

ADDIS ABABA UNIVERSITY
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR POPULATION STUDIES

Factors Affecting Knowledge, Attitude and Intention to Use Long Acting and Permanent Contraceptive Methods among Ante Natal CareClients in Yeka Health Centers, Addis Ababa, Ethiopia

Investigator: MeazaAbebayehu(BSc)

A Thesis Submitted to College of Development Studies of Addis Ababa University in PartialFulfillment of the Requirements for the Degree of Master of Science in Population Studies.

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List of Acronyms

ANC	Ante Natal Care
AOR	Adjusted Odds Ratio
BSc	Bachelor of Science
CEB	Children Ever Born
CI	Confidence Interval
CPR	Contraceptive Prevalence Rate
EDHS	Ethiopian Demographic and Health Survey
FGD-	Focus Group Discussion
FMoH	Federal Ministry of Health
FP	Family Planning
HEW	Health Extension Workers
HIV	Human Immune Deficiency Virus
IUCD	Intra Uterine Contraceptive Device
IUD	Intra Uterine Device
KAP	Knowledge, Attitude and Practice
LACMs	Long Acting Contraceptive Methods
LAFPMs	Long Acting Family Planning Methods
LAPCMs	Long Acting and Permanent Contraceptive Methods
LAPMs	Long Acting Permanent Methods
LARC	Long Acting Reversible Contraceptives
PNC	Post Natal Care
SOP	Standard of Procedure

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Abstract

Background: Family planning is voluntary use of natural or modern contraceptive by individual or couples. There are modern family planning methods, which are divided in to three: long acting reversible contraceptive methods (IUCD and Implants) when removed, return to fertility is prompt; permanent contraceptive methods (Tubal ligation for females and vasectomy for male) and short-term contraceptive methods (oral pills, injectable, male and female condoms, foam tablet, cervical cup and emergency contraceptive.

Objective: The objective of the study is to assess factors affecting knowledge, attitude and intention to use long acting and permanent contraceptive methods among ANC attendants in woreda 12 and Kotebe 02 health centers, Addis Ababa Ethiopia.

Methods: Institutional analytical cross-sectional study design that used mixed(quantitative and qualitative) data collection methods were used. 352 respondents were selected systematically from the daily clinic attendance. Descriptive statistics and binary logistic regression analysis were used to determine the effect of factor(s) on the outcome variables separately.

Results: The finding on level of knowledge that 326 (92.6%) had high level of knowledge. 241(68.5%) of women had positive attitude towards Implant and 190(54%) towards Loop. Out of the total respondents majorities of them 238 (67.6%) have intention to use LAPMs. The final result in the analysis of this study confirmed that age of women, religion, educational status of women, women's occupation, duration of stay in Addis, main source of information on contraceptives, previous use of modern contraceptives and, attitude towards implant were significantly associated with intention to use long acting and permanent family planning methods.

Conclusion and Recommendations: Finally the major finding in this research from both quantitative and qualitative methods is that appropriate information from health professionals should be accessible to women and husband's in order to affect positive attitude towards and intention to use long acting methods. The main target groups to be considered should be those with lower education, unemployed/house wives and older(above 30) women who were found to show in greater proportion negative attitude towards long acting methods and lower intention to use the same due to misconception. Strengthening the training for health professionals.

1. INTRODUCTION

1.1. Background of the study

Globally, an estimated 300,000 maternal deaths occur annually owing to causes associated with pregnancy, of which nearly 75% were preventable. Nearly 170 million women have no access to safe and effective methods of family planning in developing countries. Nearly 1/3 of population growth is due to unplanned pregnancies. Failure to plan a pregnancy can adversely affect the health of the family as a whole and the health of mothers and children remain a subject of global concern (Dibya, 2017).

Contraception plays a major role in preventing pregnancy-related health risks. Women's health and well-being are affected negatively by occurrence of unintended pregnancies. Reduction of unintended pregnancies proportionately reduces the rate of unsafe abortions (Nancy, 2014). A marked drop in birth rate and total fertility rate have been shown in the last few years, and the contraceptives has been recognized as a key element in reducing fertility in many developing countries. Other benefits from family planning and contraceptive use include prevention of sexually transmitted diseases, and infection with the Human Immunodeficiency Virus (HIV) (Mashaël, 2016).

Developing countries are characterized by rapid population growth which is usually due to high fertility, high birth rates, and low contraceptive prevalence rate. In sub-saharan Africa, the rate of population growth is high compared to the rest of the world. Consequently, the number of people in need of health and education and basic infrastructure, among other public benefits, is enormous. It would be a great challenge for low income countries like Ethiopia to meet these needs of the population. Increasing voluntary contraception in the population has the additional advantage of controlling rapid population growth (Adewale, 2016).

Family planning activities in almost every country were initiated by volunteer groups, usually doctors or women's organizations. The early efforts were undertaken to provide a service perceived as needed rather than to affect the rate of population growth. The services were usually rendered by clinics run by the voluntary organizations, and little use was made of mass communication or motivational activities (David, 2016).

Family planning is voluntary use of natural or modern contraceptive by individual or couples. This approach helps the users to have the number of children they want to have and to assure the wellbeing of children as well as parents. There are modern family planning methods, which

are divided into three: long acting reversible contraceptive methods (IUCD and Implants) when removed, return to fertility is prompt; permanent contraceptive methods (Tubal ligation for females and vasectomy for male) and short-term contraceptive methods (oral pills, injectable, male and female condoms, foam tablet and cervical cup (Yayehyiradand Bamlaku, 2016).

Four contraceptive methods are categorized under long acting and permanent contraception methods (LAPCMs): intrauterine devices (IUDs), implants (Implanon, Jadele), female sterilization, and vasectomy. IUDs and implants are long-acting temporary methods; when removed, return to fertility is prompt; and female sterilization and vasectomy are permanent methods. Implants are effective from 3 to 7 years depending on type and IUDs are effective for at least 12 years. LAPCMs are the most effective (99% or greater) methods of contraception available and are very safe and convenient for protection against unintended pregnancy (Gizachew, 2014).

Long acting and permanent methods (LAPMs) are convenient for users and effectively prevent pregnancy and also cost effective for programs overtime. They can result in substantial cost savings for couples, governments, and contribute directly to reaching national and international health goals by providing long lasting contraceptive protection (Alem and Adamu, 2014).

1.2. Statement of the problem

Family Planning (FP) services are an important component to antenatal care (ANC) and postnatal care (PNC) services as a strategy to reduce the high maternal mortality rate, maternal morbidity and infant mortality. The less the number of pregnancies, and the more the space between pregnancies and the less the risk to die because of pregnancy related complications.

Unintended pregnancies are mainly caused by contraceptive failure and non-use of contraceptives. The consequences of unintended pregnancies affect the woman, the family and the society at large. One of the consequences of unintended pregnancies is unsafe abortion which could lead to maternal morbidity and mortality (Nancy, 2014).

LAFPMs are convenient for users and effectively prevent pregnancy. Despite these advantages, LAFPMs remain a relatively small, and sometimes missing, component of many national reproductive health and family planning programs and the fact that FP services are made accessible nearly at all areas in Ethiopia and in most instances with no cost, the decision that lead

women to use the services seems to occur within the context of their marriage, household and family setting (Biruk,2017).

The Ethiopia Federal Ministry of Health (FMoH) has considered the important role of LAPCMs and aims to increase the availability of these methods to 20 % of all family planning clients. Use of family planning in Ethiopia has traditionally focused on short-acting methods such as injectable and birth control pills (Alemu, 2015).

1.3. Rationale of the study

From the perspectives of unmet need for family planning; long acting contraceptives are more useful for spacing and limiting than short acting. Utilization of LAPMs results from positive attitude towards and intention to use LAPMs by women which in turn depends on knowledge about the same. In order to understand the reasons for low utilization of LAPMs it is important therefore to assess the level and factors affecting knowledge, attitude and intention to use these methods by women who could be potential users.

This study has the purpose of assessing factors affecting knowledge, attitude and intention to use LAPMs among ANC users in woreda 12 and Kotebe 02 health centers. The recommendations made by this study may play a role towards improving effective use of contraceptives and family planning services. The results of this study will shade light on the status of knowledge, attitude and intention to use LAPMs by women and will direct possible ways of improving the knowledge, attitude and intention to use long acting family planning ethods by women of the area and also serve as baseline data for program managers, decision makers and advocates so as to design and focus on interventions.

1.4. Objectives

1.4.1. General objective

To assess levels and factors affecting knowledge, attitude and intention to use long actingand permanent contraceptive methods among ANC attendants inWoreda 12 and Kotebe 02 health centers in Addis Ababa.

1.4.2. Specific objectives

- To assess the knowledge attitude and intention to use long acting and permanent methods among women who are ANC attendants as potential LAPMs users after delivery
- To identify factors affecting knowledge, attitude and intention to use long acting and permanent contraceptive methods among women who are ANC attendants as potential LAPMs users after delivery.

2. LITERATURE REVIEW

The most commonly used contraceptive method was long acting reversible contraceptive and it accounts 41% were Norplant and followed by 35% were intra uterine contraceptive device users in Karachi, Pakistan (Bureau USC, 2012).

In Latin America, study indicated that 51% and 47% of women reported that they had heard of the IUCD and implant, respectively. More women stated that they would use the copper IUCD 24% than implant 9% (Kari W, 2013). In Pakistan study conducted on factors affecting hormonal and non-hormonal contraceptive method use in women presenting to reproductive health services showed that uneducated women in center region have the highest prevalence of unmet need 55.5% and educated has the least 31.4% (Baig, 2012).

Study done in Malawi Just over a quarter (26%) of the women are using a LAFPMs method. Of the LARC methods the most commonly used method mere 1.4% of the respondents use the Norplant. The IUD has the lowest percentage of usage among the LARC methods (Jacobstein, 2012).

The 2016 Ethiopian demographic and health survey (EDHS) showed that the contraceptive prevalence rate (CPR) for currently married women age 15-49 in Ethiopia is 36%, with 35% using modern methods and 1% using traditional methods. The most commonly used contraceptive method for currently married women in Ethiopia is injectables (23%), followed by implants (8%) (EDHS, 2016).

Study done in Nigeria one hundred and thirty eight (85.7%) women studied were aware of contraception with 128 (92.8%) having correct knowledge of contraception. One hundred and fourteen (82.6%) women had positive attitudes towards contraception use while (17.4%) had negative attitudes (Obi and Labiran, 2015).

In Ethiopia despite the fact that the practices on long acting and permanent methods are believed to be low, there are limited recently available evidences on the real magnitude and associated factors of the demand for LAPCMs. The use of contraceptive methods was totally dominated by the use of short-term methods such as pills and injectable in Ethiopia. The most widely used methods were injectable (21%) followed by implants (3.4%), pills (2.1%), female sterilization (0.5%), IUD (0.3%), and male condom (0.2%) (Gizachew et.al, 2014). The most effective methods of modern contraception, long-acting and permanent methods (LAPMs) are the least

utilized methods of contraception worldwide and especially in sub-Saharan Africa (Namuunda, 2014).

In Mizan-Aman town a total of 731 reproductive age women were included in the analysis. The proportions of respondents who had low, moderate, and high knowledge was 6.06%, 52.02%, and 42%, respectively, and 65.02% of women had positive attitudes. Only 18.2% of the respondent's utilized LAFPMs which is still dominated by short acting methods that was injectable (Yayehyirad and Bamlaku, 2016).

Among total respondents, 371 (71.5%) couples approved using LAPMs and 148 (28.5%) of them didn't approve. Two hundred thirty-eight (45.9%) of women had intention to use one of the LAPMs of contraception in the future. Ninety-eight (18.9%) of the respondents intended to use Implanon, 67 (12.9%) Jadelle, 60 (11.6%) IUD and 13 (2.5%) female sterilization. The reasons mentioned for intention to use LAPMs were; wanting longer interval between pregnancies or spacing (55.9%) and don't wanting any more child (28.2%). The top five reasons mentioned for not intending to use LAPMs in the future were; fear of side effects (58.4%), respondents opposed (41.3%), health concerns (37.0%), preferring short term (36.3%) and religious prohibition (24.2%) (Gizachew et.al, 2014).

In a study done in Adigrat the prevalence of intention to use LAPMs was 48.4% (95% CI = 44.1, 52.7) while 78(14.6%) participants were unsure of their intention. Of those who had intention, 152(58.9%) had intention to use one of the LAPMs within the next one year. The most preferred method participants intend to use was implants 184(71.3%), followed by IUCD 62(24.0%). The main reasons stated for not intending to use LAPMs were fear of side effect (34.5%) and fear of infertility after use (21.1%). Very few women, (1.5%) reported that LAPMs was against religious or cultural beliefs (Alem and Adamu, 2014).

According to the study conducted in Mekelle City on acceptance of long acting contraceptive methods and associated factors among women shows that 21.4% want to delay their next baby prefer to use long acting contraceptive methods and 35.6% want to use to limit number of children and the only reported determinant were mothers who had a supportive attitude regarding LAFPMs were 2 times more likely to accept LAFPMs as compared with those had non supportive attitude(AOR=2.094, 95% CI (1.109, 3.954) (Gebremichael, 2014).

Study done in Wolaita zone showed that more than half ($n = 216$) of the women had a negative attitudes towards LAPMs. while a quarter of them ($n = 102$)believed insertion and removal of implants is highly painful. More than one-fifth ($n = 86$) felt insertion of intrauterine contraceptive device interfere with privacy. About 69 (16.8%) of women admitted that using IUCDrestricts normal daily activities. Similarly, nearly one quarter (109) of women agreed that female sterilization isdangerous. A third of study women ($n=137$) believed that the implant might freely move in the body other than thesite of insertion and cause severe pain. Women who attained secondary and higher level ofeducation were found to be 2 and 2.8 times more likely to have the intention to use LAPMs compared to women who had no education, respectively (AOR = 2. 10; 95% CI: 1.11- 3.98) and AOR = 2. 80; 95% CI: 1.15-6.77) (Mengistu and Wubegzier 2014).

A community based cross sectional study complemented by qualitative method was conducted in Adigrat town, Tigray Region, revealed that the most preferred method was Depo Provera 68.3%followed by pills 11.6%. The prevalence of long acting contraceptive methods (LACMs) use among the women taking modern contraceptives was 19.5%, which Implants constituted for the highest 10.2% (Addissie, 2014).

Study done in Silite zone out of the study participants 291 (55.1%) did know that IUCD can prevent pregnancy for 12years and 352 (66.7%) did not know IUCD do not interfere with sexual intercourse. Majority ofthe study participants 380 (72%) had knowledge about the notion that implants can preventpregnancy for 3-5 years and 148 (28%) of them did not know.Among the study participated women, 294 (55.7%) had no knowledge that after immediateremoval of Implant, women become pregnant. Majority of them 252 (47.7%) had moderateknowledge and the least 111 (21%) had high knowledge. Women educational status was identified as one of the major associated factors of utilization long acting family planning methods in the study and the result confirmed that women who had above secondary educational status were 4.39times more likely utilize long acting family planning methods than of women who had no educational status [AOR=4.39; 95% CI;1.48,12.99](Biruk 2016).

Different factors affect choice of LAFPMs by family planning clients. Marie Stops International Ethiopia has conducted assessment of Knowledge, Attitude, Practice (KAP) in five regions of Ethiopia among women of reproductive age showed that 52% of them were aware at least one

type of long term method. The study documented that age of women, ethnicity, education, number of live birth, ever given birth, spousal/partner support, and spousal/partner communication were found predictor factors of modern FP use (Espeut, 2010). Most literatures done on utilization of LAPMs showed above. From this literatures showed that most of women use injectable from short acting and from long acting implant is the first one they used and IUCD is the least. From the reasons different factors affect choice of LAFPMs by family planning clients, these are age of women, ethnicity, education, number of live birth, ever given birth, spousal/partner support, and spousal/partner communication were found predictor factors of modern FP use. So not much literatures done on combined of factors of knowledge, attitude and intention of LAPMs.

Conceptual framework of the study

Independent Factors

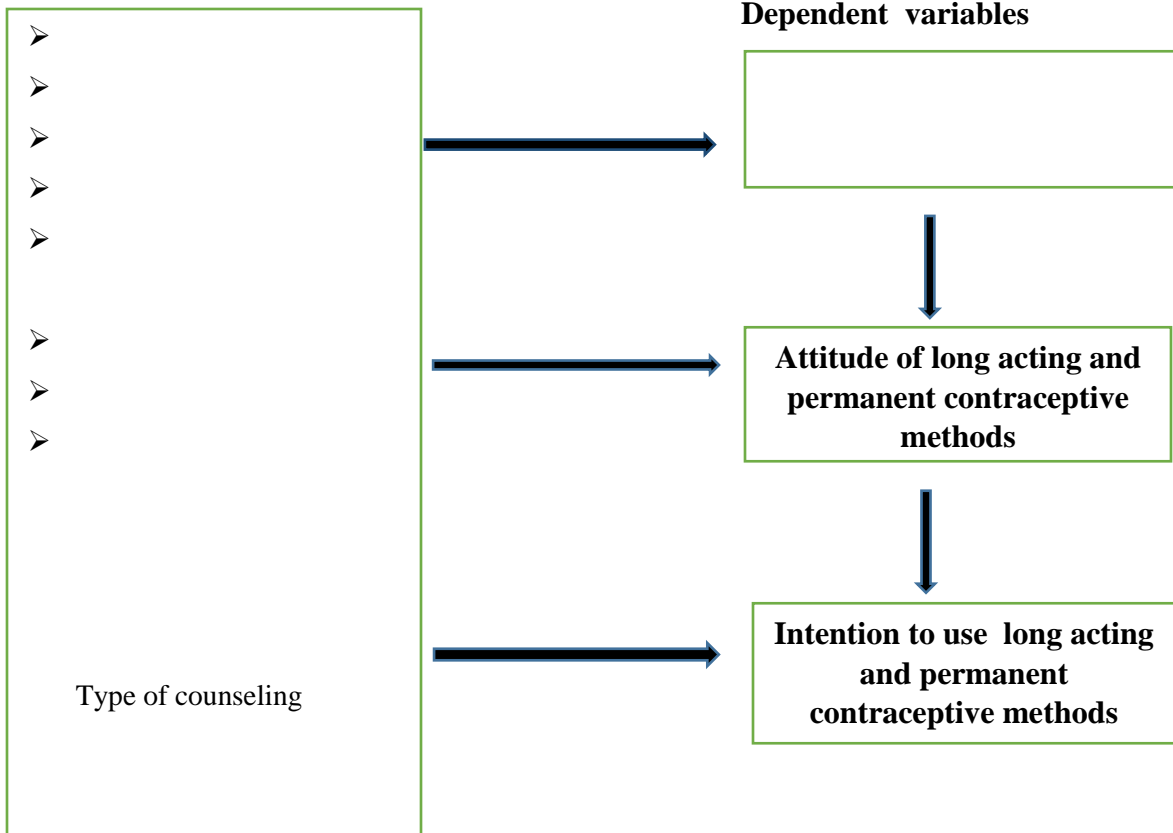


Figure I. Conceptual framework of the study
Conceptual framework adapted from different literatures

3. METHODS

3.1. Study area and period

The Study was conducted in Addis Ababa, Yeka sub city Woreda 12 and Kotebe 02 health centers. Woreda 13 health center is found around Mesalemia area in woreda 12 Yeka sub city and Kotebe 02 health center is found in the same subcity 02 area in woreda 9. The study was conducted in the period from February to June 2018. There are 14 woredas and 15 health centers. The study areas were chosen purposively because both are found on the peripheral of the city. In these areas more migrant women are found. In addition the population is mixed as the area is semi urban and rural, unlike that of the inner city area, where people are well informed and have better access to health and other services. . And also Yeka sub city is the second most densely populated subcity next to kolfe keraniyo sub city in Addis Ababa. The population size of Yeka subcity is 346,484 (Health Beraue 2018).

3.2. Study Design

Institutional analytical cross-sectional study design was used and mixed data collection methods (quantitative and qualitative) were applied to identify factors affecting knowledge, attitude and intention to use long acting and permanent contraceptive methods among ANC users of women in reproductive age group in woreda 12 and Kotebe 02 health centers, Addis Ababa Ethiopia.

3.3. Population

3.3.1. Target Population

All ANC users who were visiting health centers in Yeka subcity.

3.3.2. Study Population

All pregnant women who were visiting health centers in Yeka subcity for ANC during the study period.

3.3.3. Sample Population

A sample population of 352 ANC users who were visiting Woreda 12 and Kotebe health centers in Yeka subcity.

3.4. Sampling Criteria

3.4.1. Inclusion Criteria

- All ANC users and married women in reproductive age group who were voluntarily selected during study period.

3.4.2 Exclusion Criteria

- Women, who were critically ill looking, unmarried women will be excluded during study period.

3.5. Sample Size Determination

The sample size for the study were calculated by using single population proportion formula where prevalence (P) of utilization of long acting family planning in Areka town, southern Ethiopia is 29.7% (Yayheyirad, 2016) with 95% confidence interval and 5% degree of precision. Sample size (n) were computer based on single population proportion formula.

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

Where

n = sample size

$Z_{\alpha/2}$ = Z score value at 95% confidence interval i.e. 1.96

P = Prevalence is estimated to be 29.7% [Yayheyirad,2016]

d = Margin of error (5%)

$$n = \frac{(1.96)^2 0.297(0.703)}{(0.050)^2} = 320$$

Therefore, the sample size was 320+10% non-respondent rate=352

3.6. Sampling Procedure

From the fifteen health centers the two health centers were purposively selected. At each health facility, the first respondent was randomly selected from the daily clinic ANC users visiting the health centers during the study period. The subsequent respondents were selected systematically from the daily clinic attendance and were interviewed until the allocated sample size was reached

in Woreda 12 and kotebe 02 health centers. The sample size divided in two because the client flow in both health centers was similar. So 352 divided in to two. Which 176 women from each health centers.

3.7. Study Variables

3.7.1 Dependent Variables

- Knowledge, Attitude and Intention to Use long acting and permanent contraceptive methods (described in the table for description of variables, below,)

3.7.2. Independent Variables

Socio-demographic

- Age
- Religion
- Ethnicity
- Number living Children

Socio-economic

- Level of education of men
- Educational Status of women
- Occupation of men
- Occupation of women

Methods related variables

- Previous experience of using contraceptives
- Source of information about LAPM contraceptives
- Attitude towards LAPM (Considered as independent factor for intention to use LAPMs)

3.7.3. Description of variables and their values

3.7.3.a Independent variables

Independent variables	Indicators	Values
Socio demographic and socio economic	Age	1. 15-19 2. 20-29 3. 30-39 4. 40-49
	Religion	1. Orthodox 2. Protestant 3. Muslim 4. Catholic 5. Others
	Ethnicity	1. Amhara 2. Oromo 3. Tigre 4. Gurage 5. Others
	Level of education of women	1. No school 2. Primary 3. Secondary 4. Above secondary
	Level of education of men	1. No school 2. Primary 3. Secondary 4. Above secondary
	Occupation	1. Government employed 2. Non-government employed 3. Self employed 4. Not employed
	Desired no of children	-----
	Children ever born	-----
Methods related variables	Fear of side effect	1. Yes 2. No
	Previous experience of contraception	1. Yes 2. No
	Source of information about LAPM contraceptives	1. Neighbors, friends and relatives 2. Health professionals 3. Media or School

3.7.3.b Dependent Variables

Dependent Variables	Values
A. Knowledge	If the woman heard about LAPM If the woman knows the type of LAPM If the woman know how each works(detailed questions in questionnaire)
B. Attitude	Do you think LAPM is useful? (Separate question for each method) Do you think LAPM is harmful? (Separate question for each method)
C. Intention	Do you plan to use LAPM in the near future? Do you plan to use in the long future?

3.8. Data Collection Procedure

3.8.1. Data Collection Instrument

Questionnaires were used to collect the data for the quantitative component. Questionnaires were prepared in English and translated to Amharic language. Data was collected through questionnaire by interview method, using FGD and by using key informant interview.

3.8.2. Data Collectors

The data was collected by 3 data collectors who were health officers, trained and supervised by the investigator. The training given for one day on principles, ethical considerations, procedures and meanings of the questions included in the questionnaire.

3.9. Data processing and Analysis

Quantitative component

After collection of the data then the quantitative data was entered and analysis was done by using SPSS version 20. The descriptive statistics were used to show levels in the form of frequency, percentage and different diagrams. Analysis of bivariate association between the dependent and independent variable was carried out using Chi-square test in order to explore factors associated

with attitude and intention to use long acting contraceptive methods. Binary logistic regression analysis were used to determine the effect of factor(s) on the outcome variables separately and to control possible confounder's. P-value<0.05 was considered to show statistical significance. Factors found to have a Pvalue<0.05 in the bivariate association of dependent variable and each independent variables were entered into the binary logistic regression (ie. multi-variable analysis) to identify the independent effects of the factors. Odds ratio from the logistic regression was used to identify the association of each factor with attitude and intention to use long acting family planning methods.

The logistic regression model used

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_nX_n$$

Where Y= dependent variables- knowledge, attitude and intention (their log odds)

Xi= factors or independent variables-Age,religion, ethnicity, level of education of men, educational status of women, occupation of men, occupation of women, number living Children, and previous experience.

Bi= independent effects of the ith factor

i = factor counter

Qualitative component

Key informant interview was done for health care providers such as for head nurse or head of family planning.

Focus group discussion with selected women, not more than 10 women, who were not included in quantitative data collection was carried out. The discussion included the women in young age and older than age 35.

The qualitative data collection was done by the researcher. The collected data was transcribed verbatim, categorized and thematically analyzed. All the audio taped interview was transcribed verbatim and then was translated to English. The translated transcript was reviewed and then narrated for thematic analysis.

Since the method is mixed, the results of the two components were consolidated or triangulated.

3.10. Data quality assurance and management

To keep the consistency of the questionnaire, it was first prepared in English and then translated into Amharic and back to English in order to check its consistency. The interviewer-administered questionnaire was pretested before use by randomly interviewing 10 women. Necessary correction was done after the pre-tested. The data entered was checked for accuracy and completeness. Errors and omissions were rectified.

3.11. Ethical Consideration

Ethical clearance was obtained from Addis Ababa University College of developmental studies center for population studies to the health centers. Permission was secured from the principals of the health centers. Informed consent from the study participants who met the inclusion criteria was sought. The study participants were interviewed privately and all the information obtained was treated with confidentiality. Serial numbers were used instead of the client's name to protect their identity.

3.12. Dissemination of the result

The finding of this study will be submitted to Center for Population Studies Addis Ababa University College for Developmental Studies and presented in a Public Defenced. Also the result will be reported to Yeka sub city health office and for the two health centers.

3.13. Definition of key terms (source Biruk 2017 and EDHS 2016)

1. Attitude: is disposition or a state of mind.

Positive Attitude: From attitudes measuring questions positive attitude score corresponds to those who gave positive response to at least two of the items from the three major questions for implant and loop separately.

Negative Attitude: From attitudes measuring questions negative attitude score corresponds to those who gave response to at less than two of the items from the three major questions for implant and loop separately.

2. Contraceptive: is a mechanism or means by which conception as a result of sexual intercourse can be prevented.

3. Intention to use LAPMs: women who were not using LAPMs at the time of the survey but wanted to use such methods in the future.

- 4. Long acting family planning methods:** are methods which persist long time when removed, return to fertility is prompt. These methods are implant (which is inserted in the upper arm) and IUCD (which is inserted through uterus).
- 5. Permanent family planning methods:** are methods which are suitable for couples who wish to stop childbearing permanently, which includes female tubal ligation and vasectomy.
- 6. Knowledge of Long acting and permanent family planning methods:** A married women in reproductive age who has understanding about LAPMs and measured by the total number of correct answers to 8 items on knowledge, with a minimum score of 0 and maximum of 8.

High knowledge: Those who knew 80% and above from eight knowledge measuring questions.

Moderate knowledge: Those who knew 50-79% from eight knowledge measuring questions.

Low Knowledge: Those who knew less than 50% from eight knowledge measuring questions



Data collectors during data collection period(health officer)



Researcher during Key informant interview with FP head

4. RESULTS

4.1. Socio-demographic characteristics of study participants

A total of 352 married women of reproductive age were included in the study with a response rate of 100%. The distribution of the study population by socio demographic characteristics showed that most of the women, 241(68.5%), were found to be between 20-29 years of age; 272 (77.3%) were followers of Orthodox religion; 203 (57.7%) were from Amhara ethnic group, followed by 77 (22%) being from Oromo ethnic group. Distribution the study group by level of education showed that greater number of them , 103 (29.3%) were between 9 -12 grade level, closely followed by 27% and 25 % of them being at grade levels of 7-8 and, above 12 grade respectively. In terms of women's occupation 173 (49.3%) were housewives whereas 45% were employed and 5.7 % were self-employed. Distribution of the women according to their husbands' education showed that 42.9% of them have husbands having above 12 grade education. Considering migration status of the women, 62 % of them were migrants, whereas recent migrants who lived in Addis for five years or less, were 17%. From all the women those who lived in Addis for more than ten years (both migrant and non-migrant) constitute 53.7%.

Table I: Socio- demographic characteristics of study participants in Yeka sub city health centers, Addis Ababa, 2019

Variables	Number	Percent
Women's age in years(n=352)		
15-19	14	4.0
20-29	241	68.5
30-39	93	26.4
40-49	4	1.1
Religion (n=352)		
Orthodox	272	77.3
Muslim	31	8.8
Protestant	40	11.4
Catholic	5	1.4
Others	4	1.1
Ethnicity (n=352)		
Amhara	203	57.7
Oromo	77	21.9
Gurage	32	9.1
Tigire	19	5.4

Others	21	6.0
Husband Education (n=352)		
Illiterate	8	2.3
1-6	46	13.1
7-8	38	10.8
9-12	109	31.0
Above 12	151	42.9
Husband Occupation (n=352)		
Employed	302	85.8
Self-employed or Merchant	50	14.2
Where did you live until age 14? (n=352)		
Addis Ababa	135	38.4
Out of Addis Ababa/urban city	9	2.6
Out of Addis Ababa/rural city	208	59.1
How long have you lived in Addis? (n=352)		
All the time	135	38.4
Not all the time	217	61.6
Number of years you lived in Addis (n=352)		
1-5	60	17.0
6-10	103	29.3
11 and above	189	53.7

Figure II. Educational status of women in Yeka sub city health centers, Addis Ababa, 2019

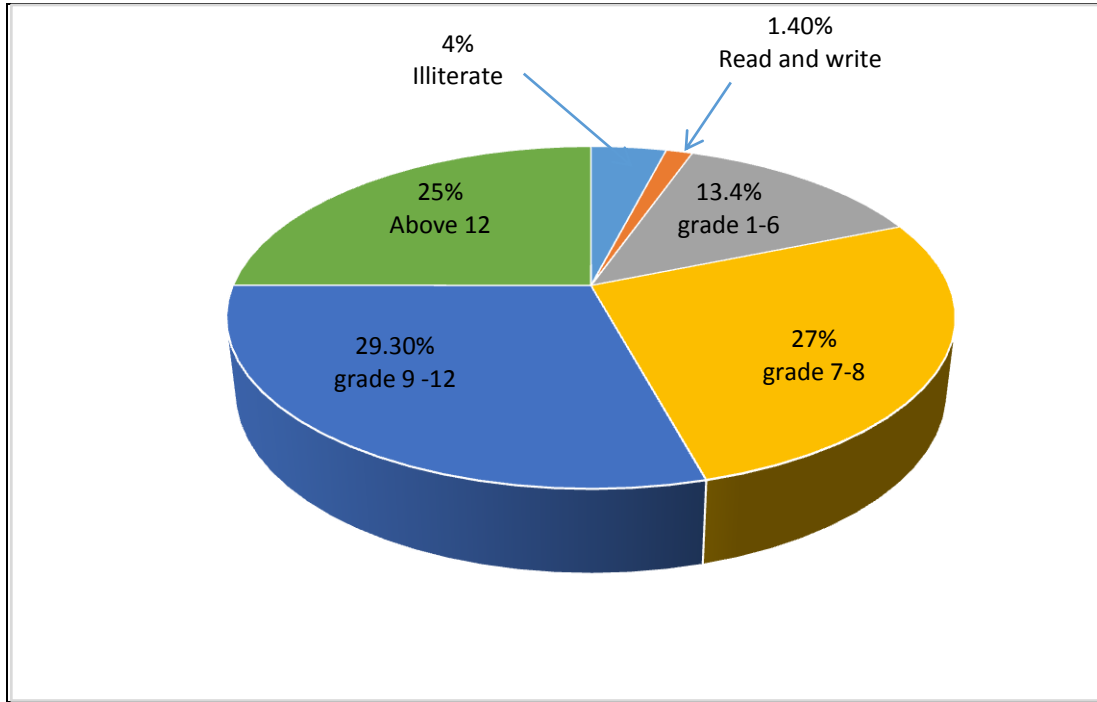
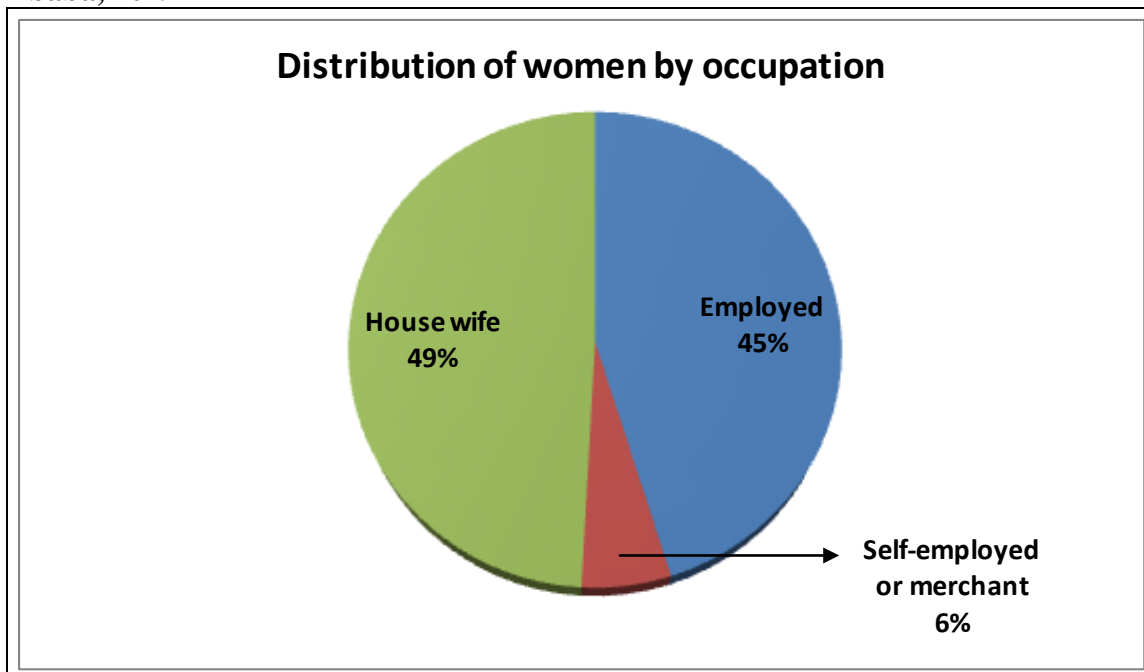


Figure III- Distribution of women by their occupation Yeka sub city health centers, Addis Ababa, 2019



4.2 Reproductive history of the study participants

The distribution of the women by their age at first marriage showed that the majority 260 (74%) married between 20-29 years of age, where as 20% of them were married before age 20. From the 352 study participants more than half of them (182 (51.8%)) had already have a child. From these about 78% of the women had their first birth when they were between 20-29 years of age. The distribution of the women by children ever born or parity at time of the survey showed that 49% have no child yet (were pregnant and going to have their first child), 30% had just 1 and the rest 21% had two to four children (Table2)

Table II. Reproductive history of the study participants in Yeka sub city health centers, Addis Ababa, 2019

Variable	Number	Percent
Age at first marriage(n=352)		
<15	4	1.1
15-19	67	19.0
20-29	260	73.9
30-39	21	6.0
Ever given birth?(n=352)		
No	170	48.3
Yes	182	51.7
Age of first birth(n=352)		
15-19	15	4.3%
20-29	138	39.2%
30-39	25	7.1%
Missing value(None birth)	174	49.4
Children ever born(n=348)		
0	174	49.4%
1	104	29.5%
2	38	10.8%
3	28	8%
4	8	2%
Ever had abortion?(n=352)		
No	301	85.5
Yes	51	14.5

4.3. Source of information on modern and LAFPMs among study participants

The main source of information about modern contraceptive for most of the study participants 190(54%) was from health professionals, followed by 80(22.7%) of women got information mainly from media. All of the study participants have heard or were aware of modern family planning methods and long acting and permanent methods. This indicates that level of awareness about contraception is very high. (Table 3)

Table III. Source of information on modern and LAFPMs among study participants in Yeka sub city health centers, Addis Ababa, 2019

Variables	Number	Percent
Ever heard about modern contraceptive methods (n=352)		
Yes	352	
Main source of information about modern contraceptive (n=352)		
Neighbors/Friends	68	19.3
Health professional	190	54.0
Media	80	22.7
School	14	4.0
Ever heard about LAFPM(n=352)		
Yes	352	
Have you heard about LAFPM through mass media within last 12 months (n=352)		
Yes	352	

4.4 Knowledge of women about long acting family planning methods

Based on eight questions posed for the respondents their knowledge about long acting and permanent contraceptive methods and their functions was assessed. The following is the summary (Table 4).

Out of the study participants 323 (91.8%) did know that loop can prevent pregnancy for 12 years and 347 (98.6%) affirmed that loop is not appropriate for preventing STIs. Furthermore

318 (90.3%) of the women did know that loop does not interfere with sexual intercourse. Majority of the study participants 342 (97.2%) had knowledge that implants can prevent pregnancy for 3-5 years and, 279 (79.3%) had knowledge that after immediate removal of Implant women can become pregnant; All of the women knew that implants require minor surgical procedure during insertion and removal . Most of the respondents did know that after female and male sterilization pregnancy can't occur. By forming a summary indicator for knowledge level of the respondents as described in chapter 4, Methodology section, the finding on level of knowledge that 326 (92.6%) had high level of knowledge, 17(4.8%) had moderate level of knowledge and only 9 (2.5%) had low level of knowledge. (Table 4).

Table IV. Knowledge of the study participants about long acting and permanent family planning methods in Yeka sub city health centers, Addis Ababa, 2019 *

Knowledge statements of married reproductive age women on LAPMs	True		False	
	Frequency	Percent	Frequency	Percent
Loop prevents pregnancy for 12 years.(n=352)	323	91.8	29	8.2
Loop is appropriate for preventing STIs.(n=352)	5	1.4	347	98.6
Having loop can interfere with sexual intercourse or desire.(n=352)	34	9.7	318	90.3
Implant prevents pregnancy for 3-5 years.(n=352)	342	97.2	10	2.8
When Implants are removed pregnancy can happen quickly if the women need to be pregnant.(n=352)	279	79.3	73	20.7
Implants require minor surgical procedure during insertion and removal.(n=352)	352	100.0		
After use of female and male sterilization can pregnancy occurs(n=352)	12	3.4	340	96.6
Tubal ligation used for female and vasectomy used for male(n=352)	304	86.4	48	13.6

* Shaded cells show the correct answers

Summary knowledge score of the respondents(n=352)		
	Frequency	Percent
High knowledge	326	92.6
Moderate knowledge	17	4.8
Low knowledge	9	2.6

4.5 Attitude of the study participants towards long acting and permanent family planning

Among the study participated women 132 (37.5%) thought that implant can cause irregular bleeding, 176 (50%) thought that process of insertion of loop affects privacy and 195 (55.4%) said that loop do not restrict from performing daily normalactivity. One hundred ninety two (54.5%) thought that insertion and removal of implant is not highly painful and 202 (57.4%) of them reported that implants do not move throughout the body after insertion. In summary 241(68.5%) of women had positive attitude towards Implant and 190(54%) towards Loop. 111(31.5%) of women had negative attitude towards Implant and 162 (46%) towards Loop. (Table 5)

Table Va. Attitude of study participants towards Implant in Yeka sub city health centers, Addis Ababa, 2019.

Attitude towards Implant	Agree		Not sure		Disagree*	
	Frequency	%	Frequency	%	Frequency	%
Respondent thinks Implant causes irregular bleeding?(n=352)	132	37.5	79	22.4	141	40.1
Respondent thinks insertion and removal of implant is highly painful?(n=352)	82	23.3	78	22.2	192	54.5
Respondent thinks implant move throughout the body after insertion?(n=352)	54	15.3	96	27.3	202	57.4

*shaded cells show positive attitude

Attitude score towards Implant**		
	Frequency	Percent
Positive Attitude	155	56%
Negative Attitude	197	44%

**Positive attitude score corresponds to those who gave positive response to at least two of the items from the three in the preceding table.

Table Vb. Attitude of study participants towards Loop in Yeka sub city health centers, Addis Ababa, 2019.

Attitude towards Loop	Agree		Not sure		Disagree*	
	Frequency	%	Frequency	%	Frequency	%
Respondent thought Insertion of loop can affect privacy?(n=352)	93	26.4	83	23.6	176	50.0
Respondent thought loop moves throughout the body after insertion?(n=352)	47	13.4	103	29.3	202	57.4
Respondent thought loop restricts normal activities?(n=352)	50	14.2	107	30.4	195	55.4

*shaded cells show positive attitude

Attitude score towards Loop**		
	Frequency	Percent
Positive Attitude	190	54%
Negative Attitude	162	46%

**Positive attitude score corresponds to those who gave positive response to at least two of the items from the three in the preceding table.

Permanent contraceptive methods excluded from the study because of the following reasons. Most of women participated in this study were found age below 40 and the number of children they have one or two maximum four. They had poor knowledge and low intention to use this methods on the study participants. So there was no need to do further analysis on this long acting methods.

4.6 Intention to use long acting family planning methods among the study participants

Out of the total respondents majorities of them 238 (67.6%) have intention to use LAPMs and for most of their methods of choice were implants 173 (49.1%). 214 (60.8%) of the respondents had intention to use their method of choice immediately. Asked about their reasons to use the LAFM method. 113 (32.1%) said that the method of their choice has less side effects. For those who had no intention to use a LAFM the main reason stated for not using is indicated to be were fear of side effects 70 (19.9%) (Table 6).

Table VI. Intention to use long acting family planning methods among the study participants in Yeka sub city health centers, Addis Ababa, 2019

Variables	Frequency	Percent
Do you have intention to use LAPMs?(n=352)		
Yes	238	67.6
No	114	32.4
Methods intended to use in the future (n=352)		
Implant	173	49.1
Loop	57	16.2
Female sterilization	4	1.1
Others(short acting methods)	16	4.5
Missing value	102	29
When will you use the methods?(n=352)		
Immediately	214	60.8
After few months	32	9.1
Missing value	106	30.1
If yes reasons to use the methods(n=352)		
To delay the pregnancy	72	20.5
To stop the pregnancy	8	2.3
The duration is long	41	11.6
Has less side effects	113	32.1
Missing value	118	33.5
If not intending the main reasons stated not to use LAPMs (n=352)		
Fear of side effects	70	19.9
Fear of infertility after use	37	10.5
Against religious or cultural beliefs	8	2.3
I need short acting methods	8	2.3
Missing value	229	65.1
Do you want to have another child soon?(n=352)		
No more child	24	6.8
I want to delay	302	85.8
Yes I want soon	26	7.4

4.7. Previous utilization of modern family planning methods

In this study, 296 (84.1%) have used modern family planning method before the recent pregnancy and the most preferred method that study participants had used were injectable, in 101(28.7%) cases , followed by pills, in 48(13.6%) cases and, implant in 25 (7.1%) cases. The least method used by 4 (1.1%) cases was IUCD. From the respondents the majority, 266 (75.6%) received the method from government health facilities and 171 (48.6%) used the method for 1-3 years. From the study participant women 101(28.7%) had shifted or switched from short to short contraceptive and the main reason to shift from one contraceptive method to another was inconvenience of the previous method (117(33.2%)) (Table 7)

Figure IV. Modern family planning methods utilization in Yeka sub city health centers, Addis Ababa, 2019

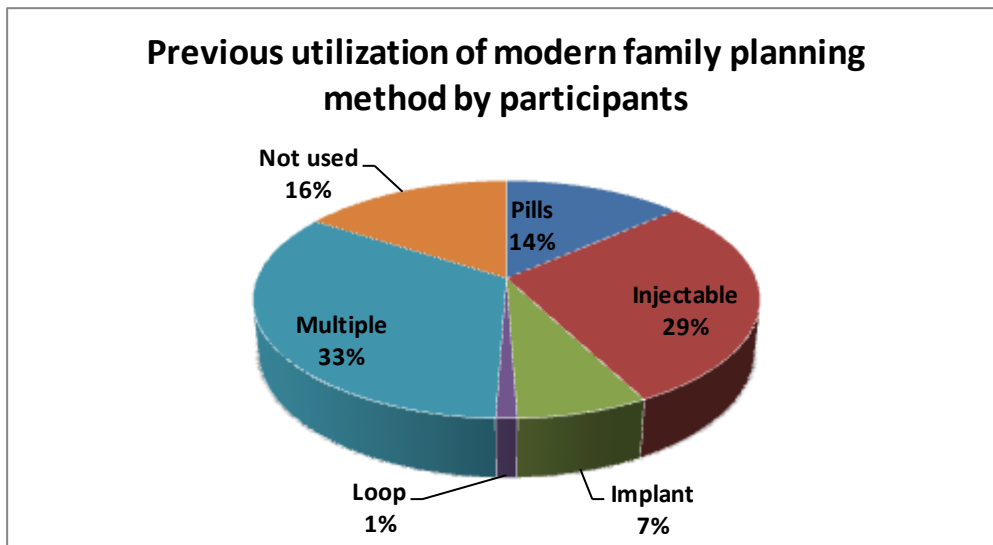


Table VII. Utilization of modern family planning methods in Yeka subcity health centers, Addis Ababa, 2019

Variables	Frequency	Percent
Ever used any form of modern contraceptives?(n=352)		
Yes	296	84.1
No	56	15.9
If yes which methods have you ever used?(n=352)		
Pills	48	14%
Injectable	101	29%
Implant	25	7%
Loop	4	1%
Multiple of the above	118	34%
Not used any	56	16%
From where did you receive the method?(n=296)		
Government health facility	266	75.6
Private hospital or clinic	18	5.1
Pharmacy	8	2.3
Non-government organization	4	1.1
For how long have you used contraceptives?(n=296)		
Less than one year	66	18.8
1-3 years	171	48.6
More than 3 years	59	16.8
Have you ever shifted/switched one contraceptive to other?(n=352)		
Yes	179	50.9
No	117	33.2
If yes from which contraceptive to which (recent)? (n=179)		
Long term to short term	11	3.1
Short term to short term	101	28.7
Short term to long term	67	19.0
Why did u shift from one to another?(n=177)		
For inconveniency of previous method	117	33.2
For convenience of new method	5	1.4
Due to lack of access to previous method	4	1.1
Due to side effect	51	14.5

4.8. Factors associated with Attitude and Intention of study participants towards LAPMs using Bivariate Analysis

4.8.1. Factors affecting attitude

In this part, we are going to explore the bivariate association between attitude of women towards loop and Implant, as long acting contraceptive methods, and, some background characteristics and contraceptive behavior of women. The analysis based on cross tabulation and chi-square measure showed that women's education, women's occupation, children ever born, main source of information on modern contraceptives, ever using of contraceptive and switching experience of contraceptives were found to be significantly associated to attitude of women towards implant and loop (at $p\text{-value} < 0.05$). Particularly women who were in secondary school (9 -12 grade), who were employed, who had one child and above, who got information about contraceptives from health professionals, who have used contraceptive previously and had switching experience of contraceptives were found to have positive attitude towards implant and loop. The other characteristics of women like age, religion, age at first marriage and duration of stay in Addis were not found to have significant association with attitude of the participants towards both loop and implant. Table 8a below.

Table VIII. a Factors associated with women's Attitude towards Implant and Loop in Yeka sub city health centers, Addis Ababa, 2019

Variables	Attitude towards Implant			Attitude towards Loop		
	Positive	X ²	P value	Positive	X ²	P value
Women's Age						
Below 30	52.2%	1.234	0.267	56.9%	0.302	0.583
30 and above	58.8%			53.6%		
Religion						
Orthodox	50.7%	1.193	0.551	56.6%	5.690	0.058
Protestant and Catholic	68.9%			48.9%		
Muslim and others	60.0%			60.0%		
Women's Education						
Grade 6 and below	33.3%	2.543	0.468	51.5%	14.165	0.003*
7-8	56.8%			51.6%		
9-12	60.2%			61.2%		
Above 12	59.1%			58.0%		
Women's Occupation						
Employed/Self employed	56.1%	0.004	0.949	59.6%	4.307	0.038*
House wife and others	55.8%			48.6%		
Age of 1st marriage						
Below 20	55.1%	0.041	0.839	46.9%	2.708	0.100
20 and above	56.3%			56.7%		
Duration in Addis						
5 years or less	58.3%	0.374	0.829	45.5%	4.895	0.087
6-10 years	57.3%			49.5%		
Above 10 years	54.5%			59.3%		
Children ever born						
None	43.1%	5.973	0.015*	49.4%	16.378	0.000**
At least one child	64.6%			62.4%		
Main source of Information						
Neighbors/friends	30.9%	36.531 ^a	0.000**	36.8%	25.655	0.000**
Health professionals	70.0%			66.3%		
Media/school	45.7%			41.5%		
Contraceptive switching experience						
Yes	61.5%	4.449	0.035*	59.2%	4.027	0.045*
No	50.3%			48.6%		

*Statistically significant at p-value<0.05** p-value <0.001

4.8.2. Factors affecting Intention

In this part also we explored bivariate association between women's intention towards use of LAPMs and some background characteristics, contraceptive behavior and women's attitude.

The analysis based on cross tabulation and chi-square measures showed that age of first marriage, children ever born, religion, women's education, main source of information about contraceptives, ever use of contraceptives, and, attitude towards implant and loop were significantly associated with intention towards using long acting and permanent family planning methods (at p-value of <0.05). Particularly women who showed intention to use LAPMS in significantly more proportions were those who were married at the age of below 20, who had one child and above, followers of protestant and catholic religion, who were in secondary school(9-12) , who got information about contraceptives from health professionals, who have used contraceptives previously and ,who had positive attitude towards implant and loop.The other variables, like women's age, women's occupation and place of residence were not significantly associated to intention to use LAPMs in the bivariate analysis. (Table 8b)

Table VIII. bFactors associated with women's Intention to use LAPMs in Yeka sub city health centers, Addis Ababa, 2019

Variables	Intention of LAPM		X ²	P- value
	Yes	No		
Women's Age				
Below 30	69.4%	30.6%	1.366	0.242
30 and above	62.9%	37.1%		
Religion				
Orthodox	70.6%	29.4%	10.349	0.006*
Protestant and Catholic	46.7%	53.3%		
Muslim and others	71.4%	28.6%		
Women's Education				
Grade 6 and below	56.1%	43.9%	10.617	0.014*
7-8	63.2%	36.8%		
9-12	78.6%	21.4%		
Above 12	68.2%	31.8%		
Women's Occupation				
Employed/Self employed	70.8%	29.2%	1.504	0.220
House wife and others	64.6%	35.4%		
Age of 1st marriage				
Below 20	75.5%	24.5%	3.867	0.049*
20 and above	64.6%	35.4%		
Place of residence till age 14				
Addis Ababa/Urban	67.4%	32.6%	0.007	0.933
Rural	67.8%	32.2%		
Children ever born				
None	60.9%	39.1%	7.041	0.008*
At least one child	74.2%	25.8%		
Attitude of Loop				
Positive	68.5%	31.5%	62.284	0.000**
Negative	23.7%	76.3%		
Attitude of Implant				
Positive	73.5%	26.5%	91.987	0.000**
Negative	19.3%	80.7		
Main source of modern contraceptive				
Neighbors/relative	50.0%	50.0%	21.580	0.000**
Health professionals	77.9%	22.1%		
Media/school	59.6%	40.4%		
Ever use of contraceptives				
Yes	50.0%	50.0%	9.435	0.002*
No	70.9%	29.1%		

*Statistically significant at p-value<0.05;** p-value <0.001

4.9. Factors affecting Intention to LAPMs using multivariable analysis

By using multivariable model, binary logistic regression, this part of the analysis examined the independent or net effect of each of the explanatory factors affecting women's intention to use LAPMs after controlling the influence of the others included in the model. Three separate regression models were fit to limit the number of independent variables to be included at a time so as the sub categories have sufficient number for analysis.

In model 1 (Table 9 column 3 and 4) background sociodemographic characters were considered. The final result in the analysis of this study confirmed that age of women, religion, educational status of women, women's occupation, duration of stay in Addis, main source of information on contraceptives, previous use of modern contraceptives and, attitude towards implant were significantly associated with intention to use long acting and permanent family planning methods.

From background factors women's age was identified as one of the major associated factors affecting intention to use LAPMs and the result confirmed that women who were in age 30 and above were 66% less likely to have intention than women who were aged below 30 [AOR=0.341; 95% CI(0.152,0.650)]. The other associated factor was religion. Women who were followers of protestant and catholic religion were 60% less likely to have intention to use LAPMs than followers of Orthodox religion. [AOR=0.396; 95% CI (0.193,0.814)]. Women's educational status was also an associated factor. Those women in grade 9-12 level of education were 2.73 times more likely to have intention to use long acting and permanent family planning methods than women who had no education [AOR=2.73; 95% CI (1.31,5.67)]. The other factor with significant effect on intention was women's occupation showing that, women who were employed/self-employed were 2 times more likely to have intention to use LAPMs than those who were housewives and others [AOR=2.021; 95% CI(1.18, 3.5)]. Women who stayed in Addis 6-10 years were 2.68 times more likely to have intention to use LAPMs than women who lived in Addis five years or less [AOR=2.694, 95% CI(1.23, 5.87)] and the last associated factor was women's parity. Women who had one child or more and pregnant during the study time were 4.7 times more likely to have intention to use LAPMs than women had no child and pregnant during the study time [AOR=4.77; 95% CI:(2.34, 9.72)].

In model 2 (Table 9 column 5 and 6) background characteristics and contraceptive information and behavior of women were included as explanatory variables for intention to use LAPMs.

In this analysis the variables main source of information about modern contraceptives and previous use of modern contraceptives were found to be significant factors for women's intention to use LAPMs. Women who got information from health professionals were 2.93 times more likely to have intention to use LAPMs than those who got information mainly from neighbors or relatives [AOR=2.937; 95% CI (1.369, 6.30)]. Women who had used contraceptives previously were 2.28 times more likely to have intention to use LAPMs than who were non-users [AOR=2.284; 95% CI: (1.033, 5.053)]. From the background characteristics that were included in the model as controls again religion, women's occupation and women's parity (CEB) were found to have significant effect on women's intention to use LAPMs. Protestant and Catholic followers were 70.8% less likely to have intention to use LAPMs than who were followers of Orthodox religion. [AOR=0.229; 95% CI; (0.094, 0.558)]. Women who were employed/self-employed were 2.2 times more likely to have intention than who were non-employed [AOR=2.189; 95% CI; (1.232, 3.887)]. Women who had one or more children were 2.46 times more likely to have intention to use LAPMs than women who had no child [AOR=2.458; 95% CI; (1.111, 5.439)].

In model 3 (Table 9 column 7 and 8) effect of women's attitude towards implant was examined where the other factors were included as controls. The finding is that women who had positive attitude towards implant were 6.8 times more likely to have intention to use LAPMs than women who had negative attitude [AOR=6.888; 95% CI; (2.840, 16.703)].

From the control variables those who had significant effect on intention were younger age of woman, religion and women's occupation. AOR and CIs are shown in the table below.

Table IX. Factors associated with women's intention to use LAPMs in Yeka sub city health centers, Addis Ababa, 2019

Variables	N	Intention to use LAPMs (Background factors) Model I		Intention to use LAPMs (Background+Contraceptive related) Model II		Intention to use LAPMs(Backgr+ Contraceptive related+Attitude) Model III	
		P-value	AOR 95%CI	P-value	AOR 95%CI	P-value	AOR , 95%CI
Women's Age							
Below 30	255		1 (R)		1 (R)		1 (R)
30 and above	97	0.002*	0.341(0.152,0.650)	0.11	0.370 (0.172,0.800)	0.031*	0.373 (0.152,0.915)
Religion							
Orthodox	272		1 (R)		1 (R)		1 (R)
Protestant and Catholic	45	0.012*	0.396 (0.193,0.814)	0.002*	0.292 (0.137,0.625)	0.001**	0.229 (0.094,0.558)
Muslim and others	35	0.294	1.62(.659,3.97)	0.292	1.699(0.668,4.316)	0.296	1.789 (0.600,5.330)
Women's Education							
Grade 6 and below	66		1 (R)		1 (R)		1 (R)
7-8	95	0.098	1.83(0.895,3.72)	0.246	1.597(0.724,3.520)	0.236	1.805 (0.679,4.797)
9-12	103	0.008*	2.73(1.31,5.67)	0.018*	2.540(1.170,5.514)	0.053	2.378 (0.989,5.719)
Above 12	88	0.137	1.77(0.833,3.77)	0.207	1.728(0.739,4.037)	0.302	1.669 (0.631,4.411)
Women's Occupation							
Employed/Self employed	171	0.010*	2.021(1.18,3.5)	0.008*	2.189(1.232,3.887)	0.016*	2.205 (1.157,4.201)
House wife and others	181		1 (R)		1 (R)		1 (R)
Age of 1st marriage							
Below 20	98		1 (R)		1 (R)		1 (R)
20 and above	254	0.104	0.610 (0.336,1.18)	0.120	0.610 (0.327,1.137)	0.053	0.508 (0.256,1.008)
Duration in Addis							
5 years or less	103		1 (R)		1 (R)		
6-10 years	189	0.013*	2.684 (1.23,5.87)	0.314	1.542 (0.664,3.578)		

Above10 years	171	0.607	0.859 (0.481,1.534)	0.973	0.989 (0.521,1.877)		
Children ever born							
None	174		1 (R)		1 (R)		1 (R)
At least one child	178	0.000*	4.77(2.34, 9.72)	0.026*	2.458(1.111,5.439)	0.057	2.234 (0.976,5.111)
New main source of information							
Neighbors/friends/relatives or Husband	68				1 (R)		1 (R)
Health professionals	190			0.006*	2.937 (1.369,6.300)	0.142	1.837 (0.815,4.140)
Media/school	94			0.265	1.612 (0.696,3.735)	0.508	1.377 (0.534,3.552)
Ever used modern contraceptives							
No	56				1 (R)		1 (R)
Yes	296			0.041*	2.284 (1.033,5.053)	0.692	1.214 (0.466,3.159)
Attitude of Implant							
Negative	155						1 (R)
Positive	197					0.000**	6.888 (2.840,16.703)
Attitude of loop							
Negative	162						1 (R)
Positive	190					0.197	1.86 (0.724,4.795)

*Statistically significant at p-value<0.05;** p-value <0.001(R) = reference category

4.10. Factors affecting Attitude towards Implant and Loop – Multivariable Analysis

This part of the study by using multivariable model, binary logistic regression, examined the independent or net effect of each of the explanatory factors affecting women's attitude towards implant and loop in the model.

Factors affecting women's attitude towards Implant

The result from the regression model in table 10 column 3 and 4 showed that, from the factors affecting attitude towards implant, source of information about modern contraceptives is found to have highly significant effect. Women who received information mainly from health professionals were 5.8 times more likely to have positive attitude towards implant than those whose main source of information was from neighbors or relatives [AOR=5.849; 95% CI: (2.945, 11.614)]. The other significant factor was women's previous use of contraceptives. Women who have used contraceptives previously were 4.19 times more likely to have positive attitude than those who were non-users [AOR=4.190; 95% CI: (1.957, 8.973)].

Factors affecting women's attitude towards Loop

Result of the regression model shown in table 10 column 5 and 6 showed that significant predictors of women's attitude towards loop were women's education, occupation, number of children everborn, main source of information about contraceptives and, previous use of contraceptives. Specifically women who were in grade 9-12 were 3.49 times more likely to have positive attitude than women who were in grade 6 and below [AOR=3.49; 95% CI: (0.680, 7.261)]. Women who were employed were 95% more likely to have positive attitude than those who were non-employed [AOR=1.953; 95% CI: (1.144, 3.333)]. Women who had one or more children were 2.27 times more likely to have positive attitude than women who had no child [AOR=2.265; 95% CI: (1.192, 4.306)]. Women who mainly received information from health professionals were 2.57 times more likely to have positive attitude than those who received from neighbors or relatives [AOR=2.565; 95% CI: (1.296, 5.707)]. Women who used contraceptive previously were 5.30 times more likely to have positive attitude than those who were non-users [AOR=5.301; 95% CI: (2.375, 11.830)].

Table X. Factors affecting Attitude to Implant and Loop in Multivariable Analysis in Yeka sub city health centers, Addis Ababa, 2019

Variables	n	Attitude to Implant		Attitude to Loop	
		P-value	AOR 95%CI	P-value	AOR 95%CI
Women Age					
Below 30	255		1(R)	1(R)	1(R)
30 and Above	97	0.083	0.554(0.284, 1.079)	0.249	0.663 (0.329,1.334)
Women Education					
Grade 6 and below	66		1(R)	0.003*	1(R)
7-8	95	0.747	0.883(414, 1.883)	0.002*	3.364(1.557, 7.272)
9-12	103	0.614	1.202(0.588, 2.457)	0.001*	3.493(1.680,7.261)
Above 12	88	0.800	1.110(0.495, 2.491)	0.003*	3.479(1.536,7.878)
Religion					
Orthodox	272		1(R)	0.162	1(R)
Protestant and Catholic	45	0.093	0.539(.262, 1.109)	0.132	1.84(0.832, 4.072)
Muslim and others	35	0.631	1.234(.523, 2.911)	0.181	1.830(0.754, 4.439)
Main source of information					
Neighbors/friends/relatives or Husband	68		1(R)	0.002*	1(R)
Health professionals	190	0.000**	5.849(2.945, 11.614)	0.007*	2.565(1.296,5.707)
Media/ school	94	0.017*	2.579(1.182, 5.629)	0.915	1.045(0.466,2.343)
New women occupation					
Employed/self employed	171	0.236	1.369(0.814, 2.303)	0.014*	1.953(1.144,3.333)
House wife and others	181		1(R)		1(R)
Children ever born					
None	174		1(R)		1(R)
at least 1 child	178	0.562	1.205(0.642, 2.260)	0.013*	2.265 (1.192,4.306)
Ever used modern contraceptives					
No	56		1(R)		1(R)
Yes	296	0.000**	4.190(1.957, 8.973)	0.000**	5.301(2.375, 11.830)
Age of 1st marriage					
Below 20	98		1(R)		1(R)
20 and above	254	0.438	1.242(0.719, 2.144)	0.290	1.355(0.772, 2.378)

*Statistically significant at p-value<0.05;** p-value <0.001 1(R) = reference category

4.11. Findings from Qualitative study

The qualitative study was intended to supplement the findings of the quantitative study. It included a key informant interview with the family planning department head at the health center and two Focus Group Discussions (FGDs) held with a total of 12 pregnant married women at ANC service.

Key informant interview

Based on the the checklist that was developed to guide the interview, relevant information was obtained. One key informant interview was held from the family planning head of the health center.

According to the informant she has a background of B.Sc nurse and as FP head she had experience of six years. The major services given in the department were counseling on family planning, providing service on short acting and long acting contraceptive methods and procedures. Whereas procedure for permanent methods are given at hospital level and done by physicians. Other health professionals who work in FP were trained and had more than six years experience.

Interms of provision of quality FP services, according to the head, the the department conducts procedures by following sterility techniques, good counseling and the procedures done for the clients based on informed consent. Good counseling includes counseling provided about each and every methods and procedures including the advantage and side effects.

There is SOP (standards of procedures) or protocol. On the SOP there are eligible criteria's so every services given to the clients is based on eligibility criteria. For example when counseling is given for a client who is hypertensive, the best advice given for the client is to choose non-hormonal than hormonal contraceptive based on eligibility criteria.

Clients' contraceptive preference is mostly based on their age category. Younger clients like age below 30 years and educated prefer implant but those of age above 30 choose injectable. When we see socio economic status women who are in good socio economic status prefer loop and do not prefer hormonal methods which they think can affect their health. Some clients who use hormonal injectables, even if they experience side effects like bleeding they didn't prefer non-hormonal or long acting method such as loop. For some women even if they get good counseling

and message from health care provider and media but due to their personal characteristics, misconception and their neighbors' or relatives' influence they decide to choose not the method that best meets their health and reproductive needs. Neighbors/relatives are other informal common counselors and who stick on short acting methods and they advise to take short acting methods, so the clients always believe them than professionals.

Overall of the methods injectable is more preferred and used, then implant follows and loop gets the least preference. Barriers to use long acting methods from the client's side are fear of side effects and fear of trying new method. Also they thought it's all about government strategy to decrease the population size. Barriers from institutional side are lack of method supply that is sometimes due to stock out of long acting methods like implant clients who want to use them are turned to other methods. For instance implant brands like Jadelle and Implanon have more users but mostly there is lack of supply so we go to injectable and loop (IUCD). So immediately the users fear IUCD (since it needs procedure to be performed) then go to injectable like Depo-Provera and stick on it.

Focus Group Discussions

Based on the checklist that was developed to guide the discussion, relevant information was obtained. Two focus group discussions were held, participants were group of married women. Each group consisted of 6 members.

Knowledge and perceptions about family planning methods

Most of the participants explained that they know family planning. They said that they have heard of family planning from different sources: these sources include: friends, neighbors, relatives, health professionals and media.

Many of them heard about the short acting, and also heard about the long acting methods. A 35 year old women said that *"we heard about the implants and IUCD, but for example I am not using it"*. A 29 years old women also said on the use of implants she said *'I have heard and know about implant and IUCD but I fear to use it because those who are using implants have severe bleeding and others are unable to conceive after the use of the implant and the IUCD moves in to the uterus'*.

Majority of the discussants did not know about advantages of using long acting family planning methods, rather they were complaining on it. A 37 year old woman said *"when I want to use*

IUCD as a family planning method, I was discussing with my neighbors about it and then totally I changed my mind to not use the method. Because as my neighbors told me that when you use IUCD, it is foreign object in your body so you will develop uterine problem.”

Another woman of age 27 also had a negative attitude regarding use of implants after developing aswell on her arm pit. She said *“I am sick of having my upper arm swelling by using the family planningmethod implanon.”*

The FGD discussants also gave idea on how to increase the use of the contraceptive especially the long acting family planning methods as follows

- Giving education about the long acting family planning methods for the women and husband, information, education and communication at family level is mandatory especially for IUCD

5. DISCUSSION

This study showed that respondent's knowledge about all long acting contraceptive method is very high. Out of the study participants 323 (91.8%) did know that loop can prevent pregnancy for 12 years and 347 (98.6%) affirmed that loop is not appropriate for preventing STIs. Furthermore 318 (90.3%) of the women did know that loop does not interfere with sexual intercourse. A very high proportion of the study participants 342 (97.2%) had knowledge that implants can prevent pregnancy for 3-5 years and, 279 (79.3%) had knowledge that after immediate removal of Implant women can become pregnant; All of the women knew that implants require minor surgical procedure during insertion and removal. Most of the respondents did know that after female and male sterilization pregnancy can't occur. In comparison, in an other study done in Silite zone out of the study participants 291 (55.1%) did know that IUCD can prevent pregnancy for 12 years and 352 (66.7%) did not know IUCD do not interfere with sexual intercourse. In the same study majority of the study participants 380 (72%) had knowledge about the notion that implants can prevent pregnancy for 3-5 years and 148 (28%) of them did not know where as 294 (55.7%) had no knowledge that after immediate removal of Implant, women become pregnant. (Biruk 2017). It is expected that this current study being in Addis Ababa has shown higher level of knowledge than the study group in Silte.

Regarding attitude towards long acting contraceptives this study showed that from participant women 132 (37.5%) thought that implant can cause irregular bleeding, 176 (50%) thought that process of insertion of loop affects privacy and 195 (55.4%) said that loop does not restrict from performing daily normal activity. One hundred ninety two (54.5%) thought that insertion and removal of implant is not highly painful and 202 (57.4%) of them reported that implants do not move throughout the body after insertion. In summary 241 (68.5%) of women had positive attitude towards Implant and 190 (54%) towards Loop. 111 (31.5%) of women had negative attitude towards Implant and 162 (46%) towards Loop. Another study done in Wolaita zone showed that more than half (n = 216) of the women had a negative attitudes towards LAPMs. while a quarter of them (n = 102) believed insertion and removal of implants is highly painful. More than one-fifth (n = 86) felt insertion of intrauterine contraceptive device interfere with privacy. About 69 (16.8%) of women admitted that using IUCD restricts normal daily activities.

Similarly, nearly one quarter (109) of women agreed that female sterilization is dangerous. A third of study women (n=137) believed that the implant might freely move in the body other than the site of insertion and cause severe pain (Mengistu and Wubegzier 2014). Overall in comparison to the study in Wolita the level of negative attitude towards loop and implants is higher in the current study.

In this study with regards to intention to use long acting contraceptive methods, out of the total respondents majority of them 238 (67.6%) have intention to use LAPMs and for most their method of choice is implant 173 (49.1%). 214 (60.8%) of the respondents had intention to use their method of choice immediately after delivery. Asked about their reasons to use the LAFM method. 113 (32.1%) said that the method of their choice has less side effects. For those who had no intention to use a LAFM the main reason stated for not using was fear of side effects 70 (19.9%). Another study conducted in Adigrat town showed that the prevalence of intention to use LAPMs was 48.4% (95% CI = 44.1, 52.7) while 78(14.6%) participants were unsure of their intention. Of those who had intention, 152(58.9%) had intention to use one of the LAPMs within the next one year. The most preferred method participants' intend to use was implants 184(71.3%), followed by IUCD 62(24.0%). The main reasons stated for not intending to use LAPMs were fear of side effect (34.5%) and fear of infertility after use (21.1%). Very few women, (1.5%) reported that LAPMs was against religious or cultural beliefs (Alem and Adamu 2014).

In the multivariable analysis of this study it was found that the age of women, religion, educational status of women, women's occupation, duration of stay in Addis, main source of information on contraceptives, previous use of modern contraceptives and attitude towards implant were significantly associated with intention of using long acting and permanent family planning methods. And also factors found significantly associated to attitude towards long acting methods in this study were, women's education, women's occupation, children ever born by the women, main source of information on modern contraceptives, ever using of contraceptives and switching experience of contraceptives. (p-value<0.05). According to Intention age of 1st marriage, children ever born, religion, women's education, main source of contraceptives, ever used contraceptives, attitude about implant and loop were significantly associated with intention

towards long acting and permanent family planning methods with (p-value<0.05). The result was supported by study in Ethiopia by Mary Stopes international (Espeut 2010).

In this study women educational status also associated factor which was 9-12 grade were 2.73 times more likely have intention to use long acting and permanent familyplanning methods than of women who had no education [AOR=2.73;95%CI;(1.31,5.67)].This study was consistent with the findings of similar studies in Wolaita such as women who attained secondary and higher level ofeducation were found to be 2 and 2.8 times more likely to have the intention to use LAPMs compared to women who had no education, respectively (AOR = 2. 10; 95% CI: 1.11-3.98) and AOR = 2. 80; 95% CI: 1.15-6.77) (Mengistu and Wubegzier 2014).and also the result is also supported by study done in Silite woreda (Biruk 2017).

The current study also showed, the main reason mentioned by the women for not having intention to use longacting family planning was fear of side effects and infertility and also need for short acting family planning methods. The same result was reported in the study done in Debre Markos in which the top five reasons mentioned for not intending to use LAPMs in the future were; fear of side effects, respondents opposed , health concerns, preferring short term and religious prohibition(Gizachew Abdissa et.al). And also in the study done in Adigrat town the main reasons stated for not intending to use LAPMs were fear of side effect (34.5%) and fear of infertility after use (21.1%). Very few women, (1.5%) reported that LAPMs was against religious or cultural beliefs (Alem and Adamu). Therefore fear of side effects and infertility after use stand out as main reason for non intention to use long aacting methods.

The idea was also supported by FGD discussants, they were not using the long acting family planning methods due to false perception. One respondent said *“... I want to use IUCD as a family planning method, unfortunately after I discussedwith my neighborsaboutthethod then I totally changed my mind in order not to use the method. Because as my neighbors told me that when you use IUCD you will develop uterine problem’*And also supported by key informant interview which showed that they get good counseling and message from health care provider and media but their personal characteristics, misconception and their neighbors or relatives are the major problems. Neighbors/relatives are other counselor and who stick on short acting methods and they advise to take short acting methods, so the clients always believe them than professionals.

6.CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The study revealed the significant factors affecting Attitude towards and Intention to use long acting family planning methods among married women in Yeka sub city woreda 13 and 02 health centers. In this study, above 80% of them had previous experience of using modern family planning method before the recent pregnancy and the most preferred method that study participants had used was injectable. Majority of them 326(92.6%) had high knowledge towards LAPMs. In relation to women's attitude and intention towards LAPMs greater proportion of the participants had positive attitude towards Implant 155(56%) and Loop 190(54%). Majority of them 190(54%) had intention to use LAPMs and for most them method of choice were implants 173(49.1%) than loop and permanent method. Actually a very low proportion of women showed intention to use permanent methods (Sterilization).

Age of women, religion, educational status of women, women's occupation, duration of stay in Addis, main source of information on contraceptives, previously using of modern contraceptives and attitude towards implant were significantly associated with intention of using long acting family planning methods.

From FGD discussants the main reason mentioned by the women for not using long acting family planning was fear of side effects and infertility and also need for short acting family planning methods. From Key informant interview overall from all methods injectable was more preferred by women to be used and followed by implant. The least preferred is loop. From both FGD participants and key informant health care provider the main barrier towards women's intention is influence of information from non-professional sources resulting in misconception.

Finally the major finding in this research from both quantitative and qualitative methods is that appropriate information from health professionals should be accessible to women and husband in order to affect positive attitude towards and intention to use long acting methods. The main target groups to be considered should be those with lower education, unemployed/house wives

and older(above 30) women who were found to show in greater proportion negative attitude towards long acting methods and lower intention to use the same due to misconception. On the other hand service providers, health professionals, HEWs and volunteers must have appropriate training as family planning counsler and service provider.

6.2. Recommendation

Health Office:

Should encourage public and private institutions to give Continuous health education on LAFPMs, increase availability of LAFPMs services and information education communication should focus on addressing the needs of long acting family planning methods.

Health Professionals: Strengthening the training for health professionals

7. STRENGTH AND LIMITATIONS OF THE STUDY

7.1. Strength of the study

- Quantitative and qualitative method was used. These methods improve the research outcomes as qualitative study complement and strengthen the quantitative study.
- Use of logistic regression helped to control possible confounding factors in order to assess the relative effect of independent variables and.
- Different types of data collection instruments were used to collect data from different sources to increase validity of the study (questionnaire by interview, FGD, key informant interview)
- high response rate (100% response rate)

7.2. Limitation of the study

- The study was based on only women as participants and presented their perspectives, but other perspectives such as husbands' and others might have broaden the understanding of the situation. A further research can address this gap.

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ANNEXES

Addis Ababa University College of Developmental Studies Center for Population studies

Annex 1: Informed consent form (to be taken by data collectors)

Hello, my name is ----- and I am from Addis Ababa University. I am here to enroll and take interview from eligible study participants like you and fill in the questionnaire forms. I am glad to inform you that you are one of the chosen study participants to participate in this study. The purpose of which is to assess factors affecting knowledge attitude and intention of long acting and permanent contraceptive methods among ANCusers of married women in woreda 12 and Kotebe 02 health center, Addis Ababa.

The information in this questionnaire will be kept strictly confidential. It will not be divulged to any one and only the research group will have access to the information you give and your name and address will not be recorded or identified even by the research team.

However, it is your right to terminate your participation at any time (from the very beginning or you can answer some questions you like to do so). I will appreciate and respect whatsoever your decision will be.

Thus, this questionnaire will be filled only if you agree to take part in the study and I sincerely ask you to give your genuine and true responses to the questions, provided you would agree to participate in the study.

So, would you like to participate in the study?

Yes/agree -----

No/disagree -----

Thank you!

Date -----

(-----)

Signature of the interviewer/data collector to certify the informed consent verbally

If you want any information during or after the interview you can reach me at Mobile
0911916852

Code	QUESTIONS	Possible answers	Skip
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ANNEX II: ENGLISH VERSION QUESTIONNAIRE

Part I: socio demographic characteristics among study participants

101	Age	-----	
102	What is your religion	1. Orthodox 2. Muslim 99. Others	3. Protestant 4. Catholic
103	What is your ethnicity?	1. Amhara 2. Oromo 3. Gurage	4. Tigire 99. Others
104	What is your highest level of education?	1. Illiterate 2. Read and write 3. 1-6	4. 7-8 5. 9-12 6. Above 12
105	What is your husband's highest level of education?	1. Illiterate 2. Read and write 3. 1-6	4. 7-8 5. 9-12 6. Above 12
106	What is your occupation?	1. Government employee 2. Employed at non-government/private org 3. Self-employed/as single person 4. Merchant and employer 5. House wife 99. others	
107	What is your husband's occupational status	1. Government employee 2. Employed at non-government/private org 3. Self-employed/as single person 4. Merchant and employer 99. others	
108	Where did you live until you were age 14?	1. Addis Ababa 2. Out of Addis Ababa in city/urban 3. Out of Addis Ababa in rural	
109	How long have you lived in AA?	1. All the time 2. ----- years	

Part II: Reproductive history of study participants

Code	Questions	Possible answers	Skip
201	What was your age at first marriage?	-----	
202	Have you ever given birth?	1. Yes 2. No	If NO skip to number 206.
203	If your answer is yes for, what was your Age at 1st birth of your child?	-----	
204	How many births have you given? (Including those have died after birth)	-----	
205	How many of them are alive?	-----	
206	Have you ever had abortion?	1. Yes 2. No	

Part III: Source of information on modern and long acting and permanent contraceptive methods of study participants

Code	Questions	Possible answers	Skip
301	Have you ever heard about Modern contraceptive method?	1. Yes 2. No	If NO skip to 304
302	What type of modern contraceptive have you heard about? (Don't read answers but let respondent name what she knows) More than one answer is possible	1. Pills (the contraceptive that is Swallowed) 2. The contraceptive that is given in the form of injection(Depo-Provera) 3. The contraceptive that is placed inside the upper arm(Implant) 4. The contraceptive that is placed inside the uterus(IUCD) 5. Condom 6. I don't know 7. All	
303	What are your sources of information on modern contraceptive? (More than one answer is possible)	1. Neighbors /friends 2. Relatives 3. Husband 4. Health professional 5. Mass media/radio/TV 6. School 99. Other specify	
304	What is your main source of information on modern contraceptive?	1. Neighbors /friends 2. Relatives 3. Husband 4. Health professional 5. Mass media/radio/TV 6. School 99. Other specify	
305	Have you heard about long acting and permanent contraceptive Methods?	1. Yes 2. No	If NO skip to question 306

306	If Yes, please mention LAPMs that you heard	<ol style="list-style-type: none"> 1. The contraceptive that is placed inside the upper arm(Implant) 2. The contraceptive that is placed inside the uterus(Loop) 3. Female sterilization(Tubal ligation) 4. Male sterilization(Vasectomy) 5. 1&2 6. All 99 .Others----- 	
307	Have you ever had exposure to long Acting and permanent contraceptive message through mass media within the last 12 months?	<ol style="list-style-type: none"> 1. Yes 2. No 	
308	If yes, please mention LAPMs You heard?	<ol style="list-style-type: none"> 1. The contraceptive that is placed inside the upper arm(Implant) 2. The contraceptive that is placed inside the uterus(Loop) 3. Female sterilization(Tubal ligation) 4. Male sterilization(Vasectomy) 5. 1&2 6. All 99. Others----- 	

Part IV: Knowledge on long acting and permanent contraceptive methods of study participants

Code	Questions	Possible answers	Skip
401	The contraceptive that placed inside the uterus can prevent pregnancies for 12 years.	1. True 2. False	
402	The contraceptive that placed inside the uterus protected STIs transmission.	1. True 2. False	

403	The contraceptive that placed inside the upper arm can prevent pregnancies for 3-5 years.	1. True 2. False	
404	The contraceptive that placed inside the upper arm can interfere with sexual intercourse or desire.	1. True 2. False	
405	The contraceptive that placed inside the upper arm reverse pregnancy quickly when removed if the women need to be pregnant	1. True 2. False	
406	The contraceptive that placed inside the upper arm require minor surgical procedure during insertion and removal	1. True 2. False	
407	After using of female and male sterilization contraceptive methods pregnancy can occurs.	1. True 2. False	
408	Tubal ligation (female sterilization) used for female and vasectomy (male sterilization) used for male.	1. True 2. False	

Part V: Attitude on long acting and permanent contraceptive methods of study participants

Code	Questions	Possible answers	Skip
501	Do you think the contraceptive that placed inside the upper arm cause irregular bleeding?	1. Agree 2. Not sure 3. Disagree	
502	Do you think the contraceptive that placed inside the uterus lead to lose privacy	1. Agree 2. Not sure 3. Disagree	
503	Do you think the contraceptive that placed inside the uterus move through the body after insertion?	1. Agree 2. Not sure 3. Disagree	
504	Do you think using the contraceptive that placed inside the uterus restrict normal activities?	1. Agree 2. Not sure 3. Disagree	

505	Do you think insertion and removal of the contraceptive that placed inside the upper arm is highly pain full?	1. Agree 2. Not sure 3. Disagree	
506	Do you think the contraceptive that placed inside the upper arm move through the body after insertion?	1. Agree 2. Not sure 3. Disagree	
507	Do you think After using of female and male sterilization contraceptive methods pregnancy can occurs?	1. Agree 2. Not sure 3. Disagree	

Part VI: Intention to use long acting and permanent methods

Code	Questions	Possible answers	Skip
601	Have you intention to use long acting and permanent methods	1. Yes 2. No	
602	Method intended to use in the future	1. Implant 2. Loop 3. Female sterilization 4. Male sterilization 99. Others	
603	When will use the methods?	1. Immediately 2. After a few months	
604	If yes for no 701The main reasons	1. To delay pregnancy 2. To stop pregnancy 3. The duration is long 4. Have less side effects 5. After removal can be pregnant easily 99. others	
605	if no for no 701 the main reasons stated for	1. Fear of side effect 2. Fear of infertility after use	

	not intending to use LAPMs	<ol style="list-style-type: none"> 3. Against religious or cultural beliefs 4. Don't trust provider on correct procedure 5. Provider is male 6. Already sterilized 7. I need short acting methods 	
606	Do you want another child soon?	<ol style="list-style-type: none"> 1. No more child 2. I want to delay 3. I want soon 	

Part VII:Utilization of modern and long acting contraceptive methods of study participants

Code	Questions	Possible answers	Skip
701	Have you ever used any form of modern contraceptives?	<ol style="list-style-type: none"> 1. Yes 2. No 	
702	Which method have you ever used? More than one answer is possible	<ol style="list-style-type: none"> 1. Pills (the contraceptive that is swallowed) 2. The contraceptive that is given in the form of injection(Depo-Provera) 3. The contraceptive that is placed inside the upper arm(Implant) 4. The contraceptive that is placed inside the uterus(Loop) 5. Condom 6. Pills & injection 7. Pills & implant 8. Injection & implant 9. Pills & loop 10. Injection & loop 11. Pills, injection & implant 99. Others----- 	

703	From where did you receive the method of contraceptive that you are in using now?	<ul style="list-style-type: none"> 1. Government health facility 2. Private hospital, clinic 3. Pharmacy. 4. Non-Government Org 99. others (specify)----- 	
704	For how long have you used contraception?	<ul style="list-style-type: none"> 1. Less than one year 2. 1-3 years 3. More than 3 years 99. Others(specify) ----- 	
705	Have you ever shifted/switched one contraceptive method to other?	<ul style="list-style-type: none"> 1. Yes 2. No 	If No skip to 609
706	If yes, from which contraceptive method to which contraceptive method (recent one)?	<ul style="list-style-type: none"> 1. Long to long contraceptive method 2. Long to short contraceptive method 3. Short to long contraceptive method 4. Short to short contraceptive method 	
707	Why did you shift/switch from one method to another?	<ul style="list-style-type: none"> 1. For inconveniency of previous method 2. For convenience of new method 3. Due to lack of access to the previous method 4. Due to to side effect 5. Need for long acting contraceptive method 6. Provider advise me 7. Partner influenced me 99. Others 	
708	If NO for question 606(7, 8), Why? Main reason	<ul style="list-style-type: none"> 1. Misconception 2. Need for short acting contraceptive 3. Fear of Side effect 4. Medical cases 5. Fear of infertility 6. Other specify _____ 	

ANNEX III: English version questionnaire of key informant interview for FP head

1. Tell me about your profession and experience
2. What are the major services given here?
3. Are health professionals experienced and trained on family planning program?
4. Do they give quality services to their clients including good counseling?
5. Is there a protocol or SOP on family planning program? And the services given according to the protocol?
6. Which family planning methods do clients prefer mostly and why others? Probe, how about LAPCM, who use what type of contraceptive and why do or don't clients prefer LAPCMs
7. What are the barriers during the services, both on the client and professionals side?

ANNEX IV: Focus group discussion

For the sake of accuracy and efficiency, we will take notes and tape record, unless any one has any objections. In this group everybody should feel free to talk. Each and every opinion is important and wanted. In this group there are no rights or wrong views. Even though your participation is important for this study, you have the right to refuse to join the discussion group.

Location of Discussion----- Date of Discussion-----Time started-----Timed finished----- Moderator's Name-----
----- Assistant Moderator (note taker's) name-----
Number of Participants-----

1. Introduction of Participants: a. Ask participants to specify their age, marital status, profession, educational level, length of residence in study community, nick name that they would like to be called. b. Any questions before we start?
2. Tell me about modern contraceptives methods.
a. Why people use modern contraceptives?b. Which methods peoples use mostly and why?
c. Tell me about IUCD, implant or Norplant, tubal ligation and vasectomy and also compare to a method like pills or condom and their advantages and disadvantages

3. Contraceptive Decision Making

a. In this locality, if a couple wants to do something in order to postpone a pregnancy, how would they go about making that decision? [PROBE: couple discussion? Role of friends and family members? Role of health service providers?]

b. How about if a couple wants to do something in order not to have any more children, how would they go about making that decision? [PROBE: couple discussion? Role of friends and family members? Role of health service providers?]

c. What would make it easier for a couple to discuss family planning and make a decision regarding use of family planning methods? [PROBE: What does a woman need to make this happen? What does a man need to make this happen?]

d. What makes it difficult for couples in this community to discuss the use of long acting family planning methods?

e. What are the barriers to decide and use of LAPMs?

4. Wrap up a. Is there anything else that you would like to tell me about any of the issues that we have discussed so far?

Thank the participants for their time and contribution!!!

አዲስ አበባ ዩኒቨርሲቲ የስነ ህዝብ ጥናት ኮሌጅ

አማርኛ መጠየቅ

ጤና ይስጥልኝ! መአዛ አበባየሁ-እባላለሁ። የምስራውበአዲስአበባዩኒቨርሲቲ የእናቶችና የስነተዋልዶ ጤናሳይንስ ትምህርት ክፍል የሁለተኛ ዲግሪ ማሟያጥናታዊ ፅሁፍ/ምርምር/ በማድረግ ላይ ስሆን፤ በየካ ክ/ከተማ ስር ባሉ ጤና ጣቢያዎች ያሉ ሴቶች በቤተሰብ እቅድ ላይ ያላቸውን ሁኔታ በተመለከተ ለማወቅ ቃለ መጠይቅ እያደረግሁኝ እገኛለሁ። እርስዎም የጥናቱ ተሳታፊ ይሆኑ ዘንድ ተመርጠዋል። የምርምሩ/ጥናቱ ርዕስ፡- ክ/ከተማ ስር ባሉ ጤና ጣቢያዎች ያሉ ሴቶች በመውለድ እድሜ ውስጥ ያሉ ያገቡ ሴቶች የረጅም ጊዜ የወሊድ መከላከያ ላይ ያላቸው እውቀት፤ አመለካከት እና ሃሳባቸውን የሚጋፉ ምክንያቶችን ለማወቅ የሚካሄድ ጥናት ነው። በመውለድ እድሜ ውስጥ ያሉ ያገቡ ሴቶች በረጅም ጊዜ አገሌግልት የሚሰጡ የወሊድ መከላከያዎች ላይ ያላቸውን ሁኔታ በተመለከተ ለማወቅና ከዚህ ጋር ተያያዥነት ያላቸውን ዋና ዋና ጉዳዮችን በመሰብሰብ የቤተሰብ እቅድ አገልግሎቱንና ፕሮግራሙን ይበልጥ ለማሻሻል ነው።

ከላይ የተመለከተውን ጥናት ለማካሄድ የተለያዩ ጥያቄዎች ይኖሩናል።

ጥናቱው ጤታማ ሊሆን የሚችለው እርሶ በሚሰጡት ትክክለኛ መልስ ላይ በመሆኑ ጥያቄዎቹን በጥንቃቄ እንዲመልሱልን ፍቃደኝነትዎን በትህትና እንጠይቃለን። ግልፅ ያልሆነልዎትን/እንዲብራራልዎት/ የሚፈልጉት ጉዳይ ካለ መጠየቅ ይችላል። መጠይቁ 15 ደቂቃ አካባቢ የሚጨርስ መሆኑን ለመግለፅ እንወዳለን። በዚህ ጥናት በመሳተፎ ምንም አይነት ጉዳት አይደርስብዎትም። በመጠይቁ ውስጥ ለመመለስ የማይፈልጉት ጉዳይ ካለ ምንም እንዲሰጡ አይገደዱም። ለዚህ ጥናት/ፕሮጀክት/ የሚሰበሰብ ማንኛውንም ዓይነት መረጃ ምስጢራዊነቱ የተጠበቀ ሲሆን የርስዎም ስም ሳይጻፍበት ስውር ሚስጥራዊ ቁጥር ብቻ ተሰጥቶት በፋይል ውስጥ የሚቀመጥ ይሆናል።

በዚህ ጥናት ላይ መሳተፍ/አለመሳተፍ/ ሙሉ በሙሉ በርስዎ ፈቃደኝነት ላይ የተመሰረተ ነው። ለጥያቄዎቹ በሙሉም ሆነ በከፊል መልስ ያለመስጠት መብት አለዎት። ይህ ደግሞ ማንኛውንም አይነት ግልጋሎት ከማግኘት አያግድዎትም። እንዲሁም በፈለጉት ሰዓት ማንኛውንም መብትዎን ሳያጡ የማቋረጥ ሙሉ መብት አለዎት።

የበለጠ መረጃ ካስፈለጎት የሚከተለትን አድራሻ መጠቀም ይችላሉ። ጥናቱን የሚያካሂደው ሰው አድራሻ፡ ስ.ቁ መአዛ አበባየሁ 0911016852

የአማርኛ መጠይቅ ቀበሌ-----የጠያቂው የኮድ ቁ.-----የተጠያቂው የኮድ ቁ.---- ወረዳ
 ----- የመጠይቅ ቀን-----

ክፍልአንድ:- ማህበራዊና ኢኮኖሚያዊ ሁኔታ መጠይቅ

ኮድ	ጥያቄዎች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደ ቀጣይ እለራ
101	እድሜዎ ስንት ነው?	-----	
102	የምን ሀይማኖት ተከታይ ናት?	1.ኦርቶዶክስ 2.ሙስሊም 3.ፕሮቴስታንት 4. ካቶሊክ 99.ሌሎች _____	
103	ብሔርዎ ምንድን ነው?	1. አማራ 2.ኦሮሞ 3.ጉራጌ 4. ትግሬ 99.ሌሎች _____	
104	የትምህርት ደረጃዎ ስንት ነው?	1.ያልተማረች 2. ማንበብና መጻፍ የምትችል 3.1-6 4. 7-8 5. 9-12 6. ከ12 በላይ	
105	የባለቤትዎ የትምህርት ደረጃ ስንት ነው?	1.ያልተማረ 2. ማንበብና መጻፍ የሚችል 3.1-6 4. 7-8 5. 9-12 6. ከ12 በላይ	
106	ስራዎ ምንድን ነው?	1.የመንግስት ሰራተኛ 2.የግል/ መንግስታዊ ያልሆነ ድርጅት ተቀጣሪ 3. የራሷን ስራ ብቻዋን የምትሰራ 4. ነጋዴእና በስሯ ሰራተኞች ያሏት 5. የቤትአመቤት 99. ሌሎች _____	
107	የባለቤትዎ ስራ ምንድን ነው?	1.የመንግስት ሰራተኛ	

		7. ሁሉም	
303	ስለ ዘመናዊ የወሊድ መቆጣጠሪያ መረጃ ክየት ክየት ያገኛሉ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ጎረቤት/ ጓደኛ 2. ዘመድ 3. ከባለቤትዎ 4. ከጤና ባለሙያ 5. ከብዙሀን መገናኛ 6. ከትምህርት ቤት 99. ሌሎች _____	
303	ስለ ዘመናዊ የወሊድ መቆጣጠሪያ በዋናነት መረጃ ክየት አገኙ?	1. ጎረቤት/ ጓደኛ 2. ዘመድ 3. ከባለቤትዎ 4. ከጤና ባለሙያ 5. ከብዙሀን መገናኛ 6. ከትምህርት ቤት 99. ሌሎች _____	
304	ስለ ረጅም ጊዜ የሚያገለግሉ ወሊድ መከላከያ ዘዴዎች ስምተው ያውቃሉ?	1. አዎ 2. አላውቅም	አላውቅም ከሆነ ወደ ጥያቄ ቁጥር 306 እለፊ
305	መልስዎ አዎ ከሆነ የሰሙትን የረጅም ጊዜ ወሊድ መከላከያ ይጥቀሱ	1. በክንድ ቆዳውስጥ የሚቀበር 2. ሉፕ (በማህጸን የሚቀመጥ) 3. ማህጸንን ማስቋጠር 4. የወንድ የዘር ፍሬን ማምከን 99. ሌሎች _____	
306	ባለፈው 12 ወራት ውስጥ ስለ ረጅም ጊዜ የወሊድ መከላከያ ዘዴዎች መልዕክት ደርሶዎታል?	1. አዎ 2. አይደለም	
307	መልሱት አዎ ከሆነ የትኞቹን (የተጠቀሱትን ያክብቡ)?	1. በክንድ ቆዳ ውስጥ የሚቀበር 2. ሉፕ (በማህጸን የሚቀመጥ) 3. ማህጸንን ማስቋጠር 4. የወንድ የዘር ፍሬን ማምከን 99. ሌሎች _____	

ክፍል አራት:-ስለ ረጅም ጊዜ የሚያገለግሉ ወሊድ መከላከያ ዘዴዎች የተሳተፈዎ ግንዛቤ

ኮድ	ጥያቄዎች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደ ቀጣይ እለፍ
401	ሉፕ (በማህጸን የሚቀመጥ የወሊድ መከላከያ) ለ 12 ዓመት እርግዝናን ይከላከላል።	1. እውነት 2. ሀሰት	
402	ሉፕ (በማህጸን የሚቀመጥ የወሊድ መከላከያ) የአባላዘር በሽታን ይከላከላል።	1. እውነት 2. ሀሰት	
403	በክንድ ቆዳ ውስጥ የሚቀበር የወሊድ መከላከያ ከ 3-5 አመት እርግዝናን ይከላከላል።	1. እውነት 2. ሀሰት	
404	ሉፕ (በማህጸን የሚቀመጥ የወሊድ መከላከያ) የግብረ ስጋ ግንኙነት ወይም ፍላጎት ላይ ተጽዕኖ ይኖረዎል።	1. እውነት 2. ሀሰት	
405	ቆዳ ውስጥ የሚቀበር የወሊድ መከላከያ ከወጣ በኋላ ወድያውኑ ማርገዝ ይቻላል።	1. እውነት 2. ሀሰት	
406	ቆዳ ውስጥ የሚቀበር የወሊድ መከላከያ ለማስገባትና ለማስወጣት አነስተኛ ቀዶ ጥገና ያስፈልጋል።	1. እውነት 2. ሀሰት	
407	ማህጸንን ማስቋጠር እና የወንድ የዘር ፍሬን ማምከን የተባሉትን የወሊድ መከላከያ ከተጠቅምን በኋላ ድጋሚ ማርገዝ ይቻላል።	1. እውነት 2. ሀሰት	
408	ማህጸንን ማስቋጠር የተባለው የወሊድ መከላከያ ለሴት እና የወንድ የዘር ፍሬን ማምከን የተባለው የወሊድ መከላከያ ለወንድ ያገለግላል።	1. እውነት 2. ሀሰት	

ክፍል አምስት:-ስለ ረጅም ጊዜ የሚያገለግሉ ወሊድ መከላከያ ዘዴዎች የተሳተፈዎ አመለካከት

ኮድ	ጥያቄዎች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደ ቀጣይ እለፍ
501	በክንድ ቆዳ ስር የሚቀበረውን መጠቀም የተዛባ የደም መፍሰስ ያስከትላል ብለሽ ታስቢያለሽ?	1. እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አልስማማም	
502	ሉፕ በሚገባበት ወቅት የግል ሁኔታና ሚስጢርን ያጋለጣል ብለሽ ታስቢያለሽ?::	1. እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አልስማማም	
503	ሉፕ በማእህፀን ከተቀመጠ በኋላ ወደ ሌላ የሠውነት አካል ውስጥ ይዘዋወራል ብለሽ ታስቢያለሽ?	1. እስማማለሁ 2. እርግጠኛ አይደለሁም 3. አልስማማም	
504	ሉፕ መጠቀም የተለመደ እንቅስቃሴዎችን ማድረግ ይገድባል	1. እስማማለሁ	

	ብለሽ ታስቢያለሽ?	2.እርግጠኛ አይደለሁም 3. አልስማማም	
505	በክንድ ቆዳ ስር የሚቀበረው ሲገባና ሲወጣ የተጋነነ ህመም ይኖረዋል ብለሽ ታስቢያለሽ?	1.እስማማለሁ 2.እርግጠኛ አይደለሁም 3. አልስማማም	
506	በክንድ ቆዳ ስር የሚቀበረው ከገባ በኋላ በሌላ የሰውነት አካል ውስጥ ይዘዋወራል ብለሽ ታስቢያለሽ?	1.እስማማለሁ 2.እርግጠኛ አይደለሁም 3. አልስማማም	
507	ማህጸንን ማስቋጠር እና የወንድ የዘር ፍሬን ማምከን የተባሉትን የወሊድ መከላከያ ከተጠቅምን በኋላ ድጋሚ ማርገዝ ይቻላል ብለሽ ታስቢያለሽ?	1.እስማማለሁ 2.እርግጠኛ አይደለሁም 3. አልስማማም	

ክፍል ስድስት:-ለረጅም ጊዜ የሜቆይ የወሊድ መከላከያ ለመጠቀም የተሳተፈ ዋሃሳብ

ኮድ	ጥያቄዎች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደ ቀጣይ እለፍ
601	ለረጅም ጊዜ የሜቆይ የወሊድ መከላከያ ለመጠቀም ሃሳብ አለዎት?	1.አዎ 2. አላውቅም	
602	የትኛውን ለመጠቀም ነው ሃሳብ ያለዎት?	1.በክንድ ቆዳ ስር የሚቀበር 2.ሉፕ 3. ማህጸንን ማስቋጠር 4. የወንድ የዘር ፍሬን ማምከን 99. ሌሎች	
603	መቼ ለመጠቀም አሰብክ?-----	1.ወዲያውኑ 2. ከ-----አመት በኋላ	
604	መልስዎ አዎ ከሆነ ለ601 ምክንያቶቹ	1.እርግጠናን ለማዘግየት 2. እርግጠናን ለማቆም 3. ረጅም ጊዜ ስለሚቆይ 4. የጎንዮሽ ጉዳዮቹ ትንሽ ስለሆኑ 5. ከወጣ በኋላ በቀላሉ ማርገዝ ስለሚቻል 99. ሌሎች_____	
605	መልስዎ አይ ከሆነ ለ601 ምክንያቶቹ	1.የጎንዮሽ ጉዳዮቹ በመፍራት 2. ከተጠቀምን በኋላ መሃንነትን ቢያስከትልስ 3. እምነትንና ባህልን ስለሚጸረር	

		4. ባለሞያዎቹ በሚሰሩት ስራ እምነት ስለሌኝ 5. ባለሞያው ወንድ ስለሆነ 6. መሃን ስለሆንኩ 7. የአጭር ጊዜ ስለፈለኩኝ	
605	በቅርብ ሌላ ልጅ እንዲኖርሽ ትፈልጊያለሽ?	1. ሌላ ልጅ አስፈልገኛለሁ 2. መቆየት እፈልጋለሁ 3. በቅርብ እፈልጋለሁ	

ክፍል VII: የዘመናዊ የወሊድ መከላከያ ዘዴ እና ለረጅም ጊዜ የሚያገለግሉ ወሊድ መከላከያ ዘዴዎች የተሳተፈዎ አጠቃቀም

ኮድ	ጥያቄዎች	ለጥያቄው መልስ ሊሆን የሚችለው	ወደ ቀጣይ እለፍ
701	ዘመናዊ የወሊድ መከላከያ ዘዴ ተጠቅመሽ ታውቂያለሽ?	1. አዎ 2. አላውቅም	
702	አዎ ከሆነ መልስሽ የትኛውን የወሊድ መከላከያ ዘዴ ተጠቅመሽ ታውቂያለሽ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. ፒልስ 2. መርፌ 3. በአንድ ቆይታ የሚቀበር 4. ሉፕ 5. ኮንዶም 6. ማህጸንን ማስቋጠር እና የወንድ የዘር ፍሬን ማምከን 99. ሌሎች _____	
703	አሁን የትኛውን የወሊድ መከላከያ ዘዴ እየተጠቀሙ ነው?	1. ፒልስ 2. መርፌ 3. በአንድ ቆይታ የሚቀበር 4. ሉፕ 5. ኮንዶም 99. ሌሎች _____	
704	አሁን እየተጠቀምሽ ስላለው የወሊድ መከላከያ ዘዴ መረጃ ከየት ሰማሽ?	1. ከመንግስት ጤና ተቋማት 2. ከግል ሆስፒታል፣ ክሊኒክ 3. ከመድሀኒት ቤቶች 4. መንግስታዊ ካልሆኑ ተቋማቶች 99. ሌሎች _____	
705	ለምን ያህል ጊዜ የወሊድ መከላከያ ዘዴውን ተጠቀሙ?	1. ከ1 አመት በታች 2. ከ1-3 አመት 3. ከ3 አመት በላይ	

		99. ሌሎች _____	
706	ከአንድ ወሊድ መከላከያ ወደ ሌላ ቀይረው ያውቃሉ ?	1.አዎ 2. አላውቅም	አላውቅም ከሆነ ወደ ጥያቄ ቁጥር 709 እለፉ
707	መልስዎ አዎ ከሆነ ከየትኛው ወሊድ መከላከያ ወደ ምን ወሊድ መከላከያ ቀየሩ?	1.ከረዥም ጊዜ ወደ ረዥም ጊዜ የወሊድ መከላከያ 2.ከረዥም ጊዜ ወደ አጭር ጊዜ የወሊድ መከላከያ 3.ከአጭር ጊዜ ወደ ረዥም ጊዜ የወሊድ መከላከያ 4.ከአጭር ጊዜ ወደ አጭር ጊዜ የወሊድ መከላከያ	
708	መልስዎ አዎ ከሆነ የወሊድ መከላከያ ለምን ቀየሩ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1.የመጀመሪያው ስላልተመቸኝ 2. ስለፈለኩኝ 3.የበፊቱ ስለሌለ 4.የጎንዮሽ ጉዳት ስላስከተለብኝ 5.የረጅም ጊዜ መከላከያ ለመቀየር 6.የባለሙያ ምክር ስላስቀየረኝ 7. የንደኛ ተጽእኖ 99. ሌሎች _____	
709	መልስዎ 706(7, 8) አይደለም ከሆነ ለምን?	1.የተሳሳተ አመለካከት 2.የአጭር ጊዜ በመፈለግ 3.የተጓዳኝ ጉዳትን በመፍራት 4.በህክምና ሁኔታ የተከለከለ 5.መሀንነትን በመፍራት 99. ሌሎች _____	