



ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENTAL STUDIES

PREVALENCE OF UNWANTED PREGNANCY AND ASSOCIATED SOCIOECONOMIC AND DEMOGRAPHIC FACTORS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE SERVICES IN SELECTED PUBLIC HEALTH CENTERS OF ARADA SUBCITY, ADDIS ABABA, ETHIOPIA, 2021

BY

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OCTOBER, 2021

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This is to certify that the thesis prepared by Masreshaw Adane Fantaw entitled Prevalence of unwanted pregnancy and associated socioeconomic and demographic factors among pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia and submitted in partial fulfillment of the requirements for the Degree of master of Science in Population Studies (Reproductive Health) complies with the regulations of the university and meets the accepted standards to originality and quality.

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ABBREVIATIONS

AAU.....	Addis Ababa University
ANC	Antenatal Care
AOR.....	Adjusted Odds Ratio
BSc.....	Bachelor of Science
CI.....	Confidence Interval
COR.....	Crude Odd Ratio
CSA.....	Central Statistics Agency
EDHS	Ethiopian Demographic and Health Survey
ETB.....	Ethiopian Birr
FIGO.....	Federation of International Gynecologist and Obstetricians
FP.....	Family Planning
HIV.....	Human Immuno Virus
ICF.....	International Classification of Functioning
IRERC.....	Institutional Research Ethics Review Committee
IUCD	Inter uterine Contraceptives Device
LAM.....	Lactational Amenorial Method
MCH.....	Maternal and Child Health
MDG	Millennium Development Goal
SRH.....	Sexual and Reproductive Health
SPSS.....	Statistical Package for Social Science
WHO	World Health Organization

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ABSTRACT

Background of the study: Unwanted pregnancy is one of the demographic problems that create maternal death, abortion, low birth weight, preterm birth and infant mortality, unsafe abortions, and poor maternity care in developing countries like Ethiopia.

Objective: To assess the prevalence of unwanted pregnancy and associated socio-economic and demographic factors among pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021.

Method: An institutional-based cross-sectional study design with mixed (quantitative and qualitative approaches) was used. The study was conducted between May and June 2021. Systematic random sampling technique was used to select the study subjects. The sample size determined for the study was 314. A standardized interviewer-administered questionnaire was used to gather information from study participants. Data were cleaned, entered into, and analyzed by Statistical Package for Social Sciences (SPSS) version 24. Descriptive statistics such as frequencies, percentages, and crosstabs were used to describe the variables of interest. Furthermore, logistic regression including bivariate and multivariate analysis was used to identify the determinants of an unwanted pregnancy. Results are presented in tables, texts, and figures.

Results: A total of 308 pregnant women participated in the study making the response rate 98%. Among respondents, unwanted pregnancy was found to be 30.2% while 69.8% of the pregnancy was wanted. Those who had missed contraceptive pills AOR [0.257 (0.086, 0.768)], respondents who are married women AOR [10.09 (1.81, 56.16)] and respondents who had higher education AOR [0.14 (0.03, 0.70)] were significantly associated with an unwanted pregnancy ($p < 0.05$).

Conclusion and Recommendations: The prevalence of unwanted pregnancy was (30.2%) in the study area. This indicates unwanted pregnancy is a major demographic, socio-economic, and reproductive health problem. So, this study's finding was lower than the study conducted in Addis Ababa 37.8%, 36%, and higher than EDHS 2016 25%. According to the findings of this study marital status, educational status, occupation, and missed contraceptive pills were significantly associated with an unwanted pregnancy. So, there is a need to creating awareness on sexual and reproductive health, increasing the accessibility of maternal health services for women to reduce unwanted pregnancy.

Keywords: Unwanted pregnancy, Antenatal care, maternal health, Demographic factors, socioeconomic factors.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Unwanted pregnancy is a pregnancy that a woman or girl decides, of her own free will, is undesired. Unwanted birth any birth in excess of the number of children a woman reported as her ideal number (CSA and ICF, 2016). Unintended pregnancy is a global public health problem and its sequels are major causes for maternal and neonatal morbidity and mortality (WHO, 2015). Unintended pregnancies are more likely exposed to eclampsia, preeclampsia, postpartum hemorrhage, physical abnormality, and maternal death than mothers who have intended pregnancy (Caitlin et al, 2016). The most common consequence of unintended pregnancy is unsafe abortion (Mansureh et al, 2015).

The Federation of international gynecologists and obstetricians defines unintended pregnancy as a pregnancy that is mistimed or unwanted at the time of conception. This unintended pregnancy happens due to different reasons like; not using family planning, failure of contraceptive methods, lack of contraceptive methods, incidental sexual intercourse, including rape, and lack of awareness regarding family planning (Hanson et al, 2015 and American pregnancy association, 2015).

According to WHO, every year there are around 210 million pregnancies worldwide, out of these pregnancies, 44% of pregnancies are unintended and around 59% of pregnancies ended by abortion. Most of these unintended pregnancies (65 pregnancies per 1000 women) happen in developing countries like Ethiopia (WHO, 2017; Jonathan et al, 2018). Unintended pregnancies per year, of which 21.6 million were in Africa and Eastern Africa alone encompasses 8.85 million (Bearak, 2018). Moreover in Ethiopia, the maternal mortality rate is 412 per 100, 000 live births (CSA and ICF, 2016). In Ethiopia, unsafe abortion is the second common cause of maternal mortality, which accounts for 19.7% of maternal mortality (Tessema et al, 2017).

The WHO in 2019 Between 2010-2014, on average, 56 million induced (safe and unsafe) abortions occurred worldwide each year there was 35% induced abortion per 1000 women aged between 15- 44 years 25% of all pregnancies ended in induced abortion. So, the rate of abortion was higher in developing regions than in developed regions (WHO, 2019). Therefore, the finding of this study was to guide health professionals, reproductive health program planners, and policymakers as well as other concerned bodies to understand and tackle unintended pregnancy targeting factors having significant association and reduce the risk of maternal and infant morbidity and mortality.

1.2.Statement of the problem

Unintended pregnancies cause the death of 358,000 women around the world due to pregnancy-related complications and 47,000 deaths of women each year due to unsafe abortion (WHO, 2019). Even though the incidence of unintended pregnancy has declined globally in the past decade, the rate of unintended pregnancy remains high, particularly in developing regions such as sub-Saharan Africa (Gilda et al, 2014).

In sub-Saharan Africa, it is estimated that 14 million unwanted pregnancies occur every year, with almost half occurring among women aged 15-24 years (Dixi et al, 2012). These include poor knowledge in contraceptive use and low socioeconomic status (Muanda et al, 2017), contraceptive failure, sexual violence (Maxwell et al, 2015) and shortage of contraceptive supply, coerced contraceptive decision-making, unmarried status, and other socio-demographics. Other findings from some countries within the sub-region have attributed the current unintended pregnancy situation to inconsistent and incorrect condom use, contraceptive failure, and lack of knowledge on emergency contraception (Ajayi et al, 2014).

Unintended pregnancy is a potential hazard for every sexually active woman. It is a worldwide problem that affects women, their families, societies and nations. Unintended pregnancy can result from not using contraceptives, contraceptive failure and also, less commonly, from rape. Abortion is a frequent consequence of unintended pregnancy and in developing countries it can result into serious long-term, negative health effects including infertility and maternal death (CDC, 2015). About half of unintended pregnancies in developing countries result in unsafe abortion which accounts for 13% of maternal deaths (WHO, 2013). Poor educational status, lack of access to health services and health education, poor economic status, single in marital status, peer pressure, sexual violence, and family planning failure were exposed to unintended pregnancy (Bahk et al, 2015).

According to the Ethiopian Demographic Health Survey (CSA and ICF, 2016), about 25 % of total pregnancy was unintended. Because the use of 2016 DHS is assessing deeply in unwanted and unintended pregnancy. But recent DHS is not assessing deeply the prevalence of unwanted pregnancy but slightly assess fertility and family planning methods. Because of the recent DHS is mini. According to the Ethiopian Ministry of Health, abortion accounts for 60 % of gynecological and almost 30 % of all obstetric and gynecological admissions. And over half of 19 million women who annually seek abortions in Ethiopia are under 18 and 60% of pregnant girls were living in a rural area and 70% of them are unmarried (Nalenga, 2012). The findings of the study conducted in Gelamso, Ethiopia showed

that out of the 413 pregnancies, 112 (27.1-%) were unintended of which 90(21.9-%) were mistimed, and 22(5.2-%) were unwanted (Mohammed et al, 2016). Another study done in Addis Ababa found out that 36-% of the pregnant women attending ANC in the Health center had unintended pregnancy experiences (Tadele et al, 2015).

Unwanted pregnancy mainly results from not using contraception, or inconsistent or incorrect use of effective contraceptive methods (CDC, 2017), access to contraceptives, rape, low socioeconomic status and lack of education and information about contraceptive methods (Population Matters, 2014). A cross-sectional study was conducted in selected health facilities of Addis Ababa a total of 333 reproductive age group females participated in the study making the response rate 95.4%. A total of 126 (37.8%) and 50 (39.6%) respondents had an unwanted pregnancy and induced abortion at some point in their lives. Marital status and number of sexual partners were significantly associated with unwanted pregnancy with AOR [1.783 (1.036, 3.068), 11.355 (5.106, 25.253)] respectively (Teshale M, Amesale C, and Lemma N, 2017).

As we have seen in the previous study some of the variables have not been included in the previous study. So, these variables such as, missed contraceptive pills and (Family factor) Couple's characteristics like: Couple's previous pregnancy experience, Couple's attitude about pregnancy, couple's pregnancy knowledge, and couple's age at first pregnancy remain to be gaps that justify this study to be conducted. For this reason, this study intends to assess the prevalence of unwanted pregnancy and associated socio-economic and demographic factors among pregnant women attending antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021.

1.3. Research Questions

1. What is the magnitude of unwanted pregnancy in the study area?
2. What are the demographic and socio-economic factors associated with an unwanted pregnancy?

1.4. OBJECTIVES

1.4.1. General objective

- ❖ To assess the prevalence of unwanted pregnancy and associated socio-economic and demographic factors among pregnant women attending antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021. (Because the reason of conducted in Arada sub-city selected public health centers is lack of enough time and cost).

1.4.2. Specific objectives

- To determine the prevalence of unwanted pregnancy.
- To assess demographic and socio-economic factors associated with an unwanted pregnancy.

1.5. Justification of the study

Recent researches show that the prevalence of unwanted pregnancy is gradually increasing and it is known that; unwanted pregnancy is one of the demographic and socio-economic problems in Addis Ababa. For example study conducted in Addis Ababa by Tadele et al, 2015 indicates that 36% of pregnant women attending ANC in the health center had unintended pregnancy experiences. It is associated with unsafe abortion, poor health outcomes, high maternal and child morbidity, and mortality due to the complications of pregnancy and childbirth besides poor quality of life especially adolescent, young, unmarried, and low socio-economic status of women. Therefore, this study seeks to find out the burden of unwanted pregnancy in the study area. So, this information should allow for intervention/policy measures to be formulated to address the problem.

1.6. Significance of the study

The study aims to find out the prevalence of unwanted pregnancy and associated socio-economic and demographic factors among pregnant women attending antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia.

Understanding the prevalence of unwanted pregnancy and associated socio-economic as well as demographic factors is very crucial in designing and implementing interventions that could be tailored to their needs and thereby contributing to the attainment of SDG 5 (Achieve gender equality and empower all women and girls). In addition, the results of this study will help in developing or reviewing national policy and guidelines regarding the prevention of unwanted pregnancies.

1.7. Limitation of the study

The sample size of the study is the Arada sub-city and interviews have been conducted with this sub-city only eight selected public health centers. Although taking a large number of samples size is an important factor for increasing external validity as a result of lack of time, and Covid 19 disease, it might be difficult to generalize the research findings to at this level but believed that this study might be were a starting point for future research. The other limitation of this study also the research design is cross-sectional it does not measure cause and effect relationships.

1.8. Organization of the study

This study has five chapters. The first chapter deals with the background, statement of the problem, research questions, objectives, justifications, significance, and organization of the study. The second chapter presents literature reviews on the prevalence of unwanted pregnancy and associated socioeconomic and demographic factors, a summary of the literature review, and a conceptual framework.

The third chapter deals with the methods and materials that include a description of the study area and period, study design, population (source and study population), selection criteria (inclusion and exclusion criteria), study variables (dependent and independent variables), operational definition, sample size determination, and sampling techniques, data collection procedures, data quality assurance, data processing and analysis, ethical considerations, and dissemination of the results. The fourth chapter deals with the results. And finally, the fifth chapter focuses on the discussions of the research.

CHAPTER TWO

LITERATURE REVIEW

This literature review chapter is organized into eight sections. Section one deals with an unwanted pregnancy, section two magnitude of unwanted pregnancy, section three safe abortion, section four unsafe abortion, section five contraceptive methods, section six socio-economic and demographic factors associated with unwanted pregnancies, section seven summary of literature review, and finally section eight focuses on the conceptual framework.

2.1. Unwanted pregnancy

Unwanted pregnancy that is either mistimed or unintended. Unintended pregnancy is a pregnancy that is either mistimed or unwanted at the time of conception. Mistimed pregnancy is a pregnancy that has occurred without the plan of the woman for that specific time which means she wants the pregnancy when she is ready in the future. Unwanted pregnancy is pregnancy without the wish of the woman because she has a child or children who are enough for her (WHO, 2019).

2.2. Magnitude of unwanted pregnancy

The world's population reached 7.7 billion in mid-2019, having added one billion people since 2007 and two billion since 1994. The growth rate of the world's population peaked in 1965-1970 when it was increasing by 2.1 percent per year, on average. Since then, the pace of global population growth has slowed by half, falling below 1.1 percent per year in 2015-2020, and it is projected to continue to slow through the end of this century. The global population is expected to reach 8.5 billion in 2030, 9.7 billion in 2050, and 10.9 billion in 2100 (WPP, 2019). Developing countries account for 97% of this growth due to high birth rates and an increase in the size of the young population. The populations of most developed countries are estimated to decrease by 2050, while there will be an increase in the population of developing countries. Asian and African countries will contribute 90% of the population growth; which could be due to the low use of contraceptives. Worldwide use of modern methods of birth control has increased slightly from 54% to 57%. The prevalence of women in the reproductive age group using a contraceptive method, the rate is much lower in African (21%) and Asian (67%) countries (WHO, 2012).

The low rate of contraceptive use might be associated with the increase in the number of unintended pregnancies across the world. Almost 210 million women become pregnant annually worldwide, out of

whom, 75-80 million (35.7-38%) women experience unintended pregnancies, and approximately 42-46 (>50%) millions of these unintended pregnancies are terminated. It is anticipated that there is an unmet need for contraceptives among a growing number of women of reproductive age (15-19). And the desire to reduce family size globally increases the number of unintended pregnancies to 92 million (WHO, 2015).

There were 21 million pregnancies among adolescent girls aged 15–19 years in developing countries in 2016; nearly half (49%) were unintended (43% in Asia, 45% in Africa, and 74% in Latin America and the Caribbean) (Darroch et al, 2017). An estimated 12 million girls aged 15–19 gave birth. Additionally, 777,000 girls under the age of 15 gave birth in the same year (Woog, and Kågesten, 2017). An estimated 23 million adolescent girls have an unmet need for modern contraception and are at risk of unintended pregnancy (Darroch et al, 2017). About one-fifth (21%) of unintended adolescent pregnancies in Asia, and about half of unintended pregnancies in Latin America and the Caribbean (49%) and Africa (46%) end in unsafe abortion (Darroch et al, 2018).

Studies indicate that unintended pregnancy is one of the most critical problems in the public health system that imposes substantial financial and social costs on society. Unintended pregnancy leads to the reduction of quality of life and workforce efficiency, which indicates that unintended pregnancy, affects fertility indicators (Caitlin et al, 2016 and Mansureh et al, 2015). According to the study in Kenya, about 24% of the 1272 women had an unintended pregnancy Never-married women were more likely to experience unintended pregnancy; 62% of them reported having had unintended compared to 13% and 26% of currently and formerly married women respectively women aged 15-19 had the highest prevalence of unintended pregnancy 68% while 20% in women aged 35-49 women who were at least 20 years old were less likely to experience unintended pregnancy compared to those aged 15-49 years (Ikamari et al, 2013).

In Ethiopia, unwanted adolescent pregnancy is a health challenge. Population under 18 is about 39 million of the total population estimated to 85. 2 million and 24 % of girls give birth before the age of 18 (UNFPA, 2018). Several studies have shown that the mean age of adolescents to become pregnant in rural Ethiopia is 16 years. The fertility of Ethiopian women is among the highest in sub-Saharan Africa. Ethiopian women have an average of 4.6 children each according to EDHS 2016. A high total fertility rate for women has led to a high population growth rate of 3.2% per year. Moreover, in Ethiopia, the maternal mortality rate is 412 per 100,000 live births (CSA and ICF, 2016).

Institutional based study in southeast Ethiopia shows an overall prevalence of 8.1% of unwanted pregnancies among those who ever had sexual experiences while 1.4% among total respondents (Motuma G, 2015). A study conducted in Tepi General Hospital Sheka zone, southwest Ethiopia, found out that 22.3% of the current pregnancies were unplanned. Of these, 15.6% wanted pregnancy later (mistimed) and 6.7% wanted no pregnancy. The most important reasons why they experienced currently unplanned pregnancy were contraceptive failure 10.7%, contraceptive inconsistent use 9.8%, and not using contraceptive 1.85% respectively (Workineh et al, 2017).

A 2014 report of the performance, monitoring and accountability study also showed that the magnitude of unplanned pregnancy is even higher at 43% (Jhons H, 2014). A study conducted by Saesie Tsaeda Emba woreda Eastern zone of Tigray, North Ethiopian, 2018 from the 345 participants. The overall magnitude of unintended pregnancy was 24.9% (Tsaeda E, 2018). A study was conducted on Dilla University Referral Hospital, south Ethiopia institutional-based cross-sectional study was conducted on 290 women the prevalence of unintended pregnancy is 36.9% the study revealed that women less than 20 years old were about 2 times higher risk of having unintended pregnancy (Feyisso et al, 2017).

A cross-sectional study was conducted in Soweto, South Africa, found that 23% of pregnancies carried by 13–16-year-old young women and 14.9% in the 17–19 year age range ended in abortion (Assefa and Dessalegn, 2013). Several studies have identified the predictors of unsafe sexual practices during the early adolescent years, such as individual, socio-demographic, family, and relation characteristics like poverty, ability, culture, family attitude, pregnancy experience, and lack of school or career goals (Klein, 2012). The expression of sexual desire among adolescents is influenced by family values, traditions, and cultural norms, a religion they have grown up in, social control, taboos, and other kinds of social mores. Studies suggested that adolescents have limited knowledge about SRH and their natural process of puberty. This lack of knowledge about reproductive health may have negative consequences in life (Sime A and Wirtu D, 2012).

Facility-based cross-sectional studies in east Ethiopia show the single respondent was 5 times and the divorced /widowed respondents were 4 times more likely to have an unintended pregnancy than the married ones. The mothers with parity of 3-5 and with that of > 5 were 2.4 and 4.8 times more likely to experience unintended pregnancy compared to those who had two or fewer children (Faiza et al, 2016). An institution-based cross-sectional study done in Maichew town, Northern Ethiopia that the magnitude of unintended pregnancy among pregnant women attending antenatal care was found to be 29.7% so the prevalence of unintended pregnancy was higher in the study area which confirmed the major public health problem (Eskeziwe, 2017). A study conducted in the Fafan zone Somali Region,

Eastern Ethiopia study that 10.9% and 9.3% of the women had a history of stillbirth and abortion respectively in their reproductive life. Half of the studied women (51%) fall under the category of poor pregnancy outcome (Mekonnen et al, 2018).

A community-based cross-sectional study among pregnant women in Gondar town, Northwestern Ethiopia, 2014. To select 325 participants 20.6% of pregnant women were unintended of which 6.8 were mistimed and 13.8 were unwanted so unintended pregnancy was low in the study compared to other finding Kersa, Hossana (29%, 34%, and 33%), and Harare b/c this study in an urban area so the urban area was nearby the information like different media exposure (Fentahun et al 2014). A community-based cross-sectional study design was conducted in Arsi Negele woreda, West Arsi Zone, Ethiopia, 2017 the unintended pregnancy was found to be 41.5%. The study has shown that the level of unintended pregnancy is higher, age, marital status, previous childbirth, abortion history, health professional visit, and autonomy to use contraceptive methods were significantly associated with unintended pregnancy, strengthening reproductive health advocacy, counseling, and increasing access of modern contraceptive method is essential to combat the problem, furthermore, community health education to the reproductive age group women is important (Robera et al, 2018).

A facility-based cross-sectional study was conducted in Addis Ababa to select 393 women attending antenatal care in a health center. The magnitude of unintended pregnancy was 36% 95% CI, (32%.8 41.7%). According to this study women's education, occupation, and awareness of long-term family planning were significantly associated with unintended pregnancy (Tadele et al, 2017). Another institutional-based study was conducted in Addis Ababa with a total of 354 participants, among them all respondents the unintended pregnancy was 30.3% was 69.7% of the pregnancy was wanted those who had a history of abortion AOR [2.92(1.30.6.55)] and respondents who have ever used contraceptive AOR [2.1 (1.6. 3.89)] were significantly associated with unintended pregnancy. The study was a high prevalence of unintended pregnancy and also came up discussion about contraceptive, occupation, and age had significant associated with unintended pregnancy. So, unintended pregnancy is a major reproductive health problem in Addis Ababa (Meseret T, 2018).

2.3.Socio-economic and Demographic Factors Associated with Unwanted Pregnancies

Economic factors also great role to increase unwanted rates. A study done in the US 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 (Zolna et al, 2012). Different factors are predicting unintended pregnancy and studies have reported different determinants for this issue. These factors are

divided into socio-demographic, socioeconomic, fertility-related, and access-related factors (Pakistan DHS, 2013). The socio-demographic and socioeconomic factors included the couple's age, marital status, socioeconomic status, education, occupational status and autonomy of the mother, and residential area (Pakistan DHS, 2013). Socio economic factors also play a part as it was found that 16 million women aged 15–19 years old give birth each year, about 11% of all births worldwide. Ninety-five per cent of these births occur in low- and middle-income countries. The average adolescent birth rate in middle-income countries is more than twice as high as that in high-income countries, with the rate in low-income countries being five times as high. The proportion of births that take place during adolescence is about 2% in China, 18% in Latin America and the Caribbean and more than 50% in sub-Saharan Africa (AGI, 2014). Socio-economic variables influencing unintended pregnancy were selected based on Socio-economic determinants of reproductive health (2015). Socio-economic determinants of reproductive (2015) that affect unintended pregnancy including: age, educational level of the spouses, the economic situation, employment of women, number of children, type of contraception, abortion and the number of children are living or dead. Health status of a population is affected by various factors such as age structure, exposing to risk of different carriers, and also level of population welfare behavior and characteristics as well as reproductive behaviors healthcare needs do affect a country's economic performance (Poorreza A, 2014).

2.4. Summary of literature review

According to EDHS 2016, in Ethiopia, the prevalence of unintended pregnancy is 25% and 75% of births in the five years preceding the survey were planned, 17% were mistimed, and 8% were unwanted. Ethiopia is one of the countries with the highest maternal 412/deaths/100,000 live birth and a child mortality rate (67 death/1000 live birth) in the world (CSA and ICF, 2016). So, This study was assessed to identify the factors like demographic factors (i.e. age, marital status, etc.), socio-economic factors (i.e. Living condition, income, occupation, religion, and educational status, etc.), Couple's factors (i.e. Couple's previous pregnancy experience, couple's attitude about pregnancy, couple's pregnancy knowledge, and couple's age at first pregnancy), obstetric and sexual factor (i.e. previous childbirth, previous pregnancies, obstetric history like abortion, cost of abortion and poor sexual communication) and family planning factors (i.e. Poor knowledge about FP service, counseling, access to FP service, incorrect or inconsistent uses of FP method, contraceptive failure and missed contraceptive pills) as they influence the unwanted pregnancy.

2.5. Conceptual framework

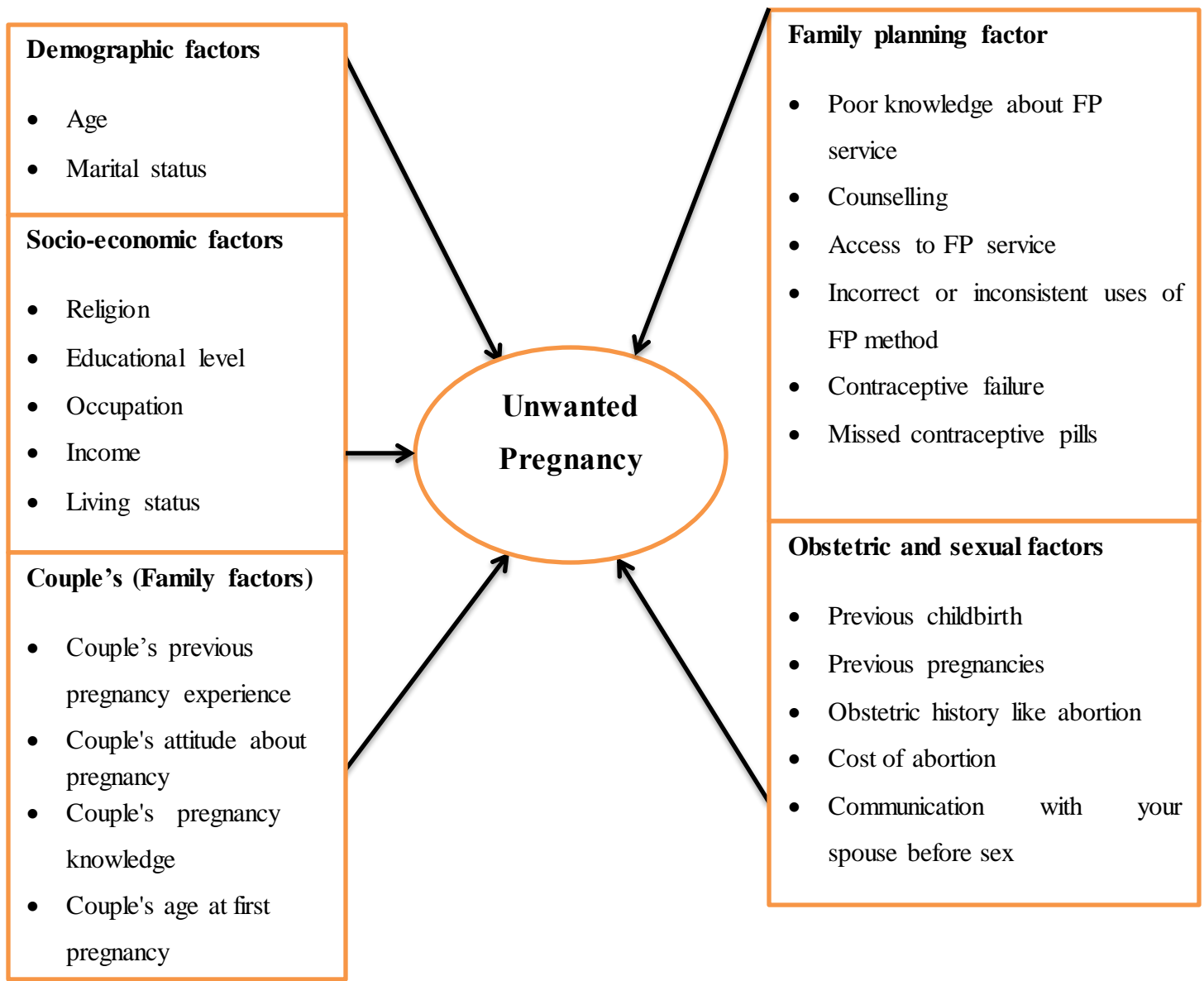


Figure 1: Schematic presentation of the conceptual framework (Source: Developed by the investigator based on literature review, 2021)

CHAPTER THREE

METHODES AND MATERIALS

2.1. Study area

Arada sub-city is located in the central part of Addis Ababa city administration with an estimated 290,843 population. Of the total population, 52% are females and the rest 48% are males. It has 10 public health centers and 2 governmental hospitals in the sub-city. And from 10 public health centers, 8 health centers are given to routine MCH services currently but the rest 2 health centers are Covid 19 isolation sites. From the total female population, 23% (34,785) are estimated to be reproductive age group and 1187 to be pregnant according to the Arada sub-city health office. It is bordered on the south by Kirkos, on the West by Lideta and Addis Ketema, on the North by Gullele, and East by Yeka (**Figure 2**).

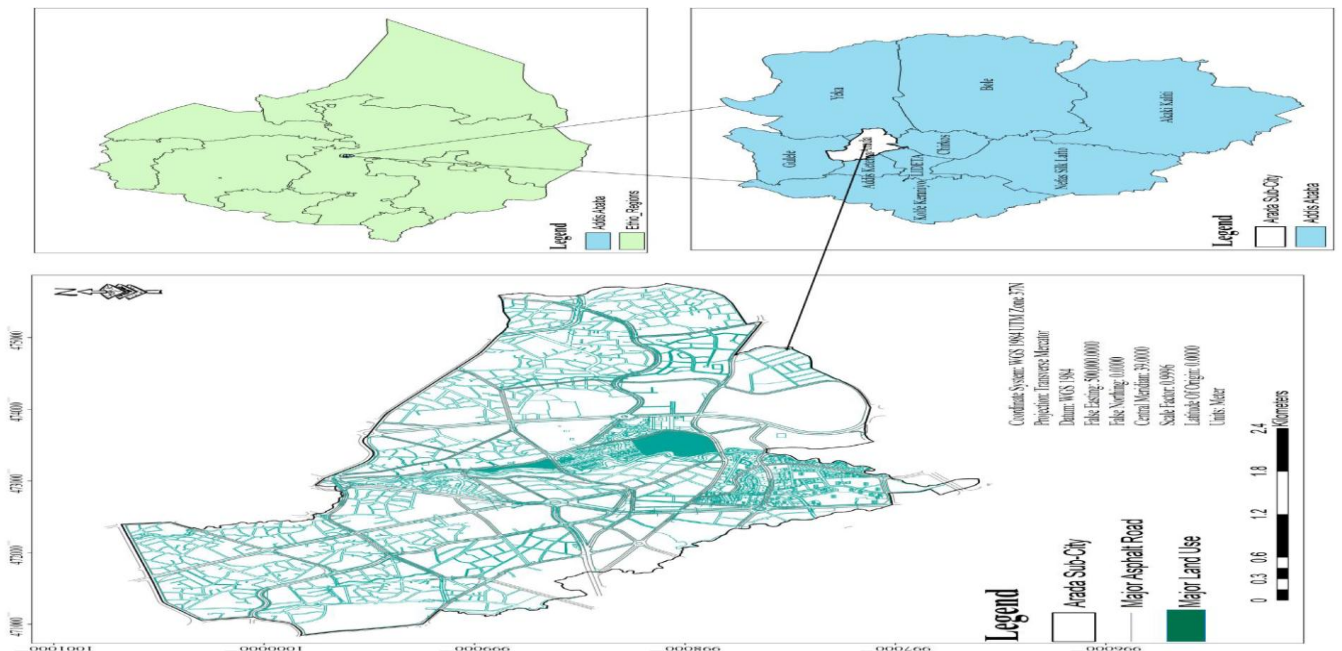


Figure 2: Map of the Study Area (Arada sub-city) (**Source:** Adopted from Arada sub-city Land Administration)

2.2. Study design and study period

A facility-based cross-sectional study design with mixed (quantitative and qualitative approaches) was employed in the Arada sub-city from May to June 2021.

2.3.Population

2.3.1. Source population

The source population for the study is all reproductive age groups of women who are coming to the health center of Arada sub-city.

2.3.2. Study population

Pregnant women currently attending ANC service in selected public health centers of Arada sub-city and fulfill the inclusion criteria.

2.4.Inclusion and Exclusion criteria

2.4.1. Inclusion criteria

- All ANC attendants in selected public health centers of Arada sub-city

2.4.2. Exclusion criteria

- Clients, who are unable to hear, seriously sick, and do not volunteer to participate, were excluded from the study.

2.5.Study variables

2.5.1. Dependent variable:

- Unwanted pregnancy

2.5.2. Independent variable

- **Demographic Factors**
 - Age
 - Marital status
- **Couple's Factors**
 - Couple's previous pregnancy experience
 - Couple's pregnancy knowledge
 - Couple's age at first pregnancy
 - Couple's attitude about pregnancy

- **Family planning factors**
 - Poor knowledge about FP service
 - Counselling
 - Access to FP service
 - Inconsistent or incorrect uses of FP method
 - Contraceptive failure
 - Missed contraceptive pills
- **Obstetric/sexual factors**
 - Previous childbirth
 - Previous pregnancies
 - Obstetric history like abortion
 - Cost of abortion
 - Poor sexual communication
- **Socio-economic factors**
 - Religion
 - Educational level
 - Occupation
 - Income
 - Living status

2.6.Operational definitions

Operational definition
Unwanted pregnancy: pregnancy that is either mistimed or unintended (WHO, 2019).
Unintended pregnancy: is a pregnancy that is either mistimed or unwanted at the time of conception (WHO, 2019).
Mistimed pregnancy: is a pregnancy, which has occurred without the wish of the woman at the specific time of occurrence of the pregnancy, but she has a desire to be pregnant and has a child or child sometimes in the future (WHO, 2019).
Reproductive age groups: refers to all women aged 15- 49 years (CSA and ICF, 2016).
Pregnancy: is the term used to describe the period in which a fetus develops inside a woman's womb or uterus (Eunice Kennedy, 2017)
Experience: It has accumulated in human memory and culture, gradually producing the methods of intelligence called "reason" and "science" (John Shook, 2008).
Attitude: are complex combinations of things we tend to call personality, beliefs, values, behaviors, and motivations (Published: March 26, 2015) (Good or poor attitude).
Living status: The conditions in which someone lives, seen in terms of their sanitary value, social status etc (Dictionary).
Previous pregnancy: is the number of previous pregnancies resulting in one or more registrable births.
Knowledge: means information, understanding, or skill that you get from experience or education (Dictionary) (Good or poor knowledge).
Couple's: means two persons married, engaged, or otherwise romantically paired or two persons paired together (Dictionary).
Relatives: a person who is connected with another or others by blood or marriage (Dictionary).
Family planning method: allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility (WHO, 2015).
Safe abortion: abortion is the termination of pregnancy by removing the fetus from mother's womb which may be spontaneous or induced before 20th week of gestation period or when fetus is less than 500gm of birth weight (Sandesh A, 2018).
Unsafe abortion: is the termination of unwanted pregnancy by people lacking the necessary skills, or in an environment lacking minimal medical standards or both (WHO, 2012).

Table 1: Operational definition and measurement

2.7. Sample Size Determination

2.7.1. Sample size for quantitative part

To determine the sample size, a single population proportion formula using a prevalence of unwanted pregnancy of 37.8% (Teshale Mulatu, 2017) was used which was reported in a study conducted in Addis Ababa, the level of significance (α) equals 0.05, and marginal error of 5%. Using single population proportion formula the sample size was calculated:

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

Where:

n = sample size desired

$Z_{\alpha/2} = 1.96$ (Z=score corresponds to 95% confidence level)

p = 37.8%

$d^2 = 0.05$ (Margin of error)

$$n = \frac{(1.96^2) (0.38 (1 - 0.38))}{0.05^2} = 362$$

Since the source population (1187) is finite and less than 10,000 correction factors formula was applied.

$$n_f = n_o / (1 + n_o / N)$$

$$n_f = 362 / (1 + 362 / 1187)$$

$$n_f = 277$$

Where: n_f = final sample size

n_o = Initial sample size

N = Source population which is 1187 pregnant women in study area.

Adding 10% non-response rate $362 * 10 / 100 = 36.2$

The final minimum sample size is $277 + 36.2 = \underline{314}$

2.7.2. Sample size for qualitative part

The sample sizes for the qualitative part were determined based on a theoretical saturation point in data collection when new data no longer bring additional insights to the research questions. So, used eight interviewees in this thesis writing.

2.8.Sampling technique

The allocated sample size for each health center was obtained using systematic random sampling at every two intervals (K=2). The identified woman was interviewed in waiting room. The data collector assigned in each study health center was interviewing the eligible case who was visit the facility during the study period until the required sample size is met. Then the sampling fraction (k) was calculated for each health center by using the formula:-

$$n = \frac{\text{Each health centers average monthly client flow} \times \text{total sample size (314)}}{\text{Total average population of the eight health centers (396)}}$$

Total average population of the eight health centers (396)

Finally the study participant from each health center was selected at every 2 interval with their respective.

Table 2: Representation of sampling techniques

S.No	Name of health centers in Arada sub city	No of women attending ANC per month	Proportional allocation of sample size	Remark
1.	Arada sub city Woreda one health center	37	29	
2.	Arada sub city Woreda two health center	21	17	
3.	Arada sub city Woreda three health center	-	-	Covid 19 isolation
4.	Arada sub city Woreda four health center	116	92	
5.	Arada sub city Woreda five health center	40	32	
6.	Arada sub city Woreda six health center	87	70	
7.	Arada sub city Woreda seven health center	47	37	
8.	Arada sub city Woreda eight health center	16	12	
9.	Arada sub city Woreda nine health center	-	-	Covid 19 isolation

10	Arada sub city Woreda ten health center	32	25	
Total =10	Eight health centers are given to routine health services currently. But, two health centers are currently Covid 19 isolation sites	396	314	

2.9. Data collection procedures

2.9.1. Quantitative part

The data was collected for 30 days from Arada sub-city service delivery points. It was collected by interviewing the current pregnant women who are attending ANC at Arada sub-city public health facility. The question was prepared to the English language translated into the Amharic language. So, an Amharic version questionnaire was used for the interview.

Four data collectors who have a BSc degree in midwifery are involved in the study. One degree in midwifery supervised the data collection. For both data collectors and supervisors, one day of training was given on study objectives and data collection techniques. Each questionnaire was checked for completeness and consistency by the supervisor and the principal investigator on daily basis.

2.9.2. Qualitative part

An in-depth interview was conducted among eight key informant pregnant women in Arada sub-city selected public health centers. Because, the study conducted in eight health centers so each health center used one pregnant mother. The data was collected from key informant interviews and these pregnant mothers included in quantitative data collection. This means preparing an in-depth interview guide. Because to solve research problems and to answer a research question. Informed consent was taken from each participant for an in-depth interview. Finally, the use of depth interview is to find out depth problem

2.10. Data quality assurance

The quality of the data was assured through careful design, translation, and retranslation, and pretesting of the questionnaire. The English version of the questionnaire was adapted and translated to Amharic by language experts. The translated Amharic version was pretested in health facilities out of Arada sub-city selected public health facilities in 5% of the sample size that is not part of the main study.

To ensure data quality, the data collectors are provided a one-day training on the objective of the study, the contents of the questionnaire, and how to maintain confidentiality and privacy of the study subjects. The data collection process was closely monitored and collected data was checked for any incomplete content by the supervisor and then by the principal investigator.

2.11. Data processing and analysis

2.11.1. Quantitative part

Data from the questionnaire was cleaned and verified to minimize entry errors, outliers, and missing values. Response from the questionnaire was coded and the codes were saved in the codebook and used during the interpretation. Each variable was checked for missed values. The data entry, cleaning, and analysis were undertaken using SPSS version 24. Descriptive statistics were shown such as frequencies, percentages, and crosstab were used to describe the variables of interest. Association was computed using an odds ratio with a 95% confidence interval. Bivariate and multivariate regression analysis was conducted to examine the relationship between dependent with independent variables. Results are presented in texts, tables, and charts.

2.11.2. Qualitative part

For the qualitative study, each of the in-depth interviews was mobile recorded, taking short notes in Amharic language and then translated to English language. Finally both the quantitative result and narration were included in this thesis write-up.

2.12. Ethical considerations

After obtaining the ethical approval from the concerned institutional research ethics review committee (IRERC) department of population studies Addis Ababa University (AAU), Formal letters were writing to all concerned authorities and permission was secure at all levels.

Informed verbal consent should obtain from each respondent after explaining the purpose and procedure of the study. No name or other identifying information was included in the instrument. Consider the sensitivity of this research, all the basic principles of human research ethics (respect of person, beneficence, voluntary participation, confidentiality, and justice) were respect, clients who are not willing to continue from the beginning or any part of the interview have the right to withdraw. Privacy was kept by interviewing in a separate place.

2.13. Dissemination of Results

The result of this study was submitted to Addis Ababa University, College of Development Studies, Center for Population Studies, and the Arada sub-city health office.

CHAPTER FOUR

RESULTS

4.1. Socio-economic and demographic characteristics of the respondents

A total of 308 respondents participated in the study making the response rate 98%. One hundred twenty-five (39.8%) respondents were from the age group of 35 and above years. Among the study participants, 234(74.5%) were currently married. One hundred ninety-one (60.8%) were Orthodox Christians, forty-seven (15%) were Muslim, seventeen (22.3%) were Protestants. Regarding educational status, 134(42.7%) completed secondary schools, 88(28.0%) were completed primary school, 66(21%) were higher education and the rest 20(6.4%) of the respondents did not have formal education. Among the respondents 123 (39.2%) were housewives, 93(29.6%) were private employees, 78(24.8%) were government employees and 20(6.4%) were students. Concerning monthly income, 111(35.4%) reported earning greater than 3201 Ethiopian birrs per month. Among the respondents 229(72.9%) were living with husbands, 40(12.7%) were living with both family members, 21(6.7%) were living with mothers only, 10(3.2%) were living with relatives and the rest 8(2.5%) were living with fathers only. In addition to quantitative socio-economic and demographic characteristics, the result of qualitative characteristics most of the pregnant women during the in-depth interview mentioned that the cause of unwanted pregnancy indicates rape, missed contraceptive pills, and behavioral problems is the cause of unwanted pregnancy. *For example, eight pregnant mothers who were attending ANC at selected public health center of the Arada sub-city shared their thoughts:*

Thank you for inviting we to this interview in the first place. First pregnant mother said that: I am a grade 11th student and a 22-year-old pregnant woman. Forget about contraception is the cause of unwanted pregnancy; and when we stop taking one contraceptive, not taking another method as soon as possible and neglecting it can lead to unwanted pregnancies. Social services have a significant impact on unwanted pregnancies. Other second pregnant mother said that: I am a 39-year old pregnant woman said that I believe that emotional sex can be the cause of unwanted pregnancies. Social life can affect unwanted pregnancies. For example, if we look at my pregnancy, I want the pregnancy, but he does not want the pregnancy, and I met the child at work. So I believe that if a person comes in contact with a person, it can lead to unwanted sex and then pregnancy. The third pregnant mother mentioned that: The cause of unwanted pregnancies is negligence like mine because, for example, if we look at my current pregnancy it is unwanted. The reason is that while I was taking birth control pills to correct my menstrual irregularities, I forgot that the pregnancy could have taken

place. I do not believe that social life affects pregnancy. Fourth a 32 years old pregnant woman also said that :Rape is the main cause of unwanted pregnancies. So, rape: Lack of awareness about contraception and lack of knowledge about the origin of pregnancy are the main causes of unwanted pregnancies in my opinion. Social life can also affect unwanted pregnancies. For example, work and income needed to raise our children. So, these are the main ways of life. Another Fifth pregnant woman explain that: My husband left me unwanted and made my pregnancy unwanted. Another is that social events affect unwanted pregnancies at this time. Another 20-year old pregnant woman mentioned that sexual issues related to the behavioral problem (like smoking, alcohol and chat chewing, etc): My current pregnancy is intentional but I think so it is the cause of unwanted pregnancy any premarital sex, loose and unprotected sex. I don't think social event can affect unwanted pregnancies. The other 29- year's old pregnant woman also said that ; I wanted to get the current pregnancy, but I think unprotected sex could be a cause for unwanted pregnancies. Social life is highly affected by unwanted pregnancy. Finally a 28 years old pregnant woman from Kebena health center also said that : Of course, I want to get pregnant now, but I think rape is the cause of unwanted pregnancies. Social life affects unwanted pregnancies. Because of work: Marriage: If you do not have a monthly income, it will make the pregnancy unwanted. They shared their thoughts (**Table 3**).

Table 3: Demographic and Socio-economic status of pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021

Variables		Number	Percent
Age of the respondent	< 25 years	58	18.5
	25 - 29 years	56	17.8
	30 34 years	69	22.0
	35 and above	125	39.8
Marital status	Divorced/Separated	15	4.8
	Single	59	18.8
	Currently married	234	74.5
Religion	Muslim	47	15.0
	Protestant	70	22.3
	Orthodox	191	60.8
Educational status	No formal education	20	6.4
	Primary school	88	28.0
	Secondary school	134	42.7
	Higher education	66	21.0
Occupation	House wife	123	39.2
	Student	20	6.4
	Government employed	78	24.8
	Private employed	93	29.6
Monthly income	< 1650 ETB	30	9.6

(Source: National employee's monthly tax classification)	1651 - 3200 ETB	50	15.9
	> 3201 ETB	111	35.4
Living status	Current pregnant mothers both family members	40	12.7
	Current pregnant mothers only	21	6.7
	Current pregnant father only	8	2.5
	Relatives	10	3.2
	Husband	229	72.9

(Source: own survey, 2021)

4.2. Sexual and obstetric history of study participants

Of the respondents, 221(70.4%) had previous pregnancy history. Regarding the frequency of pregnancy, 202(64.3%) of the respondents said two and above times. Among respondents concerning live children, 93(29.6%) were two and above children and 84(26.8%) were only one child. The respondents 100(31.8%) had a history of abortion, of these 93(29.6%) had one time, 7(2.2%) two and above, and 208(66.2%) of the respondents did not have a history of abortion. Concerning the cost of abortion 35(11.1%) were paid 501- 1000 Ethiopian birr, 25(8%) were less than 500 Ethiopian birrs and the rest 14(4.5%) were greater than 1001 Ethiopian birr. Regarding the right time of pregnancy 207(65.9%) had the right time, 101(32.2%) had not the right time of pregnancy. Among respondents, 175(55.7%) communication with your spouse before sex, and 133(42.4%) of the respondents had no communication with your spouse before sex (**Table 4**).

Table 4: Sexual and obstetric history of pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021

Variables		Number	Percent
Pregnancy before the current pregnancy	No	87	27.7
	Yes	221	70.4
Total number of pregnancy including current pregnancy	one	31	9.9
	Two and above	202	64.3
Number of live children	one	84	26.8
	Two and above	93	29.6
Abortion history	No	208	66.2
	Yes	100	31.8
Number of times respondent had abortion	one times	93	29.6
	Two and above	7	2.2
Cost of abortion	< 500 birr	25	8.0
	501 - 1000 birr	35	11.1
	> 1001 birr	14	4.5
Right time before you become current pregnancy	No	101	32.2
	Yes	207	65.9
Communication with your spouse before sex	No	133	42.4
	Yes	175	55.7

Source: (own survey, 2021)

4.3. Contraceptive history of the study participants

The majority (95.9%) of the study participants responded they heard about family planning methods. The main sources of information for family planning methods in descending order of magnitude are media (56.6%), hospital (51.6%), friends (31.2%), books, and the internet (10.1%). Regarding awareness of contraceptive methods known, three hundred thirteen four (74.5%) of the respondents mentioned injectable, Two hundred four (64.9%) of the respondents mentioned pills, One hundred seventy-two (54.7%) of the respondents mentioned implant, One hundred twenty-four (39.4%) of the respondents mentioned IUCD, One hundred five (33.4%) of the respondents mentioned Condom, Eighty-five (27.1%) of the respondents mentioned Emergency contraceptive pills and (5.7%) of the respondents mentioned calendar method as a type of family planning method they know. Among respondents, 230(73.2%) reported that they had ever used the modern contraceptive method. Regarding methods are used to prevent pregnancy 135(42.9%) contraceptive pills, 120(38.2%) were used injectable, 82(26.1%) implant, 42(13.3%) condom, 29(9.2%) emergency contraceptive pills, 19(6.0%) IUCD and 5(1.5%) calendar methods. Respondents were asked if they discussed contraceptive use for which 230 (73.2%) said they discussed with their husbands and among them, 115 (36.6%) said they decided together with both wife and husbands. The main place of obtaining modern contraception is Health center 218(69.4%), 160(50.9%) Pharmacy, 112(35.6%) Hospital and 23(7.3%) Family Guidance Association of Ethiopia (**Table 5**).

Table 5: Contraceptive history of pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021

Variable		Number	Percent
Heard about FP methods	No	7	2.2
	Yes	301	95.9
Source of information about F/P *	Media	178	56.6
	Books	32	10.1
	Internet	32	10.1
	friends	98	31.2
	Hospital	162	51.6
Awareness of Contraceptive methods *	Pills	204	64.9
	Condom	105	33.4
	Injectable	234	74.5
	IUCD	124	39.4
	Implant	172	54.7
	Calendar method	18	5.7
	Emergency contraceptive	85	27.1
Ever use of any type of contraceptives	No	78	24.8
	Yes	230	73.2
Type of contraceptive used *	pills	135	42.9
	Condom	42	13.3
	Injectable	120	38.2

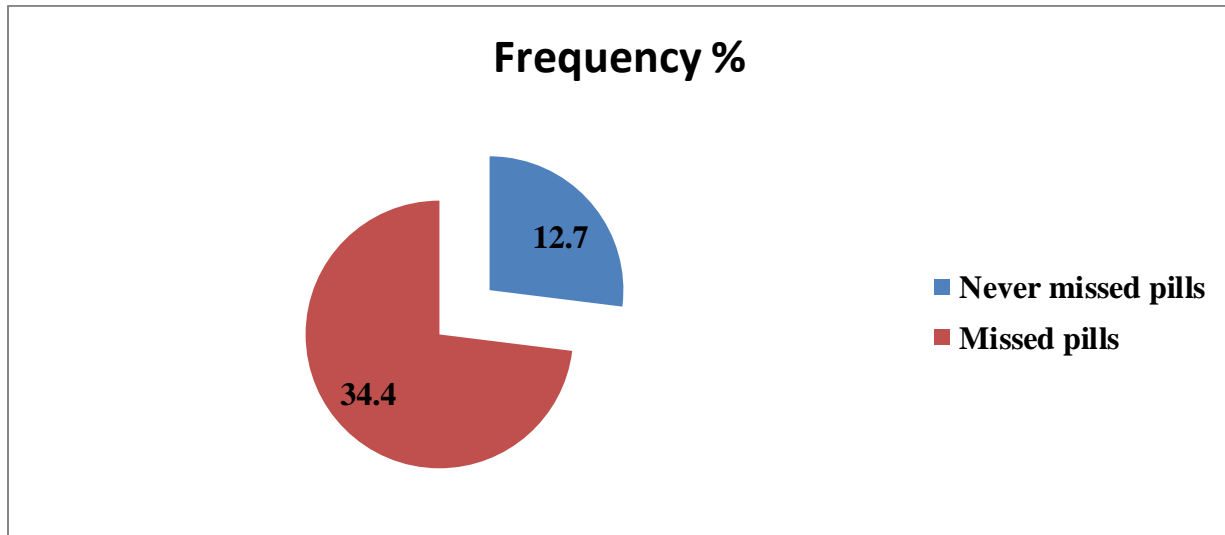
	IUCD	19	6.0
	Implant	82	26.1
	calendar method	5	1.5
	Emergency contraceptive	29	9.2
Discussion before uses of FP	No	78	24.8
	Yes	230	73.2
Place of modern contraceptive methods *	Hospital	112	35.6
	Health center	218	69.4
	FGA	23	7.3
	Pharmacy	160	50.9
Who decided for uses of family planning method	Wife	68	21.7
	Husband	94	29.9
	Wife and husband	115	36.6
Missed contraceptive pills	No	39	12.4
	Yes	106	33.8

Source: (own survey, 2021)

***Percentage do not sum to 100 as this is result of multiple response questions**

4.3.1. Missed contraceptive pills of the respondents

Among respondents, 106(34.4%) had missed contraceptive pills whereas the rest 39(12.7%) them had never missed contraceptive pills (**Figure 3**).

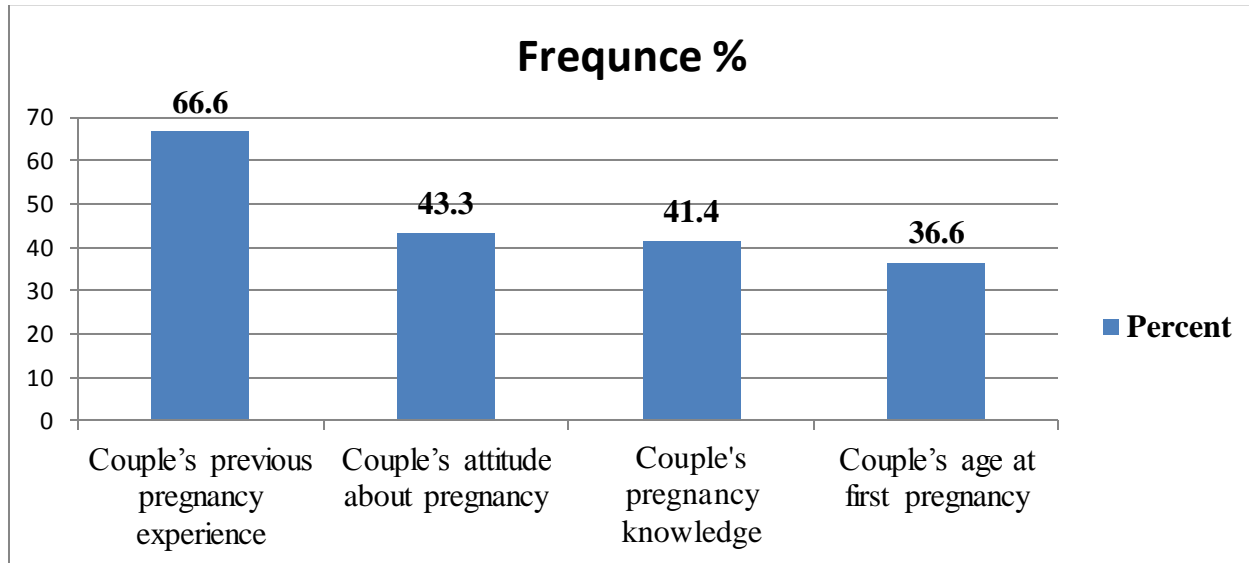


Source: (own survey, 2021)

Figure 3: Missed contraceptive pills of the respondent pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021.

4.4. Couple' factors around pregnancy

This bar graph shows couple's factors of respondents in descending order 209(66.6%), 136 (43.3%), 130 (41.4%), and 115 (36.6%), where a couple's has previous pregnancy experience, couple's attitude about pregnancy, couple's pregnancy knowledge, and couple's age at first pregnancy respectively (Figure 4).

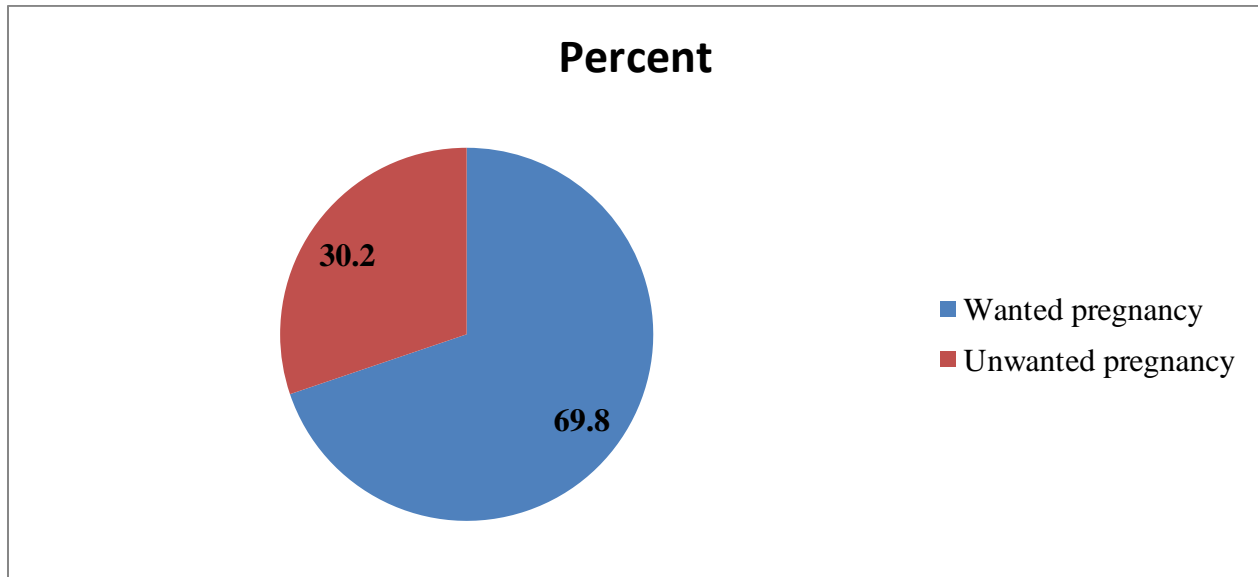


Source: (own survey, 2021)

Figure 4: Couple's factors of respondent pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021

4.5. Prevalence of unwanted pregnancy

Among the total 308 study respondents, 215(69.8%) were wanted pregnancy and the rest 93(30.2%) were unwanted pregnancies (**Figure 5**).



Source: (own survey, 2021)

Figure 5: Prevalence of unwanted pregnancy among women of reproductive age groups in Arada sub-city selected public health center Addis Ababa, Ethiopia, 2021.

4.6. Factors Associated with an unwanted pregnancy

4.6.1. Bivariate analysis

In bivariate analysis, age, marital status, educational status, occupation and monthly income, abortion history, communication with your spouse before sex, decision to use family planning method, missed contraceptive pills, ever used contraceptives, couple's previous pregnancy experience, couple's attitude about pregnancy, couple's pregnancy knowledge, and couple's age at first pregnancy about pregnancy were found to be significantly associated with an unwanted pregnancy.

Study participants whose age is greater than 35 years were 0.23 times COR [0.23 (0.07, 0.70)] less likely to have unwanted pregnancy compared with those who are age group less than 25 years. Those who are age group between 30 – 34 years COR [2.65, (1.33, 5.26)] were 2.65 times more likely to have unwanted pregnancy than those who are age group less than 25 years. Those who are currently married women COR [2.09, (1.16, 3.77)] were 2.09 times more likely to have unwanted pregnancies than those who are currently divorced, women.

From the respondents, those who have primary school COR [4.27 (1.48, 12.30)] were 4.27 times more likely to have unwanted pregnancy than those who have no formal education, Secondary school COR [2.51 (1.28, 4.92)] were 2.51 times more likely to have unwanted pregnancy than those who have no formal education and higher education were 0.26 times COR [0.26 (0.12, 0.57)] less likely to have unwanted pregnancy compared with those who are no formal education.

Those study participants who are students COR [2.45 (1.33, 4.50)], were found to be 2.45 times more likely to have unwanted pregnancy than housewives and Government employee COR [3.04 (1.09, 8.47)], were found to be 3.04 times more likely to have unwanted pregnancy than housewives. Concerning respondents monthly income earning between 1651- 3200 ETB COR [3.41 (1.45, 8.00)], were found to be 3.41 times more likely to have unwanted pregnancy than monthly income earning less than 1650 ETB and monthly income earning greater than 3201 ETB COR [3.03 (1.51, 6.07)], were found to be 3.03 times more likely to have unwanted pregnancy than monthly income earning less than 1650 ETB.

Those respondents who had an abortion were 0.44 times COR [0.44 (0.27, 0.74)] less likely to have unwanted pregnancies compared with those who have no history of abortion. Study participants who ever used contraceptives were 0.37 times COR [0.37 (0.19, 0.72)] less likely to have unwanted pregnancy compared with those who have who did not ever use. Among the study participants, those who had a communication with your spouse before sex [COR [2.23 (1.36, 3.66)] were 2.23 times more

likely to have unwanted pregnancy than those who had who did not communication with your spouse before sex. Regarding the question about a decision on which contraceptive method to use those who said your husband decide COR [(2.55 (1.36, 4.79))] were 2.55 times more likely to have unwanted pregnancy than those who decided with wife.

Concerning couple's factors of the respondents, couple's previous pregnancy experience, couple's attitude about pregnancy, couple's pregnancy knowledge, and couple's age at first pregnancy were found to be significantly associated with an unwanted pregnancy. Respondents who had couple's previous pregnancy experience COR [2.30 (1.29, 4.10)] were 2.30 times more likely to have unwanted pregnancy than those who do not have couple's previous pregnancy experience. Respondents who couple's pregnancy knowledge COR [0.57 (0.35, 0.94)], who couple's age at first pregnancy COR [0.48 (0.294, 0.794)] and those whose couple's attitude about pregnancy COR [0.47 (0.29, 0.77)] were 0.57 times, 0.48 times and 0.47 times less likely to have unwanted pregnancy compared with those who have who do not couple's pregnancy knowledge, couple's age at first pregnancy and couple's attitude about pregnancy respectively (**Table 6**).

Table 6: Bivariate analysis of factors associated with unwanted pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021

Variable	Categories	Unwanted pregnancy		COR	95% CI	P- value
		Yes	No			
Age of respondents	< 25	40	18	1		
	25 – 29	23	33	8.462	(4.184, 17.112)	0.000
	30 – 34	4	65	2.654	(1.337, 5.268)	0.005
	>35	26	99	0.234	(0.078, 0.703)	0.010
Marital status	Divorce	3	12	1		
	Single	26	33	0.664	(0.181, 2.430)	0.536
	Currently married	64	170	2.093	(1.161, 3.771)	0.014
Educational status	No formal education	13	7	1		
	Primary school	46	42	4.271	(1.482, 12.307)	0.007
	Secondary school	14	120	2.519	(1.287, 4.929)	0.007
	Higher education	20	46	0.268	(0.125, 0.575)	0.001
Occupation	House wife	50	69	1		
	Student	9	10	2.450	(1.334, 4.500)	0.004
	Government employee	13	65	3.043	(1.093, 8.470)	0.033
	Private employee	21	71	0.676	(0.313, 1.459)	0.319
Monthly income	< 1650 ETB	20	10	1		
	1651– 3200 ETB	32	18	3.415	(1.458, 8.000)	0.005
	>3201 ETB	41	70	3.035	(1.516, 6.077)	0.002
Abortion history	No	51	157	1		
	Yes	42	58	0.449	(0.270, 0.745)	0.002
Communication with your spouse	No	53	80	1		
	Yes	40	135	2.236	(1.363, 3.668)	0.001

before sex						
Who decided for you to use family planning method	Wife	33	35	1		
	Husband	29	65	2.555	(1.362, 4.793)	0.003
	Wife and Husband	31	84	1.209	(0.663, 2.205)	0.536
Missed contraceptive pills	No	16	23	1		
	Yes	77	29	0.262	(0.122, 0.565)	0.001
Ever uses contraceptives	No	13	65	1		
	Yes	80	150	0.375	(0.195, 0.721)	0.003
Couple's previous pregnancy experience	No	19	80	1		
	Yes	74	135	2.308	(1.299, 4.101)	0.004
Couple's pregnancy knowledge	No	45	133	1		
	Yes	48	82	0.578	(0.354, 0.944)	0.029
Couple's age at first pregnancy	No	47	146	1		
	Yes	46	69	0.483	(0.294, 0.794)	0.004
Couple's attitude about pregnancy	No	40	132	1		
	Yes	53	83	0.475	(0.290, 0.778)	0.003

Source: (own survey, 2021)

4.6.2. Multivariate analysis

In multivariate analysis some of the variables which had a significant association in the bivariate analysis showed significant association except for age, abortion history, communication with your spouse before sex, ever used contraceptives, couple's pregnancy knowledge, couple's age at first pregnancy, and couple's attitude about pregnancy. Study participants who are currently married women AOR [10.09 (1.81, 56.16)] were 10.09 times more likely to have unwanted pregnancies than divorced women. Because, of married women most of the time the pregnancy is suddenly happen after six weeks of delivery. Which is lack of awareness in the use of LAM and negligence to uses other family planning method. Respondents who had higher education AOR [0.14 (0.03, 0.70)] were 0.14 times less likely to have unwanted pregnancies than those who have no formal education. Concerning occupation student respondents AOR [4.64 (1.35, 15.92)] were 4.64 times more likely to have unwanted pregnancies than those who were housewives.

Some of the family planning factors have a significant association as revealed in the multivariate analysis. Regarding the decision for using family planning methods of married (husband) respondents AOR [(4.03 (1.10, 14.72))] were 4.03 times more likely to have unwanted pregnancies than those who have wives. Study participants who missed contraceptive pills AOR [0.25 (0.08, 0.76)] were 0.25 times less likely to have unwanted pregnancies compared with those who have not missed contraceptive pills **(Table 7)**.

Table 7: Multivariate analysis of factors associated with unwanted pregnant women attending Antenatal care services in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia, 2021.

Variable	Categories	Unwanted pregnancy		COR	AOR	95% CI	P value
		Yes	No				
Age of respondents	< 25	40	18	1	1		
	25 – 29	23	33	8.462	1.139	(0. 287, 4.516)	0. 853
	30 – 34	4	65	2.654	0.255	(0. 065, 0.999)	0. 050
	>35	26	99	0.234	0.590	(0.064, 5.458)	0. 642
Marital status	Divorce	3	12	1	1		
	Single	26	33	0.664	0.430	(0.070, 2.658)	0.364
	Currently married	64	170	2.093	10.09	(1.813, 56.166)	0.008
Educational status	No formal education	13	7	1	1		
	Primary school	46	42	4.271	1.980	(0.246, 15.911)	0.521
	Secondary school	14	120	2.519	0.799	(0.186, 3.428)	0.763
	Higher education	20	46	0.268	0.148	(0.031, 0.707)	0.017
Occupation	House wife	50	69	1	1		
	Student	9	10	2.450	4.644	(1.354, 15.926)	0.015
	Government employee	13	65	3.043	0.952	(0.165, 5.493)	0.956
	Private employee	21	71	0.676	0.352	(0.089, 1.402)	0.139
Abortion history	No	51	157	1	1		
	Yes	42	58	0.449	0.877	(0.316, 2.437)	0.801
Communication with your spouse before sex	No	53	80	1	1		
	Yes	40	135	2.236	0.817	(0.276, 2.417)	0.715
Who decided for you to use family	Wife	33	35	1	1		

planning method	Husband	29	65	2.555	4.035	(1.105, 14.729)	0.035
	Wife and Husband	31	84	1.209	1.790	(0.547, 5.854)	0.336
Missed contraceptive pills	No	16	23	1	1		
	Yes	77	29	0.262	0.257	(0.086, 0.768)	0.015
Ever used contraceptives	No	13	65	1	1		
	Yes	80	150	0.375	0.498	(0.131, 1.896)	0.307
Couple's pregnancy knowledge	No	45	133	1	1		
	Yes	48	82	0.578	0.750	(0.273, 2.062)	0.578
Couple's age at first pregnancy	No	47	146	1	1		
	Yes	46	69	0.483	1.542	(0.536, 4.441)	0.422
Couple's attitude about pregnancy	No	40	132	1	1		
	Yes	53	83	0.475	0.643	(0.235, 1.757)	0.389

Source: (own survey, 2021)

CHAPTER FIVE

DISCUSSIONS

This is a facility-based cross-sectional study that attempted to assess the prevalence of unwanted pregnancy and associated socio-economic and demographic factors among women of reproductive age in selected public health centers of Arada sub-city, Addis Ababa, Ethiopia.

In the current study, the prevalence of unwanted pregnancy was 30.2%. This is consistent with studies done in Maichew town Northern Ethiopia, 29.7% (Eskeziaw et al, 2017), and Addis Ababa 30.3% (Meseret T, 2018). The finding of this study was higher than comparable to study conducted in FaFan zone Region Eastern Ethiopia study of that 10.9% (Mekonnen M et al, 2018) and the report of EDHS 2016 prevalence of unwanted pregnancy was 25% (CSA and ICF, 2016) and study conducted in Gondar town northwestern Ethiopia 20.6% and saesie Tsaeda Emba woreda was 24.9% (Gebrehiwot G et al, 2018).

The finding of this study was lower than the study conducted in Malawi 43% (Exavery A et al, 2014), west Wollega 36.5% (Fetene T et al, 2014), Arsi Negele woreda west Arsi was 41.5% (R.O.Fite A et al, 2018), Dilla 36.9% (Feyisso M et al, 2017), and Addis Ababa 36% (Tadele k et al, 2017). This difference may be due to different reasons like study design difference, time variation, socio-cultural difference, the demographic difference between the current study and the previous study.

In multivariate binary logistic regression analysis women's marital status, educational status, occupation, decided uses of the family planning method, and missed contraceptive pills were found to be significantly associated with an unwanted pregnancy.

In the multivariate binary logistic regression model, the factor that was significantly associated with unwanted pregnancy was marital status. Married AOR [10.09 (1.813 – 56.166)] was significantly associated with an unwanted pregnancy. Because, of married women most of the time the pregnancy is suddenly happen after six weeks of delivery. Which is lack of awareness in the use of LAM and negligence to uses other family planning method. This finding was consistent with the finding in Addis Ababa selected health facilities where the marital status respondent's AOR (1.783 (1.036, 3.068) was significantly associated with an unwanted pregnancy (Teshale M et al, 2017).

In the regression model, the factor that was significantly associated with unwanted pregnancy was educational status. Higher education AOR [0.14 (0.03, 0.70)] were 0.14 times less likely to have

unwanted pregnancies. This finding was incomparable with the finding in Addis Ababa private and public health facilities where no formal education AOR [7.4 6(1.93 -28.94)] was associated with an unwanted pregnancy (Meseret T, 2018).

Another socio-economic factor significantly associated with unwanted pregnancy was occupation. Student AOR [4.644 (1.354, 15.926)] was significantly associated with an unwanted pregnancy. This finding was consistent with the finding again in Addis Ababa private and public health facility where the student respondent's AOR [6.96 (2.07, 13.7)] was associated with an unwanted pregnancy (Meseret T, 2018).

Another significant multivariate analysis was decided for uses of family planning methods. Regarding decided for uses of family planning methods of the respondents those who had husband AOR [(4.03 (1.10, 14.72)] were 4.03 times more likely to have unwanted pregnancy than those who have a wife. Study participants who missed contraceptive pills AOR [0.25 (0.08, 0.76)] were 0.25 times less likely to have unwanted pregnancies compared with those who have not missed contraceptive pills. This difference could be due to the reason reported in the current study which shows that several unwanted pregnancies were occurred due to the gap between misses of contraceptive pills, and most of the pregnant women in an in-depth interview mentioned that the cause of unwanted pregnancy is also rape, missed contraceptive pills, and behavioral problems are the cause of unwanted pregnancy.

This study also revealed that the educational status of the women was also one of the factors determining the proportion of unwanted pregnancies. This finding is also supported by the finding of other studies that revealed educational status playing a considerable role in determining the prevalence of unwanted pregnancy. Study participants reported that missed contraceptive pills as their major reasons for the unwanted pregnancy (34.4%).

Concerning the history of abortion, the current study found an abortion rate of 31.8% whereas the majority were induced abortion. In consistent result was reported in the study done in Addis Ababa among public health facilities where 48% had a previous abortion with the majority were induced abortion (Tadele et al, 2015).

6. Conclusion and Recommendations

6.1. Conclusion

The prevalence of unwanted pregnancy was (30.2%) in the study area. This indicates unwanted pregnancy is a major demographic, socio-economic, and reproductive health problem. So, this study's finding was lower than the study conducted in Addis Ababa 37.8%, 36%, and higher than EDHS 2016 25%. Further Analysis of data revealed that the majorities (74.5%) of the respondents were currently married, 18.8% were single and the remaining 4.8% were divorce. While about 42.7 % of them were completed secondary school and 28% of the respondents were completed primary school. According to the findings of this study currently married woman, educational status, occupation, decision for using family planning methods and missed contraceptive pills were found to be statistically significant variables at p-value less than 0.05 ($\alpha=0.05$) affecting an unwanted pregnancy.

6.2. Recommendations

Based on the findings of the study the researcher gives the following recommendations:

- ❖ **The FMOH and Addis Ababa health bureau:** in collaboration with members of non-government organizations as well as UN agencies such as WHO, UNICEF and UNFPA, etc. need to establish comprehensive sexual and reproductive health programs for reproductive age groups especially for women.
- ❖ **Arada sub-city health office:** Train, inform, educate, communicate and program improvements in both public and private health facility staffs.
- ❖ **All Arada sub-city selected public health centers:** Creating awareness on sexual and reproductive health, increasing the accessibility of maternal health services for women are recommended to reduce unwanted pregnancy.
- ❖ **Health worker:** More information should be given to the community on family planning about unwanted pregnancy.
 - Rearrange service time according to local needs following a need assessment of the client's need about the time of the service.
- ❖ **Policy and program level:** Address the issue of unwanted pregnancies by designing strategies in policy documents, strategic plans, including Health Sector Development program.
- ❖ **Mass media:** reproductive health programs, promoting long and short-term family planning methods by the provision of effective IEC and counseling, and encourage men's participation with their partner in fertility issues and using contraception.

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Annex

Addis Ababa University,

College of Developmental Studies, Center for population Studies

Informed consent statement

A questionnaire for the study of prevalence of unwanted pregnancy and associated socio-economic and demographic factors among women of reproductive age at public health centers of Arada sub city Addis Ababa, Ethiopia, 2021.

Good morning/afternoon, my name is ----- I am working with Masreshaw Adane who is completing his master's Degree in Addis Ababa University College of Developmental studies, Center for Population Studies. This study is, part of the requirements for the fulfillment of the MSc programme he is enrolled. I would like to ask you questions about some important issues in relation to unintended pregnancy.

Whatever information you provide will be kept strictly confidential and will not be shown to other individuals. Participation in this study 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 health centers and you don't have to answer any question if you don't, and you can stop the interview at any time. However, I hope that you will actively participate in this survey since your views are important. The study may require 20 Minuit. So please give me only some minutes to complete my questions.

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: _____

Annex I: English Version Questionnaire

Part I: Socio-economic and Demographic characteristics of pregnant women attending ANC clinic

Codes	Questions	Responses	Skip
101	How old are you?Years	
102	What is your marital status?	<ol style="list-style-type: none"> 1. Single 2. Married 3. Divorced 4. Other specify----- 	
103	What is your religion?	<ol style="list-style-type: none"> 1. Orthodox 2. Muslim 3. Protestant 4. Other specify----- 	
104	What is the highest level of education you obtained?	<ol style="list-style-type: none"> 1. Not formal education 2. Primary 3. Secondary 4. Higher Education 5. Other specify..... 	
105	What is your occupation?	<ol style="list-style-type: none"> 1. House wife 2. Student 3. Government employee 4. Private employee 5. Other specify 	
106	How much is your current monthly income?	<ol style="list-style-type: none"> 1. <1650 ETB 2. 1651 -3200 ETB 3. > 3201 ETB 	
107	Who are you living with?	<ol style="list-style-type: none"> 1. Both family members 2. Mother Only 3. Father only 4. Relatives 5. Husband 	

Part II: Obstetric and sexual history of pregnant women attending ANC clinic

Code	Questions	Response	Skip
201	Have you ever been pregnant before the current pregnancy?	1. Yes 2. No	(if no go 208)
202	How many times have you ever been pregnant including this one? in number	
203	How many live children do you have that were born to you? in number	
204	Have you had abortion before?	1. Yes 2. No	(If No Go-- ---208)
205	If yes, how many times?	1. once 2. two and above	
206	How much did it cost to do an abortion? ETH birr	
207	Right time 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	if yes Q No 209
208	If YES to Q.208 would you say you became pregnant at about the right time?	1. Yes 2. No	If No go to Q 210
209	If NO to Q, 209 why to prevent current pregnancy (more than one answer is right)	1. No knowledge of contraceptive 2. Method not available 3. Partner opposed 4. failures of contraceptive 5. Other/specify/	
210	Have you ever had an unwanted pregnancy before?	1. Yes 2. No	
211	If yes to Q. No 211, When did the last unwanted pregnancy or pregnancies you had occurred?	1. Within one years 2. More than one years	
212	If yes to Q. No 211, How many unwanted pregnancies have you had within the last three	1. One 2. Two and above	

	years?		
213	Do you have a conversation with your spouse before you have sex?	1. Yes 2. No	

Part III: Contraceptive history of pregnant women attending ANC clinic

Code	Question	Response	Skip
301	Have you ever heard about methods of family planning?	1. Yes 2. No	(If no Go to ...305)
302	If 301 questions answer yes where did you hear it from? (more than one answer is right)	1. Media 2. Books 3. Internet 4. Friends 5. Hospitals 6. Other specify	
303	If 301 questions answer yes types of contraceptive methods you are aware of? (more than one answer is right)	1. Pills 2. Condoms 3. Injectable 4. IUCD 5. Implant 6. Calendar/ Rhythm 7. Emergency contraceptive 8. Other specify	
304	Have you ever used any type of contraceptive to delay or avoid pregnancy?	1. Yes 2. No	(If no Go 306)
305	If yes which method have you used? (more than one answer is right)	1. Pills 2. Condoms 3. Injectable 4. IUCD 5. Implant 6. Calendar/ Rhythm 7. Emergency contraceptive 8. Other specify	
306	Do you have discussion about family planning	1. Yes	

	with spouse method you used before using?	2. No	
307	Do you have discussion about family planning methods with your spouse used for yourself?	1. Wife 2. Husband 3. Wife and husband jointly	
308	Where is the main place that you or other women are able to get modern contraception from?	1. Hospital 2. health center 3. FGAE 4. Pharmacy/drug vendor 5. Community Health Post 6. I don' know 7. Other specify	
309	Is it possible to prevent unintended pregnancy following unprotected sexual intercourse?	1. Yes 2. No	
310	If yes to Q.309 which methods can be Used?	1. Emergency contraceptive pills 2. Injectable 3. IUD 4. Other specify	
311	Have you ever forgotten about birth control when using contraceptives pills?	1. Yes 2. No	(If your answer is Yes, go to Q 312)
312	If so, how many days have you forgotten?	1. One day 2. Two and above	

Part IV: Assess your family contribution around unwanted pregnancies

Code	Question	Response	Skip
401	Do you family previous pregnancy experience affects unwanted pregnancy?	1. Yes 2. No	
402	Does your family pregnancy knowledge affect an unwanted pregnancy?	1. Yes 2. No	
403	Does your family age at first pregnancy affect an unwanted pregnancy?	1. Yes 2. No	If the answer is

			Yes, go to No. 404
404	If the answer to No. 403 is yes, why did you follow it?	<ol style="list-style-type: none"> 1. Because it is obligatory in the environment 2. Because it is unpopular in the area 3. Because it is a local livelihood 4. Explain if there is another 	
405	Do you family's attitude about pregnancy affect unwanted pregnancy?	<ol style="list-style-type: none"> 1. Yes 2. No 	

Guide for in- depth Interview with currently pregnant women

Qualitative part

Greetings ...I am currently doing a research to assess prevalence of unwanted pregnancy and associated socio economic and demographic factors among women reproductive age at public health centers of Arada sub city to fulfill the requirement for masters in Population study. I am here to interview you on some issues which enable us to support the quantitative findings of the study from. Your response to this interview will remain confidential.

Are you willing to participate in this study?

1. Yes (continue interviewing)
2. No (say thank you)

Area of Interview: -----

Age: ----- Years

Date of interview/in-depth ____/____/____

Name of interviewer: -----

Thank you for your participation in the interview.

In-depth interview guide

1. What is the main cause of unwanted pregnancy?
2. Do you socio-economic and demographic factors affect unwanted pregnancy? How?

Annex II: Amharic version questionnaire

አዲስ አበባ ዩኒቨርሲቲ

የሐገር ልማትና የስነ ሕዝብ ጥናት ትምህርት ክፍል

የስምምነት ማረጋገጫ

ጤና ይስጥልኝ ስሜ.....ይባላል። እኔ ከ ማስረሻው አዳኝ ጋር እየሰራሁ ሲሆን ይህ ጥናት በአዲስ አበባ ዩኒቨርሲቲ በድህረ ምረቃ ፕሮግራም የሁለተኛ ዲግሪውን በስነ ሕዝብ ጥናት መስክ ለመመረቅ ከሚያስፈልጉት መስፈርቶች አንዱና ዋናው ነው። የጥናቱ ዋና አላማ ነብስ ጡር እናቶች ያልታደደ እርግዝናን በተመለከተ ያለውን ስርጭትና ተያይዘው ያሉ ምክንያቶችን ለይቶ ለማወቅ እንዲሁም ችግሮቹን በተመለከተ መፍትሄ ለማግኘት የሚካሄድ ጥናት ነው።

በዚህ መረጃ አሰባሰብ ላይ የሚሳተፉት እድሜያቸው ከ18 አመት በላይ የሆኑ ነብስጡር እናቶች ሲሆኑ እርሶም መስፈርቱን አሟልተው ከተመረጡ እናቶች አንዷ ናት። በዚህ ጥናት የሚገኘው መረጃ ለጥናቱ አላማ ብቻ የሚውል ይሆናል። ከእርሶ የሚገኘው መረጃ ሚስጥራዊነቱ የተጠበቀ ነው እንዲሁም የእርሶ ስም በዚህ መጠይቅ ውስጥ አይጠየቅም። በዚህ ጥናት በመሳተፎ ባልታደደ እርግዝና ምክንያት የሚከሰቱትን ችግሮች ለመቅረፍ በሚደረገው ጥረት አካል በመሆኖ ተጠቃሚነት እንዲሁም በዚህ ጥናት በመሳተፎ ምንም አይነት ጉዳት ወይም በአገልግሎት ላይ ሊገጥሞት የሚችል ነገር የለም። በተጨማሪም የሚጠየቁትን ጥያቄ ሙሉ ለሙሉ መመለስ ወይንም በከፊል መመለስ በፈለጉ ጊዜ ማቋረጥ መብትዎ ነው። መጠይቁ 20 ደቂቃ ይወስዳል።

ለተጨማሪ መረጃ በስልክ ቁጥር 0910297341 ወይም በኢሜል አድራሻ masreshaw.ad@gmail.com መጠቀም ይችላሉ።

በፍቃደኝነት ስለሚያደርጉት አስተዋጾ በቅድሚያ እናመሰግናለን።

ጥያቄውን ለመቀጠል ፈቃደኛ ናት

- 1. አዎ.....መጠይቁን ይቀጥሉ
- 2. አይደለሁም.....መጠይቁን ያቁሙና ያመስግኑ

መለያ ቁጥር

መረጃው የተሰበሰበበት ቀን...../...../.....

ክፍል 1: ማህበራዊና ስነ ህዝባዊ መረጃዎች

ኮድ	ጥያቄ	መልስ	እለፍ
101	እድሜዎ ስንት ነው? አመት	
102	የጋብቻ ሁኔታ?	<ol style="list-style-type: none"> 1. ያላገባች 2. ያገባች 3. የተፋታች 4. ሌላ ካለ ይግለፁ..... 	
103	ሃይማኖትዎ ?	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ሌላ(ይግለጹ)_____ 	
104	ከፍተኛው የትምህርት ደረጃ?	<ol style="list-style-type: none"> 1. መደበኛ ትምህርት ያልሆነ 2. አንደኛ ደረጃ 3. ሁለተኛ ደረጃ 4. ከፍተኛ ትምህርት 5. ሌላ ካለ ይግለፁ..... 	
105	ስራዎት ምንድን ነው?	<ol style="list-style-type: none"> 1. የቤት እመቤት 2. ተማሪ 3. የመንግስት ተቀጣሪ 4. የግል ስራተኛ 5. ሌላ ካለ ይግለጹ 	
106	በራስዎ የሚያገኙት ወርሃዊ ገቢ ሥንት ነው?	<ol style="list-style-type: none"> 1. ከ 1650 ብር በታች 2. ከ 1651 ብር እስከ 3200 ብር 3. ከ 3201 ብር በላይ 	
107	ከማን ጋር እየኖሩ ይገኛሉ?	<ol style="list-style-type: none"> 1. ከሁለቱም ወላጅ ቤተሰቦቼ ጋር 2. ከእናቱ ጋር ብቻ 3. ከአባቴ ጋር ብቻ 4. ከዘመድ ጋር 5. ከባሌ ጋር 6. ሌላ ካለ ይግለጹ 	

ክፍል II: ለቅድመ ወሊድ ክትትል የሚመጡ እናቶች የስነ ተዋልዶ ታሪክ

ኮድ	ጥያቄ	መልስ	እለፍ
201	ከዚህ እርግዝናዎ በፊት አርግዘው ያውቃለ?	1. አዎ 2. አይ	(አይ ከሆነ ወደ...208)
202	ከአሁኑ እርግዝናዎ ጋር ስንት ጊዜ አርግዘው ያውቃሉ? (በቁጥር)	
203	ከወለዱቸው ልጆች ውስጥ በህይወት ያሉት ስንት ናቸው? (በቁጥር)	
204	ከዚህ በፊት ውርጃ ኖሮት ያውቃሉ?	1. አዎ 2. አይ	(አይ ከሆነ ወደ--208)
205	መልስዎ አዎ ከሆነ ለጥያቄ 205 ስንት ጊዜ ውርጃ ነበርዎት?	1. አንድ ጊዜ 2. ሁለት እና ከዛ በላይ	
206	ፅንሰ ለማስወረድ ምን ያህል ወጪ አውጥተዋል? (ብር)	
207	ልክ ይህን እርግዝና ከማርገዝዎ በፊት ለመውለድ ያስቡ ነበር?	1. አዎ 2. አላሰብኩም ነበር	አዎ ከሆነ ወደ ጥ.ቁ 210
208	መልስዎ አላሰብኩም ከሆነ የአሁኑን እርግዝና ከማርገዝ በፊት ሌላ ልጅ ላለመውለድ አስበው ነበር?	1. አዎ 2. አይ	
209	ለጥያቄ ቁ. 208 መልስዎ አዎ ከሆነ የአሁን እርግዝናዎ ልክ በፈለጉት ጊዜ ነው ያረገዙት?	1. አዎ 2. አይ 3. እርግጠኛ አይደለሁም	
210	ለጥያቄ ቁ. 209 መልስዎ አይ ከሆነ አሁን እርግዝና እንዳይኖሩት ያልተከላከሉበት ምክንያት ምንድን ነው?	1. ስለ እርግዝና መከላከያ ዘዴ ግንዛቤ/ዕውቀት ማነስ 2. የእርግዝና መከላከያ ዘዴዎችን ማግኘት ስላልቻልኩ 3. ባላቤቴ/ ገዳኛዬ የእርግዝና መከላከያ ዘዴ እንደጠቀም	

		<p>ስለማይፈቅድ</p> <p>4. የተጠቀምኩት የእርግዝና መከላከያ ዘዴ ስላልሰራ</p> <p>5. ሌላ ካለ ይግለፁ -----</p>	
211	ከዚህ እርግዝናዎ በፊት ሳያቅዱ አርግዘው ያውቃሉ?	<p>1. አዎ</p> <p>2. አይ</p>	
212	ለ ጥያቄ ቁ. 211 መልስ አዎ ከሆነ መቼ ነበር ሳያቅዱት ያረገዙት?	<p>1. ባለፉት 1 ዓመት ውስጥ</p> <p>2. ከ አንድ ዓመት በላይ</p>	
213	ለጥያቄ ቁ. 211 መልስ አዎ ከሆነ ባለፉት ሦስት ዓመታት ውስጥ ስንት ያልታቀደ እርግዝናዎች ኖሮት ያውቃል?	<p>1. አንድ</p> <p>2. ሁለት እና ከዚያ በላይ</p> <p>3. ምንም</p>	
214	ከአጋሮት ጋር ስለ ወሲባዊ ግንኙነት ውይይት ያደርጋሉ?	<p>1. አዎ</p> <p>2. አላደርግም</p>	

ክፍል III: ለቅድመ ወሲድ ክትትል የሚመጡ እናቶች ስለ ወሲድ መከላከያ ያላቸው ግንዛቤ

ኮድ	ጥያቄ	መልስ	እለፍ
301	ስለቤተሰብ ምጣኔ ሰምተው ያውቃሉ?	<p>1. አዎን</p> <p>2. አይ</p>	(መልሱ አይ ከሆነ ወደ...305)
302	ለጥያቄ 301 መልስዎ አዎ ከሆነ ከየት ሰሙ?	<p>1. ከሚዲያ (ኩቴሌቪኸንና ሬዲዮ)</p> <p>2. ከመጻሕፍት</p> <p>3. ከኢንተርኔት</p> <p>4. ከጓደኛ</p> <p>5. ከሆስፒታል</p> <p>6. ከሌላ ይግለፁ</p>	
303	ለ301 ጥያቄ መልስዎ አዎ ከሆነ ምንምን ዓይነት የእርግዝና መከላከያ ዘዳዎችን ያውቃሉ? (ከአንድ በላይ መልስ ይቻላል)	<p>1. ፒልስ (የሚዋጥ)</p> <p>2. ኮንዶም</p> <p>3. መርፌ</p> <p>4. አዮ ሲ ዲ/ በማህፀን የሚቀመጥ</p> <p>5. ኢምፕላንት/ በክንድ ስር የሚቀበር</p>	

		6. ካላንደር/ የወር አበባ አደጃ-ትን በመጠቀም 7. ድንገተኛ የእርግዝና መከላከያ 8. ሌላ ካለ ይግለፁ	
304	የወሊድ መቆጣጠሪያ ተጠቅመው ያውቃሉ?	1. አዎ 2. አይ	(አይ ከሆነ ወደ---306)
305	ለ304 ጥያቄ መልስዎ አዎ ከሆነ የትኛውን ዘዴ ተጠቅመዋል? (ከአንድ በላይ መልስ ይቻላል)	1. ፒልስ (የሚዋጥ) 2. ኮንዶም 3. መርፌ 4. አዮ ሲ ዲ/ በማህፀን የሚቀመጥ 5. ኢምፕላንት/ በክንድ ስር የሚቀበር 6. ካላንደር/ የወር አበባ አደጃ-ትን በመጠቀም 7. ድንገተኛ የእርግዝና መከላከያ 8. ሌላ ካለ ይግለፁ	
306	ለ304 ጥያቄ መልስዎ አዎ ከሆነ ከመጠቀምዎ በፊት ከባለቤትዎ ጋር ተወያይተው ያውቃሉ?	1. አዎ 2. አይ	
307	ለ306 ጥያቄ መልስዎ አዎ ከሆነ የትኛውን ዘዴ መጠቀም እንዳለብዎ የሚወስነው ማነው?	1. ሚስት 2. ባል 3. ሚስት እና ባል በጋራ	
308	እርስዎ/ሌሎች ሰዎች ዘመናዊ የእርግዝና መከላከያ ዘዴዎችን በዋናነት የሚያገኙት ከየት ነው?	1. ከሆስፒታል 2. ከጤና ጣቢያ 3. ከቤተሰብ መምሪያ 4. ከመድኃኒት መሸጫ ቤቶች 5. ከጤና ኤላ 6. ሌላ ካለ ይግለፁ	
309	በድንገት ወይም ያለመከላከያ ዘዴ በተፈጸመ ወሲባዊ ግንኙነት ምክንያት	1. አዎ 2. አይ	

	የሚፈጠር ያልታቀደ እርግዝናን መከላከል ይቻላል?	3. አላውቅም	
310	ለጥያቄ ቁ. 309 መልስዎ አዎ ከሆነ ምን አይነት ዘዴ በመጠቀም ድንገተኛ እርግዝናን መከላከል ይቻላል?	1. የድንገተኛ እርግዝና መከላከያ ክኒን 2. መርፌ 3. በማኅጸን ውስጥ የሚቀመጥ ሉፕ 4. ሌላ ካለ ይግለጽ	
311	የወሊድ መከላከያ በተጠቀሙበት ወቅት የወሊድ መከላከያ ኪኒን እረስተው ያውቃሉ?	1. አዎ 2. እረስቼ አላውቅም	መልስዎ አዎ ከሆነ ወደ ጥ.ቁ 312 ይለፉ
312	እረስተው የሚያውቁ ከሆነ ስንት ቀን እረስተው ያውቃሉ?	1. አንድ ቀን 2. ሁለት ቀን እና ከዛ በላይ	

ክፍል IV: የቤተሰብ አስተዋፅዖ በአልተፈለገ እርግዝና ዙሪያ

ኮድ	ጥያቄ	መልስ	እለፍ
401	የእርስዎ የቀድሞው እርግዝና ልምድ ባልተፈለገ እርግዝና ላይ ተጽዕኖ ያሳድራሉ?	1. አዎ 2. አያሳድርም	
402	የቤተሰብዎ እርግዝና እውቀት ያልተፈለገ እርግዝና ላይ ተጽዕኖ ያሳድራል?	1. አዎ 2. አይ	
403	በመጀመሪያ እርግዝናዎ የቤተሰብዎ ዕድሜ ያልተፈለገ እርግዝና ላይ ተጽዕኖ ያሳድራል?	1. አዎ 2. አያሳድርም	መልሱ አዎ ከሆነ ወደ ጥ.ቁ 404 ይለፉ
404	የጥ.ቁ 403 መልስ አዎ ከሆነ በምን ምክንያት ተዕዛዥ ሊያሳድር ቻለ?	1. በአካባቢው ዘንድ ግዳጅ ስላለው 2. በአካባቢው ዘንድ ተቀባይነት ስለሚያሳጣ 3. የአካባቢው መተዳደሪያ ስለሆነ 4. ሌላ ካለ ይግለጹ	

405	የእርስዎ ቤተሰብ አመለካከት ባልተፈለገ እርግዝና ላይ ተፅዕኖ ያሳድራል?	1. አዎ 2. አይ	
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ስለ ትብብርዎ ምስጋናችን ላቅ ያለ ነው !!

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