታል የእርግዝና ክትትል በሚያደርጉ ንፍሰ-ጡር እናቶች ላይ ባልታቀዱ እርግዝናዎች መጠንና ምክንያታቸውን በተመለከተ ጥናት በማጥናት ከአዲስ አበባ ዩኒቨርሲቲ ሁለተኛ ዲግሪዎን ለመስራት ለመጣችው አጥኚ መረጃ እየሰበሰቡ በእንገኛለን።እርስዎም በዚህ ጥናት ተሳታፊ እንዲሆኑ ተጋብዘዋል።የእርስዎ በዚህ ጥናት ላይ መሳተፍ በፈቃደኝነት ላይ የተመሰረተ ነው።ይህም ማለት በመጠይቁ ላይ ያለመሳተፍ፣መመለስ የማይፈልጉትን ጥያቄ ያለመመለስና እንዲሁም በፈለጉት ጊዜ ጥያቄውን የማቋረጥ መብትዎ የተጠበቀ ነው።ይህንም በማድረግዎ በሆስፒታሉ የሚደረግለዎትን ማንኛውንም ህክምና አያስታጉልብዎትም። ነገር ግን የእርስዎ በቃለ-መጠይቁ መሳተፍና ለጥያቄዎቹ ትክክለኛ ምላሽ መስጠት ያልታቀዱ እርግዝናዎችን ለመከላከል ለሚወሰዱ እርምጃዎች ጠቃሚ መረጃ ይሰጠናል።በመጠይቁ ላይ ስምዎ ሆነ ሌላ የእርስዎን ማንነት የሚገልፅ ማንኛውም ነገር አይጠቀስም።የሚሰጡን መረጃ በሚስጥር የሚጠበቅና ለምርምር ሥራው የሚጠቅም ነው።ቃለ-መጠይቁ ከ25-30 ደቂቃ ይወስዳል።

ስለዚህ ለቃለ-መጠይቁ ፈቃደኛ ነዎት?

ፈቃደኛ ነኝ

ፈቃደኛ አይደለሁም

መልሱ አዎ ከሆነ ቃለ-መጠይቁን ይጀምሩ። አልፈልግም ከሆነ ቃለ-መጠይቁን አይጀምሩ።

ፍቃደኛነቱን ያረጋገጠው መረጃ ሰብሳቢ

ስም \_\_\_\_\_

ፊርማ \_\_\_\_\_

የመጠይቁ መለያ ቁጥር \_\_\_\_\_

መጠይቁ የተደረገበት ቀን \_\_\_\_\_

የጥናቱ ተቆጣጣሪ ስም \_\_\_\_\_

ፊርማ \_\_\_\_\_

**የስምምነት መስጫ ቅፅ:-**

እኔ ከዚህ በታች የፈረምኩት ስለጥናቱ ዓላማና ጥቅም ተረድቻለሁና አስፈላጊ መሆኑን አምናለሁ በጥናቱ ላይ ለመሳተፍ ያለምንም ተፅዕኖ በራሴ ፈቃድ ተሳታፊ መሆኔን አረጋግጣለሁ።

ፊርማ \_\_\_\_\_

ቀን \_\_\_\_\_

ተመራማሪዎን ማነጋገር ከፈለጉ በሚከተለው አድራሻ ማግኘት ይችላሉ:-

ሥፍራሽ አሥርደው            0911721839.

**ክፍል አንድ :- የማህበራዊና ኢኮኖሚያዊ ሁኔታን የሚዳሰሱ መጠይቆች**

ተ/ቁ	ጥያቄዎች	አማራጭ መልሶችና መለያ ኮድ
1.1	ዕድሜዎት ስንት ነው?	በዓመት _____
1.2	ነዋሪነትዎ የት ነው?	1.ከተማ 2.ገጠር
1.3	የትምህርት ደረጃዎ ምን ያህል ነው?	1.ማንበብና መጻፍ የማይችሉ 2.ማንበብና መጻፍ ብቻ 3.የመጀመሪያ ደረጃ 4.የሁለተኛ ደረጃ 5. ኮሌጅ/ ዩኒቨርሲቲ
1.4	የየትኛው ሃይማኖት ተከታይ ነዎት?	1.አርቶዶክስ 2.እስላም 3.ፕሮቴስታንት 4.ካቶሊክ 5.ሌላ (ይገለፅ) _____
1.5	ብሔረሰብዎ ምንድን ነው?	1.አማራ 2.አሮሞ 3.ትግሬ 4.ጉራጌ 5.ሌላ (ይገለፅ) _____
1.6	አሁን ያሉበት የጋብቻ ሁኔታ ምንድን ነው?	1. በጋብቻ ላይ 2. ያላገባ 3. ከባልዎ የተፋታች 4. ከባልዎ ጋር አብራ የማትኖር 5. ባልዎ የሞትባት 6. እጮኛ/ጓደኛ/ ያላት
1.7	በስንት ዓመትዎ ነው ያገቡት?	በዓመት _____
1.8	በጋብቻ ምን ያህል ጊዜ ቆይተዋል?	በዓመት _____
1.9	ሥራዎ ምንድን ነው?	1. የመንግስት ሠራተኛ 2. የግል መሥሪያ ቤት ሠራተኛ 3. የቤት እመቤት 4. ተማሪ 5. የቤት ሠራተኛ 6. ነጋዴ 7. ሥራ የሌላት
1.10	የወር ገቢዎት ምን ያህል ነው?	_____ ብር

1.11	የቤተሰብ ጥቅም ምን ያህል ነው/አርስታዎን ጨምሮ?	የቤተሰብ ብዛት _____
------	---------------------------------	-----------------

**ክፍል ሁለት-የተጠያቂዎች የሥነ-ተዋልዶ ታሪክ መጠይቅ**

ተ/ቁ	ጥያቄዎች	አማራጭ መልሶችና መለያ ኮድ	ይለፉ
2.1	ይህ ዕርግዝና የመጀመሪያ ዕርግዝናዎት ነው?	1. አዎ _____ 2. አይደለም	2.8
2.2	ለጥ.ቁ 2.1 መልስ አይደለም ከሆነ ከዚህ ዕርግዝና በፊት ስንት ጊዜ አርግዘዋል?	1. አንድ 2. ሁለት 3. ሦስት 4. አራት 5. አምስትና ከዚያ በላይ	
2.3	አሁን ልጅ አለዎት?	1. አዎ 2. የለኝም _____	2.5
2.4	ለጥ.ቁ 2.3 መልስ አዎ ከሆነ ስንት ልጅ አለዎት?	የልጅ ብዛት _____ ወንድ _____ ሴት _____	
2.5	ከዚህ በፊት ውርጃ ኖሮዎት ያውቃል?	1.አዎ 2.የለኝም _____	2.8
2.6	ለጥ.ቁ 2.5 መልስ አዎ ከሆነ ለስንት ጊዜ አስወርዶዎት ያውቃል?	1. አንድ 2. ሁለት 3. ሦስት 4. አራትና ከዚያ በላይ	
2.7	ከዚህ በፊት ከነበሩዎት ውርጃዎች ስንቶቹ በራሳቸው ጊዜ ተከሰቱ ስንቶቹስ ዕርስዎ ፈልገው ያስወረዱት ነው ?	በራሳቸው ጊዜ የተከሰቱ ውርጃዎች ብዛት _____ የተቀሰቀሱ ውርጃዎች ብዛት _____	
2.8	ይህን ዕርግዝና ከማርገዝዎት በፊት ለወደፊቱ ልጅ ለመውለድ ይፈልጉ ነበር?	1. አዎ 2. አልፈልግም ነበር	
2.9	ለጥ.ቁ 2.8 መልስ አዎ ከሆነ አሁን ያረገዙበት ጊዜ ትክክለኛ ጊዜ ነው ብለው ያስባሉ?	1. አዎ 2. አይደለም	
2.10	የአሁኑን ዕርግዝና ከማርገዝዎት በፊት ሌላ ልጅ ላለመውለድ ወስነው ነበር?	1. አዎ 2. አልወሰንኩም ነበር	
2.11	ከዚህ ዕርግዝናዎ በፊት ሳያቅዱ አርግዘው ያውቃሉ?	1. አዎ 2. አላውቅም _____	2.15
2.12	ለጥ.ቁ 2.11 መልስ አዎ ከሆነ መቼ ነበር ሳያቅዱ ያረገዙት?	1. ባለፉት ሦስት ዓመታት ውስጥ 2. ከሦስት ዓመት በፊት	
2.13	ለጥ.ቁ 2.11 አዎ ከሆነ ባለፉት ሦስት ዓመታት ውስጥ ስንት ያልታቀዱ ዕርግዝናዎች ነበሩዎት?	1. አንድ 2. ሁለትና ከዚያ በላይ	


**ክፍል ሁለት:-የተጠያቂዋ የስነ-ተዋልዶ ታሪክ መጠይቅ የቀጠለ**

2.14	ለነበርዎት ያልተፈለገ/ያልታቀደ ዕርግዝና ምን አደረጉ?	1. ምንም አላደረግሁ፣ዕርግዝናው ቀጠለ ወለድኩ 2. ዕርግዝናውን ለማቋረጥ ሞክሬ ነበር ግን አልተሳካልኝም 3. ዕርግዝናውን አቋረጥኩት	
2.15	በህይወት የተወለዱ ህፃናት ብዛት ስንት ናቸው?	ብዛት _____	
2.16	በህይወት ከተወለዱት ህፃናት ውስጥ ስንቶቹ ሳይታቀዱ/ሳይፈለጉ የተወለዱ ናቸው?	ብዛት _____	

**ክፍል ሦስት:-ስለዘመናዊ የቤተሰብ ምጣኔ ያላቸው ግንዛቤ/ዕውቀትና ተሞክሮ መጠይቅ**

ተ/ቁ	ጥያቄዎች	አማራጭ መልሶችና መለያ ኮድ	ይለፉ
3.1	ሬዲዮ ያዳምጣሉ?	1. አዎ 2. አላዳምጥም	
3.2	ቴሌቪዥን ይመለከታሉ?	1. አዎ 2. አልመለከትም	
3.3	ስለዘመናዊ የቤተሰብ ምጣኔ አገልገሎት ያውቃሉ?	1. አዎ 2. አላውቅም →	3.11
3.4	ለጥ.ቁ 3.3 መልስ አዎ ከሆነ ስለአገልግሎቱ ከየት ሰሙ?	1. ከሬዲዮ 2. ከቴሌቪዥን 3. ከጓደኞቼ 4. ከጤና ባለሙያ 5. የቤተሰብ ምጣኔ ከተጠቀሙ ሰዎች	
3.5	ዕርግዝናን ለመከላከል/ለማዘግየት የሚጠቀሙ ዘመናዊ የቤተሰብ ምጣኔ ዘዴዎች ያውቃሉ ?	1. አዎ 2. አላውቅም	
3.6	ለጥ.ቁ 3.5 መልስ አዎ ከሆነ የሚያውቁት /ቋቋሙ የእርግዝና መከላከያ ዘዴዎች ምንድን ናቸው?(ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ክንን 2. በመርፈ የሚሰጥ 3. በማህፀን ውስጥ የሚቀመጠው ሉፕ 4. በክንድ ላይ የሚቀበረው ኖርፕላንት 5. ኮንዶም 6. ፀረ-ስፕርም ኬሚካል 7. የቤት የዘር ማስተላለፊያ ቱቦ ማስቋጠር 8. የወንድ የዘር ፍሬ ማስተላለፊያ ቱቦ ማስቋጠር 9. ሌላ (ይጠቀስ) _____	

**ክፍል ሶስት:- ስለዘመናዊ የቤተሰብ ምጣኔ ያላቸው ግንዛቤ/ዕውቀትና ተሞክሮ መጠይቅ የቀጠለ**

3.7	እነዚህ የቤተሰብ ምጣኔ ዘዴዎች የት ይገኛሉ?	<ol style="list-style-type: none"> <li>1. ሆስፒታል</li> <li>2. ጤና ጣቢያ</li> <li>3. ቤተሰብ መምሪያ</li> <li>4. ጤና ኬላ</li> <li>5. መደሃኒት ቤት</li> <li>6. ሌላ (ይጠቀስ) _____</li> </ol>	
3.8	እነዚህን የእርግዝና መከላከያ ዘዴዎች እንደልብ ማግኘት ይቻላል?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አይቻልም</li> </ol>	
3.9	የእርግዝና መከላከያ ዘዴዎች ተጠቅመው ያውቃሉ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም </li> </ol>	3.15
3.10	የጥ.ቁ 3.9 መልስ አዎ ከሆነ ከዚህ እርግዝና በፊት ሲጠቀሟቸው የነበሩ የእርግዝና መከላከያ ዘዴዎች ምንድን ናቸው?	<ol style="list-style-type: none"> <li>1. ክንን</li> <li>2. በመርፌ የሚሰጥ</li> <li>3. በማህፀን ውስጥ የሚቀመጥ ሉፕ</li> <li>4. ኮንዶም</li> <li>5. የሴት የዘር መተላለፊያ ቱቦ ማስቋጠር</li> <li>6. የወንድ የዘር መተላለፊያ ቱቦ ማስቋጠር</li> <li>7. በክንድ ላይ የሚቀበር ኖርፕላንት</li> <li>8. የወር አበባ አቆጣጠር ዘዴ</li> <li>9. ጡት ማጥባት</li> <li>10. ሌላ ዘዴ (ይጠቀስ) _____</li> </ol>	
3.11	ስለ እርግዝና መከላከያ ዘዴ ከባለቤትዎ ጋር ተወያይተው ያውቃሉ	<ol style="list-style-type: none"> <li>1.አዎ</li> <li>2.አይደለም</li> </ol>	
3.12	ስለዚህ አሁን በምን ምክንያት ላረግዝ ቻልኩ ብለው ያስባሉ?	<ol style="list-style-type: none"> <li>1. መከላከያ ዘዴውን በማቋረጥ</li> <li>2. የተጠቀምኩት መከላከያ ዘዴ ስላልሰራ</li> <li>3. ባለቤቴ/ጓደኛዬ መከላከያ ዘዴ እንደጠቀም ስላልፈቀደ</li> <li>4. ተገድጄ ተደፍሬ</li> </ol>	
3.13	እርግዝናን መከላከል ያልቻሉት የተጠቀሙበት መከላከያ ዘዴ ስላልሰራ ከሆነ ሲጠቀሙት የነበረው ምንድን ነው?	<ol style="list-style-type: none"> <li>1.የእርግዝና መከላከያ ክንን</li> <li>2. በመርፌ የሚሰጥ</li> <li>3. ሉፕ</li> <li>4. ኮንዶም</li> <li>5. በክንድ ላይ የሚቀበር</li> <li>6. የሴቶች የዘር ማስተላለፊያ ቱቦ ማስቋጠር</li> <li>7. የወንዶች የዘር ማስተላለፊያ ቱቦ ማስቋጠር</li> <li>8. የወር አበባ አቆጣጠር ዘዴ</li> <li>9. ሌላ ይጠቀስ _____</li> </ol>	

3.14	ሲጠቀሙት የነበረውን የእርግዝና መከላከያ ዘዴ በትክክል ይጠቀሙ ነበር?	1. አዎ 2. አልተጠቀምኩም 3. ስለአጠቃቀሙ በትክክል አልተነገረኝም	
3.15	የጥ.ቁ 3.9 መልስ አላውቅም ከሆነ ዘመናዊ የእርግዝና መከላከያ ዘዴ የማይጠቀሙበት ምክንያት ምንድን ነው?	1. ስለዘመናዊ የእርግዝና መከላከያ ዘዴ ግንዛቤው ስላልነበረኝ 2. የወር አበባ የእርግዝና መከላከያ ዘዴ ስለምጠቀም 3. በባህሌ/በሃይማኖት) ስለማይፈቀድ 4. መካንንት እንዳያመጣብኝ ስለምፈራ 5. ባለቤቴ/ጓደኛዬ ስለማይፈቅድልኝ	
3.16	ዘመናዊ የእርግዝና መከላከያ ዘዴዎች የሚሰጡትን ጥቅም ይጥቀሱ?(ከአንድ መልስ በላይ መልስ መስጠት ይቻላል)	1. ያልተፈለገ እርግዝናን ለመከላከል 2. የእርግዝናን ጊዜ ለማዘግየት 3. የተዛባ የወር አበባን ለማስተካከል 4. የአባላዘር በሽታዎችን ለመከላከል	
3.17	በድንገት ወይም ያለ መከላከያ ዘዴ በተፈጸመ ወሲባዊ ግንኙነት ምክንያት የሚፈጠር ያልታቀደ እርግዝናን መከላከል ይቻላል?	1. አዎ 2. አይቻልም	
3.18	የጥ.ቁ መልስ 3.15 አዎ ከሆነ ምን አይነት ዘዴ በመጠቀም መከላከል ይቻላል?	1. የድንገተኛ እርግዝና መከላከያ ክኒን 2. በማህፀን ውስጥ የሚቀመጥ ሉፕ 3. ከኒንና ሉፕ	
3.19	ያልተፈለገ እርግዝናን ለመከላከል የተሻለ ዘዴ ነው የሚሉት ዘዴ ምንድን ነው ?	1. ዘመናዊ የእርግዝና መከላከያ ዘዴ 2. የወር አበባ አቆጣጠር ዘዴ 3. ሌላ (ይጠቀስ) _____	
3.20	እርስዎ ወይም ሌሎች የእርግዝና መከላከያ ዘዴዎችን መጠቀም ይደግፋሉ ወይስ ይቃወማሉ?	1. እደግፋለሁ 2. እቃወማለሁ 3. ሃሳብ የለኝም	
3.21	ሁለት ወይም ከዚያ በላይ ልጅ ቢኖርዎት ሌላ ተጨማሪ ልጅ ይፈልጋሉ?	1. አዎ 2. አልፈልግም 3. ፈጣሪ ያውቃል 4. ተግባራዊ ማድረግ ያስቸግራል	
3.22	በእድሜዎ በጠቅላላ ስንት ልጅ ቢኖርዎት ይመርጣሉ	ብዛት _____	
3.23	በሁለት ተከታታይ እርግዝናዎች መካከል ምን ህል የጊዜ እርቀት ቢኖር ይመርጣሉ?	1. ከአንድ ዓመት ያነሰ ጊዜ 2. አንድ ዓመት 3. በአንድና በሁለት ዓመት መካከል 4. ከሁለት ዓመት በላይ	

## **Declarations**

I the undersigned ,declare that this is my original work and has not been presented for a degree in this or any other university ,and all source of material used for this has been fully acknowledged.

Name of student: Sefrash Asridew

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Place: Addis Ababa

Date of submission \_\_\_\_\_

This Thesis work has been submitted with my approval as the university Advisor

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