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ASSESSMENT OF FACTORS ASSOCIATED WITH UNINTENDED
PREGNANCY AMONG PREGNANT WOMEN IN ADDIS ABABA,
ETHIOPIA

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Assessment of factors associated with unintended pregnancy among pregnant women in Addis Ababa, Ethiopia

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ACRONYMS AND ABBREVIATIONS

AOR	Adjusted odds ratio
ANC	Antenatal Care
CI	Confidence interval
DHS	Ethiopia Demographic and Health Survey
FMOH	Federal Ministry of Health
HSDP	Health Sector Development Program
IEC	Information, Education and Communication
IUCD	Intra Uterine Contraceptive Device
MDG	Millennium Development Goal
MMR	Maternal Mortality Rate
OR	Odds ratio
SPSS	Statistical Package for Social Science
UNICEF	United Nations Children's Fund
UP	Unintended Pregnancy
WHO	World Health Organization

ABSTRACT

Background: Unintended pregnancy is an important public health issue in both developing and developed countries because of its serious consequences for women and their families, which include the possibility of unsafe abortion, delayed prenatal care, poor maternal mental health and poor child health outcomes.

Objective: The major objective of this study was to identify the magnitude and factors associated with unintended pregnancy among pregnant women attending antenatal care in Addis Ababa.

Methods: A facility based cross-sectional study was conducted on 393 women attending antenatal care clinic at Addis Ababa in ten public health centers from February to May 2015. Simple random sampling technique was used to select health centers. Data were collected by trained data collectors using Pre-tested structured questionnaires. Data were checked for completeness, consistency, coded and entered in to SPSS version 20 software and analyzed. The association between variables were analyzed using bivariate analysis, multiple logistic regression models and the level of significance of association were determined at P- value <0.05.

Results: The magnitude of unintended pregnancy was 36.4 95% CI;(31%.8, 41.7%). The odds of unintended pregnancy among no Spousal communication were 4 times more likely than Spousal communication, Odds of unintended pregnancy among own business maker were 4 times more likely than unintended pregnancy compared to house wives.

The odds of unintended pregnancy among inadequate awareness on Intra Uterine Device were 4 times more likely to be experience to unintended pregnancy than from those who have adequate awareness on Intra Uterine Device

Conclusion: According to this study, women education, occupation, spousal communication and awareness of long term family planning were significantly associated with unintended pregnancy.

Recommendation: There is an apparent need to design strategies of communication within couples on fertility and contraceptive issues through peer education and promote long term modern family planning methods.

1. INTRODUCTION

1.1 Background

Unintended pregnancy is either unwanted or mis-timed at the time of conception [1-3]. It has a great impact on the health of all fecund sexually active women in both developed and developing countries. Unintended pregnancy (UP) can lead to unwanted birth or abortion which could be unsafe; It might affect the mother, child and the society at large in different circumstances. For instance, there may be unsafe abortion, delayed or no prenatal care, poor maternal mental health, reduced mother/child relationship quality, physical abuse and violence against women, poor developmental outcomes for children, increased risk of low birth weight as well as increased morbidity and mortality [2, 3].

Globally, in 2012 out of 213 million pregnancies, 85 million were unintended, in which 50% ended with abortion, 13% miscarriage and 38% unplanned births [4]. In 2008, out of 210 million pregnancies, 80 million were unintended, in which 21.6 million were completed by unsafe abortion causing the death of 47,000 women [5]. This indicates that the incidence of 1 in 10 pregnancies end in unsafe abortion [5]. Generally, the number of abortion increased from 19.7 million in 2003 to 21.6 million in 2008; which occurs almost in all developing countries [5]. For instance, according to the study by WHO in 2008, in Africa about 5.5 million unsafe abortions were performed each year and 36,000 of them died [6].

In the same year, in Ethiopia, the study made by Guttmacher Institute, showed that 101 unintended pregnancies occurred per 1,000 women aged 15–44, and 42% of all pregnancies were unintended; 382,500 induced abortions were performed in which the annual rate was 23 abortion per 1,000 women [6]. Regarding the capital City Addis Ababa, the situation was more severe than the national level which was 49 per 1000 on average [6]. World Population Reference Bureau 2008 also showed that Ethiopia had the fifth highest number of maternal deaths in the world, one in 27 women died from complications of pregnancy or childbirth annually [7]. As per the study of the Ethiopian Demographic and Health Survey (EDHS) 2011, the prevalence of unintended pregnancy was 29 % of which, 20% were mistimed and 9 % unwanted [8].

Those women had a chance to develop complications, like acute trauma, organ failure, infection and future reproductive problems due to unsafe abortion [6].

In Ethiopia, unmarried women and teenagers face UP, since it is an ignominy on the societies they become obliged to perform clandestine unsafe abortions which causes, physical abuse, thrown out of home, exposed to prostitution, infected with HIV or unplanned child bearing, morbidity and mortality [9, 10]. The factors for UP vary in different areas and situations some of those were; non use of contraceptive, incorrect use of contraceptive, failure of contraceptives, unmet need for family planning, lower income, and less autonomy of women. [2, 11, 12].

1.2 Statement of the problem

In Ethiopia, especially in Addis Ababa, number of unintended pregnancy has been increasing and by this preventable public health problem, large numbers of mothers and children are affected even though such problems are preventable [6, 13].

The major reason for the increasing rate of unintended pregnancy followed by induced abortion and maternal mortality was the level of women autonomy and the gap on accessing and practicing contraceptive. Because of this, many women in Ethiopia perform safe and unsafe abortion every day in clandestine manner [6, 9, 14]. Therefore; they had been susceptible to morbidity and mortality. Those clandestine procedures were associated with arrays of negative outcomes, including , shock, organ failure, future reproductive problems, and unplanned child bearing with low-birth-weight infants, delayed prenatal care, reduced likelihood of breastfeeding, poorer mental and physical health during childhood, low in educational and behavioral outcomes of the child, lower maternal mental health, poor mother-child relationship quality, and an increased risk of the mother experiencing physical violence during and after pregnancy [2, 3, 15].

Even though some studies have been done in the past at community based level, but still there are few studies at facility level. So, the aim of this study was to assess factors associated with unintended pregnancy at health facilities.

1.3. Rationale of the study

The problem of unintended pregnancy at the community is very critical, but it is under reported due to the fact that the legal, social and cultural norms are not open to discuss on the sensitive issue of unintended pregnancies followed by abortion.

Determining the magnitude of unintended pregnancy among pregnant women as well as the factors associated with them at the community level is very crucial in designing and implementing interventions that could be tailored to women needs, there by contributing to the attainment of the Millennium Development Goal Five (Reduction in maternal mortality).

Therefore, this study can be used as an input to influence the national policy makers, program formulators and program implementers and to review the guidelines regarding the prevention of unintended pregnancy and related problems like, unsafe abortion, future fertility problems, unwanted birth, mother and child morbidity and mortality.

1.4. Research questions:

- A. Is unintended pregnancy negatively associated with women's level of education?
- B. Does early age at first marriage increase the risk of unintended pregnancy?
- C. Is spousal communication inversely related to unintended pregnancy?
- D. Is unintended pregnancy positively associated with the number of parity?
- E. Is high economy status of women negatively associated with unintended pregnancy?
- F. Is women autonomy inversely related to unintended pregnancy?
- G. Is past history of unintended pregnancy positively associated with current unintended pregnancy?

2. LITERATURE REVIEW

2.1 Unintended pregnancy

In the entire world, pregnancy is wanted and a happy event for women, their husbands/partners, families and the community in general. But this is not always the case, because millions of women around the world become pregnant unintended [5, 16]. This contributes greatly to the increase in maternal and infant mortalities. In 2008, out of 210 million pregnancies, 80 million were unintended in which 21.6 million were ended by unsafe abortion causing the death of 47,000 women [5]. This indicates that of 1 in 10 pregnancies end in unsafe abortion [5]. As a result, significant proportions of women turn to induced abortions to avoid unwanted or unplanned births.

A facility based study done in 2011 at selected health centers in Addis Ababa, showed that 38.7% pregnant women attending ANC report that their current pregnancy were unintended [17]. Similar study in Bahir Dar in one facility were 26% [18].

A community based study done in Oromia Region, Ethiopia showed that 36.5% of sexually active women reported that their most recent pregnancies were unintended [19]. Similarly, a study conducted in Hosanna Town, southern Ethiopia shows that among pregnant married women, 34% of pregnancies were unintended [20].

2.2 Safe Abortion

Safe abortion is the termination of pregnancy by a skilled health care provider with proper equipment and in an environment with required medical standards. In countries where women have access to safe services, their likelihood of dying from complications of unsafe abortion is very minimal. In developing countries, the risk of death following complications of unsafe abortion procedures is several hundred times higher than that of an abortion performed professionally under safe conditions [5]. An estimate of 103,000 abortions are performed in health facilities legally per year in Ethiopia [13].

2.3 Unsafe Abortion

This is the termination of unwanted pregnancy either by a person lacking the necessary skills or in an environment lacking minimal medical standards or both [5, 16]. Unsafe abortion causes a

significant proportion of maternal deaths and morbidity. Abortion causes the death of 47,000 women each year, and that shows close to 13% of all maternal deaths are due to the complications of unsafe abortion [1, 5, 21].

2.4 Contraceptive Methods

The use of modern contraceptive methods has greatly reduced the incidence of unintended pregnancy, particularly in more developed countries and provision of family planning services and modern contraceptives to those who do not have access to them would prevent large proportion of unintended pregnancies and abortions, as well as many maternal and infant deaths [1, 22]. In 2012, an estimated 645 million women in the developing world were using modern methods, 42 million more than in 2008; The proportion of married women using modern contraceptives in the developing world as a whole barely changed between 2008 (56%) and 2012 (57%). Larger-than-average increases were seen in Eastern Africa and Southeast Asia [23]. Current contraceptive use prevented 218 million unintended pregnancies in developing countries in 2012, and, in turn, averted 55 million unplanned births, 138 million abortions (of which 40 million are unsafe), 25 million miscarriages and 118,000 maternal deaths [23].

Serving all women in developing countries that currently have an unmet need for modern contraceptive methods would prevent an additional 54 million unintended pregnancies, including 21 million unplanned births, 26 million abortions (of which 16 million would be unsafe) and seven million miscarriages; that would also prevent 79,000 maternal deaths and 1.1 million infant deaths [23].

In Ethiopia, contraceptive prevalence rate is 29 percent. Whereas, unmet need for family planning services is 25%; from these 16 percent have a need for spacing, and 9 percent have a need for limiting as per 2011 EDHS [8].

Facility based Study conducted in Bahir Dar among pregnant women, who were visiting antenatal care clinic; indicate that the awareness of male partners on the utilization of contraceptives is significantly associated with unintended pregnancy[18]. Women whose husbands knew contraceptive utilization were almost six times less likely to have

unintended pregnancy compared to their counterparts, women whose partners had no awareness on their contraceptive utilization [18].

2.5 Factors Associated With Unintended Pregnancies

The problem of UP pregnancies is worldwide. According to a study done in Bangladesh, 32 % of women reported to have their recent pregnancy unintended [24]. Older women, 30 and above years of ages, were more likely than younger women to have had unwanted pregnancy. However, adolescents were more likely than older women to have had mistimed pregnancy [24]. Also according to studies done in Nepal, 35 % of women reported to have their recent pregnancy unintended and among those pregnancies, 77 percent of the women were aged 35 and above [25].

A community-based study done in Oromia Region, Ethiopia in 2013 revealed that women between ages 35-45 were 6.51 times more likely to experience unintended pregnancy compared to those in age group between 25-29 [19, 25].

Economic factors also play great role to increase UP rate. Study done in US, in 2008, showed that unintended pregnancy rates among low-income and poor women were more than three and four times the rate for women in the highest income group [1, 26, 27]. In Ethiopia, the rate of current UP in poor families were more [28].

The level of education also plays a part in determining the rate of UP. Birth rates among women with low education are higher than those with secondary or tertiary education [24]. This is similar in several studies which have shown that level of education has also an influence on the rate of UP [19, 24, 28]. A study done in Kenya reported that women with no education had first sexual intercourse three years earlier than their counter parts with at least a secondary school education [29]. Similarly, the Ethiopia DHS, 2011 showed that woman's education increases, their desire to have no more children. For example, 41 percent of women with no education desire to limit child bearing compared with 32 percent of women with primary education [8].

Age at marriage was also found to be a significant predictor of unintended pregnancy. The risk of experiencing unintended pregnancy among women who got married before age

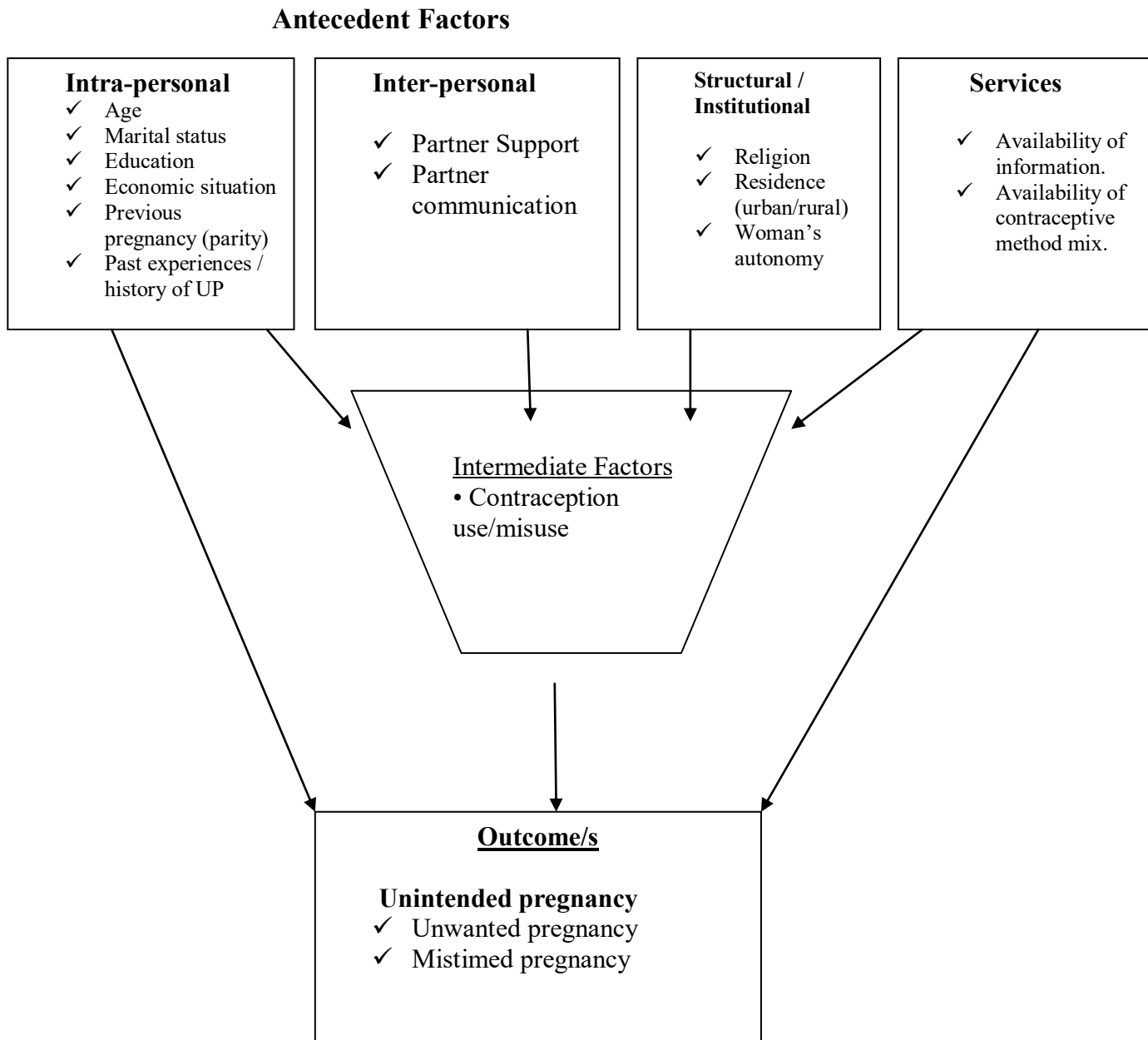
fifteen is 1.3 times higher than those women who got married in ages 15- 19. Over all, the probability of unintended pregnancy has decreased as age at first marriage increased [30].

Women who have autonomy on their own health care decision and financial right are less susceptible for UP [25, 31]. A population based study in Southern Ethiopia, in 2011, showed that; women who had no autonomy on their health care were 4.3 times more likely to have unintended pregnancy compared with some autonomy on their health care [30]. Similarly, study in Oromia Region in 2013, showed that, physically violated women by their partners were more likely to unintended pregnancy than their counter parts [19]. And partners disagree with their number of family size also more likely to UP [19].

Previous UP is a risk factor for subsequent UP [24]. Women with increased past history of UP have high probability of current UP [19, 28, 32].

2.6 Conceptual frame work

Fig 1: Conceptual framework for factors associated with unintended pregnancies.



Adapt from WHO; Conceptual framework for researching on unintended pregnancy.

3. OBJECTIVE

3.1 General Objective

- To assess the magnitude and factors associated with unintended pregnancy among pregnant women in Addis Ababa, Ethiopia.

3.2 Specific Objectives

- To assess the magnitude of unintended pregnancy among pregnant women.
- To identify factors associated with unintended pregnancy among pregnant women.

4. METHODS AND MATERIALS

4.1 Study Area

This study was conducted in public Health Centers at Addis Ababa, which is the Capital City of Ethiopia. Administratively, it is divided in to ten sub cities and 116 woredas with an area of 540 sq.kms and hosting more than 3.3.Million populations and among these 1, 478890 males and 1,624783 were females [33]. There were 7 Federal, 6 regional, 38 private hospitals, and more than 850 private clinics which provide different health services. There were also a total of 86 public health centers which provide service. All most all health centers give ANC and delivery service [33].

4.2 Study Design and period

A facility based cross-sectional study was conducted from February to May 2015, at ten selected public health centers in Addis Ababa, Ethiopia.

4.3 Source population

All pregnant women who live in Addis Ababa.

4.4 Study population

Pregnant women who were attending antenatal care (ANC) during the study time were included the study.

4.5 Inclusion and exclusion criteria

4.5.1 Inclusion Criteria

All pregnant women that were attending antenatal care.

4.5.2 Exclusion criteria

- Unable to communicate:- women who are seriously ill at the time of data collection or women who are not hear or speak and mentally disabled was excluded.

4.6 Sample size determination

1. For the first objective it was calculated by using single population proportion formula.

The sample size of the study was determined using the single population proportion based on the assumption that prevalence rate of unintended pregnancy was 36.5% [19], and 95% confidence interval was used with a marginal error of 5% and by taking the non-response rate as 10% due to sensitivity of the issue.

$$N = \frac{(Z_{\alpha/2})^2 pq}{d^2}$$

Where: n = sample size

P = proportion of unintended pregnancy

q = 1-p

d = desired degree of precision (5%)

Z= is the standard normal value at 95% confidence level

= 356.15 ≈ 357

= 10% of non-response rate was assumed

= the total sample size was three hundred ninety three (**393**).

2. For the second objective the sample size was calculated by using an Open Epi software

Articles		Variables	Percent of unexposed with outcome	Odds ratio	Total sample size
Name of authors	Year				
Wubalem Geberamelak	2014	Previous history of unintended pregnancy	17.3	10.6	34
Wubalem Geberamelak	2014	Family planning awareness	45.5%	3.28	110
Wubalem Geberamelak	2014	Partner knew utilization of Fp	41.7%	5.96	56
Nigatu Regassa	2011	Spousal communication	44.1%	4.52	74
Nigatu Regassa	2011	Women autonomy	69%	52.78	58

Table 1. Calculated sample size by using Open Epi software for second objective.

Since the calculated sample sizes for the first specific objective was greater than the second specific objective, so the first objective's sample size was taken as a total sample size of the study, which was 393.

4.7 Sampling Techniques

All public health centers found in Addis Ababa were served as the sampling frame, then by using simple random sampling, one public health center from each sub city was selected. For each health center the allocated sample size was calculated as follows:-

Proportion of selected health center = Total number of women

$$\frac{\text{Attending ANC per month} \times \text{Sample size}}{\text{Total number of population in all selected health centers per month}}$$

Name of Health center	No of women attending ANC per month	Proportion of respondents for selected Health Center
Addis Ketema (woreda 3)	167	29
Saris Health Center	135	24
Arada Health Center	159	28
Dilefire Health Center	285	50
Shiro-meda Health Center	170	30
Kasanchis Health Center	315	55
Mickland Health Center	224	39
Tekelhaimant Health Center	362	63
N.Lafto(worda 3) Health Center	226	39
Yeka Health Center	204	36
Total	2245	393

Table 1.1 Proportion of respondents for each health centers

Systematic random sampling technique was used to select the study participants from ANC registration book that contained lists of pregnant women (sampling frame) who visited prenatal clinic. Then, the sampling fraction (K) was calculated for each health centers by using the formula:-

$$K = \frac{\text{Anticipated number of pregnant women who visited each health center per month}}{\text{Allocated sample size each health center}}$$

Finally, the study participants from each health center were selected at every “Kth” intervals, with their respective “k” values.

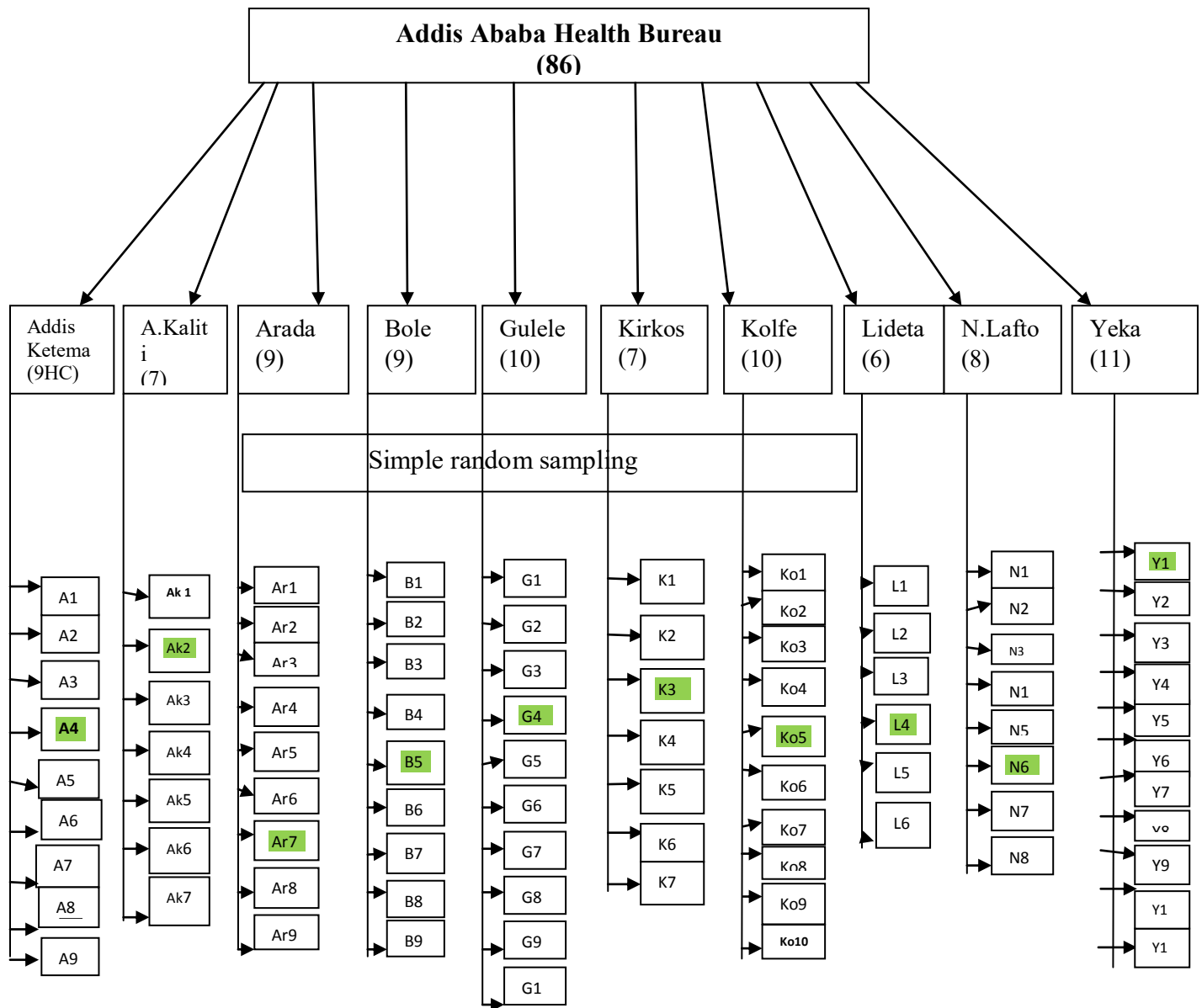


Figure 2. Schematic presentation of sampling procedure of selected public health centers in Addis Ababa, Ethiopia, February-May, 2015

- A4 = woreda three health center
- Ak2 = Saris health center
- Ar7 = Arada health center
- B5 = Dilefre health center
- G4 = Shiromeda health center
- K3 = Kasanchis health center
- Ko5 = Mick land health center
- L4 = Tekelhimanot health center
- N6 = worda 3 health center
- Y1 = yeka health center

4.8 Study variables

4.8.1 Dependant variables

Unintended pregnancy

4.8.2 Independent variables

Socio-demographic characteristics such as Age, Educational status, Occupation, Marital status, Gravidity, Parity, use of contraceptive, Type of contraceptive used, awareness about contraceptive, use of emergency contraceptive.

4.9 Operational definition

Intended pregnancy: - A pregnancy that was desired at the time it occurred or sooner.

Unintended pregnancy:- Is either unwanted or mis-timed at the time of conception

Miss timed pregnancy:-If a woman did not want to become pregnant at the time of conception, but did want to become pregnant in the future.

Unwanted pregnancy:-If a woman did not want to become pregnant at conception or at any time in the future.

Parity: - The number of times a women has given birth.

Pregnant woman: a woman who is positive in urine pregnancy test.

Women autonomy: the ability to decide independently about type of contraceptive use, self health care, and their income management.

4.10 Data Collection Instrument and procedure

Data were collected by interviewer administered structured questionnaire, composed of socio demographic variables, economic factors and reproductive history of pregnant women including awareness and practice of family planning and unintended pregnancy as well as birth and induced abortions. Seven BSc nurses and three Health officers of female data collectors were recruited considering women's preference in the community. Who were working in Addis Ababa health centers. They received two days intensive training. The training was given on how to ask and fill the question, selection criteria of ANC attending pregnant women, and how to approach the mothers. Before the actual data collection days,

4.11 Data quality control

The questionnaire was initially prepared in English and translated in to local language and again back translated to English by another expert to check for its consistencies. And the questionnaire was pre-tested prior to data collection in pregnant women who were attending ANC outside the study area. In Kebena health center (one of the health centers in Addis Ababa city administration) on 20 (5%) of the sample and modifications were done accordingly. Moreover, during data collection, supervisor's checked how the data collection process was going on. At the end of each data collection day, the principal investigator and supervisors also checked the completeness of filled questionnaires. Every questionnaire was checked before data entry by principal investigator.

4.12 Data Management and Analysis

All collected data were checked for completeness and coded and entered in to EPI-INFO and SPSS version 20 statistical package software was used to analyze the data. Summary statistics such as, percentage and frequency were computed, table and graphical techniques were used. The bivariant analysis was done to test the association between the independent and outcome variables. All explanatory variables that were associated with the outcome variable in bivariant analysis were included into multivariate logistic regression, to determine the independent predictor of unintended pregnancy. P-value of <0.2 was considering as a cut-off point for statistical significant.

4.13 Ethical Consideration

Ethical clearance was obtained from the ethics review committee of the Addis Ababa University School of Public Health (AAU/SPH) and letter of permission was also obtained from the Addis Ababa Health Bureau and health institutions. The study participants were informed of the purpose of the study, their right to participate or refuse to participate in the study was explained.

Informed consent was obtained from every respondent; strict confidentiality of information was also maintained through anonymous recording and coding of questionnaire.

4.14 Plan for Dissemination and Utilization of results

The final report of the study will be submitted to the Addis Ababa University School of Public Health. The result will be presented during thesis defense, as a partial fulfillment of the degree of Master of Public Health. Moreover, the findings of the study will be disseminated through publication in local and international journals.

5. RESULT

5.1. Result Socio-demographic and Economic Characteristics

A total of 393 pregnant women responded to the questionnaire. More than a third of the respondents, 152 (38.7%) were between 25-29 years of age. (Table 2).

One hundred twenty three (31.3%) were between 20-24 years, 64 (16.3%) were between 30-34 years, 31(7.9%) were between 35-39 years and 23(2.9%) were between 15-19 years of age. The median age was found to be 26.16 years.

Among the respondents the majority, 341 (86.8%) were married, 30 (7.6%) were never married, whereas divorce and widowed respondents account for 24 (5.6%). Concerning age at first marriage, 168 (47.1%) of respondents got marriage at the age of 20-24 years, 110(30.8%) were 15-19 years, 71 (19.9%) were 25-29 years and 8 (2.2%) were 30-34 year of first marriage, with a median of 22 years.

In terms of educational levels, 27 (6.9 %) were illiterate (unable to read and write), 19 (4.8%) were primary, and 230 (58.5%) attended secondary while 30(7.6%) were technical/vocational education. 87(22.1%) of those had completed diploma or above higher education. Majority of Participants, 372 (94.7%) were urban residents. 21(5.3%) were rural and come from out of Addis Ababa for ANC follow up.

Concerning Religion, 261 (66.4%) were Orthodox, followed by 76 (19.3%) Muslim, and 51 (13%), Protestant, and 5(1.3%) were Catholic. In Ethncity, 162 (41.2%) were Amhara, 103 (26.2%) were Oromo, 77 (19.6%) were Guragie, while the rest 51 (13%) were Tigrie, Wolayeta and Somali.

One Hundred and sixty-one (41%) were housewives, followed by, 70(17.8%) government employees, and 87(22.1%) were private employees, 52 (13.2%) were self-employed and 23(5.8%) were student 6(1.5%) (See table 2.below).

Concerning monthly income, more than one third of the respondent 143(36.3%) reported less than 500 birr monthly income, followed by 96(24.4%) were 501-1000 birr, 76(19.3%) were 1001-2000 birr, 40(10.2%) were 2001-3000 birr, and 38(9.2%) were above 3001 birr monthly income. (see Table 2) below.

Table 2. Socio demographic characteristics of pregnant women attending ANC clinic at selected public health centers in Addis Ababa, Ethiopia, February-May, 2015 (n=393)

Character		No	%	
Age (n=393)	15-19	23	5.9	Median age =26
	20-24	123	31.3	
	25-29	152	38.7	
	30-34	64	16.3	
	35-39	31	7.9	
Marital status (n=393)	Married	341	86.8	
	Never married	30	7.6	
	Divorce	11	2.8	
	Widowed	11	2.8	
Age at first marriage (n=393)	15-19 years	110	30.8	Median age at first marriage 22 years
	20-24 years	168	47.1	
	25-29 years	71	19.9	
	30-34 years	8	2.2	
Women Highest education (n=393)	Higher	87	22.1	
	Technical/vocational	30	7.6	
	Secondary	230	58.5	
	primary	19	4.8	
	Illiterate	27	6.9	
Residence (n=393)	Rural	21	5.3	
	Urban	372	94.7	
Religion (n=393)	Orthodox	261	66.4	
	Muslim	76	19.3	
	Catholics	5	1.3	
	Protestant	51	13	
Ethnicity (n=393)	Oromo	103	26.2	
	Amhara	162	41.2	
	Tigrie	33	8.4	
	Guragie	77	19.6	
	wolayeta	15	3.8	
	Somalia	3	0.8	
Occupation (n=393)	Housewife	161	41	
	student	23	5.8	
	Gov.employee	70	17.8	
	Private employee	87	22.1	
	Own business	52	13.2	
House Hold Income per month (n=393)	Less than 500birr	143	36.4	
	501-1000 birr	96	24.4	
	1001-2000 birr	76	19.3	
	2001-3000 birr	40	10.2	
	Above 3001birr	38	9.2	

5.2. Reproductive history of the respondents

Table 2 below shows the previous intentions of the respondents about their current pregnancies. Eighty three (21.1%) of the respondents mentioned that they wanted their current pregnancies later (mistimed) and 60 (15.3%), reported that they did not want their current pregnancies at all (unwanted). When summing up these two, 143(36.4%.95% CI;31%.8,41.7%). of respondents reported their current pregnancies were unintended (that is, mistimed or unwanted pregnancy). (See table 3, below)

Among respondents, 221(56.2%) of them had previously pregnancies history and 108 (48.9%) of these had had 1–2 previous times pregnancy history, while 102 (46.2%), were 3-4 times and the rest, 11(5%) were 5-6 times. Regarding number of parity, 150 (67.9%) had 1-2 times, 52(23.5%) 3-4 times and 19(8.6%) had no parity.

Regarding history of Abortion, 106(48%) had abortion, of these 101(95.3%) did 1-2 times, and 5(4.7%) did 3-4 times.

Ninety seven (43.9%) had no previous unintended pregnancies, but the rest, 124 (56.1%) had previous unintended pregnancies of these 94 (96.9%) had 1–2 times, 3(3.1%) were 3-4 times previous unintended pregnancies. 56(14.2%) were within last three years the rest 41(10.4) were before three years. Regarding previous unintended pregnancy action, 64(66%) discontinued, 5(5.2%) attempted to discontinue but not succeed, but rest 28(28.8%) did nothing so that unintended pregnancy continued. (See table 3, below).

Table 3. Reproductive History of pregnant women's attending ANC clinic at selected public health centers in Addis Ababa, Ethiopia, February, 2015

Characteristics	No	%
Unintended pregnancy (n=393)		
Yes	143	36.4
No	250	63.6
Type of unintended pregnancy (n=143)		
mistimed	83	21.1
unwanted	60	15.3
Past pregnancy history (n=393)		
Yes	221	56.2
No	172	43.8
No of previous pregnancy (n=221)		
1-2 pregnancy	108	48.8
3-4 pregnancy	102	46.2
5-7 pregnancy	11	5
Parity category (n=221)		
No parity	52	23.5
1-2 times	150	67.9
3-4 times	19	8.6
Previous abortions (n=221)		
Yes	106	48
No	115	52
No of Previous abortion (n=106)		
1-2 Abortion	101	95.3
3-4 Abortion	5	4.7
Previous Abortion Type (n=106)		
Induced	64	60.4
Spontaneous	42	39.6
History of UP (n=221)		
Yes	97	43.9
No	124	56.1
Previous Up time(n=97)		
Within last three years	56	57.7
Before three Years	41	42.3
No Previous UP (n=97)		
1-2 times	94	96.9
3-4 times	3	3.1
Previous Up action (n=97)		
Nothing Up continue	28	28.8
Attempted to stop but not succeed	5	5.2
Attempted to stop & succeed	64	66

UP-unintended pregnancy

5.3 Family Planning History of ANC attending pregnant women

As depicted in Table 4 below majority of the respondents, 388(98.7%) had heard of modern contraceptives. Their source of information included: 272 (70.1%) from television, 252 (64.9%) from radio, 220 (56.7%) from their friends, 201(51.8%) from health facilities and 39(10.1%) had by reading their Own different papers. Some of the study participants heard about modern contraceptive from more than one sources of information.

Regarding awareness on family planning, Injectables and Pills were the most familiar methods and knew around 361 (93%), 349(89.9), respectively followed by implant for 290(74%), IUCD 278(71.6%), condom 268(69.1%), Emergency contraceptive pills 181(46.6%), calendar method 163(42%) and the last one had tubal ligation 11(2.8%) one respondents Knew more than one contraceptive methods. (See Table 4)

Table 4. Awareness and source of information about modern FP methods among ANC attending women in selected public health facilities in Addis Ababa, Ethiopia, February to May 2015

Characteristics		No	%
Have you heard about FP (n=393)	Yes	388	98.7
	No	5	1.3
Source of information on Radio (n=388)	Yes	252	64.9
	No	136	35.1
Source of information on TV(n=388)	Yes	272	70.1
	No	116	29.9
Source of information on Friends(n=388)	Yes	220	56.7
	No	168	43.3
Source of information on Health facilities (n=388)	Yes	201	51.8
	No	187	48.2
Source of information on News paper, Magazine (n=388)	Yes	39	10.1
	No	349	89.9
Which modern contraceptive methods do you aware -pills (n=388)	Yes	347	89.4
	No	41	10.6
Which modern contraceptive methods do you aware- Condom (n=388)	Yes	268	69.1
	No	120	30.9
Which modern contraceptive methods do you aware –injectables (n=388)	Yes	361	93
	No	27	7
Which modern contraceptive methods do you aware –IUCD (n=388)	Yes	278	71.6
	No	110	28.4
Which modern contraceptive methods do you aware_ Implant (n=388)	Yes	290	74.7
	No	98	25.3
Which modern contraceptive methods do you aware- Calendar (n=388)	Yes	163	42
	No	225	58
Which modern contraceptive methods do you aware –EC (n=388)	Yes	196	50.5
	No	192	49.5
Which modern contraceptive methods do you aware- TL (n=388)	Yes	11	2.8
	No	377	97.2
Awareness of modem contraceptive methods on the past (n=388)	Yes	292	75.3
	No	96	24.7
Emergency contraceptive awareness (393)	yes	196	49.9
	No	197	50.1
Emergency contraceptive awareness –pills (n=196)	yes	194	99.0
	No	2	1.0
Emergency contraceptive awareness –IUCD (n=196)	Yes	16	8.2
	No	180	91.8

5.4 Reasons to unintended pregnancy

The major reason of unintended pregnancy was don't have enough money to take care of the baby 161(42.7%) followed by 19(13.4%) were since in school, 16(11.2%) not in a marriage, 12(8.4%) were encounter objection from their partner , 11 (7.7%) were divorced, 9(6.3%) had short gap from previous pregnancy, 8(5.6%) were raped, 4(2.8%) were they don't like pregnancy at all, and others 3(2.1%). (See Figure 3, below)

Frequent reason not using contraceptive to prevent unintended pregnancy were contraceptive failure 65(45.5%), followed by 26(18.2%) fear of side effect, 7(4.9%) forget taking of contraceptive on right time, 8(5.6%) had Religious and moral reason, 6(4.2%) thought they were too young to attend family planning, 19 (13.3%), not available, 9(6.3%) were lack of awareness about modern contraceptive methods, the rest 3(2.1%) were others (see Table 5, below).

One hundred eighty five 185(47.1%) had autonomy on their family planning decision 160 (40.7%) decided with husband jointly, 17(4.3%) were husband, and 31(7.9%) were health professionals.

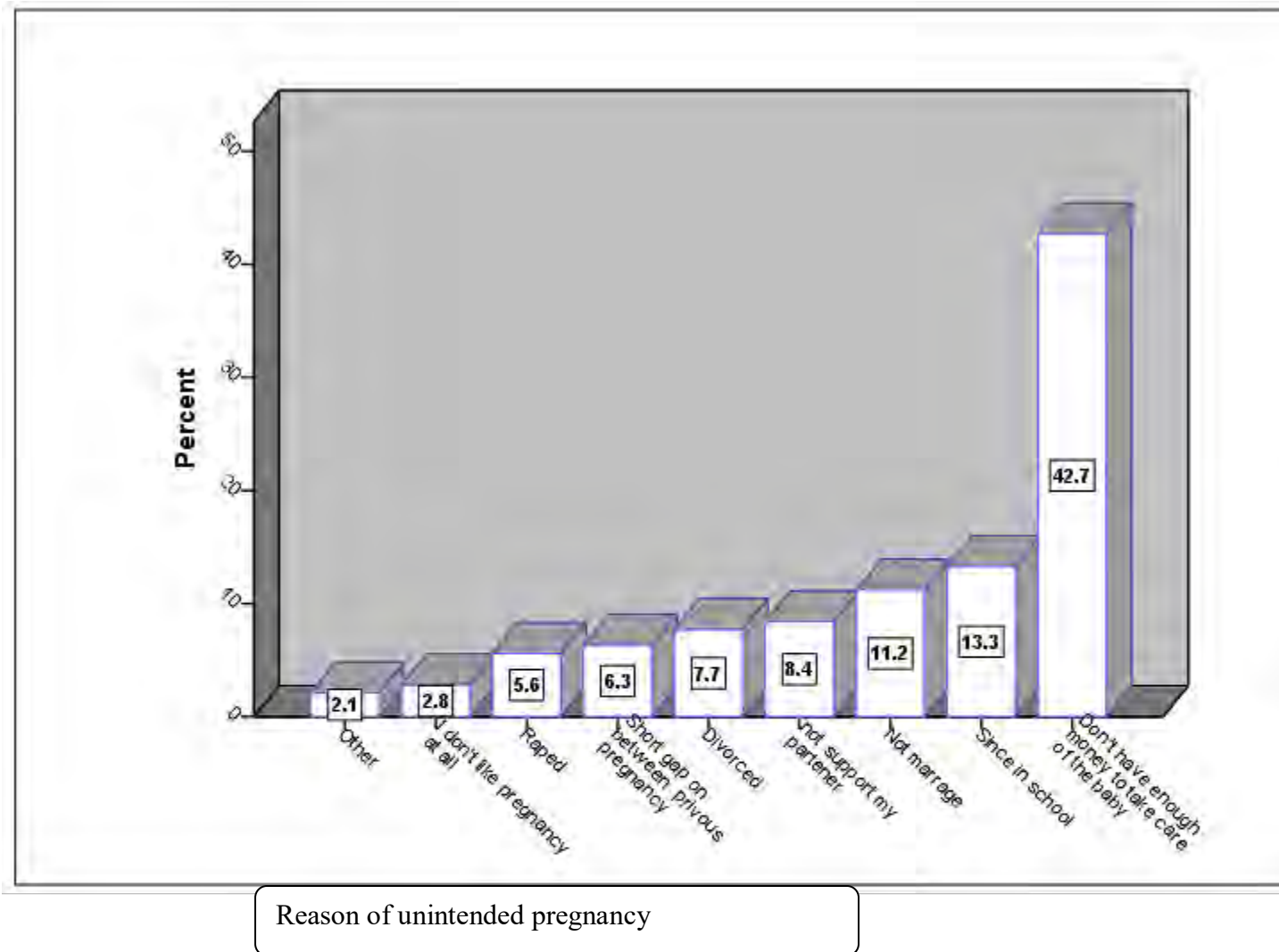
Regarding spousal communication, 261(66.4%) discussed their spousal on family planning methods. Concerning autonomy of income management, 182(46.3%) were women, 161(41%) were women and their husband jointly, while 50 (12.7%) husband had the autonomy.

(See Table 5, below).

Table 5. Reasons of unintended pregnancy among women's attending ANC clinic at selected public health facility in Addis Ababa, February to May, 2015

Character		No	%
Reason of unintended pregnancy (n=143)	Since in school	19	13.3
	Don't have enough money to take care of the baby	61	42.7
	Raped	8	5.6
	Divorced	11	7.7
	Not marriage	16	11.2
	Short gap b/n previous pregnancy	9	6.3
	No support my partner	12	8.4
	I don't like pregnancy at all	4	2.8
	Other	3	2.1
	Reason of not using contraceptive(n=143)	Too young to attend Fp	6
No awareness on contraceptive		9	6.3
Not available contraceptive methods		19	13.3
Religious & moral reason		8	5.6
Method failure		65	45.5
Fear of side effect		26	18.2
Forget it		7	4.9
Others		3	2.1
Autonomy of women health care (n=393)		You	153
	Partner/husband	11	2.8
	You & your husband Jointly	229	58.3
		160	40.7
Autonomy of women Fp used (n=393)	You	17	4.3
	Partner/husband	185	47.1
	You & your husband Jointly	31	7.9
	Health professionals	182	46.3
Autonomy of women In come management	You	50	12.7
	Partner/husband	161	41
	You & your husband Jointly	261	66.4
Spousal communication on family planning(n=393)	Yes	132	33.6
	No		

Figure.3.Distribution on reasons of unintended pregnancy among study participants in AddisAbaba,Ethiopia,2015



5.5 Bivariate and Multivariable regression analysis

On the binary logistic regression analysis, age of respondent, marital status, women is highest attained education, occupation, monthly income, History of unintended pregnancy, autonomy of women on income management, own health care, family planning decision, spousal communication on family planning, family planning information on television, hospital, awareness of family planning type pills, condom, IUCD, implant, calendar method and awareness of taken family planning according to instruction were associated with unintended pregnancy at $p < 0.2$ But others not significant (See Table 6, below)

Table 6. Results bivariate analysis for variables association with unintended pregnancy in selected public Health facilities, in Addis Ababa (n = 393).

Character		Unintended pregnancy		COR,95%CI	P-value
		Yes (N ₂)	No (N ₂)		
Age					
	15-19	17	6	11.806 (3.255-42.821)	0.000
	20-24	58	65	3.718 (1.425-9.698)	0.007
	25-29	46	106	1.808 (0.695-4.703)	0.225
	30-34	16	48	1.389 (0.483-3991)	0.542
	35-39	6	25	1.0	0.002
Marital status					
	Never married	22	8	1.0	
	Married	102	239	0.155(0.067,0.360)	0.000*
	Divorce	9	2	1.636(0.289,9.255)	0.577
	Widowed	10	1	3.636(0.399,33.120)	0.252
Women Highest education					
	Higher	27	60	1.0	
	Technical	16	14	0.360(0.149,0.872)	0.024*
	Secondary	76	154	0.914(0.322,2.598)	0.866
	primary	9	10	0.395(0.176,0.885)	0.024*
	Illiterate	15	12	0.720(0.222,2.338)	0.585
Occupation					
	Housewife	47	114	1.0	
	student	19	4	11.521(3.720,35.683)	0.000*
	Gov.employee	24	46	1.265(0.695,2.304)	0.441
	Private employee	34	53	1.556(0.899,2.693)	0.114
	Owen business	19	33	1.397(0.723,2.699)	0.320
Income per month					
	Less than 500birr	58	85	3.022(1.247,7.326)	0.014*
	5001-1000 birr	41	55	3.301(1.323,8.238)	0.010*
	1001-2000 birr	29	47	2.733(1.066,7.007)	0.036*
	20001-3000 birr	8	32	1.107(0.358,3.421)	0.860
	Above 3001birr	7	31	1.0	
History of UP (220)					
	Yes	40	57	2.018(1.141,3.569)	0.016*
	No	31	92		
Autonomy own health care (n=393)					
	You	70	83	1.0	
	Partner/husband	5	6	0.988(0.289,3.376)	0.985
	You & your husband Jointly	68	161	0.501(0.327,0.767)	0.001*
Autonomy of Awareness (n=393)					

	You	73	87		
	Partner/husband	13	4	3.873(1.211,12.393)	0.022*
	You & your husband	48	137	0.418(0.266,0.657)	0.000*
	Jointly				
	Health professionals	9	22	0.488(0.211,1.124)	0.092
Autonomy of Women Income management (n=393)	You	72	110	1.0	
	Partner/husband	30	20	2.292(1.210,4.342)	0.011*
	You & your husband	41	120	0.522(0.329,0.829)	0.006*
	Jointly				
spousal communication on family planning(n=393)	Yes	68	193	1.0	
	No	75	57	3.735(2.401,5.808)	0.000*
FP information on TV(n=388)	Yes	84	188	1.0	
	No	56	60	2.089(1.337,3.262)	0.001*
Fp information on Hospital(n=388)	Yes	58	143	1.0	
	No	82	105	1.925(1.265,2.931)	0.002*
Awareness of contraceptive pills(n=388)	Yes	114	233	1.0	
	No	26	15	3.543(1.806,6.950)	0.000*
Awareness of contraceptive Condom(n=388)	Yes	84	184	1.0	
	No	56	64	1.917(1.232,2.982)	0.004*
Awareness of contraceptive IUCD(n=388)	Yes	82	196	1.0	
	No	58	52	2.666(1.692,4.200)	0.000*
Awareness of contraceptive Implant(n=388)	Yes	89	201	1.0	
	No	51	47	2.451(1.534,3.914)	0.000*
Awareness of contraceptive Calendar(n=388)	Yes	47	116	1.0	
	No	93	132	1.739(1.131,2.674)	0.012*

COR-crude odds ratio;*p – value significant at level of P<0.2; Fp-family planning; UP-unintended pregnancy

In the multivariable model of logistic regression, variables which had significant level of $p < 0.2$ were entered in to the model. The Adjusted OR (AOR) findings showed. The odds of unintended pregnancy among educational level of technical and vocational were 8 times more likely than from those with diploma and above educational level (AOR= 7.9; 95% CI; 1.3,48.6) at $p < 0.026$.

Concerning occupation the odds of unintended pregnancy among own business maker which is about 4 times more likely to experience unintended pregnancy compared to house wives (AOR=3.85595%CI;1.068,13.914). at $p < 0.039$.

The odds of unintended pregnancy among no Spousal communication were 4 times more likely than Spousal communication (AOR=3.9; 95%CI; 1.6, 9.5) at $p < 0.003$.

The odds of unintended pregnancy among no awareness IUCD were almost 4 times more likely to be experience to unintended pregnancy than from those who have awareness about long term FP (IUCD) (AOR=4.4;95%CI;1,19) at $p < 0.044$.(see Table 7,below).

But marital status, monthly income, History of unintended pregnancy, autonomy of women on income management, own health care, family planning decision, family planning information on television, hospital, awareness of family planning type pills, condom, implant, calendar method and awareness of taken family planning according to instruction were no associated with unintended pregnancy on multivariable analysis at $p < 0.05$.

Table 7. Multiple logistic regressions analysis for factors associated with unintended pregnancy in selected public health center at Addis Ababa Ethiopia, February-may 2015.

Character		<u>Status of current</u>		COR,95%CI	AOR,95%CI	P-value
		<u>Pregnancy</u>	<u>Unintended intended</u>			
Women						
Highest education	Higher	27	60	1.0	1.0	
	Technical	16	14	0.360(0.149,0.872)	7.908[1.286,48.642]	0.026*
	Secondary	76	154	0.914(0.322,2.598)	1.798(0.507,6.74)	0.364
	primary	9	10	0.395(0.176,0.885)	0.953(0.104,8.374)	0.966
	Illiterate	15	12	0.720(0.222,2.338)	2.798(0.434,18.050)	0.279
Occupation	Housewife	47	114	1.0	1.0	
	student	14	3	11.521(3.720,35.683)	0.43(0.12,15.823)	0.650
	Gov.employee	24	46	1.265(0.695,2.304)	1.162(0.581,8.045)	0.250
	Private employee	34	53	1.556(0.899,2.693)	1.783(0.533,5.968)	0.348
	Own business	19	33	1.397(0.723,2.699)	3.855(1.068,13.914)	0.039*
Spousal Communication on family planning	Yes	68	193	1.0	1.0	
	No	75	57	3.735(2.401,5.808)	3.923(1.614,9.535)	0.003*
Awareness of Family planning IUCD(n=388)	Yes	82	196	1.0	1.0	
	No	58	52	2.666(1.692,4.200)	4.458(1.042,19.076)	0.044*

* p – value significant at level of P<0.05; COR-crude odds ratio; AOR-adjusted odds ratio

6. DISCUSSION

This study was conducted with the aim of assessing the magnitude and factors associated with unintended pregnancy among pregnant women attending ANC clinics. Despite the introduction of modern family planning and increase information and awareness on family planning; many studies including present study showed that unintended pregnancy is common problem in Ethiopia [8, 9, 13, 18, 19, 28, 30, 34].

In the multivariate analysis, Women education, Occupation, Spousal communication and awareness of contraceptive intra uterine device were found to have statistically significant on unintended pregnancy.

In present study the magnitude of unintended pregnancy was (36.4%.95% CI; 31%.8, 41.7%). The present finding is consistent with the facility based study done in Addis Ababa with prevalence of 38.7% [17]. But it is higher than the facility based study done in Bahir Dar 26% [18]. This may be due to a difference in socio-demographic characteristic and it was done only in one facility.

The present study is comparable with other community based study done in West Wollega with prevalence of 36.5% [19], In Hossana town in 2011 with the prevalence of unintended pregnancy was 34% [20]. study done in Harar twon Eastern Ethiopia 2001 proportion of unintended pregnancy were 33.3% [35]. In contrast the study conducted in Damote Gale Woreda in Southern Ethiopia in 2011 showed that the prevalence of unintended pregnancy among married women was 42.2% [30], which was much higher than the present study. This variation is due to the difference in socio-demographic characteristic, the availability of health care providers, availability health services, the study populations were only married women, the time gap between studies and the study design. Present study compare with national study, EDHS 2011 prevalence of unintended pregnancy was (29%) [8].But due to the figure not comparable.

Several studies showed that as the education level increases the rate of unintended pregnancy decrease and reduces the chance of discontinuity of contraceptive. [8, 19, 24, 28-30]. In the present study unintended pregnancy was associated among women with the educational level of technical and vocational which is about 8 times (AOR= 7.9; 95% CI; 1.3,48.6) more experience

than from those with diploma and above educational level. Even little advance in education improves women's decision making power leading to avoidance of unintended pregnancy [30]. Also technical and vocational may be group work related peer influence. And risk to unintended pregnancy.

Spousal communication has direct positive influence on unintended pregnancy. The odds of UP among no Spousal communication were 4 times more likely than Spousal communication (AOR=3.9; 95%CI; 1.6, 9.5). The present findings are similar to those from other studies in Senegal magnitude of unintended pregnancy among urban women and its main determinants [34]. Also supported by previous studies documented that women's perception that their husbands oppose FP is one of the dominant factors for discouraging contraceptive practice in a wide variety of settings. For instance, a study conducted in Damote Gale worda in south Ethiopia [30].

Regarding to their occupation the odds of unintended pregnancy among own business maker which is about 4 times more likely to experience unintended pregnancy compared to house wives (AOR=3.85595%CI;1.068,13.914). Similar to the study done by Guttmacher Institute in 2010 Which is the proportion of married women using modern contraceptives in the developing world as a whole greatly increased and reduced the experience of UP. Might also own business makers mostly may have high social interaction and mobile nature of their work, so they may face casual sex followed by unwanted pregnancy.

The odds of UP among inadequate awareness IUCD were almost 4 times more likely to be experience to UP than from those who have adequate awareness about long term FP (IUCD)(AOR=4.4;95%CI;1,19).

The present finding is in line with the study done in West Wollega (OR 3.76: 95% CI; 2.37,5.96) [19, 25].. Our result supports the hypothesis that if a woman has higher awareness of methods, she is more likely to be aware of the benefits of those method which in turn will motivate her to use the methods and less likely to have unintended pregnancy. The similar result was found in Ecuador as well [25, 36] .

May be it prevent short gaps between method changes, it used for long year. This is related to its role in providing women with awareness on family planning and increasing current use of contraceptive which may result in low percentage of unintended pregnancy [30]

7. STRENGTH AND LIMITATION OF THE SUTDY

STRENGTHS

Pre tested the questionnaire helps to done modifications more understandable. And use of the same gender data collectors, it is common in the community to openly discuss reproductive matters.

LIMITATIONS

Interviewer administrated questionnaire related social desirability bias might not be eliminated, under reporting first unwanted pregnancy, later reported as wanted if the pregnancy has continued. Current pregnant women attending antenatal clinic may not be representative to all pregnant women in Addis Ababa.

8. CONCLUSION

The present study revealed that over one in three of (36.4%) the pregnant women attending ANC in Addis Ababa had unintended pregnancy experience. This indicates unintended pregnancy is one of the major reproductive health problems in the study area.

The results of this study showed that many factor were interwoven to affect the occurrence of the event including education status of women, occupation, spousal communication and awareness on long term family planning which showed significant associated with unintended pregnancy.

The main reasons stated by study participants for unintended pregnancies were do not have enough money to take care of the baby, in school, not in a marriage, not supported by a partner and Divorced.

9. RECOMMENDATION

On the basis of the key findings discussed above, the following recommendation made to target group.

Policy and program level

Address the issue of unintended pregnancies by designing strategies in policy documents strategic plans, including Health Sector Development Program.

Health worker

Provide information and counseling about each contraceptive methods in order to make informed choice and correct method use, and strengthening family planning method among client in need of the service, and spousal communication through peer education.

Mass media

Reproductive health programs, promoting long term family planning methods by provision of effective IEC and counseling, and encourage men's participation with their partners in fertility issues and using contraception.

Women's

Openly discuss with their spouses on fertility issues and using contraception methods.

Researcher

The present study has shown the positive effect of spousal communication on unintended pregnancy. Further research with quantitative and qualitative study is needed to determine the exact nature and pattern of this relationship.

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I ANNEXES

I: English Version Questioners

Informed consent statement

Addis Ababa University, College of Health Sciences, School of Public Health

A Questionnaire for the Study of Determinants of unintended pregnancy among pregnant women attending ANC Addis Ababa, Ethiopia, 2014/2015

Good morning/afternoon, my name is _____ and I represent (name of the health facility). We are conducting a study within Addis Ababa with Addis Ababa University. We would appreciate your participation in this survey very much. I would like to ask you questions about some important issues in relation to unintended pregnancy. This information will help us to plan services that address the special needs of your community.

The information you provide on the basis of your experiences, will help to make policies and programs related unintended pregnancy. Whatever information you provide will be kept strictly confidential and will not be shown to other individuals. Participation in this survey is voluntary, If you prefer not to respond to all questions or to some of the questions it is your right and your decision will not affect in any way the services you are receiving at the hospital/clinic and you don't have to answer any question if you don't, and you can stop the interview at any time. However, we hope that you will actively participate in this survey since your views are important.

The interview will take only about 30 minutes of your time.

At this time, do you want to ask me anything about the survey?

May I begin the interview now? (Circle)

1 = Yes 2 = No (End the interview)

Name & Signature of interviewer: _____ Date: _____

Name & Signature of Supervisor: _____ Date: _____

Respondents ID numberHealth center.....

Socio-demographic characteristics of pregnant women attending ANC clinic				
code	Questions	Responses	skip	
101	How old are you? (Enter age in years)	-----		
102	What is the highest grade you completed?	<ol style="list-style-type: none"> 1. College diploma and above 2. Tech./voc. Certificate 3. Secondary 4. Elementary 5. Unable to read and write 		
103	What is the highest grade your husband completed?	<ol style="list-style-type: none"> 1. College diploma and above 2. Tech./voc. Certificate 3. Secondary 4. Elementary 5. Unable to read and write 		
104	Where do you live	<ol style="list-style-type: none"> 1. Urban 2. Rural → 	106	
105	If urban Q.No. 104.Duration of urban residence(Enter in years)	-----		
106	What is your Religion?	<ol style="list-style-type: none"> 1. Orthodox 2. Muslim 3. Catholics 4. Protestant 5. Other 		
107	What is your ethnicity?	<ol style="list-style-type: none"> 1. Oromo 2. Amhara 3. Tigrie 4. Guragie 5. Others 		
108	What is your occupation?	<ol style="list-style-type: none"> 1. Housewife 2. Student 3. Government employee 4. private employee 5. Others 		
109	How much is your monthly income?	<ol style="list-style-type: none"> 1. Less than 500 2. Birr.501-1000 Birr 3. 1001 -2000 Birr 4. 2001-3000 5. Above 3001 Birr 		

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Table 2. Reproductive History of Pregnant women attending ANC clinic				
Code	Questions	Responses	Skip	
201	Have you ever been pregnant before the current pregnancy	1. Yes 2. No	If No →	211
202	If YES Q.No. 203. How many times have you ever been pregnant including this one? (Enter number)	-----		
203	How many live children do you have that were born to you?(Enter number)	_____		
204	Have you had abortions before?	1.Yes 2.No	If No →	207
205	If YES Q No 204, how many times (Enter number)	1.One 2.Two 3.Three 4. Four and above		
206	Was the abortion induced or spontaneous?	1.Induced 2.Spontaneous 3. Other.....		
207	Have you had previously unintended pregnancy?	1 Yes 2.No 3 Not Sure	IF No →	211
208	If YES Q. No. 207 Answers from Q 208-210 When did the last unintended pregnancy?	1. Within last three years 2.Before three years ago		
209	How many times you have had previously unintended pregnancy within the last three years? (Enter number)	-----		
210	What did you do for the unintended pregnancy had?	1. Nothing the UP continue 2. Attempt to stop pregnancy but failed 3. Attempted to stop pregnancy & succeeded		
211	Right before you became pregnant with your current pregnancy, did you yourself want to have a child at any time in the future?	1.Yes 2.No 3. not sure	If your answer for Q211 IS No →	213
212	If YES Q. No 211 do you think that you become pregnant at the right time?	1.Yes 2.No		
213	If NO Q. No.211. Right before you became pregnant this time, did you think not to have any child /children/	1.Yes 2.No		

	in the future?			
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Table 3. Contraceptive history of Pregnant women attending ANC clinic				
Code	Questions	Responses	skip	
301	Have you ever heard about methods that a couple use to delay or avoid a pregnancy?	1.Yes 2.No IF NO →	305	
302	If yes where do you heard?	1.Radio 3 Friends 2. Television 4 Hospital 5. Other.....		
303	Which one do you know?(Circle all that you know)	1.pills 2.Condoms 3.Injectables 4.IUCD 5.Implants 6.Calendar 7.Emergency contraceptive 8. Other		
304	Have you ever used any type of contraceptives?	1.Yes 2.No If NO →	308	
305	Are you doing something or using any method to delay or avoid getting current pregnancy?	1.Yes 2.No If NO →	308	
306	If yes Q. 305 answer Q.No.306 and 207 Which among these methods have you used?	1. Pills 2. condoms 3. Injectables 4. IUCD 5. Implants 6. Natural method 7. Emergency contraceptives 8. Other (mention).....		
307	Have you been using appropriately the specified /used method accordingly to the instruction provided?	1. Yes 2. No 3. Not sure		
308	Is the current pregnancy planned?	1.Yes 2.No IF YES →	311	

309	If NO Q. No. 306 answer Q. No.307and 308 Why is it unintended?	1. Since in school 2. Don't have enough money to take care of the baby 3. Raped 4. Divorced 5. Not married 6. Short gap on between previous pregnancy 7. Not support my partner 8. I don't like pregnancy at all 9. Other (mention)		
310	Why are you not using contraceptives?	1. Too young to attend FP clinics 2. No awareness on contraceptives 3. Contraceptives not available 4. Religious or moral reasons 5. Method failure 6. Fear of side effect 7. Forget it 8. Other (mention)-----		
311	Do you Know how to prevent unintended pregnancy following unprotected sex?	1. Yes 2. No		
212	If YES Q No.311 what method can be used?	1. Emergency contraceptive pills 2. IUCD 3. other		
313	Who usually makes decisions about your health care?	1. you 2. your husband/partner 3. you and Your husband/partner jointly 4. other		
314	Who decides the contraception method you used? before current pregnancy	1. you 2. your husband/partner 3. you and Your husband/partner jointly 4. other		
315	Who usually decides how the money you earn will be used?	1. you 2. your husband/partner 3. other		
316	Do you have discussion about family planning with spouse used for your self	1. Yes 2. No		

II : Amharic Version Questioners

በአዲስ አበባ ዩኒቨርሲቲ ህክምና ፋኩሊቲ የህብረተሰብ ጤና ትምህርት ቤት

የሚስጥር አጠባበቅ ስምምነት መግለጫ ስለ አልታቀዱ እርግዝና ምክንያታቸውን ለማወቅ ለሚደረግ ጥናት ለጥናቱ

ተሳታፊዎች የተዘጋጅ ማብራሪያና የስምምነት ቅጽ

ጤና ይስጥልኝ

እኔ ----- እባላለሁ::

የአዲስ አበባ ዩኒቨርሲቲ እያካሄደ ባለው ሳይንሳዊ ጥናት ውስጥ የጥናት ቡድን አባል ነኝ ከአዲስ አበባ ዩኒቨርሲቲ ጋር በመሆን ስለአልታቀዱ እርግዝና ዋና ምክንያቶችን ለማወቅ በአዲስ አበባ ውስጥ በሚገኙ የመንግስት ጤና ጣብያዎች ላይ ጥናት እያካሄድን ነው::

በዚህ ጥናት እንዲሳተፍ በትህትና እጠይቃለሁ በመሆኑም ስለአልታቀዱ እርግዝና ጋር የሚያያዙ ጠቃሚ መረጃዎችን አጠይቆታለሁ::ይህ ከርስዎ ልምድ በመነሳት የሚሰጡን መረጃ ለወደፊት ስለአልታቀዱ እርግዝና ለእናቶችና ለህብረተሰቡ የሚሰጠውን የጤና አገልግሎት ለማሻሻልና የመፍትሄ መንገዶችን እንዲቀይሱ ይረዳል::

እርስዎ የሚሰጡን መረጃ ያለ እርስዎ ስምምነት ምንም አይነት መረጃ ለሌላ ሰው የማይተላለፍ /የማይሰጥ/ መሆኑን አረጋግጣለሁ::በጥናቱ ላይ የሚሳተፍት በፍላጎትዎ ሲሆን በሙሉም ሆነ በከፊል ያለመሳተፍ መብትዎ የተጠበቀ ነው:: ጥናቱ ላይ ያለመሳተፍ ወሳኔዎ የተከበረ ከመሆኑም በላይ የጤና አገልግሎት አጠቃቀምዎት ላይ ምንም ዓይነት ችግር አይከሰትም :: የማያውቁትን አለመመለስ ይቻላል እንዲሁም በማንኛውም ሰዓት መጠይቁን ማቆም ይችላሉ:: ነገር ግን እርስዎ የሚሰጡት ሃሳብ በጥናቱ ላይ በእጅጉ ጠቃሚ ነው::

ቃለመጠይቁ 20 ደቂቃዎች ያህል ይወስዳል::

እስካሁን በተነጋገርናቸው ጉዳዮች ላይ ያልገባዎትና ግልፅ ያለሆነ ነገር ካለ መጠየቅ ይችላሉ

በጥናቱ ላይ ለመሳተፍ ተስማምተዋል?

1 አዎ----- 2 አይ----- (ፈቃደኛ ካለሆኑ ወሳኔዎቻቸውን አክብረን በማመስገን ወደ ቀጣዩ ተጠያቂ)

የተስማሙ ከሆነ ቃለ መጠይቁን ቀጥይ

ቃለ መጠይቁን ያደረገኛል ስም-----ፊርማ-----ቀን-----

የተቆጣጣሪው ስም-----ፊርማ-----ቀን-----

የተጠያቂው ኮድ ቁጥር-----

የጤና ተቃውሞ ስም-----

ክፍል 1 ማህበራዊና ስነ ህዝባዊ መረጃዎች			
ኮድ	ጥያቄ	አማራጭ	ይለፍ
101	እድሜዎ ስንት ነው?	-----	
102	አሁን ያሉበት የጋብቻ ሁኔታ?	1. ያላገባች 2. በጋብቻ ላይ 3. ከባልዎ የተፍታች 4. አብሮ የሚኖር እጮኛ /ጓደኛ/ 5. ሌላ (ይገለጽ).....	
103	አግብተው ከሆነ በስንት ዓመትዎ አገቡ?	-----	
104	ከፍተኛው የትምህርት ደረጃዎት ምንድን ነው?	1. የኮሌጅ ዲፕሎማ ና በላይ 2. ቴክኒክና ሙያ ሰርትፍኬት 3. ሁለትኛ ደረጃ 4. አንደኛ ደረጃ 5 ማንበብና መጻፍ አልችልም	
105	የትዳር አጋርዎ/ባለቤትዎ ከፍተኛው የትምህርት ደረጃ ምን ያህል ነው?	1. የኮሌጅ ዲፕሎማ ና በላይ 2. ቴክኒክና ሙያ ሰርትፍኬት 3. ሁለትኛ ደረጃ 4. አንደኛ ደረጃ 5 ማንበብና መጻፍ አይችልም	
106	የሚኖሩት ቦታ የት ነው ?	1. ገጠር 2. ከተማ	መልስዎ ገጠር ከሆነ → 108
107	ከተማ ውስጥ መኖር ከጀመሩ ምን ያህል ጊዜ ሆነዎት?	-----	
108	ሃይማኖትዎ ምንድን ነው ?	1. ኦርቶዶክስ ክርስቲያን 2. እስላም 3. ካቶሊክ 4. ፐርቴስታንት 5. ሌላ(ይገለጽ).....	
109	ብሄረሰብዎ ምንድን ነው?	1. አሮሞ 2. አማራ 3. ትግሬ 4. ጉራጌ 5. ሌላ(ይገለጽ).....	
110	ስራዎት ምንድን ነው?	1. የቤት እመቤት 2. ተማሪ 3. የመንግስት ቅጥረኛ 4. የግል ቅጥረኛ 5. በራሴ ድርጅት ውስጥ /የግሌ ስራ 6. ሌላ(ይገለጽ).....	
111	በራስዎ የሚያገኙት ወራዊ ገቢ ሥንት ነው?	1. ከ500 ብር በታች 2. ከ501-1000 ብር 3. ከ1001-2000 ብር 4. ከ2001-3000 ብር 5. ከ 3001 ብር በላይ	

ክፍል 2. የተጠያቂዎ የስነ ተዋልዶ ታሪክ መጠይቅ			
201	ከዚህ እርግዝናዎ በፊት እርግዘው ያውቃሉ?	1. አዎ 2. አላውቅም መልስዎ አላውቅም ከሆነ	→ 211
202	አዎ ከሆነ ከአሁኑ እርግዝናዎ ጋር ስንት ጊዜ እርግዘው ያውቃሉ?	-----	
203	ከርስዎ ከሚዎለዱ ልጆች ውስጥ በሂዎት ያሉት ስንት ናቸው?		
204	ከዚህ በፊት ውርጃ ኖሮት ያውቃል?	1. አዎ 2. የለኝም መልስዎ የለኝም ከሆነ	→ 207
205	ለጥያቄ ቁ. 204 መልስ አዎ ከሆነ ስንት ጊዜ ውርጃ ነበርዎት?	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሦስት ጊዜ 4. አራትና ከዚያ በላይ	
206	ከዚህ በፊት የነበርዎት ውርጃዎች/ፀንሰ ማቀረጥ የተከናወነው በራሱ ነው ወይስ ፈልገው?	1. ፈልጎ ነው ያስወረድኩት 2. በራሱ ጊዜ ነው ያስወረደኝ	3. ሌላ ይገለጽ.....
207	ከዚህ እርግዝናዎ በፊት ሳያቅዱ እርግዘው ያውቃሉ?	1. አዎ 3. እርግጠኛ አይደለሁም	

		2.አይ መልስዎ አይ ከሆነ →	211
208	አዎ ከሆነ ከጥ.ቁ.209-211 ይመልሱ:- መቼ ነበር ሳያቅዱት ያረገዙት?	1.ባለፍት ሦስት ዓመታት ውስጥ 2. ከሦስት አመት በፊት	
209	ባለፍት ሦስት ዓመታት ውስጥ ስንት ያልታቀዱ እርግዝናዎች ኖሮት ያውቃል? (በቁጥር ይግለጹ)	-----	
210	ከዚህ በፊት ሳያቅዱ ለተከሰቱት እርግዝናዎች ምንድነው ያደረጉት?	1.ምንም ወለድኩት 3. እርግዝናውን አቋረጥኩት 2. እርግዝናውን ለማቋረጥ ሞክርኩ ግን አልተሳካም	
ኮድ	ጥያቄ	አማራጭ	ይለፍ
211	ልክ ይህ እርግዝና ከመከሰቱ በፊት ለመውለድ ያስቡ ነበር?	1.አዎ 2.አይ →	213
212	የአሁኑ እርግዝናዎ ልክ በፈለጉት ጊዜ ነው ያረገዙት?	1.አዎ 2.አይ	
213	መልስዎ አይ ከሆነ የአሁኑን እርግዝና ከማርገዝዎ በፊት ልጅ/ሌላ ልጅ ላለመውለድ አስበው ነበር?	1.አዎ 2.አይ	
ክፍል 3. የዘመናዊ የርግዝና መከላከያ ዘዴዎች ግንዛቤ/ዕውቀት መጠየቂያ			
301	ባለትዳሮች ላለማርገዝ ወይም የእርግዝና ጊዜ ለማዘግየት የሚጠቀሙበት የእርግዝና መከላከያ መንገዶች ስምተው ያውቃሉ?	1.አዎ 2.አይ መልስዎ አይ ከሆነ →	305
302	መልስዎ አዎ ከሆነ ከየት ስሙ ት	1.ከራዲዮ 3. ከገደኛዬ 2.ከቴሌቪዥን 4.ከሆስፒታል 5.ሌላ.....	
303	ከሚከተሉት መካከል የትኞችን የእርግዝና መከላከያ መንገዶች ያውቃሉ? (የሚያውቁትን ሁሉ ያክብቡ)	1. ኪኒን 5.በክንድ ቆዳ ስር የሚቀበር 2.ኮንዶም 6.የወር አበባ አቆጣጠር/ካላንደር/ 3.መርፌ 7. ድንገተኛ የእርግዝና መከላከያ 4. በማኅፀን ውስጥ የሚቀመጥ /ሉፕ 8.ሌላ (ይገለጽ) ...	
304	የእርግዝና መከላከያ ዘዴ ተጠቅመው ያውቃሉ?	1.አዎ 2. አይ መልስዎ አይ ከሆነ →	308
305	ይህን እርግዝና በሚያረግዙበት ጊዜ የእርግዝና መከላከያ ይጠቀሙ ነበር?	1.አዎ 2.አይ መልስዎ አይ ከሆነ →	308
306	ጥ. ቁ 305 መልስዎ አዎ ከሆነ ከጥ.ቁ 306 እና 307 ይመልሱ..... የትኛውን የእርግዝና መከላከያ ዘዴ ይጠቀሙ ነበር?	1.ኪኒን 5. በማኅፀን ውስጥ የሚቀመጥ /ሉፕ/ 2.ኮንዶም 6.የተፈጥሮ መከላከያ መንገድ 3. መርፌ 7.ድንገተኛ የእርግዝና መከላከያ 4. በክንድ በቆዳ ስር የሚቀበር 9. ሌላ (ይገለጽ).....	
307	የገለጹት መከላከያ መንገድ የተጠቀሙት በትክክለኛና የአጠቃቀም መመሪያው በሚለው መሰረት ነው?	4. አዎ 3. እርግጠኛ አይደለም 5. አይ	
308	ይህን እርግዝና አቅደው ነው የፀነሱት?	1. አዎ 2. አይ መልስዎ አዎ ከሆነ →	311
309	ጥ. ቁ 306 መልስዎ አይ ከሆነ ከ307-308 መልሱ.... ለምን ያልታቀዱ እርግዝና ሆነ?	1. በትምህርት ላይ ስላለሁ 2.ልጅ የማሳድግበት በቂ ገቢ ሥለ-ለለኝ 3. ተደፍሬ ስለተከሰተ 4.ከባለቤቴ ጋር ስለተለያየን 5. ትዳር ላይ አይደለም 6. የተቀራረበ እርግዝና ስለሆነ 7. የትዳር አጋሬ አይደግፈኝም 8. ባጠቃላይ ማርገዝ አልፈልግም	

		9.ሌላ (ይገለጽ).....	
310	ለምን የእርግዝና መከላከያ አልተጠቀሙም?	1.ገና ልጅ ስለሆነኩ 4.ሃይማኖትና ባህሌ ስለማይፈቅድ 2.ሥላ እርግዝና መከላከያ እውቀት ስለሌላኝ 3. የርግዝና መከላከያ ስላላገኝሁ 5. እየተጠቀምኩ ነው የተከሰተ 6.የጎንደር ጉዳት ፈርቼ 7.መውሰድ ስለረሳሁት 8. ሌላ ግለጽ).....	
311	በድንገት ወይም ያለመከላከያ ዘዴ በተፈጽመ ወሲባዊ ግንኙነት የሚፈጠር ያልታቀደ እርግዝና መከላከል ይቻላል	1.አዎ 2.አይ	
312	ለጥ.ቁ.311 መልስ አዎ ከሆነ ምን አይነት ዘዴ በመጠቀም መከላከል ይቻላል ?	1. ድንገተኛ የእርግዝና መከላከያ ኪረን 3. ሌላ (ይገለጽ).... 2. በማሳፀን ውስጥ የሚቀመጥ /ሉፕ/	
313	በጤናዎን ሁኔታ /እንክብካቤ/ ላይ ውሳኔ የሚሰጠው ማን ነው?	1.እኔ 3.እኔና ባለቤቴ 2. ባለቤቴ 4. ሌላ (ይገለጽ)	
314	ከዚህ እርግዝና በፊት የሚጠቀሙትን የእርግዝና መከላከያ ዘዴ የሚወስንልዎት ማን ነው?	1.እኔ 3. እኔና ባለቤቴ በጋራ በመሆን 2. ባለቤቴ 4. ሌላ (ይገለጽ)	
315	እርስዎ በሚያስገቡት (በሚያገኙት) ገንዘብ ላይ ውሳኔ የሚሰጠው ማን ነው?	1. እኔ 2. ባለቤቴ 3. ሌላ (ይገለጽ)	
316	ስለእርግዝና መከላከያ መንገዶች ከባለቤትዎ ጋር ተወያይተው ያውቃሉ?	1 አዎ 2. አይ	
አመሰግናለሁ			

Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or another university and that all sources of materials used for this thesis have been fully acknowledged.

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