ADDIS ABABA UNIVERSITY
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR POPULATION STUDIES

PREVALENCE AND ASSOCIATED FACTORS OF UNPLANNED PREGNANCY AMONG ANTENATAL CARE ATTENDING WOMEN AT SELECTED HEALTH CENTRES IN ADDIS ABABA, ETHIOPIA

BY
MERON GIZAW

A Thesis Submittedtothe Centrefor Population Studies, Collegeof Development Studiesof Addis Ababa Universityforthe Partial Fulfillment of Degreeof Mastersof Sciencein Population Studies (Reproductive Health)

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ADDIS ABABA, ETHIOPIA

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DECLARATION

I declare that this thesis is my original work and the work also complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

Name: Meron Gizaw

Signature: _____

Date: ____/____ /_____

Submission Approval

This thesis has been submitted for examination with my approval as a University advisor.

Name: Mr.ChalachewArega (M.Sc.)

Signature: _____

Date: _____ /____ /_____

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ABBREVIATIONS/ACRONYMS

AAU.....Addis Ababa University

ANC.....AnteNatal Care

CDC……..Communicable Diseases Control

CI.....Confidence Interval

CSA……..Central Statistical Agency

EDHS.....Ethiopian Demographic and Health Survey

EMOH…….....Ethiopian Ministry of Health

HSTP…… Health Sector Transformation Plan

HSTQ…….... Health Sector Transformation Quality

ICPD……..... International Conference on Population and Development

MCH.. ..... Maternal and Child Health

NQS……. National Quality Strategy

SSA…….. Sub-Saharan Africa

UNFPA…….United Nation Population Fund

WHO…….World Health Organization

ABSTRACT

Background: Unplanned pregnancy is a pregnancy which is reported to have either unwanted (the pregnancy occurred when no children, or no more children were desired) or mistimed (the pregnancy occurred earlier than desired). Itis a public health concern; globally it accounts 40% of all pregnancies. Every year, around 1.9 million Ethiopian women have an unplanned pregnancy.

Objective:Thus, the general objective of this study is to examine the prevalence of unplanned pregnancy and its associated factors in Addis Ababa, at selected health centres. In line with this, the study specifically tries to assess the prevalence of unplanned pregnancy, examine the association between unplanned pregnancy and the associated factors.

Methodology: An institutional based cross-sectionalstudywasused.To do so, 397 questionnaires were distributed to sampled populations after determining the sample size. The sample size was allocated proportionally to the selected health centres based on average number of pregnant following antenatal care. All pregnant women in antenatal care clinic who met inclusion criteria were recruited for the study. And the collection rate of the questionnaire was 100 percent. Data were analysed using SPSS version 25. Bivariate analysis and multivariate logistic regressions were carried out to determine the effect of independent factors on unplanned pregnancy.

Results: The prevalence of unplanned pregnancy is 28.7 % per total number of pregnant who follows antenatal care clinic of Addis Ababa city selected public health institutions. The major findings of this study showed that the magnitude of unplanned pregnancy was high. Marital status, age at first pregnancy, occupation, life time number of partners and ever use contraceptiveswas statistically associated with an unplanned pregnancy. There is seeming necessity to plan strategies of communication within couples or individuals on reproductive health especially on fertility and promote family planning methods.

Keywords; Unplanned pregnancy, reproductive behaviour, antenatal care

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Unplanned pregnancy is defined as a pregnancy that is either unwanted, or mistimed (CDC, 2021). It is a public health concern rendering the society to substantial financial and social costs. It affects fertility indicators by compromising quality of life and workforce efficiency(Alene, 2020).

Globally, 40% of all pregnancies are unplanned pregnancy, of which only 38% ended in birth and 62% in abortion (Goossens, 2016). Even if the prevalence of unplanned pregnancy decreasing, it affects both developed countries and developing countries, where 65 unplanned pregnancies per 1,000 women aged 15-44 (30%) and 45 per 1,000 women aged 15-44(16%) decline respectively happened from 2010 to 2014 (Bearak, 2018). Forty five percent of pregnancies in Europe were unplanned of which one fourth was continued (Goossens, 2016). In United States of America, around 6.1 million pregnancies occurred in every year 45% of those 2.8 million pregnancies were unplanned; 42% of these ended in abortion(Finer, 2016). Unplanned pregnancy remains high in Sub Saharan Africa (SSA). Nearly 14 million unplanned pregnancies are reported annually in Sub-Saharan Africa; the average prevalence of unplanned pregnancy in Sub-Saharan Africa was33.9%(Bain, 2020). According 2016 Ethiopian Demographic Health Survey prevalence of unplanned pregnancy in Ethiopia is 25% (CSA, 2017) .A systemic review and metanalysis study showed also prevalence of unplanned pregnancy is 28%(Alene, 2020).Factors leading to unplanned pregnancy includes; non- use of contraceptive methods, failure of contraceptive methods, incorrect use of contraceptive methods, cessation of contraceptive use and lack of awareness regarding family planning (Moges, 2018). Many studies regarding factors associated with unplanned pregnancy showed that; age, education level, occupation, marital status and ever use family planning, unmarried women, unemployed, wealth status, fertility preference, religion and area of residence were the variables associated with the magnitude of unplanned pregnancy (Mulat, 2017)(Moges, 2018)(Palamuleni, 2014).

Unplanned pregnancy puts both maternal and new-born's health at risk; maternal complications include unsafe abortion, eclampsia/preeclampsia, post-partum hemorrhage and

even death (Alene, 2020). New-born are also prone to fatal complications due to the fact that the women having unplanned pregnancies don't usually show up for antenatal care and are less likely to have skilled birth attendant on their side during delivery (Palamuleni, 2014).

Unsafe abortion following unplanned pregnancy is a common cause of maternal mortality;unplanned pregnancies account for the 17.5 million unsafe abortions and 68,000 maternal deaths occurring worldwide annually (Darega, 2015). Unsafe abortion secondary to unplanned pregnancy is a common cause of maternal mortality in Ethiopia. It contributes to one fifth of maternal mortality in the country (Darega, 2015).

A targeted strategy to reduce unplanned pregnancy is essential with respect to reproductive health mainly by decreasing the frequency of complications related to pregnancy and childbearing in a woman's life time (Moges, 2018) . Empowering women, avoiding violence against women and allowing women to control their own fertility are the fundamentals of population and development related program as International Conference onPopulation and Development (ICPD)declared (UNFPA, 1998).

A decline in desired family size over time leads to a rise in the proportion of women who are at risk of having unplanned pregnancies and its consequences (Bongaarts, 1997).The national reproductive health strategy sets specific targets for the provision of family planning services, where it has focused on addressing reduction of unplanned pregnancies and enabling individuals to achieve their desired family size(EMOH, 2006).

Ethiopia blueprinted a health sector transformation in quality (HSTQ) document in 2016 by adapting the WHO standards for improving maternal and newborn health care in health facilities to expedite implementation of national quality strategy (NQS)(EMOH, 2016). The NQS was drafted in 2015 in accordance with the health sector transformation plan (HSTP). As highlighted in the 2015-16 health sector transformation plan (HSTP), maternal and newborn health are priorities for the Government of Ethiopia (EMOH, 2015).

1.2 Statement of the Problem

Unplanned pregnancy is a global health burden that affects all section of the population with significant adverse consequences for women, their families, and society particularly mothers and their children(Moges, 2018). Many Sub-Saharan women in Africa are still affected by complication of unsafe abortion secondary to unplanned pregnancy(Mulat, 2017).

Unplanned pregnancy can lead to many health complications. Delayed or no prenatal care, poor maternal mental health, reduced quality of mother/child relationship, physical abuse and violence against women, poor developmental outcomes for children, increased risk of low birth weight as well as increased morbidity and mortality, unsafe abortion are only few to mention (Goossens, 2016)(Yazdkhasti, 2015). Unplanned pregnancy may also lead women to long term health problems like infertility and maternal death which is worsen in developing countries(Moges, 2018).

Maternal mortality is still high in Ethiopia, which is estimated to be 412 per 100,000 live births (CSA, 2017).Several studies showed that unsafe abortion, a common complication of unplanned pregnancy, is the major cause of maternal mortality in Ethiopia, accounting for nearly 1/5th of maternal mortality in the country (Alene, 2020).

In our country, each year around 1.9 million Ethiopian women have unplanned pregnancy from the total of 4.93 million pregnancies; of which, 620,296 faced induced abortions and 103,648 women had developed abortion related complications(Bekele, 2021).This indicates, there is high rate of unplanned pregnancy in the country.

Likewise, the situation in Addis Ababa with respect to the prevalence of unplanned pregnancy isn't different from the national level. A study done in Addis Ababa at selected health centers showed that 37.8% of the pregnancies are unplanned(Mulatu, 2017). A systemic review and meta-analysis also revealed that Addis Ababa had the 3rd highest prevalence of unplanned pregnancy (28%) following Oromia (33.8%) and SNNPR (30.6%) regions(Alene, 2020).

Refusal to use contraceptives, failure of contraceptive methodsand incorrect use of contraceptive methods, cessation of contraceptive use and lack of awareness regarding family planning are common risk factors predisposing a woman to unplanned pregnancy. Besides, studies in the developing countries have shown that women's age, educational status and number of children are major determinants of unplanned pregnancy (Moges, 2018).

Literatures with respect to the prevalence and determinants of unplanned pregnancy in health center level are limited in urban areas despite the associated adverse social and health outcomes. Therefore, this study assessed the prevalence and factors associated with unplanned pregnancy among pregnant women attending ANC follow up in some selected health centers in Addis Ababa, Ethiopia.

1.3 Objectives of the Study

The general objective of this study is to examine the prevalence of unplanned pregnancy and its associated factorsat selected health centres in Addis Ababa, Ethiopia. In line with this general objective, the study aimed to address the following specific objectives;

- Assess the prevalence of unplanned pregnancy in the study area;
- To identify associated factorsof unplannedpregnancy in Addis Ababa, at selected health centers.

1.4 Research Questions

Congruent upon the stated objectives above, the study tries to answer the following research questions.

- What is the prevalence of unplanned pregnancy among pregnant women attending antenatal care in the study area?
- What are the associated factors of unplanned pregnancy among women attending antenatal care in Addis Ababa, Ethiopia?

1.5 Significance of the Study

The implication of this research is that the findings could possibly enhance useful evidence to solve the extent of unplanned pregnancy in the study area. As unplanned pregnancy greatly affects women's and their children's quality of life and result in socio and economic problems; knowledge of risk factors of unplanned pregnancy is an imperative to reduce its prevalence and related consequences.

Estimating the prevalence of unplanned pregnancy and identifying associated risk factors are very important to the design of effective preventive interventions.

The result of the study provides preliminary information for future study or intervention. The study will also provide baseline information for policymakers as well as development planners in the area of health in particular in development in general.

1.6 Organization of the Study

This study was organized into five major chapters. The first chapter deals with an introduction that includes the background of the study, statement of the problem, research

objectives, research questions, significance of the study, scope, and limitations of the study. Chapter two presents a review of literature. In chapter three, survey design, data sets and methods of analysis are treated. Chapter four embodies the results of the analysis and the discussion. The final chapterdiscusses aboutthe conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Literature

The Theory of Gender and Power explains many sources of unequal relationship may expose to reproductive coercion. Inequalities in power, economic status, and age differences predict unprotected sex which result unplanned pregnancy. Reproductive coercion by romantic partners is one of major causes of unplanned pregnancies (Rosenbaum, 2016).

Connell's Theory of Gender and Power identifies basic factors that predict unprotected sex and unplanned pregnancy of which; sexual division of labor and power, physical abuse, emotional abuse and cohabitation are the main reasons for unplanned pregnancy (Connell, 1987).

According to Mercer theory on maternal self-confidence; many factors affects self-efficacy and self-confidence of mothers including age, level of education, support from spouse, family members which collectively exposes women for unplanned pregnancy(Fasanghari, 2019).

2.2 Prevalence of Unplanned Pregnancy

A study conductedin the United States of America, Asia, Africa and Europe revealed that, of the 213 million pregnancies that occurred worldwide, the rate of unplanned pregnancy was 53 per 1,000 women aged 15–44 of which 22–39 percent of unplanned pregnancies ended in abortion in African countries, 44–75 percentin European countries, and 39–77 percent Asian countries and 39 percent in North America(Sedgh, 2014).

In USA**,** 45% of the pregnancies were unplanned; 20% of these ended in abortion.The unplanned pregnancy rate was highest among women who were aged between 18-24 years, unmarried, and low-income(Rocca, 2019).

A cross-sectional community-based cohort study conducted in Japan showed that; of the 932 participants, 382 (41%) pregnancies were reported as unplanned.A cross-sectional study among 517 women from six hospitals in Flanders, Belgium also reported that; the majority (83%) of the pregnancies ending in birth were planned, 15% were ambivalent, and 2% unplanned(Goossens, 2016).

A retrospective analysis from Demographic and Health Surveys from 36 low- and middle-income countries revealed that; 5.5 % to 60.0 % were unplanned from all pregnancies. In Central Asian and African countries, over 80% of women with a current unplannedpregnancy had not used any contraceptives in the previous five years(Bellizzi, 2020).

In Malawi, a nationally representative cross sectional household survey of women of reproductive ages (15–49 years) showed that only 46.7% of the study population indicated that their current pregnancy was planned. Of the remaining 53.3% who indicated that their current pregnancy was not planned, 47.3% mistimed and 52.7% was unplanned at all (Palamuleni ME, 2014).

In Kenya, a study was conducted among reproductive age group women in four communities reported that 24% of all the women had unplanned pregnancy (Ikamari, 2013).

The study aimed to assess the prevalence and associated factors of unplanned pregnancy in Ethiopia using EDHS 2016 data. According to the findings of this study, the estimated prevalence of unplanned pregnancy in Ethiopia was 26.6% (Teshale, 2020), and other twenty-eight studies were assessed and the overall prevalence of unplanned pregnancy in Ethiopia was found to be 28% (Alene, 2020). A facility based cross-sectional study conducted at Selected Health Facilities in Addis Ababa prevalence of unplanned pregnancy is 37.8% (Mulatu, 2017).

An institution based cross-sectional study conducted at FelegeHiwot Referral Hospital, Bahir Dar City, and Northwest Ethiopia showed that the magnitude of unplanned pregnancy was 26.0 % (13.7% mistimed and 12.3% were unwanted) (Gebreamlak, 2014).

Another institutional-based cross-sectional study was done in Addis Zemen hospital among 398 pregnant womendisclosed that the prevalence of unplanned pregnancy was 26.1% (Goshu, 2019).

A facility-based cross-sectional study design conducted among 379 pregnant women visiting antenatal care at Suhul General Hospital, Shire, and Northern Ethiopia showed that the magnitude of unplanned pregnancy among pregnant women was 20.6% (Moges, 2018).

Another facility-based cross-sectional study done among 362 randomly selected pregnant women attending antenatal care clinic at Bale Zone Hospitals, Oromiya Region, showed that 135(37.3%) were unplanned pregnancy 97(26.9%) mistimed(Darega, 2015).

A community-based cross-sectional study conducted in Hosanna town; Southern Ethiopia revealed that 34% of all pregnancies were unplanned(Hamdela, 2012).

2.3 Determinants of Unplanned Pregnancy

2.3.1 Demographic Factors

Age of women

Literatures have revealed that the age of the women in strongly associated with unplanned pregnancy.In Pakistan, a hospital based cross sectional study in tertiary care hospitals was done and showed that young women (age<20 years) have higher chance of having unplanned pregnancy than older women (Habib, 2017). Similar study in Mwanza, Tanzania was conducted among 13,814 young adult women showed that as the age of women increases the occurrence of unplanned pregnancy also increase(Calvert, 2013).

A study conducted in Cape Town, South Africarevealed that younger women of age less than 24 years (25%) were more likely to have unplanned pregnancy than older women (Iyun, 2018). In Ethiopia, a study was done at Suhul General Hospital showed that women with the age above forty years were more likely to have unplanned pregnancy than younger women (15-19 Years) (Moges, 2018).

Another similar study done in Hawasa City Public Hospitals, southern Ethiopia showed that the odds of unplanned pregnancy was higher among the age group of 15-19 compared to the age categories greater than 40 years(Mulat, 2017)..

Marital Status

A hospital-based case-referent study was undertaken in Harare, Zimbabwe to estimate the proportion of unplanned pregnancy among mothers who delivered at the referral hospital and showed that single (OR = 7.8), or divorced/separated/widowed (OR = 5.1) were more at risk of unplanned pregnancy (Mbizvo, 1997). The predicators of unplanned pregnancy in Eastern region at bivariate level were marital status (p=0.000) which had a significant relationship with unplanned pregnancy (Kyemba, 2019).

Number of Living Children

Having many living children of couples increases their interest to space or limit fertility. In Japan, a cross-sectional community-based cohort study was done and showed that mothers

having three or more pregnancies (32.1 %) were found to encounter more unplanned pregnancy than mothers with one or two pregnancies (Huynh, 2011–2016).

In Belgium, a cross-sectional study was conducted among 517 women from six hospitals in Flanders showed that multigravida women were significantly associated with unplanned pregnancy (Goossens, 2016). Similar study in South Africa also revealed that; high parity was strongly associated with unplanned pregnancy of women (Iyun, 2018).

In Ethiopia, a cross sectional study was done eastern part and revealed that mothers with high parity have more likely to have unplanned pregnancy than their counter parts (Mohammed, 2016). Similarly an institution based cross-sectional study was conducted in Maichew town; northern Ethiopia showed that high odds of unplanned pregnancy were observed among women who had three or four children than women with less number of children (Kassahun, 2019).

2.3.2 Socio Economic Factors

Education

Educational status of women is directly proportional to their fertility. Educated women have more interest of using modern contraceptives and have more limited children than their counterparts which are supported by different studies. In Pakistan, a hospital based cross sectional study in tertiary care hospitals showed that have no knowledge of family planning methods and/or never use of contraceptive methods and became pregnant in less than 12 months (birth interval less than 12 months) were prone to unplanned pregnancy (Habib, 2017).

In Belgium, less educated women (39 %) are more likely to have unplanned pregnancy than educated ones (Goossens, 2016). In Pakistan, a hospital based cross sectional study in tertiary care hospitals was done and showed illiterate mothers were prone to unplanned pregnancy than literates (Habib, 2017).

In sub-Saharan African countries; a multi-country analysis of demographic and health surveys was conducted on 29 countries and showed that; Women with primary and secondary levels of education had less odds of having unplanned pregnancies, compared to those women with no education 39.6 %(Ameyaw, 2019).

In Ethiopia, women with educational level of diploma and above have less likely to haveunplanned pregnancy compared to illiterate women (14.1%) (Mulat, 2017). Similarly a cross-sectional study was done in Wolaita, South Ethiopia showed that husband with at least some college or university education was associated with a decreased odds ratio for unplanned pregnancy than uneducated husband (Seifu, 2020).

Occupation

Occupation has a multidirectional advantage on women's life. Employment increases women level of interaction and knowledge about of contraceptive.In Ethiopia, an institutional based cross-sectional study was done among 362 mothers attending ANC in Hawasa city public hospitals showed that women working in different types of work are more likely to have unplanned pregnancy compared to not working women (Mulat, 2017). Another facilitybased cross-sectional study conducted among 379 pregnant women visiting antenatal care at Suhul General Hospital, Shire, and Northern Ethiopia showed that unemployed women (45 %) had more likely to have an unplanned pregnancy than their complement (Moges, 2018).

2.3.3 Reproductive Characteristics

Number of Sexual Partners

A study done in Tanzania revealed that increasing number of sexual partners had aslightly less significant relationship with unplanned pregnancy (AOR=2.39, CI 1.89–3.04) than their counter parts (Calvert, 2013).

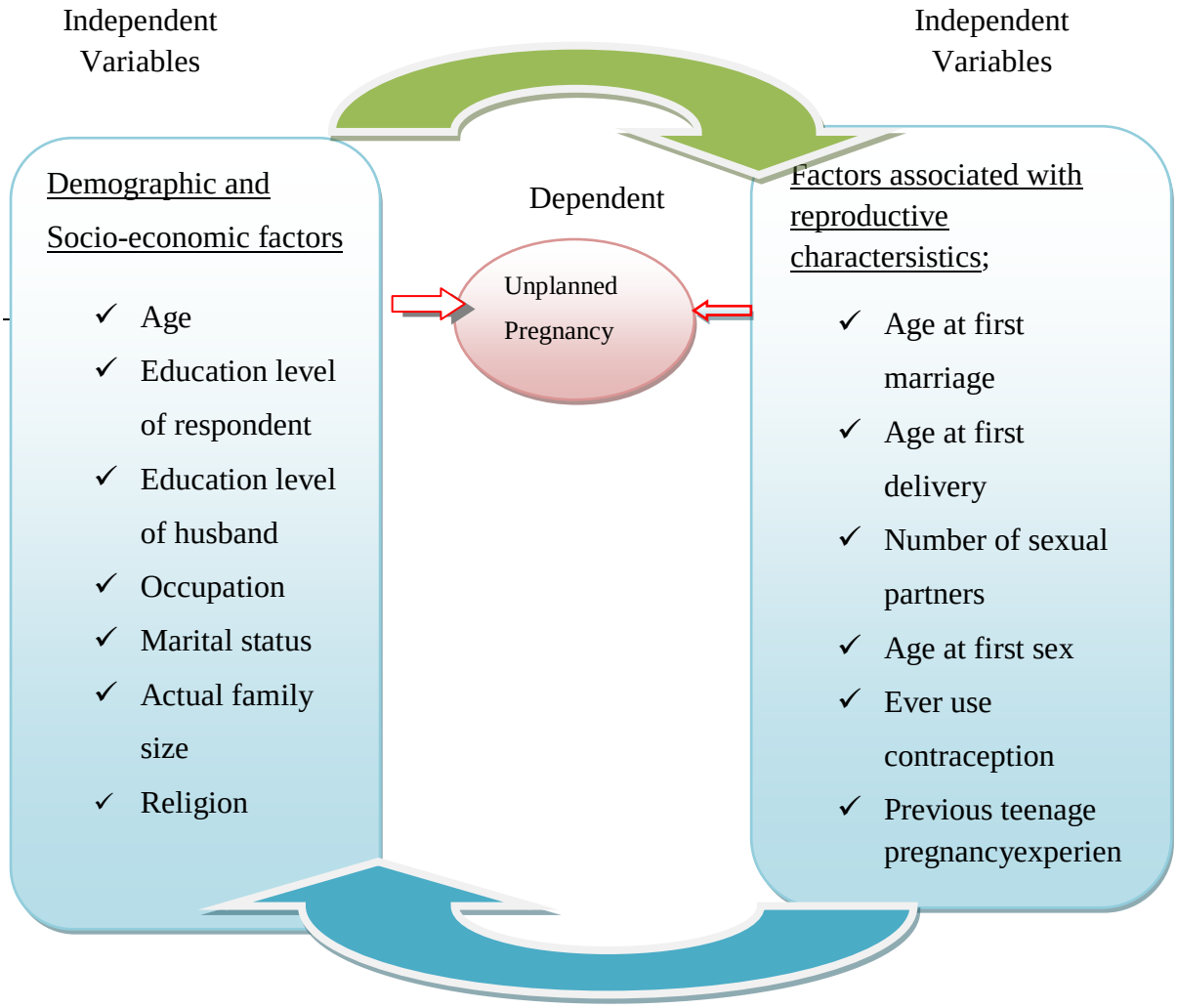
Age at First Pregnancy

Study in Gondar, North West Ethiopia showed that respondents whose age at first pregnancy was below 18 years old were more likely to have unintended pregnancy than those women whose age at first pregnancy was ≥18 years AOR [95% 3.025 (1.234, 6.056)](Yenealem, 2019) , Study in General Hospital in Dodoma, showedthat the likelihood of unplanned pregnancies was higher in younger-aged women 15 to 20 years (67.3%) and decreased with increasing age(Mrosso, 2021).

2.4 Conceptual Framework

The following is the conceptual framework of unplanned pregnancy among antenatal care attending women at selected public health centers in Addis Ababa, Ethiopia: a Facility - based Cross Sectional Study. As designated in the figure:1 below, the demographic and socio-economicfactors on one hand reproductive behavioron the other hand are supposed to affect the prevalence of unplanned pregnancyin some selected health centers of Addis Ababa.

Figure 1: Conceptual framework for the prevalence of unplanned pregnancy and associated factors.



Source: Developed by the author based on literature

CHAPTER THREE

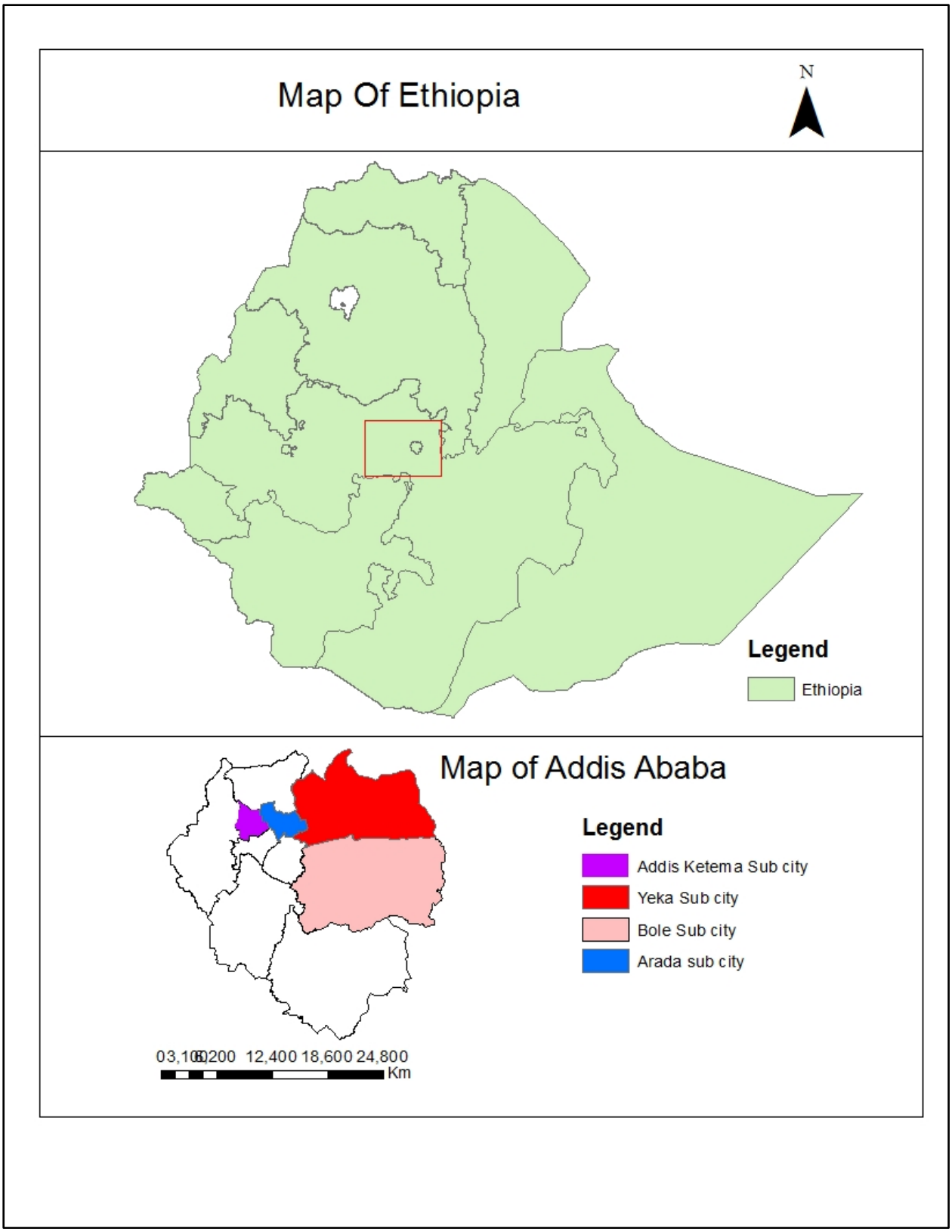
METHODOLOGY

3.1 StudyArea Description

The study was conducted in eight selected public health centers in Bole, Arada, Addis Ketema and Yeka sub-cities of Addis Ababa, Ethiopia.Addis Ababa, the capital city of Ethiopia, the seat of many continental and international organizations. Administratively is organized into ten sub-cities and one hundred sixteen districts. This study was conducted in selected public health centers of Bole, Addis Ketema, Arada and Yeka sub-cities.

According to the 2015/16 Ethiopian Household Consumption-Expenditure Survey, the estimated total population of Addis Ababa was 3,243,514. Among these Addis Ketema, Bole, Arada and Yeka sub-cities were 218,187, 446,825, 212,012 and 497,624 of these around 80,750, 163,620, 78,462 and 179,562 are women in the reproductive age group dwelling in these sub-cities, respectively (CSA, 2018).

Figure 2: Map of the study area



Source; Ethio_GIS

3.2 Research Design

In this study, an institution-based cross-sectional study design was carried out from May-June/2021.

3.3 Research Approach

Quantitative data-collection methods were employed to conduct the study. A well-structured questionnaire was used.

3.4 Study Population, Sampling Technique and Sample Size

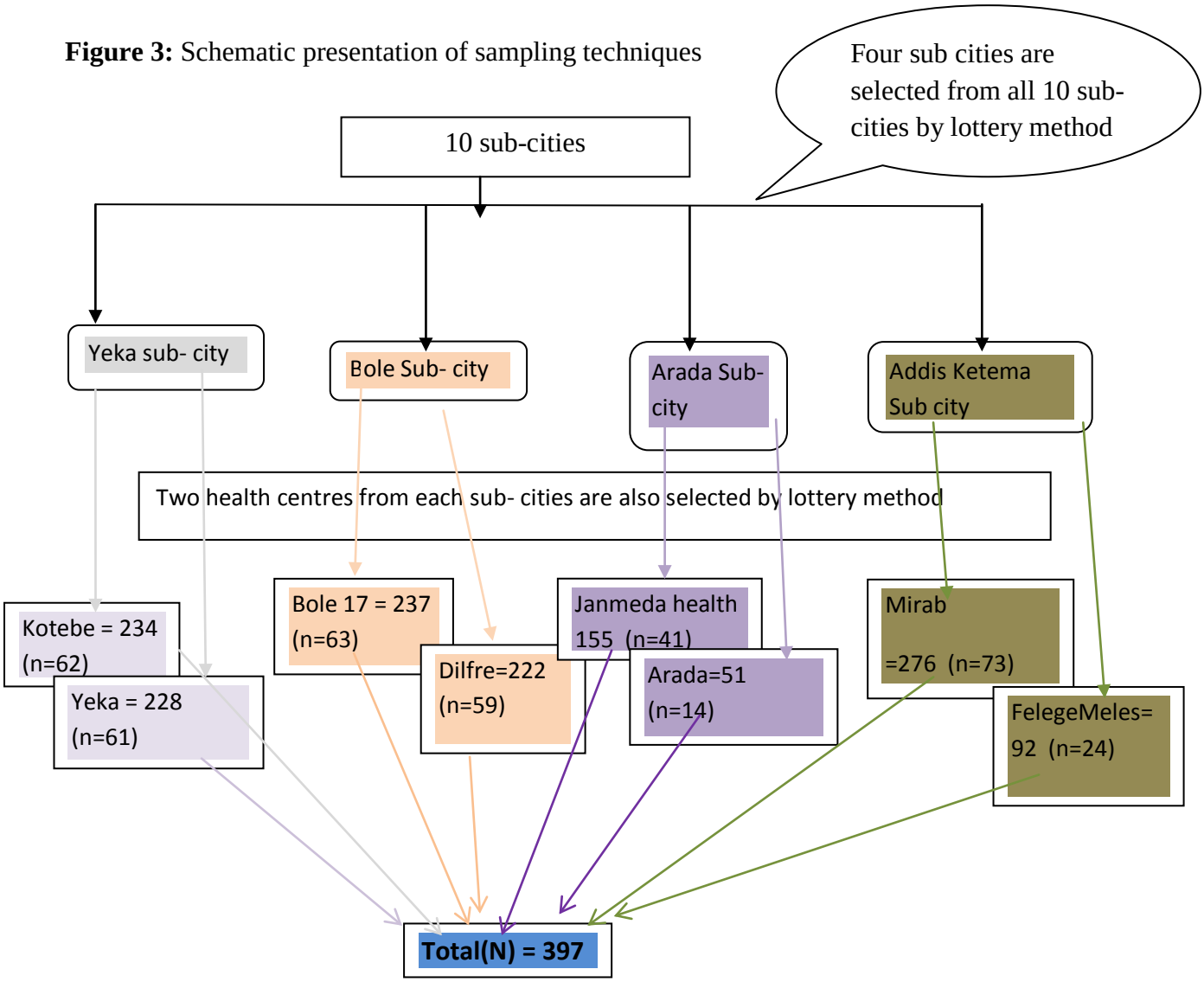
3.4.1 Study population

The target population was all pregnant women attending ANC services in selected public health centers in Addis Ketema, Bole, Yeka and Arada sub-cities, Addis Ababa, Ethiopia. According to data obtained from Addis Ababa city administration Health Bureau, Addis Ketema sub-city has 12, Bole sub-city has 10, Yeka sub-city has 15 and Arada sub-city has 9 public health institutions. Among these FelegeMeles and Mirab health centers from Addis Ketema, Bole 17 and Dilfre health centers from Bole sub-city, Kotebe and Yeka health centers from Yeka sub-city and Janmeda and Arada health centers from Arada sub-city, were selected for this study.

3.4.2 Sampling technique

A multi-stage sampling technique was applied to select the study subjects. First, four sub-cities were selected from whole Addis Ababa by lottery method. Then eight health centers; two from each cluster were selected randomly and finally number of pregnant women attending antenatal care at these selected public health centers was selected for the interview. Then the study subjects were taken proportionally from selected health centers based on average number of mothers following ANC by using systematic random sampling method.

Figure 3: Schematic presentation of sampling techniques



3.4.2.1 Inclusion criteria

Pregnant women who are attending ANC at selected public health centers of Addis Ababa city those are volunteer and available during the study period in catchment area.

3.4.2.2 Exclusion criteria

Pregnant women who refuse to be interviewed and who are mentally ill were excluded for the proposed study.

3.4.3 Sample size determination

The sample size (n) for the proposed study was calculated using the following formula single population proportion formula.

$$n = (z\alpha/2)\ 2p\ (1-p)\ /d^2$$

$= (z_{\alpha/2})^2\ p\ (1\text{-}p)\ /d^2$

$$= \frac{(0.378)(1-0.378)(1.96)^2}{0.05^2}$$

$$= \frac{(0.378)(0.622)(1.96)^2}{0.05^2}$$

$$= \frac{0.9032}{0.0025} = 361 + \text{Non- response rate } (10\%)$$

$$= 361+36.1 = 397$$

The total sample size with assumption of: 95% confidence interval (Z=1.96), d = 5% margin of error, and P= 0.378 (P stands for the prevalence of important factors to be studied; i.e. Proportion of women with unplanned pregnancy for Addis Ababa (Mulatu, 2017)and allowance of 10% for the non-response rate. Therefore, n= p (1- p) z ^{2}/d^2+ 10% (expected non response rate) n= 1.96 (0.378*0.622) 2 / (0.05)2+10% = 361*+36.1% = 397

3.5 Study Variables

3.5.1 Dependent variable

Unplanned pregnancy (pregnancy intension)

3.5.2 Independent variables

Socio-demographic and economic factors

- Age of women,
- Occupation,
- Level of education,
- Marital status
- Actual family size
- Monthly income of family

Reproductivecharacteristics

- Age at first sex
- Age at first marriage
- Age at first pregnancy
- Multiple sexual partners
- Use of contraceptives
- Previous teenage pregnancy experience

3.6 Data Source and Data Collection Techniques

Primary sources of data collection were employed in this study. Primary data is collected from the respondents through interview based on semi-structured questionnaire.Pre-test of the questionnaire was carried out in two health centers that were not being selected for the final study. The pre-test helps to ensure its accuracy and flexibility of the questionnaire and then modified accordingly. Pre-test was done with 40 respondents. Based on this, questions were well defined and clearly understood.

The questionnaire was divided into three sections: demographic, socio-economic and reproductive behaviordata were the information gathered for this study. The data collectors and supervisors were given intensive training on the objectives and methods of the study; and contents of the questionnaire before the start of the pilot and the main survey. All supervisors and data collectors were midwives, selected from ANC staff. Well-structured questionnaire was used for data collection. The questionnaire was translated from English to Amharic and back to English as well to reconfirm consistency.

3.7 Data Analysis

The data gathered through well-structured questionnaire wasanalyzed using SPSS version 25. It was employed to facilitate the description and analysis of the data. The specific methods of data analyses entail cross tabulations and computation of descriptivestatistics.The chi- square test of independence will employed to identify possible associations between the dependent variable and a set of explanatory variables. Binary logistic regression model was employed to examine and establish relationships between the dependent variable and a set of predictor variables. It is a form of regression employed when the dependent variable is binary and the independent variables are of any type. Logistic regression will be used to predict a dependent variable based on independent variables, to determine the amount of variation explained by the independent variables, and to measurethe relative importance of each independent

variable. Before running the multivariate logistics regression analysis, the existence of multicollinearity is tested among the variables using correlational analysis.The variables with P< 0.2 in bivariate analysis were included in multivariate analysis(Kassie, 2015) . In the multivariate analysis using binarylogistic regressions adjusted OR with 95%, CI was calculated. The variable P<0.05 was interpreted as a significant factor for unplanned pregnancy.

3.8 Ethical Consideration

Ethical clearance was obtained from Institutional Review Board (IRB), Addis Ababa UniversityCollege of Development Studies,Centre for Population Studies and Addis Ababa public health research and emergency directorate. Formal letter or clearances were sent to selected health centersin Addis Ababa to get consent for data collection.

During data collection, the respondents were coded to keep confidentiality. Each checklist was also coded. The obtained result were presented anonymously, and the responses of the respondents were not be traced back to make an individual association.

Finally, the results of the study will be presented and submitted to Addis Ababa University department of population study. The finding will be also disseminated to Addis Ababa health bureau and health centers of study area. Publication in national and international journal will also be attempted.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Results

The study assessed the prevalence and factors associated with unplanned pregnancy among pregnant attending ANC follow up in selected public health centers in Addis Ababa. Institution based cross-sectional study was conducted. Of 397 eligible pregnant Women for an interview, all completed the questionnaire while attending public health institutions, resulting in a response rate of 100%.

The background characteristic of respondents is described in sections 4.1.1. Because these characteristics are often closely associated with unplanned pregnancy, there is convincing evidence that respondents who belong to a certain socio-economic group and who possess certain demographic characteristics are more likely to have unplanned pregnancy than their counterparts. Hence, it is indispensable to discuss the background characteristics of the sample population in this study before any in-depth analysis is to be done. In section 4.1.2 the association of unplanned pregnancy with selected demographic, socio-economic and factors related to reproductive characteristics is tested by using the Pearson's chi-square test of independence. In section 4.1.3 factors influencing the unplanned pregnancy is assessed by using the binary logistic regression model.

4.1.1 Descriptive statistics

Description of the variables used in the study and their descriptive statistics are presentedin table 1. The mean age of women in the sample who were attending ANC follow up is 28.48 years with minimum age of 18 years and maximum age of 44 years. The mean age at first sex is 22.11 and median age at first sex is 22 years with minimum age at first sex 7 years and maximum age at first sex 35 years.

Table 1: Summary of Descriptive Statistics

Variable	Obs.	Min.	Max.	Median	Mean	Stan. Dev.
Age	397	18	44	28.00	28.48	5.011
Age at first sex	396	7	35	22.00	22.11	4.265
Age at first marriage	350	14	36	24.00	24.20	4.174
Age at first pregnancy	397	15	44	25.00	25.01	4.36
Age at first delivery	226	15	38	26.00	25.31	4.187
No. of pregnancies(includin gabortion)	395	1	4	3.00	2.9	0.803
Family size	395	1	13	3.00	3.36	1.6
No. of sexual partners	397	1	10	1.00	1.81	1.251

4.1.1.1 Socio-demographic and economic characteristics of study participants

From the age group; 9 (2.3%) participants are less than 20 years, 75(18.9%) are 20 to 24 years,160(40.3%) are 25 to 29 years, 153(38.5%) are 30 years and above. Regardingmarital status; 328 (83.2 %) of the respondents were married, 51 (12.9 %) of the samples were never married while the remaining 15 (3.8 %) were divorced. Analysis of the data also indicated that 232 (58.9%) of women in the sample have family size from one to three members; 150 (38%) of them have members in the family from four to six and 12(3%) of the women have more than six members in the house.

Regarding the educational level of respondents, 34(8.6%) are illiterate,105 (26.4%) have primary education, 97 (24.4%) have secondary education and 161(40.6 %) have tertiary education level. Concerning the occupation of respondents, 141 (35.5%) are house wife, 145(36.5%) are self-employed, 101(25.4%) are government employee and 10(2.5%) are students. Regarding the religion of respondents, 262 (66.0%) are orthodox, 69 (17.4%) are Muslim, 55 (13.9%) are protestant, 10(2.5) are catholic and the rest 0.3 percent follow other religion. Monthly income of 37 (9.3%)participants is 150-650 birr, 41(10.3%) their monthly income is 1401-2350 birr, 74(18.6%) get 1401-2350 birr per month, 79 (19.9%) of participants their monthly income is 2351-3550 birr, 66 (16.6%) their monthly income is

3551-5000 birr and 100(25.2%) participants their income is above 5000 birr.

Table 2: Socio demographic and economic characteristics of pregnant women attending ANC clinic at selected public health centers in Addis Ababa, Ethiopia, May-June, 2021 (n=397)

Variables	Categories	Frequency	Percent
Marital status	Married	328	83.2
	Single	51	12.9
	Divorced	15	3.8
Age group	Less than 20 years	9	2.3
	20 to 24 years	75	18.9
	25 to 29 years	160	40.3
	30 years or more	153	38.5
Actual family size	1 up to 3 members	232	58.9
	4 up to 6 members	150	38
	7 members and more	12	3
Education level	No education	34	8.6
	Primary	105	26.4
	Secondary	97	24.4
	Tertiary	161	40.6
Occupation	House wife	141	35.5
	Self employed	145	36.5
	Government employee	101	25.4
	Student	10	2.5
Religion	Orthodox	262	66.0
	Muslim	69	17.4
	Protestant	55	13.9
	Catholic	10	2.5
	Others	1	0.3
Monthly income of the family (ETB)*	150-650	37	9.3
	651-1400	41	10.3
	1401-2350	74	18.6
	2351-3550	79	19.9
	3551-5000	66	16.6
	>5001	100	25.2

'*' Incomecategory was basedon civil service taxation cutoffpoint

4.1.1.2 Reproductivecharacteristics of respondents

Regarding variables showing the distribution of factors associated to reproductive behaviors in the sample, 114 (28.7 %) of the respondents make first sex when they are aged below 20 years; while 168 (42.4 %) of the respondents had had first sex when they were aged from 20 to 24 years, 89 (22.5%) had had first sex when they were aged 25-29 years and 25 (6.3 %)of them had had first sex when they were aged 30 years or more. Regarding age at first marriage, 46 (13.1%) of the respondents were aged below 20 years when they had their first marriage; 137 (39.1 %) of them were aged 20 to 24 years when they had their first marriage,129 (36.9 %) had their first marriage when they were 25-29 years and 38 (10.9%)of them were aged 30 years or more when they had their first marriage. Regarding age at first pregnancy, 40 (10.1 %) of the respondents were aged below 20 years when they had their first pregnancy;137 (34.5 %) of them were aged 20 to 24 years when they had their first pregnancy, 160 (40.3 %) of them were aged 25-29 years and 60 (15.1 %) of them were aged 30 years or more when they had their first pregnancy. Among the respondents 196 (49.4 %) have more than one partner. Eighteen (4.6%) of the respondents in the sample have faced pregnancy when they were at primary school. Among the respondents 281(70.8%) made decision about family planning method together. Almost all respondents 388 (97.7%) have media exposure to gather information about family planning. From all respondents 386 (97.2%) knew where contraceptive method available. In the sample, 98 (24.7%) of respondents do not use contraceptive. From all women who have unplanned pregnancies; 50 (43.9%)of women faced unplanned pregnancy due to not considering to have pregnancy, 31 (27.2%) unsafe sexual practice, contraceptive failure 16(14%) and husband disapproval 10 (8.8%) constitutes of those women who have unplanned pregnancy. Among married respondents 228 (69.5%) their husbands allowed them to use contraceptive and the rest 100 (30.5%)women their husband not allowed them to use contraceptive ; husbands' reason were 58% (fear of method(s) negative rumor,believing that it is a sin ,believing that it could cause infertility, others)and 31 (31%)not until all wanted children are born.

Table3: Reproductive Characteristics of pregnant women's attending ANC clinic at selected health centers in Addis Ababa, Ethiopia, May-June, 2021(n=397)

Variables	Categories	Frequency	Percent
Age at first sex	Less than 20 years	114	28.7
	20 to 24 years	168	42.4
	25 to 29 years	89	22.5
	30 years or more	25	6.3
Age at first marriage	Less than 20 years	46	13.1
	20 to 24 years	137	39.1
	25 to 29 years	129	36.9
	30 years or more	38	10.9
Age at first pregnancy	Less than 20 years	40	10.1
	20 to 24 years	137	34.5
	25 to 29 years	160	40.3
	30 years or more	60	15.1
Age at first delivery	Less than 20 years	19	8.4
	20 to 24 years	69	30.5
	25 to 29 years	101	44.7
	30 years or more	37	16.4
Life time no. of sexual partners	1 partner	201	50.6
	2 and above	196	49.4
Previous teenage pregnancy experience	Yes	18	4.6
	No	377	95.4
Who makes decision about contraceptive use in the family	Respondent	72	18.1
	Spouse/Partner	44	11.1
	Both	281	70.8
Media exposure about family planning	Yes	388	97.7
	No	9	2.3
Do you know where contraceptive methods are available	Yes	386	97.2
	No	11	2.8
Have you ever used any contraceptive methods	Yes	299	75.3
	No	98	24.7

Reason for unplanned pregnancy	Not considering to have pregnancy	50	43.9%
	Unsafe sex practice	31	27.2%
	Contraceptive failure	16	14.0%
	Husband disapproval	10	8.8%
	Others	7	5.4%
	Total	114	100 %
Husband allowed you to use contraceptive	Yes	228	69.5
	No	100	30.5
Reason of husband refuse you to use contraceptive	Not until all wanted children are born	31	31
	Fear of method(s)	22	22
	negative rumor believing that it is a sin	20	20
	Believing that it could cause infertility	16	16
	Others	11	11

Figure 4, below is a box-and-whisker plot presenting the summary of age at first sex versus the incidence of unplanned pregnancy in the sample. From the diagram, it can be seen that the median age at first sex of the women where their pregnancy is unplanned is lower than the median age at first sex of those women who responded their pregnancy is planned.

Figure 4: Age at first sex versus incidence of pregnancy

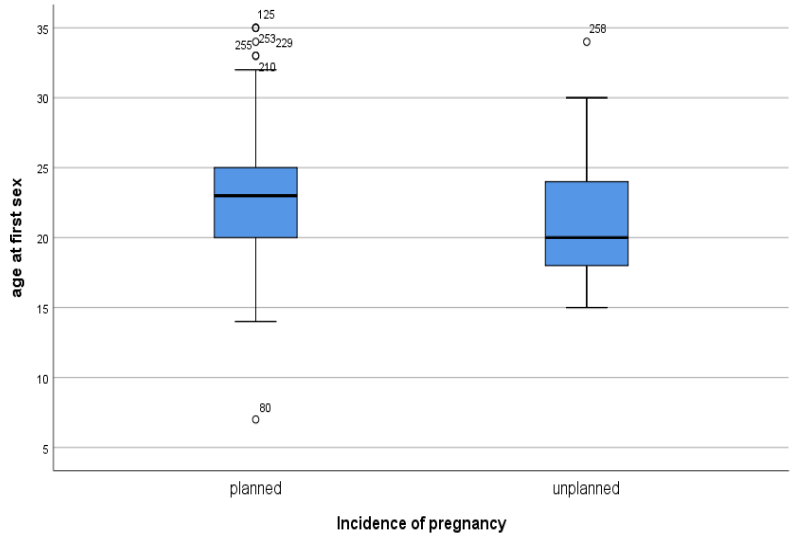
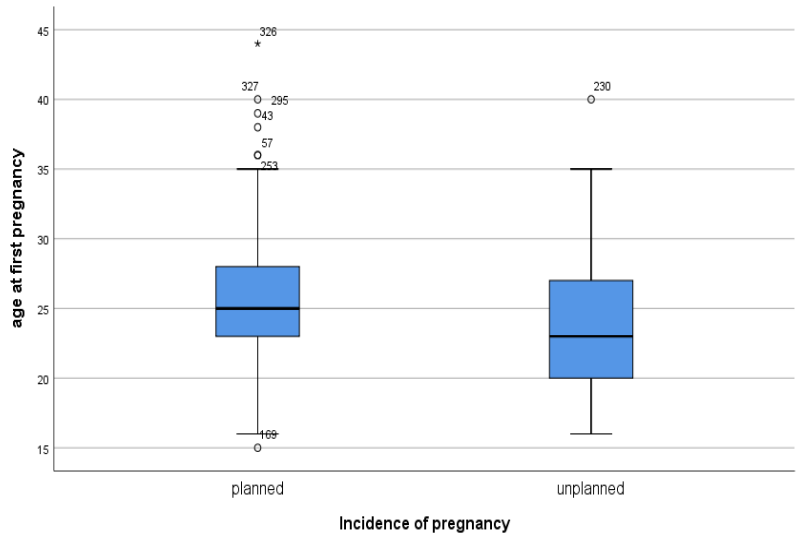


Figure 5, below is a box-and-whisker plot presenting the summary of age at first pregnancy versus the incidence of unplanned pregnancy in the sample. From the diagram, it can be seen that the median age at first pregnancy of the women where their pregnancy is unplanned is lower than the median age at first pregnancy of those women who responded their pregnancy is planned.

Figure 5: Age at first pregnancy versus pregnancy intention



4.1.1.3Prevalence of unplanned pregnancy

Within the study period 1,495 women were attending at ANC follow up of the study health centers from which 397 study participants were selected. Out of these, 114 women were having unplanned pregnancy making the prevalence of unplanned pregnancy 28.7 % among the total ANC follow up mothers from the study health centers during the study period.

4.1.2 Association between unplanned pregnancyand its determinant factors

In this section, background characteristics of respondents are treated against the incidence of unplanned pregnancy using different statistical techniques. These methods are employed in an attempt to identify quantitatively what factors are important in determining incidence of unplanned pregnancy among the respondents with different socioeconomic, demographicand reproductive behaviors strata.

Several factors are responsible for differences in inter - household variations in prevalence of unplanned pregnancy. The chi-square of independence was used to know whether or not there is a significance association between the dependent variable and a set of explanatory variables.

Table 4 presents the cross-tabulation of unplanned pregnancy versus somesocio-demographic, economic and reproductive characteristic factors. Among unplanned pregnancy; 6.1 percent are less than 20 years, 25.4 percent are aged from 20-24 years, and 37.7 percent are aged from 25 to 29 years. Age is significantly associated with unplanned pregnancy with a chi-square value of 17.102 at 3 degrees of freedom with a p-value of 0.001 at a 5 percent level of significance. Among unplanned pregnancies, married women took a share of 83.2 percent and single ones took 12.9 percent. Marital status is significantly associated with incidence of unplanned pregnancy with a chi-square value of 76.736 at 2 degrees of freedom with a p-value of 0.000.

Among women who have unplanned pregnancies in the sample, 9.6 percent have no education, 31.6 percent have primary education, 29.8 percent have secondary education, 28.9 percent have tertiary education. The level of education is significantly associated with pregnancy intention with a chi-square value of 9.026 at 3 degrees of freedom and a p-value of 0.029.

Regarding age at first pregnancy; unplanned pregnancies in the sample 21.1% had their first pregnancy below 20 years of age, 35.1% and 34.2 percent of the respondents had their first pregnancy between 20 to 24 years and 25-29 years of age respectively and the rest 9.6 % were 30 years of age or above at first pregnancy. Age at first pregnancy is highly and significantly to an unplanned pregnancy with a chi-squared value of 23.773 with 3 degrees of freedom and p-value 0.000 at a 5 % level of significance. Thirty six % of women in the sample who have unplanned pregnancies have one partner and the majority 64 % of the

women have more than one partner. The number of partners is significantly associated with unplanned pregnancy with a chi-square value of 13.759 at 1 degree of freedom and p-value 0.000 at a 5%level of significance. Ever use of contraceptive method is significantly associated with unplanned pregnancy with a chi-square value of 16.647 at 1 degree of freedom and p-value 0.000 at a 5 percent level of significance.

Table 4: Unplanned pregnancy, in relation to its determinant factors of pregnant women's attending ANC clinic at selected health centers in Addis Ababa, Ethiopia, May-June, 2021 (n=397)

Age category		Planned	Unplanned	Total	χ^2	*df*	*Sig.*
Less than 20 years	N	2	7	9	17.025	3	0.001
	%	0.7%	6.1%	2.3%			
20 to 24 years	N	46	29	75			
	%	16.3%	25.4%	18.9%			
25 to 29 years	N	117	43	160			
	%	41.3%	37.7%	40.3%			
30 years or more	N	118	35	153			
	%	41.7%	30.7%	38.5%			
Total	N	283	114	397			
	%	100.0%	100.0%	100.0%			
Marital status		Planned	Unplanned	Total	χ^2	*df*	*Sig.*
Married	N	65	328	263	76.736	2	.000
	%	57.5%	83.2%	93.6%			
Single	N	39	51	12			
	%	34.5%	12.9%	4.3%			
Divorced	N	9	15	6			
	%	8.0%	3.8%	2.1%			
Total	N	113	394	281			
	%	100.0%	100.0%	100.0%			
	%	100.0	100.0	100.0			
Education level		Planned	Unplanned	Total	χ^2	*df*	*Sig.*
No education	N	23	11	34	9.026	3	0.029
	%	8.1	9.6	8.6			
	Total %	5.8	2.8	8.6			
Primary education	N	69	36	105			
	%	24.4	31.6	26.4			
	Total%	17.4	9.1	26.4			

Secondary Education	N	63	34	97			
	%	22.3	29.8	24.4			
	Total	15.9	8.6	24.4			
Tertiary education	N	128	33	161			
	%	45.2	28.9	40.6			
	Total	32.2	8.3	40.6			
Total	N	283	114	397			
	%	100.0	100.0	100.0			
	Total	71.3	28.7	100.0			
Age at first sex		Planned	Unplanned	Total	χ^2	df	Sig.
Less than 20 years	N	66	48	114	15.646	3	0.001
	%	23.4%	42.1%	28.8%			
20-24 years	N	126	42	168			
	%	44.7%	36.8%	42.4%			
25-29 years	N	68	21	89			
	%	24.1%	18.4%	22.5%			
30 years or more	N	22	3	25			
	%	7.8%	2.6%	6.3%			
Total	N	282	114	396			
	%	100.0%	100.0%	100.0%			
Age at first Marriage		Planned	Unplanned		χ^2	df	Sig.
Less than 20 years	N	16	24	40	16.097	3	.001
	%	5.7%	21.1%	10.1%			
20 to 24 years	N	97	40	137			
	%	34.3%	35.1%	34.5%			
25 to 29 years	N	121	39	160			
	%	42.8%	34.2%	40.3%			
30 years or more	N	49	11	60			
	%	17.3%	9.6%	15.1%			
Total	N	283	114	397			
	%	100.0%	100.0%	100.0%			
Age at first Pregnancy		Planned	Unplanned	Total	χ^2	df	Sig.
Less than 20 years	N	16	24	40	23.773	3	.ooo
	%	5.7%	21.1%	10.1%			
20 to 24 years	N	97	40	137			
	%	34.3%	35.1%	34.5%			
25 to 29 years	N	121	39	160			
	%	42.8%	34.2%	40.3%			
30 years or	N	49	11	60			

more	%	17.3%	9.6%	15.1%			
Total	N	283	114	397			
	%	100.0%	100.0%	100.0%			
Number of sexual partners		Unplanned	Planned	Total	χ^2	df	Sig.
1partner	**N**	160	41	201	13.759	1	o.oo
	%	56.5	36.0	50.6			
2 and above partners	N	123	73	196			
	%	43.5	64.0	49.4			
Total	N	283	114	397			
	%	100.0	100.0	100.0			
Previous teenage pregnancy experience		Planned	Unplanned	Total	χ^2	df	Sig.
Yes	**N**	9	9	328	4.105	1	.043
	%	3.2	7.9	83.2			
NO	N	272	105	377			
	%	96.8	92.1	95.4			
Total	N	281	114	395			
	%	100.0	100.0	100.0			
Ever use Contraceptive		Planned	Unplanned	Total	χ^2	df	Sig
Yes	N	229	70	299	16.647	1	.000
	%	80.9%	61.4%	75.3%			
No	N	54	44	98			
	%	19.1%	38.6%	24.7%			
Total	N	283	114	397			
	%	100%	100%	100%			

4.1.3 Logistic regression analysis results

4.1.3.1 Bivariate analysis for variables association with unplanned pregnancy

The age of respondents is a significant predictor of the outcome variable, the incidence of unplanned pregnancy Women of age group less than 20 years has a positive coefficient in the model showing that age of women which is less than 20 years are highly likely to have an unplanned pregnancy than those women whose age is 30 years or greater at a 5 % level of significance. The odds ratio for women aged less than 20 years is 11.800 with a 95% confidence interval (2.344, 59.395). This implies the odds (the risk) of having unplanned pregnancy of women aged less than 20 years is 11.800 times higher risk of having unplanned pregnancy than women of aged 30 years or above. Women of age group between 20 to 24 years has also a positive coefficient in the model showing that whose ages are between 20 to 24 years are highly likely to have an unplanned pregnancy than those women whose age is 30 years or greater at a 5 % level of significance. The odds ratio for women aged between 20 to 24 years is 2.125 with a 95 % confidence interval (1.168, 3.867). This implies the odds (the risk) of having unplanned pregnancy of women aged 20 to 24 years is 2.125 times higher risk of having unplanned pregnancy than women of aged 30 years or above.

Occupation of the respondents is a significant predictor of the incidence of unplanned pregnancy. Occupation status of women has a positive coefficient in the model showing that women who are government employee are less likely to have an unplanned pregnancy than those women who are house wives at a 5 % level of significance. The odds ratio for women who are government employees is 0.510 with a 95 % confidence interval (0.266, 0.978). This implies the odds (the risk) of having unplanned pregnancy for women who are government employee is 0.501 times less than women who are house wives.

Students are highly likely to have an unplanned pregnancy than those women who are house wives at a 5 % level of significance. The odds ratio for students is 24.395 with a 95 % confidence interval (2.990, 199.054). This implies the odds (the risk) of having unplanned pregnancy for students is 24.395 times higher than women who are house wives.

Education status of women of the respondents is a significant predictor of the incidence of unplanned pregnancy. The education status of women with primary school are more likely to have unplanned pregnancy than those women with tertiary education at a 5 percent level of significance. The odds ratio for women with primary education is 1.94with a 95 percent

confidence interval (1.121,3.387). This implies the odds (the risk) of having unplanned pregnancy for primary education women are 2 times higher than women who are with tertiary education. The education status of women with secondary school are more likely to have unplanned pregnancy than those women with tertiary education at a 5 percent level of significance. The odds ratio for women with secondary education is 1.92 with a 95 percent confidence interval (1.094, 3.390). This implies the odds (the risk) of having unplanned pregnancy for secondary education women are 2 times higher than women who are with tertiary education.

Age at first sex is a significant predictor of the outcome variable, the incidence of unplanned pregnancy. Women have age at first sex 30 or above years are less likely to have an unplanned pregnancy than those women whose age at first sex is less than 20 years at a 5 percent level of significance. The odds ratio for women, whose age at first sex 20 to 24years, is 0.009 with a 95 % confidence interval (0.053, 0.663). This implies the odds (the risk) of having unplanned pregnancy for women have age at first sex 30 orabove years is approximately 0.1 times less when compare with women whose age at first sex is less than 20 years.

Age at first marriage is a significant predictor of the outcome variable, the incidence of pregnancy. Women have age at first marriage 30 or above years are less likely to have an unplanned pregnancy than those women whose age at first marriage is less than20 years at a 5% level of significance. The odds ratio for women whose age at first marriage 30 years or above is 0.153 with a 95 % confidence interval (0.047, 0.502). This implies the odds (the risk) of having unplanned pregnancy for women have age at first marriage 30 years or above is approximately 0.15 times less when compare with women whose age at first marriage is less than 20 years.

Age at first pregnancy is a significant predictor of the outcome variable, the incidence of pregnancy intention. Women have age at first pregnancy 30 years or above are less likely to have an unplanned pregnancy than those women whose age at first pregnancy is less than20 years at a 5 percent level of significance. The odds ratio for women, whose age at first pregnancy is30 years or above, is 0.150 with a 95 % confidence interval (0.060, 0.372). This implies the odds (the risk) of having unplanned pregnancy for women of age at first pregnancy more than 30 years is approximately 0.15 times lessthan those women whose age at first pregnancy is less than 20 years.

The marital status is a significant predictor of unplanned pregnancy. Marital status of women has a positive coefficient in the model showing that single women are more likely to have an unplanned pregnancy than those women who are married at a 5 percent level of significance. The odds ratio for single women is 13.15with 95 percent confidence interval (6.519, 26.525). This implies the odds (the risk) of having unplanned pregnancy in single women is 13 times higher than those women who are married and divorced women is 6.06 with 95 percent confidence interval (2.086, 17.660). This implies the odds (the risk) of having unplanned pregnancy indivorced women is6 times higher thanthose women who are married.

Table 5: Results bivariate analysis for variables association with unplanned pregnancy in selected public health centers, in Addis Ababa, Ethiopia,May-June,2021 (n=397)

Age category	Sig.	Exp(B)	95% CI for Exp(B)	
			Lower	Upper
Age category (RC: 30 years or higher)	0.003**			
Less than 20 years	0.003**	11.800	2.344	59.395
20 to 24 years	0.014**	2.125	1.168	3.867
25 to 29 years	0.414	1.239	0.741	2.072
Constant	0.000	0.297		
Occupation status (RC: House wife)	0.000**			
Self-employed	0.134	1.471	0.888	2.436
Government employee	0.043**	0.510	0.266	0.978
Student	0.003**	24.395	2.990	199.054
Constant	0.000	0.369		
Educational status (RC:Tertiary)				
No education	.161	1.786	.793	4.024
Primary education	.018	1.949	1.121	3.387
Secondary education	.023	1.926	1.094	3.390
Constant	.000	.268		
Age at first sex (RC: Less than 20	0.002**			

years)				
20 to 24 years	0.006	0.458	0.275	0.763
25 to 29 years	0.006	0.245	0.230	0.785
30 years or above	0.009	0.188	0.053	0.663
Constant	0.001	0.136		
Age at first marriage (RC: Less than 20 years)	0.002**			
20 to 24 years	0.001	0.305	0.148	0.627
25 to 29 years	0.oo4	0.344	0.167	0.708
30 years or above	0.002	0.153	0.047	0.502
Constant	0.000	0.118		
Age at first pregnancy (RC: Less than 20 years)	0.000**			
20 to 24 years	0.001	.275	0.132	0.572
25 to 29 years	0.000	0.215	0.104	0.445
30 years or higher	0.000	0.150	0.060	0.372
Constant	0.000	0.224		
Marital status (RC: Married)	0.001**			
Single	.000	13.150	6.519	26.525
Divorced	.001	6.069	2.086	17.660
Constant	.000	.247		
Ever use of contraceptive				
No	0.000**	2.666	1.650	4.306
Constant	0.000**	0.306		
Life time number of partners				
One partner	0.000**	0.432	0.276	0.676

4.1.3.2 Multivariate analysis for factors associated with unplanned pregnancy

A higher degree of multicollinearity among the variables: Age at first sex, age at first marriage, age at first pregnancy and the age at first delivery. When there exists multicollinearity among the variables one method to alleviate this is dropping one or more of the multicollinear variables from the model.

Table 6: Correlation Test

Variables		Age at first sex	Age at first marriage	Age at first pregnancy	Age at first delivery
Age at first sex	Pearson Correlation	1	0.643**	0.557**	0.554**
	Sig. (Two tailed)		0.000	0.000	0.000
	N	396	349	396	225
Age at first marriage	Pearson Correlation	0.643**	1	0.751**	0.671**
	Sig. (Two tailed)	0.000		0.000	0.000
	N	349	350	350	214
Age at first pregnancy	Pearson Correlation	0.557**	0.751**	1	0.895**
	Sig. (Two tailed)	0.000	0.000		0.000
	N	396	350	397	226
Age at first delivery	Pearson Correlation	0.554**	0.671**	0.895**	1
	Sig. (Two tailed)	0.000	0.000	0.000	
	N	225	214	226	226

**. Correlation is significant at the 0.01 level (2-tailed).

The predictor variables in the multiple logistic regression model were tested for their significance with unplanned pregnancy at 5 percent level or 95 percent of CI. Those variables with p-value less than to 0.2 at 95 % CI are included in the multivariate logistic regression model. The occupations status of women; age at first pregnancy; marital status; contraceptive use and life time number of partners are significant predictors of unplanned pregnancy.Fitness of the model is assessed using Hosmer-lemeshowgoodness-of- fit test. The chisquarep-value is0.746 which is above0.05, indicates the model is a good fit.

Regarding the occupation status, students are more likely to have unplanned pregnancy than house wives at 5 percent level of significance. The risk of having unplanned pregnancy for students is more by a factor of 12 than the house wives.The risk of having unplanned pregnancy in women of age 30 years or above at firstpregnancy is 0.112 timeslessthan those women of age19 or less at first pregnancy.

The marital status of women has a positive coefficient in the model showing that single and divorced women are more likely to have an unplanned pregnancy than married ones at a 5 percent level of significance. The odds ratio for single women is 9.242 with a 95 percent confidence interval (4.253, 20.083). This implies the adjusted odds (the risk) of having unplanned pregnancy for single women is 9.242 times the married ones. Divorced women are also more likely to have an unplanned pregnancy than married ones at a 5 percent level of

significance. The odds ratio for single women is 6.223 with a 95 percent confidence interval (1.985, 19.505). This implies the adjusted odds (the risk) of having unplanned pregnancy for divorced women is 6.223 times the married ones.

The variable life time number of partners has a positive coefficient in the model showing that women who have one partner are less likely to have unplanned pregnancies than those who have two or more partners at a 5 % level of significance. The odds ratio for one partner is 0.649 with a 95 % confidence interval (0.382, 1.103). This indicates that the odds (the risk) of having unplanned pregnancy for women who have only one partner is 0.649 times less than those women who have more than one partner at a 5 % level of significance.

Contraceptive use

Table 7: Multivariate analysis for factors associated with unplanned pregnancy in selected public health center at Addis Ababa Ethiopia, May-June ,2021 (n=397)

Variables in the model	Sig.	Exp(B)	95% CI for Exp(B)	
			Lower	Upper
Occupation status (RC: House wife)				
Self-employed	.969	.987	.517	1.886
Government employee	.809	.890	.346	2.291
Student	.050*	12.100	.997	146.864
Educational status (RC: Tertiary educ.)				
No education	.493	1.451	.500	4.210
Primary education	.583	1.255	.559	2.817
Secondary education	.177	1.749	.776	3.939
Age (RC: 30 years or higher)				
Less than 20 years	.271	3.367	.387	29.294
20 to 24 years	.296	3.168	.365	27.481
25 to 29 years	.329	2.937	.338	25.562
Age at first pregnancy. (RC: Less than 20 years)				
20 to 24 years	.001**	.196	.077	.499
25 to 29 years	.001**	.197	.073	.530
30 years or higher	.001**	.112	.031	.400
Marital status (RC: married)				
Single	.000**	12.877	5.589	29.672
Divorced	.002**	6.863	2.067	22.784
Contraceptive use (RC no)				

Yes	.000**	.278	.152	.506
Life time number of partners (RC: one partner)				
Two or more partner	.009**	2.134	1.207	3.774

** denotes significant at 1 percent and *denotes significant at 5 percent

4.2 Discussion

Based on this research the prevalence of unplanned pregnancy is 28.7%. The finding of this study is comparable with studies in 36 low- and middle-income countries (32%)(Bellizzi, 2020), in Kenya (24%) (Ikamari, 2013), in Ethiopia (25%) (CSA, 2017)& (28%) (Alene, 2020) ; but higher than studies done in Suhul General Hospital, Shire - Northern Ethiopia (20.6%) (Moges, 2018); and lower than a study done in Malawi (46.7%) (Palamuleni, 2014) and Addis Ababa, Ethiopia (37.8%) (Mulatu, 2017).Differences in prevalence among other studies may be due to cultural differences, type of population studied, ignorance due to lack of education, and the influence of health facilities available.

The bivariate analysis showed that the variables such as marital status, education, age, age at first marriage, age at first sex, age at first pregnancy, occupation, knowledge and practice of contraceptive methods and number of sexual partner are important to explain unplanned pregnancy. The multivariate analysis supported most of the bivariate analysis and indicated the same pattern of effect for most of the variable. In multivariate analysis, marital status, age at first pregnancy, occupation, knowledge and practice of contraceptive methods and number of sexual partner were found to have statistically significant influence on unplanned pregnancy.

In terms of occupation, this study has shown that students were more likely to have unplanned pregnancy than house wives at 5 percent level of significance. The risk of having unplanned pregnancy in students was 12 times higher than house wives. Similar study done in Northern Ethiopia showed that unemployed women were 6.4 times more likely to have had unplanned pregnancy compared to civil servants (Moges, 2018). A study done in Hawassa, by contrast, showed that employed women are more likely to have unplanned pregnancy than unemployed women (Mulat, 2017). Possible reasons exposing students to a relatively higher risk of unplanned pregnancy could be lack of targeted sex education and awareness to family planning services.

Regarding age at first pregnancy, women who were age 30 and above at first pregnancy were less likely to have unplanned pregnancy than those who were younger than 30 at first pregnancy at a 5 percent level of significance. The odd of age of women at first pregnancy 30 and above years old was 0.112 with a 95 percent confidence interval (.031, .400). This implies the adjusted odds of having unplanned pregnancy for women of age at first pregnancy 30 and above was 0.112 times less than women of age at first pregnancy at lower age. Similar study in Gondar, North West Ethiopia showed that respondents whose age at first pregnancy was below 18 years old were more likely to have unplanned pregnancy than those women whose age at first pregnancy was ≥18 years AOR [95% 3.025 (1.234, 6.056)](Yenealem, 2019) , Study in General Hospital in Dodoma, showedthat the likelihood of unplannedpregnancies was higher in younger-aged women 15 to 20 years (67.3%) and decreased with increasing age(Mrosso, 2021).

The study showed that single women were more likely to have unplanned pregnancy than married ones at a 5 percent level of significance. The odds ratio for single women was 12.877 with a 95 percent confidence interval (5.589, 29.672). This implies that the adjusted odds (the risk) of having unplanned pregnancy for single women was 12 times higher than married women. Similar study in Dilla university referral hospitalshowed that compared to married women, singles were 2 times more likely to have unplanned pregnancy (AOR=1.78; CI: 1.048- 5.078) (Feyisso, 2017). A study in Addis Ababa also revealed single women are significantly associated with unplanned pregnancy (AOR= 1.783 CI: 1.036- 3.068),(Mulatu, 2017). Marital status was strongly associated with an unplanned pregnancy, with single women showing a tendency toward unplanned pregnancy (Mrosso, 2021). Divorced women were also more likely to have an unplanned pregnancy than married ones at a 5 percent level of significance. The odds ratio for divorced women was 6.863 with a 95 percent confidence interval (2.067, 22.784). This implies the adjusted odds (the risk) of having unplanned pregnancy for divorced women was 6 times higher than married ones. Likewise, A study done in Suhul General Hospital, Shire, Northern Ethiopia showed that unmarried women (AOR= 4.73, 95% CI: 1.56-14.33) had higher risk of unplanned pregnancy than married ones(Moges, 2018). Similar finding was demonstrated by other studies done in other parts of Africa, such as Harare, Zimbabwe which showed that divorced women had 5.1 times higher risk for unplanned pregnancy than married women (Mbizvo, 1997) and in Tanzania which revealed that unmarried women had 2.67 (2.29–3.11) times higher risk of having unplanned pregnancy than married ones (Calvert, 2013). Lack of proper information regarding

contraceptives and poor knowledge towards reproductive health and family planning services could be considered as possible contributing factors leading to a higher risk of unplanned pregnancy in unmarried women, particularly in youths.

Regarding contraceptive use, women who used any types contraceptive were less likely to have unplanned pregnancy than women who did not use contraceptive (AOR= 0.278, 95% CI: 0.152- 0.506). Similar study done in bale zone, Oromiya region, Southeast Ethiopia revealed women that used any type of contraceptive method were 0.6 times less likely to face unplanned pregnancy as compared to women that did not use contraceptives (AOR = 0.632, 95% CI: 0.385- 0.831) (Darega, 2015).

The study showed that women who had more than one partner were more likely to have unplanned pregnancy than those who had one partner at a 5 percent level of significance. The odds ratio for the likelihood of having unplanned pregnancy in women with multiple partners was 2.134 with a 95 percent confidence interval (1.207, 3.774). This indicates that the odds (the risk) of having unplanned pregnancy for women who had above one partner was 2 times higher than those women who had one partner at 5 percent level of significance. This finding was comparable with a study done in Addis Ababa which showed that women who had more than one partner were more likely to have unplanned pregnancy than those who had one partner(Mulatu, 2017). A study in Tanzania also revealed similar findings (AOR=2.39, CI 1.89–3.04) (Calvert, 2013).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Unplanned pregnancy is a public health burden with an increased risk of problems for the mother and baby. If the mother was not planning to get pregnant, she may have unhealthy behaviors or delay getting health care during the pregnancy, which could affect the health of the baby(CDC, 2021).

This study attempted to assess the prevalence and factors associated with unplanned pregnancy among mothers attending ANC follow up at selected health centers in Addis Ababa. The sample consisted of 397mothers who met the inclusion criteria. This study has found that 28.7% of the respondents had unplanned pregnancy. The study also showed that Occupation, marital status, age at first pregnancy, number of sexual partner and contraceptive use were significantly associated with unplanned pregnancy.

In conclusion, the unplanned pregnancy rate among pregnant attending ANC follow up at the selected health centers in Addis Ababa is high. No single factor accounted for the high rates of unintended pregnancy; many socio economic, demographic and reproductive factors were associated in this regard.

5.2 Scope and Limitation

The nature of the data is profoundly based on cross sectional (one point) data. Hence, it failed to show either the trend or changes over time. In its content too, the scope of the study will focus on the prevalence and associated factors of unplanned pregnancy among women attending antenatal care in selected health centers in Addis Ababa, Ethiopia.

Collection of qualitative data through in-depth interviews and focus group discussions weren't carried out owing to lack of participants' cooperativeness and financial reasons. Besides, some variables are missed which are not listed in conceptual framework; this are limitations of the study.

5.3 Recommendation

On the basis of the results of the study, the following recommendations are forwarded.

- Awareness towards contraceptive use should be created for women especially for those women who are divorced and single.
- Schools, institutions and other concerning organizations should work on women to prevent early marriage and pregnancy.
- In addition to awareness creation of contraceptives methods, it is recommended for women to not to have multiple sexual partners.
- Finally, female education should be given priority attention.

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APPENDIXES

Questionnaire

Centre for Population Studies, College of Development Studies, Addis Ababa University Questionnaire prepared to determine the Prevalence of unplanned pregnancy and its associated factors in Addis Ababa, Ethiopia, 2021

Please take care of Covid19.

Consent Form

Research Questionnaire

Centre for Population Studies, College of Development Studies, Addis Ababa University

Questionnaire prepared to determine the Prevalence of unplanned pregnancy and its associated factors in Yeka, Addis ketema, Arada and Bole Sub-Cities in Addis Ababa, Ethiopia, 2021.

Consent Form

Dear respondents my name is Meron Gizaw! I am a graduate student at Addis Ababa University, college of development studies, center for population studies, currently working a thesis on title prevalence and associated factors of unplanned pregnancy among antenatal care attending women at selected health centres in Addis Ababa, Ethiopia.This questionnaire is only for research purpose. I assure you that confidentiality and anonymity will be fully maintained. To strengthen this you are not expected to write anything such as name, and address… that may lead to your identification. Your participation is entirely voluntary, and you can withdraw at any time after you get involved in the study without compromising your right. However, I hope that you will participate in this study since your responses are quite important. If you are willing to take part in the study, you are kindly requested to respond to all questions honestly!

Now do you agree to participate in the study? Yes _____ No _____.

Thank you very much for your co-operation!

Name & Signature of interviewer: _____Date: _____

Name & Signature of Supervisor: _____Date: _____

Health center_____

Part 1; socio-demographic characteristics

1. Age in completed years as of last birthday? (_____years)
2. What is your Marital Status: 1. Married 2. Single(Never Married)
   3. Divorced 4. widowed
3. Religion A. Orthodox B. Muslim C. Protestant D.Catholic E. Others (specify)
4. Educational Level of the respondent: 1 . No education 2. Primary education (1-8)
   3. Secondary education (9-12) 4 .Diploma/Certificate 5.Degree 6.Masters and above
5. Educational Level of the husband: 1. No education 2. Primary education (1-8) 3. Secondary education (9-12) 4. Diploma/Certificate 5. Degree 6. Masters and above
6. What is your occupation? 1. House wife 2.Merchant 3.Goverment employee 4.Self employ 5.Labourer 6.Student 7.Other
7. How much is your monthly income?
   1. From150- 650 2. 651 -1400 birr 3.1401-2350 4.2351-3550 birr 5.3551-5000birr 6. Above 5001 ETB

8. Do you have History of smoking in? 1.Yes 2. No

9. Do you have any means of media exposure to gather information about family planning? 1. Yes, 2.No

10. If yes for question number 10, which types of means of communication do the household have for source of information about family planning? Multiple answer are possible? 1. Radio 2.Television

11. If you have media exposure how many times listening radio or watching Television?

1. daily 2.weekly 3.monthly 4.Never

Part II: Sexual and obstetric behaviour of the study participants

1. Age at first sex ----------years (in complete years)
2. Age at first marriage ---------- years
3. Age at first pregnancy ----------years
4. Age at first delivery_____
5. History of abortion A. Yes B. No
6. If Yes is it A. spontaneous B. induced
7. Lifetime number of pregnancies including abortion ----------
8. How many times did you give a birth (only alive births) ?..... in number.
9. Reported pregnant at primary school A. Yes B. No
10. Lifetime number of sexual partners? ----------
11. What is your family size?..... in number.
12. Do you know where contraceptive methods are available? A. Yes B . No
13. What birth control method do you know? Thick all mentioned. A. Intra uterine device (IUD) B. Pill (COC) C. Depo Provera injection D. Condoms E. Emergency contraception F. Vasectomy and tubal ligation G. Implant H. Calendar method I- Lactaional amenorrhoea method
14. Have you ever used any types of contraceptive methods ? A. Yes B. No
15. If yes for question 14, did your Husband allow you to use it? A. Yes B. No
16. If yes for question 14, who makes decision about contraceptive use in the family?
    A. Respondent B. Spouse C. together
17. If no; for question 15 , why? A. believing that it was a sin to use a family planning method B. Believing that it could cause infertility C. believing that it could cause cancer D. fear of method(s) negative rumour E. Problems with methods by known users F. Not until all wanted children are born G. Others
18. Have you planned to have this pregnancy? A. Planned B. Unplanned
19. If the answer for question number 17 is unplanned, what are the reasons for unintended pregnancy? A. Not considering B. Husband disapproval C. Unsafe sex practice D. Contraceptive failure E. Knowledge of timing of pregnancy after birth F. Medical problem/ side effect G. Reluctant to use contraceptive H. Don't know how to prevent pregnancy I. Abortion /failure J. Discontinuation of contraceptive
20. How many times unplanned pregnancy happened to you? In number……

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የፍቃድ መጠየቂያ ቅፅ

በአዲስ አበባ ከተማ አስተዳደር በቦሌ ፣ በየካ፣በአዲስ ከተማ እና በአራዳ ክ/ከተማ በተመረጡ ጤና ጣቢያ ለሚደረግ ጥናት የተዘጋጀ መጠይቅ::

እኔ ሜሮን ግዛው የአዲስ አበባ ዩኒቨርሲቲ ፣የሀገር ልማት ጥናት ኮሌጅ፣የህዝብ ጥናት ማዕከል፣ የድህረ ምረቃ ተማሪ ስሆን፤አሁን "PREVALENCE AND ASSOCIATED FACTORS OF UNPLANNED PREGNANCY AMONG ANTENATAL CARE ATTENDING WOMEN AT SELECTED HEALTH CENTRES IN ADDIS ABABA, ETHIOPIA" በሚል ርዕስ የመመረቂያ ጽሑፌን እያዘጋጀሁ እገኛለሁ፡፡በዚህ ጥናት እንዲሳተፉ በትህትና እጠይቃለሁ:: የጥናቱ ዋና ዓላማ በአዲስ አበባ ከተማ አስተዳደር በቦሌ፣ በአዲስ ከተማ፣ በየካ እና በአራዳ ክፍለ ከተማ ባሉ በተመረጡ /በተወሰኑ ጤና ጣቢያዎች ለወሊድ ክትትል የሚመጡ ሴቶች ላይ ያልተቀደ እርግዝና ስርጭት እና ለዚህ ችግር ዋና ዋና ምክንያቶች ምን እንደሆኑ ለማወቅ ነው፡፡ይህ ከእርስዎ ልምድ በመነሳት የሚሰጡን መረጃ ለወደፊት ስለ አለታቀደ እርግዝና ለእናቶችና ለህበረተሰቡ የሚሰጠውን የጤና አገልግሎት ለማሻሻልና የመፍትሄ መንገዶችን እንዲቀይሱ ይረዳል፡፡በዚህ ጥናት ውስጥ በእርሶም ሆነ በህብረተሰቡ የሚደርስ አንዳችም ችግር አለመኖሩን ልገልፅልዎት እወዳለው፡በጥያቄው ጊዜ የእርስዎ ፍላጎት እና ፍቃደኝነት ካልተጨመረበት ለጥያቄው መልስ አለ መስጠት ወይም በማንኛውም ሰዓት ጥያቄውን ለማስቆም መብትዎ የተጠበቀ ነው፡፡ ነገር ግን እርስዎ የሚሰጡት ሃሳብ በጥናቱ ላይ በእጅጉ ጠቃሚ ነው፡፡ፍቃደኛ ከሆኑ የሚሰጡት መልስ በሚስጥር የሚያዝ መሆኑን እና ለማንም እንደማይሰጥ እገልፅልዎታለው፡

አሁን ፍቃዶትን ካገኘው፣

1. አዎ ከሆነ ጥያቄውን መቀጠል እንችላለን፡፡
2. ፍቃደኛ ካልሆኑ ወ ደሚቀጥለው ተሳታፊ እንቀጥላለን፡፡

ቃለ መጠይቁን ያደረገችዉ ስም _____ ፊርማ _____ ቀን_____

የተቆጣጣሪዉ ስም _____ ፊርማ _____ ቀን_____

የጤና ተቋሙ ስም _____

ስለ ቀና ትብብርዎ ከወዲሁ እያመሰገንኩኝ ጥያቄዬን እንደሚከተለው አቀርባለሁ::

ክፍል 1. ማህበራዊ እና ስነ-ህዝብ መረጃ

1. እድሜዎ ስንት ነዉ? (የመጨረሻ ልደት ያስገቡ)_____
2. የጋብቻ ሁኔታ?
   1) ያገባች 2) ያላገባች 3) የፈታች 4) ባል የሞተባት
3. የየትኛው ሀይማኖት ተከታይነዎት?
   1) ኦርቶዶክስ 2) ሙስሊም 3) ፕሮቴስታንት 4) ካቶሊክ 5) ሌላ ካለይግለጹ
4. የትምህርት ደረጃዎ?
   1) ያልተማረች 2) ከ 1-8 ኛ 3) ከ 9-12 ኛ 4) ዲፕሎማ/ሰርተፍኬት
   5) ዲግሪ 6) ማስተርስናከዚያበላይ
5. የባለቤትዎ የትምህርት ደረጃ?

1) ያልተማረ 2) ከ 1-8 ኛ 3) ከ 9-12 ኛ 4) ዲፕሎማ /ሰርተፍኬት
5) ዲግሪ 6) ማስተርስ ና ከዚያ በላይ

6. ሥራዎ ምንድን ነዉ?
1) የቤት እመቤት 2) ነጋዴ 3) የመንግስት ሰራተኛ 4) በግል ስራየተሰማራሁ
5) የጉልበት ሰራተኛ 6) ተማሪ 7) ሌሎች

7. የቤተሰቡ ወርሀዊ የገቢ መጠን?
1) ከ150-650 ብር 2) 651-1400 3) 1401-2350 4) 2351-3550 5) 3551-5000
6) ከ5001 ብር በላይ

8. ሲጋራ አጭሰው ያውቃሉ?
1) አዎ 2) አላውቅም

9. ስለቤተሰብ እቅድ የሚያውቁበት የመገናኛ ዘዴዎች በቤትዎ ውስጥ አለ?
1) አዎ 2) የለም

10 .ለጥያቄ ቁጥር 9 መልሶ አዎ ከሆነ የትኞቹ የመገናኛ ዘዴዎች ናቸው በቤትዎ ውስጥ ያሉት?
1) ሬድዮ 2) ቴሌቪዥን

11. የመገናኛ ዘዴዎች የሚጠቀሙ ከሆነ ለምን ያህል ጊዜ ራድዮ ይሰማሉ ወይንም ቴሌቪዥን ያያሉ?
1) በየቀኑ 2) በሳምንትአንዴ 3) በወር አንዴ 4) አልጠቀምም

ክፍል 2: የስነ ተዋልድዎ ባህሪ መረጃ

1. ለመጀመሪያ ጊዜ የወሲብ ግንኙነት በስንት አመትሽ ፈፀምሽ? (የመጨረሻ ልደት ያስገቡ)
_____

2. ለመጀመሪያ ጊዜ በስንት አመትሽ አገባሽ? (የመጨረሻ ልደት ያስገቡ)
_____

3. ለመጀመሪያ ጊዜ ያረገዝሽው በስንት አመትሽ ነው?(የመጨረሻ ልደት ያስገቡ)
_____

4. የመጀመሪያ ልጅሽን በስንትአመትሽ ወለድሽ? (የመጨረሻ ልደትያስገቡ)
_____

5. አስወርደሽ ታውቂያለሽ?
1) አዎ 2) አላውቅም

6. አዎ ከሆነ?
1) በራሱ ጊዜነው 2) ፈልገሽ ነው

7. እስከ አሁን ስንት ጊዜ አርግዘሻል ውርጃን ያካትታል? _____በቁጥር ይግለፁ

8. እስከ አሁን ስንትጊዜ ወልደሻል ? በሕይወት የተወለደን ብቻ _____ በቁጥር ይግለፁ

9. የመጀመሪያ ደረጃ ተማሪ እያለሽ አርግዘና ነበረ?
1) አዎ 2) የለም

10. እስከ አሁን ከስንት ወንዶችጋር ግንኙነት ፈፅመሻል ? _____

11. የቤተሰብ ብዛትስንትነው? _____ በቁጥር ይግለፁ፡

12. የእርግዝና መቆጣጠሪያ መንገዶች የት እንደሚገኙ/ እንደሚሰጥ ታውቂያለሽ?
1) አዎ 2) አላውቅም

13. የምታውቂያቸው የእርግዝና መቆጣጠሪያ መንገዶች ጥቀሽ (ብዙ መምረጥ ይቻላል)

1) በማህፀን ውስጥ የሚቀመጥ 2) የሚዋጥክኒን

3) በመርፌ የሚሰጥ የወሊድ መከላከያ 4) ኮንዶም

5) ድንገተኛ የወሊድ መከላከያ

6) በቀዶ ህክምና ወንዶችን ማከም/በቀዶ ህክምና ሴቶችን ማከም

7) በላይኛው ክንድ ስር የሚቀበር የእርግዝና መከላከያ ዘዴ ኢምፕላንት

8) በቀን መቁጠሪያ 9) ጡት በማጥባት እርግዝናን መከላከያ ዘዴ

14. ማንኛውንም ዓይነት የእርግዝና መቆጣጠሪያ ተጠቅመሽ ታውቂያለሽ?

1) አዎ 2)አላውቅም

15. ለ 14ኛ ጥያቄ መልስሽ አዎ ከሆነ ባለቤትዎ የወሊድ መቆጣጠሪያ እንድትጠቀሚ ይፈልጋል?

1) ይፈልጋል 2) አይፈልግም

16.ለ 14ኛጥያቄ መልስሽ አዎ ከሆነ ስለሚጠቀሙት የእርግዝና መከላከያ ዘዴ የሚወስንልዎት ማን ነው?

1) ሚስት 2) ባል 3) በጋራ/በውይይት

17. ለ15ኛ ጥያቄ መልስሽ አይፈልግም ከሆነ በምን ምክንያት?

1) የወሊድ መቆጣጠሪያ መጠቀም ሀጥያት ነው ብሎ ስለሚያምን

2) መካን ያደርጋል ብሎ ስለሚያምን

3) ካንሰር ያመጣል ብሎ ስለሚያስብ

4) መከላከያ መንገዱን ስለሚፈራ /በጥርጣሬ

5) የወሊድ መቆጣጠሪያ የተጠቀሙ ችግር ያመጣባቸው ተጠቃሚዎች አይቶ

6) የምንፈልገውን ያህል ልጆች እስከምንወልድ

7) ሌላ ምክንያት ይጥቀሱ _____

18. የእርግዝና ሁኔታ ምንድን ነው?

1) የታቀደ 2) ያልታቀደ

19. እርግዝናው ያልታቀደ ከሆነ ምክንያቱ ምንድን ነው?

1) ላረግዝ እችላለሁ የሚል ግምት አልነበረኝም

2) ባለቤቱ አልተስማም

3) ጥንቃቄ በጎደለው የግብረ ስጋ ግንኙነት

4) የወሊድ መከላከያው ያለ መስራት

5) ከወለድኩ በኃላ የማርገዣ ጊዜዬን አለማወቅ

6) የወሊድ መከላከያ ያለመጠቀም (በመድሀኒቱ የጎንዮሽ ችግር ስለገጠመኝ)

7) የወሊድ መከላከያ ለመጠቀም ፍቃደኛ አለመሆን

8) እርግዝናን እንዴት መከላከል እንደሚቻል አላውቅም

9) ለማስወረድ ሞክሬ አልተሳካም

10)የወሊድ መከላከያ መድሀኒት መጠቀም አቋርጬ

20. ያልታቀደ እርግዝና ስንት ጊዜ አጋጥሞሽ ያውቃል? _____ በቁጥር ይገለፁ።

አመሰግናለሁ!!