



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF DEVELOPMENT STUDIES**  
**CENTER FOR POPULATION STUDY**

**ANALYZING FACTORS AFFECTING CONTRACEPTIVE UTILIZATION  
AMONG WOMEN AGED FROM 15 TO 24, EVIDENCE FROM 2016  
ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY**

**BY**  
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**Addis Ababa, Ethiopia**



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**Analyzing Factors affecting Contraceptive Utilization among Women Aged from 15 to 24 Evidence from 2016 Ethiopian Demographic and Health Survey.**

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**A Thesis submitted to the Centre for Population Studies, College of Development Studies, and Addis Ababa University in partial fulfillment of the requirements for the degree of Master of Science in Population Studies**

**June 2024**

**Addis Ababa, Ethiopia**

**Declaration**

I, the undersigned, hereby declare that this M.Sc. thesis on “**Analyzing Factor affecting contraceptive utilization among women of 15 to 24 years of ages in Ethiopia**” is my original work and has not been presented for a degree in this and/or any other university, and all sources of material used for this proposal thesis on factors affecting contraceptive use have been duly acknowledged.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

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Examiners' Approval Sheet We, the undersigned, members of the Board of Examiners of the final open defense by Adanech Nigussie, have read and evaluate her thesis entitled "Analyzing factors affecting contraceptive use among women in 15 – 24 years of age in Ethiopia". This is therefore to certify that the Thesis has been accepted in partial fulfillment of the requirements for the Master's Degree in "population study in Reproductive Health".

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Name of internal Examiner: \_\_\_\_\_ signature \_\_\_\_\_ Date \_\_\_\_\_

Name of External Examiner; \_\_\_\_\_ signature \_\_\_\_\_ Date \_\_\_\_\_

Final approval and acceptance of the thesis is contingent upon the submission of the final copy of the thesis to the candidate's Department

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## **Abbreviations**

AOR	Adjusted Odds Ratio
CI	Confidence Interval
CPR	Contraceptive Prevalence Rate
CSA	Central Statistical Agency
EA	Enumeration Area
EDHS	Ethiopian Demographic and Health Survey
FP	Family Planning
HSDP	Health Sector Development Program
MDGs	Millennium Development Goals
MDSR	Maternal Death Surveillance Report
MHS	Maternal Health Service
OR	Odds Ratio
PHC	Population and Housing Census
SPSS	Statistical package for Social Science
TF	Total Fertility

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## **Abstract**

*This study examine the key factors that affect contraceptive utilization in Ethiopia based on the EDHS data on women of 15 to 24 years of age. The health belief model broadly categorized the determinants as demographic, socio-economic and health related characteristics. This study more focused on women status of contraceptive utilization and factors more on those demographic, socioeconomic and reproductive health and related characteristic of women. So this thesis paper will more related to this health belief model. The study used the 2016 EDHS data, collected between January 18 to July 27, 2016 from all administrative region. Cross sectional study design was conducted to check the association of factors between independent characteristics of the respondent and dependent. The descriptive statistics of the variables used in the study was conducted by using various statistical tools like mean, mode, standard deviation, minimum, maximum, frequencies, percentages, etc. the result was presented by using tables and figures. Bivariate logistic regression was carried out between the selected independent factors and the outcome variables. Contraceptive utilization is one of indicators that can inform status of family planning program especially for adolescent and young age women. Level of Education of women was showing significant predictors of adolescent and young aged women. In general, the study revealed that majority of sexually active and married adolescents and young age women were not using contraceptives at the prevalence of contraceptive use among adolescents and young age girls in Ethiopia was very low and Mothers' knowledge on contraceptive methods was found to be higher effect on adolescents and young age women contraceptive use.*

**Key word:** - Contraceptive methods, Family planning, Significant, Ethiopia, Modern methods

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Population growth is a major concern in developing country because of its impact on a broader socioeconomic development and one of the factors that affect population change is family planning use. Family planning (FP) has been defined by the World Health Organization (WHO) as a voluntary and informed decision by an individual or couple on the number of children to have and when to have them (WHO, 2022). It is characterized by the use of contraceptives, either modern or traditional methods. Modern contraceptive methods include male and female sterilization, male and female condoms, depot implants, pills, Lactation Amenorrhea Method (LAM), Intra-Uterine Devices (IUD), and emergency contraception. On the other hand, traditional methods comprise the withdrawal and rhyme method (periodic abstinence). Of these two methods, modern contraceptive (contraceptive) has been recognized as an effective method for fertility reduction, and are being widely promote (WHO. 2020).

To achieve target 3.7 of the Sustainable Development Goal which emphasizes that by 2030 the world should ensure universal access to sexual and reproductive healthcare services, utilization of modern contraceptive is key. Report indicates that modern contraception prevented about 308 million unintended pregnancies in 2017. An additional 67 million unintended pregnancies could be averted if the needs for modern contraceptives are met. Provision of modern contraception to women who want to avoid pregnancy could cause a reduction in maternal deaths from 308,000 to 84,000 and newborn mortality from 2.7 million to 538,000 per year respectively (UN, 2015). These reductions in unintended pregnancies, and maternal and newborn mortalities can lead to the attainment of the target 3.1 and 3.2 of the SDG 3 which seek to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and end all preventable deaths under 5 years of age by 2030 respectively (WHO, 2020).

The prevalence of contraceptive use among women globally varies. According to statistics, in 2015, two out of every three married women or those in a union aged 15 to 49 years used a

modern or traditional contraceptive. The lowest numbers were reported in Eastern and Southern Africa (38.6%) and West and Central Africa (17.6%) (UN, 2015). A study conducted in 29 countries in sub-Saharan Africa (SSA) found that only 24.7% of adolescent girls and young women aged 15–24 years use modern contraception, with the highest and lowest prevalence reported in Lesotho (59.2%) and Chad (5.1%), respectively. Compared to all women, contraceptive prevalence rates were much lower among adolescents with only 15% of girls aged 15–19 years who were either married or in a union using modern contraceptives. Adolescents include those aged between 10 and 19 years. They can be further divided into early adolescents (11–13 years), adolescents (14–17 years), and young adults (18–25 years), who include those aged 18–19 years (Anikakorah, 2020).

Low rates of contraception use expose adolescents to the risk of adolescent pregnancy, which remains a serious public health problem, especially in Africa. Statistics from low- and middle-income countries show that for adolescents aged 15–19 years, 50% of the approximately 21 million pregnancies recorded annually are unplanned and result in approximately 12 million births (WHO, 2022). Adolescent pregnancy is associated with adverse health outcomes in this age group, compared to older women, including higher risks for early neonatal death, anemia, puerperal endometritis, operative vaginal delivery, and episiotomy. They also face a significantly increased risk of maternal mortality, obstructed labor, and obstetric fistula, which reduces their chances of getting an education or being employed. Additionally, the children born to these teenage mothers have an increased chance of death, low birth weight, small-for-gestational-age infants, and dropping out of school compared to their peers (Adedokun, 2016).

Use of contraception, particularly among young women, not only reduces pregnancy-related health risks and mortality but also cuts the risk of other poor health outcomes, including neonatal and under-5 child mortality. In developing countries, where birth spacing is less than 2 years, infant mortality is 45% and 60% higher compared with births that are 2–3 years apart and 4 or more years apart. Additionally, through contraception use, other severe social and economic consequences to young women, including not reaching their potential for educational achievement and not getting a paid job, can be prevented (WHO, 2018).

## **1.2. Statement of the problem**

Globally, the utilization of modern contraceptive methods remains very low due to the lack of family planning service; more than 350 million couples have no access to family planning service. In global south countries, there are 214 million women with in the reproductive age women who want to avoid pregnancy but have no access to use contraceptive methods. The unmet need for modern contraception among women of reproductive age was 24% in Africa. This, in turn, has negative effect in the wider development in Africa; social and economic development and it's important to achieve the sustainable development goals by improving child and maternal health. (Alemayehu, 2016)

In sub-Saharan Africa alone; about 14 million unintended (unwanted or mistimed) pregnancies occur every year and adolescent girls and young women 15–24 years old are the most vulnerable group. The reasons behind this situation include the high prevalence (about 70%) of sexually active young women with low utilization of effective contraceptive methods (less than 10%). (Okigbo. 2015). Additionally, unmarried sexually active adolescents are likely to have a high unmet need for contraception, which increases their risk of unintended pregnancies (WHO. 2018). In low/middle-income countries, nearly half (49%) of pregnancies are unintended among adolescent girls of 15–19 years old. Adolescence is viewed as the starting point in the continuum of care for reproductive, maternal, neonatal and child health; and is a phase when poor access and utilization of contraception are likely to result in poor health outcomes across the continuum of care. Early and unintended pregnancies result in increased risks of maternal mortality and morbidity, premature births, low birth weight, unsafe abortions and social consequences such as stigmatization, school drop-out and poverty. (Sedge. 2016).

Despite the fact, substantial increase in contraceptive use one-third of young women age 15–24 years have an unmet need for FP and their unmet need was twice as compared to others. In Ethiopia the contraceptive prevalence rate (CPR) among young women increased substantially from 15% - 29% in 2005 & 2011 EDHS, and the unmet need for young people is still high. It is reported as 32%, 22% among youths age 15–19 and 20–24 years

respectively. (Getachew. 2022). According to the further analysis of three years EDHS 1/4<sup>th</sup> of all pregnant adolescents and young women age (15–24) years feel that their pregnancies were mistimed or unwanted. Furthermore, in Ethiopia 28% of adolescents (15–19), 24% of young women (20–24) years were experienced with unintended pregnancies (Ayalew. 2020).

The Ethiopian Demographic and Health Survey report has shown that the total fertility rate (TFR) in the country was 4.6 children per woman and the adolescent fertility in the country is one of the highest in the world with teenage pregnancy rate of 12%. The report also has shown that the contraceptive prevalence rate among the young women aged 15-24 was very low (16%) with high unmet need (19%) (EDHS, 2016).

Contraceptive utilization has multiple benefits to women who are using and community in advance. Contraceptives prevent unintended pregnancies, reduce the number of abortions, and lower the incidence of death and disability related to complications of pregnancy and childbirth. The long-term benefits range from increased education for women and better child health to greater family savings and stronger national economies. Increased contraceptive use and reduced unmet need for contraception are central to improving maternal health, reducing child mortality and combating HIV/AIDS. (Murig, 2019).

Young women remained the important target population for reproductive health and sexual intercourse related health issues. The onset of sexual activity in young is natural. With this natural onset, the knowledge of young women regarding contraceptive methods and the access to the important reproductive services are very imperative. Educating young women about maternal health, reducing child mortality, and eliminating extreme poverty have been the target for Sustainable Development Goal (SDG) achievement and during that period intensive implementation activities were carried out. There is also a policy under implementation that states, increasing the use of contraceptives. However, after many efforts, there were no adequate achievements related to the plan and there were no deserved changes. (WHO. 2020)

Women in the age group of 15 to 24 whether they are married or not, the use of modern contraceptive among young women is very low compared to other age groups in the

developing world. This means, the contraceptive need of the young women's deserve further international interventions. In other words, despite the introduction of modern contraception over the last some decades, the level of utilization was also not adequate among all reproductive interventions

In Ethiopia, teenage pregnancy is a public health issue and a demographic challenge. The proportion varies geographically with 15% in rural and 5% in urban in 2016. Preventing teenage pregnancies and fertility is among the priority issues of the Ethiopian Federal Ministry of Health (FMOH, 2016). Ethiopia's government is implementing youth policies and national adolescent and youth health strategies to support young people in increasing their access to sexual and reproductive health services (FMOH, 2016).

### **1.3. Research Question**

1. What is the prevalence of contraceptive utilization rate among women of 15 to 24 years of age in Ethiopia?
2. What are the key demographic factors that affect contraceptive use among women of 15 to 24 years of age in Ethiopia?
3. What role of reproductive health and related variable on contraceptive use among women of 15 to 24 years of age in Ethiopia?
4. What are the key socioeconomic factors that affect contraceptive utilization among women of 15 to 24 years of age in Ethiopia?

### **1.4. Objective**

#### **1.4.1. General objective**

The general objective of the study to examine the key factors that affect contraceptive utilization in Ethiopia based on the EDHS data on women of 15 to 24 years of age. In line with this general objective, the study will try to address the following specific objectives:

#### **1.4.2. Specific objective**

1. Determine the prevalence of contraceptive utilization rate among women of 15 to 24 years of age in Ethiopia.
2. Examine the key demographic factors that affect contraceptive use among women of 15 to 24 years of age in Ethiopia.
3. Assess the association of reproductive health and health related variable with the contraceptive use among women of 15 to 24 years of age in Ethiopia.
4. Assess key socio-economic determinants of contraceptive use among 15 to 24 years of age women in Ethiopia.

### **1.5. Scope of the Study**

The study aims to assess the factors influencing the contraceptive utilization among women in 15 to 24 years of age in Ethiopia living both in rural and urban areas. The study is cross sectional quantitative design employing the test of variables; contraceptive utilization status used as an outcome variable, the independent variables are not, in any way, exhaustive due to data limitations, and are limited to key demographic, socio-economic, biological and family planning related factors. Potential variables at institutional and macro levels (such as quality of RH services, community education, policy related factors ...etc) are not part of this study.

### **1.6. Significance of the study**

The finding of this study will illustrate which personal attitudes, social norms; self-belief, intention to use contraception; competency and environmental factor are associated with consistent contraceptive use, with in different socio-economic reference group. Knowing more about which representative health factors, health related issues, demographic and socio-economic factors that influence contraceptive behavior helps nurses provide relevant information to clients in a clinic and community setting. Evidence suggests that effective education to increase contraceptive use and prevent unintended pregnancies among young women. Second, findings from this study can be used to design and test intervention strategies directed at the specific factors that prevent correct and consistent contraceptive use, by increasing the correct and consistent use of contraceptive, we can reduce unintended pregnancy, which prevents the negative health consequence for the mother and the increased morbidity and mortality for the child.

Thus, it is hoped that use the recent country wide survey data evidence on the current status of contraceptive use need among young women and the determinants at various levels are very much important to deepen the understanding of policy-makers and program planers. The evidence would also direct the development of right strategies and programs so as to close the existing gaps for underutilization of contraceptive methods among young women in Ethiopia. This in turn will enable the country to ensure the achievement of the sustainable

development goal 3, which states ensuring universal access to sexual and reproductive health services, including family planning.

The findings of this study might be helpful and the information generate might be comprehensive evidence for planners, policymakers, program managers, researchers, and for all other stakeholders to improve the health of young women in Ethiopia.

### **1.7. Strength and limitation**

The study used a nationally representative sample so the results are generalizable to all Ethiopian women aged 15 to 24 years. Standardized procedures are a requirement of DHS surveys in data collection and validated questionnaires are used which ensures the internal and external validity of the results. The study have a certain limitations, the study assessed only individual-level factors and also attitudes, and behavioral factors, especially those related to the husbands or partners, were not addressed due to the nature of the demographic and survey data. And also the survey used a cross-sectional study this type of study design cannot establish cause and effect and directionality in associations observed. The study outcome variable Effective contraception use was self-reported, so its validity cannot be corroborated with medical records or any other information sources.

### **1.8. Operational definitions**

**Young age group:** In this study we can define it as those respondents' women who reported that they had in the age category of 15 to 24.

**Contraceptive use:** Respondents who at the time of interview said they or their partner are using any contraceptive method to delay or avoid becoming pregnant. It was dichotomous denoting users and nonusers of contraceptive methods.

**Current use of modern contraception:** Current users of modern contraceptives include young women who said that are currently using any of the following modern methods of contraception, such as female sterilization, male sterilization, the pill, inject able, intrauterine device, implant, condom, and emergency contraception at the time of the survey.

### **1.9. Organization of the study**

The research study was organized into five chapters. The first chapter was focused mainly on background of the study, organizational background, and statement of the problem, research questions, and objectives of the study, significance of the study and scope of the study. The Chapter 2 dealing with both theoretical and empirical literatures related to concepts of contraceptive methods and factors affecting young age and adolescent girl's utilization of contraceptive. Chapter three was devoted to describing the research methodology such as research design, sample and sampling techniques, source of data, and methods of data analysis. Chapter four was about data analysis and interpretation. And Chapter five is expected to cover conclusions, and recommendations.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

The purpose of the literature review in this study was to obtain information on adolescent mothers' utilization of contraceptives. This chapter would help to identify previous research findings, strengths, weaknesses, and gaps and also help to familiarize the researcher with the topic. The chapter also helps to know what is known and what remains to be done in the topic of study. The researcher should see the problem within a broader perspective and evaluate findings and their significance more effectively (Uys & Basson 1991:20).

The literature review was tried to explain the topic of study with reference to the three components of the health belief model, namely individual perceptions, modifying factors, and variables affecting the likelihood of initiating action.

#### **2.1. General overview**

Globally, from the total pregnancy, an estimate of about 45 percent was unplanned, unintended, and unwanted (Agyemang, 2019). The high prevalence of unintended and untimely pregnancy might be due to low prevalence of contraceptive methods, which makes these public health problems a priority both nationally and internationally; also a social and economic burden globally. Globally, pregnancy and childbearing-related complications are the leading cause of deaths among girls aged 15-19 years worldwide, in developing countries, accounting for 99% of maternal deaths of reproductive-aged women (Alemasarweh, 2003).

#### **2.2. Young age women and Their Sexual Behaviors**

Adolescence and young age was a transition phase to adulthood; this makes any changes, physically, mentally, and psychologically, a public health priority. From the total unintended and unwanted pregnancy, globally, the majority was in those age groups. The negative health consequences of unintended pregnancy include unsafe abortion, acquiring STI including HIV, and also long-term impact for economic, social, and political implications for a country (Agyemang, 2014).

#### **2.3. Prevalence of Contraceptive Utilization**

Globally, from the total reproductive aged married or in union women in 2017, 63% were using some forms of contraceptives; from those women 58% were using modern method of contraceptives. The prevalence contraceptive utilization in Africa was less than 40% which is the lowest compared other continents; and globally the extent of unmet need of contraceptive method was one in five women (Bongaarts, 2020). In 2015, more than 60% women's of reproductive age group who are married or in union use some forms of contraception (modern or traditional) and 12% of reproductive women have unmet need for contraception. Female sterilization and IUD are the most common form of modern methods of contraceptive which accounts for more than 60% and single contraceptive method is dominated methods among youth age group girls; for instant, injectable in east and South Africa, pills in the Arab states, and male condoms in Latin America and the Caribbean (Song, 2014).

According to EDHS current report the contraceptive prevalence rate (CPR) were 8.1%, 14.7%, 29% and 35% in 2000, 2005, 2011 and 2016 respectively; mean while the unmet need for family planning during the same periods reported were as 36%, 34%, 26% and 22% respectively (Heyi, 2018); and also the prevalence of unintended pregnancy among women aged from 15 -19 were 28% and women aged from 20 - 24 were 24% each year (Heyi, 2018). Studies conducted in Ethiopia reveals that in 2014, out of 1000 reproduced aged women 28 women faced an abortion; the same study concluded 38% of the pregnancies among reproductive age women were unintended and an estimate of 620,300 of induced abortion were performed (Moore, 2016).

Study conducted in Kenya among sexually active school aged adolescent girls, 61(43.3%) of them were used modern types of contraceptives; from those adolescent girls the majorly (83.6%) were used pills followed by condoms (57.4%), injection 16.4% (Murig, 2019). Other study conducted in three African countries including Ethiopia on married women in 2019 by cross sectional studies indicated that the prevalence of modern contraceptive methods utilization highest in Ethiopia; Oromia region 47.2%, followed by Nigeria (19.4%) and Tanzania (8.7%) (Atchison, 2019).

The study conducted in different part of Ethiopia the result shows that the prevalence of the utilization of modern contraceptive use is varied; an aggregate finding from EDHS, currently used contraceptive prevalence was 41% with which the most popular contraceptive methods

are injection (27%), followed by implants (9%), and the pill and the IUD (2% each) and Another study conducted in Nekemte town showed there was high modern prevalence of contraceptive use (71.9%) among married reproductive women (WHO, 2021& Teklab, 2019).

## **2.4. Factors Associated with Contraceptive Utilization**

The Use of modern contraception method among adolescent and young age women is persistently very low due to complex several factors such as; socio demographic; socio economic; health workers in competencies to work with adolescents; lack of comprehensive knowledge; Inadequate adolescent friendly service; inconvenient working hours are some of the major influential factors that limit adolescent to seek and use of contraceptive services and information (Subedi, 2018).

### **2.4.1. Socio-Demographic Factors**

#### **A. Age**

The prevalence of contraceptive use among married or in union women increase as age and educational level, wealth quintile increase, the report shows based on the place of residence urban are also more likely to use modern contraceptive methods (WHO, 2021). The study conducted in Ghana on adolescent girl, the result shows that 18.3% of female adolescent were use both modern and traditional contraceptive method and it was determined by age, education, work status and marital status of adolescent; and visit to health facility (Nyako, 2015).The prevalence of contraceptive utilization was usually increased with age of women and experience of unintended or unwanted pregnancy among younger women 15-19 were more likely than older ones and also the experience of consequences of pregnancy related complication, disabilities and death also high on those age group (Lamina,2015).

#### **B. Educational level**

Several studies show that the use of modern method of family planning was increased with women level of education. The study conducted in southern part of Ethiopia shows that the use of modern contraceptive methods increase with level of education of women increase; married women who attend primary and secondary and above are about 1.3(95% CI; 1.1, 1.6)

and 2(95% CI; 1.4, 2.9) times more likely to use modern method of family planning methods than those uneducated women. Another study conducted in Ethiopia among different geographical setting of the country the result reveals that the effect of education on women use of contraceptive methods was highly significant (Hounton, 2015).

### **C. Place of residence**

Based on 2019 mini demographic health survey of Ethiopia, age, educational level, wealth quintile, and urban resident women were positively affects the utilization of modern family planning methods. In Ethiopia the level of modern contraceptive methods utilization was varied by women place of residence, level of education, and wealth quintile among sexually active married and in union women. The study conducted in southern part of Ethiopia result shows that utilization of modern methods of contraceptive varies significantly across regions and settlements for instance contraceptive is 2.3(95% CI: 1.7, 3.2)times higher among urban than their counter parts (Alemayhu, 2010).

## **2.4.2. Socio- Economic Factors**

### **A. Households income:**

Several studies conducted in different developing countries on determinants of contraception use socio economic and cultural characteristics of adolescent have higher effect on the utilization of modern method of contraceptive. For instance Studies conducted in sub-Saharan Africa indicated that, adolescents are unlikely to use contraception at the first time they have had sex and are more likely than older women to experience unplanned and unintended pregnancy and resulting health and socio-economic problems (Williamson, 2009).

### **B .Marital status**

Different study reveal that Parity and marital status are strongly associated with utilization of modern method of contraceptive. For instance the study conducted in three low and middle income countries including Ethiopia result shows that those married or in a union women are very high level contraceptive utilization than unmarried women which accounts 50 percent of married or in union women are using modern method of family planning (Subedi, 2018). Another study conducted in Kenya on unmarried women, the result show that the risk for unintended pregnancy was increase than their counterparts due to the reason that status of

contraceptive use and premarital contraceptive fear of peers and health workers(Abate, 2019)..

#### **2.4.3. Health System Related Factors**

And also girls who are aware of the benefit of contraceptive are face numerous barriers, including lacks of willingness to mainstream adolescents sexual and reproductive health need, transportation and financial constraints, pressure to have children, stigma of none marital contraceptive use, and fear of side effects; as a result, unmet need for contraceptive among adolescent are higher than any other age group (Chandra, 2017). In every aspect the quality of family planning service and environments of the service in health facility is important factor to use contraceptive.

The study conducted on Reproductive health service quality in four African countries such as Ethiopia, Burkina Faso, Kenya and Uganda, result shows that, the likelihood of using of using modern family planning method was higher in Ethiopia compared to the other three countries the research suggest that the nearest health care facility provide high or medium quality and quality of service provided by health facilities might be the reason of the result (Fruhanf, 2018). However, different researches conducted on different developing countries the use of modern family planning method among adolescent and young age group is still low this was more likely affected by adolescent and young age women marriage; the likelihood of using modern contraceptive methods by married adolescent and young age is low (Houston, 2015).

#### **2.4.4. Reproductive health**

##### **❖ Sexuality Related Factors**

Ethiopia reported that restricted cultural norms, lack of privacy and confidentiality, and unavailability of services were significantly influence contraceptive use among adolescents (Birhan, 2018). Study conducted in Nekeme Oromiya regional state, school based study among secondary school students 21.2% of them were used some of reproductive health service (Chandra, 2017 & Glasier, 2006). Students who were exposed to different factors like previous experience of perceived STIs symptoms, ever sexually experience and information access from school teacher were more likely to use the service reproductive health services (Binu, 2018).

##### **❖ Knowledge about methods**

The study conducted in Ghana 2019 related to adolescent women pregnancy; adolescent's pregnancies are highly related to high risk of miscarriages, stillbirths, unsafe abortions and contracting of STIs and other complications. This complication in the adolescents and young age women might be due to low level of contraceptive method utilization and low reproductive health knowledge and also lack of knowledge, awareness about contraceptive method and how and when to use it properly. The finding also reveals that knowledge of contraception does not always mount to utilization; from 95% of adolescents having knowledge about contraceptives only use 18% of them (WHO, 2019).

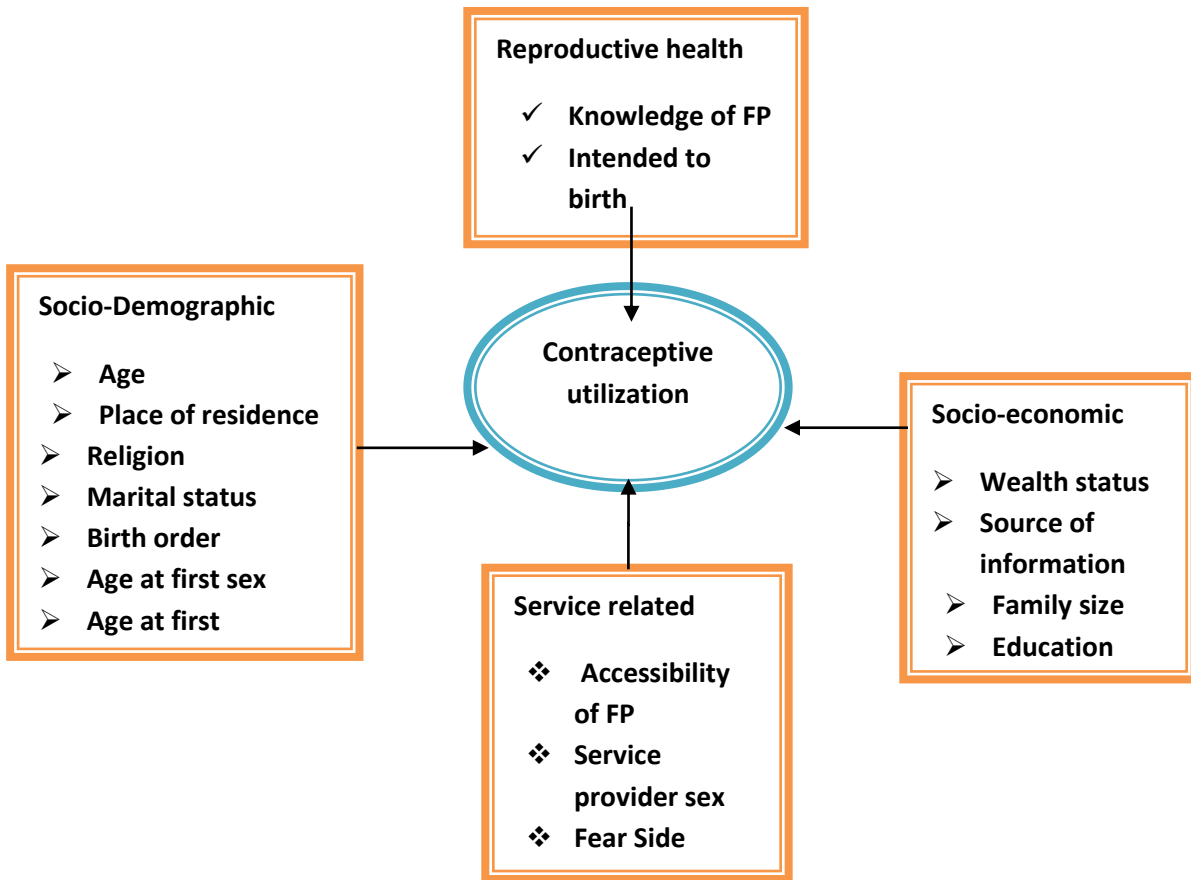
The study conducted in southern part of Ethiopia on adolescent girls and contraceptive utilization among secondary school students, the result shows that the students having good knowledge of types of youth friendly reproductive health service were more likely to use the service than their counterpart (Agyemang, 2019). Another community based study conducted in Gondar town North Western part of Ethiopia 2013 in titled on adolescent women and status of contraceptive utilization; the result shows that 79.5% of adolescent aged 15-19 years were used contraceptive and from sexually active adolescent; 68.1% of were utilized contraceptive method. The utilization of contraceptive in this particular area was positively affected by educational status of adolescent, peer groups, sexual partners and teachers (WHO, 2019).

## **2.5. Conceptual frame work**

The Health Belief Model (HBM), a well-tested, comprehensive social cognitive framework by Rosenstock and colleagues, was one of the first models used to predict and explain variations in contraceptive behavior among women in the 1970s and 1980s.

The Health Belief Model provides a framework for understanding factors operating at the individual level to influence the decision to use reproductive health services, the model highlighted a range of potential determining factors in a woman's potential to use or seek health service. The model broadly categorized the determinants as demographic, socio-economic and health related characteristics. So this study more focused on women status of contraceptive utilization and factors more on those demographic, socioeconomic and reproductive health and related characteristic of women. So this thesis paper will more related to this health belief model.

Figure 2. 1. Conceptual frame work of the study (Health Belief Model)



**Source;**-Rosenstock and colleagues theory of Health Belief Model

# CHAPTER THREE

## METHODOLOGY OF THE RESEARCH

### 3.1. Study area and Period

Ethiopia is situated in the horn of Africa covering about 1.1 million square kilometers area. The country shares border with Djibouti, Eritrea, Kenya, Somalia, south Sudan and Sudan. It has great geographical diversity, with high peaks ranging from 455 meter above sea level to low depressions of 119 meter below sea level. Ethiopia is the second most populous in Africa with a total population of 112 million, of which more than 80% live in rural areas. It has a broad geographical spectrum and over 80 distinct ethnic groups (WB, 2019).

Ethiopia has a federal system of government. The country is divided into nine administrative regions; and two city administrations. The regions are divided in to zones, Woredas and kebeles which are the lowest level of administrations. Currently there are 956 woredas, representing around 100,000 people for regional states and 16,542 kebeles with the average catchment population of 5000 people each (FMOH, 2014/15).



Source UN Office for the Coordination of Humanitarian Affairs

Figure 3. 2. Administrative map of Ethiopia

### **3.2.Data source**

The study used the 2016 EDHS data, collected between January 18 to July 27, 2016 from all administrative region. It was a community-based cross-sectional survey. The 2016 EDHS used a two-stage stratified cluster random sampling technique to ensure the representativeness of the sample by regions and residence. The survey covered all administrative regions. A household listing operation was done from September to December 2015 G.C. Then, 28 households from each cluster were selected using a systematic random sampling technique.

### **3.3.Study design**

Cross sectional study design was conducted to check the association of factors between independent characteristics of the respondent and dependent variables which are current status of contraceptive utilization by using the data from 2016 EDHS report.

### **3.4. Sample Size and Sampling Procedure**

The sampling frame used for EDHS 2016 could be a border of all census listing areas (EAs) created for the 2016EDHS and 2007 Ethiopia population and housing census (PHS). This was showed by the Central Statistical Agency (CSA, 2019). This survey uses a census frame of 84,915 enumeration areas (EAs) created for the 2007 PHC. An EA could be defined as a geographic area covering an average of 16,650 households. Administratively, Ethiopia is divided into 9 nation-states and 2 administrative cities. Every region is sub-divided into zones, every zone into Woredas, every woreda into cities, and every city into kebeles (CSA, 2016).

The sampling design for 2016EDHS used a two -stage stratified sampling selected in two stages. Stratification was conducted by separating every region into urban and rural areas. In total, 21 sampling strata were created as a result of the Addis Ababa region is entirely urban. Implicit stratification and proportional allocation were achieved at each of the lower administration levels by sorting the sampling frame within each sampling stratum before sample selection, according to administrative units in different levels, and by means of a probability proportional to size choice at the first phase of sampling(CSA, 2016).

Samples of EAs were selected independently in every stratum in 2 stages. Among the primary stage a total of 645 cluster EAs, 202 in urban and 443 in rural areas and in the second stage of selection, a fixed number of 28 households per cluster were chosen through an equal probability systematic selection from the newly created household listing created for the third (2007) population and housing census of Ethiopia. A total of 15,683 women aged 15-49 were interviewed who were either permanent residents of the chosen households or visitors who stayed within the household the night prior to the survey, were qualified to be questioned (CSA 2016).

### **3.5.Population**

#### **3.5.1. Source population**

The source population of this study was all women of age 15 to 24 in Ethiopia.

#### **3.5.2. Study population**

The study population for the study was the number of women of age 15-24 years lived in Ethiopia who were found in selected enumeration area.

### **3.6.Eligibility criteria**

#### **❖ Inclusion criteria**

All women who were either permanently residents of the selected households or visitors who stayed in the household the night before the survey was conducted are included in the 2016 EDHS report.

### **3.7.Dependent and independent variable**

#### **❖ Dependent variable**

Contraceptive method utilization status; - use any contraceptive methods (modern or traditional) during the time of the survey.

#### **❖ Independent variable**

#### **Demographic**

Age;- the age of women at the time of interview in completed years and categorized in to age 15 -17, 18 -20 and 21 - 24

Religion; the religious background of the respondent

Place of residence; the usual place of residence where the women live which categorized as urban and rural.

Age at first sex; the age women at the first sex which categorized in to age 15 -17, 18 -20 and 21 - 24 and never had sexual relationship

Marital status:- marital status of women at the time of interview

### **Socioeconomic**

Education;- the highest educational attainment of the women at the time of the survey which categorized in to 4 group

Wealth quintile; the wealth status of the respondent which will be categorized in to five group from the poorest to the wealthiest quintile

Family size; - the number of persons live in the same house as family member.

Source of information: a women had one or different source of information in the house hold categorized as Yes, and NO for there have not any source of information in the house hold.

### **Reproductive health and related**

Parity; which is the number of births the women ever had.

Intended to birth; intended or planned time to have a child or have the next birth.

Knowledge of contraceptive; the women were asked whether they have heard each of any methods of contraceptive methods complete knowledge score was produced by EDHS

### **3.8. Data Processing and Analysis**

The descriptive statistics of the variables used in the study was conducted by using various statistical tools like mean, mode, standard deviation, minimum, maximum, frequencies, percentages, etc. the result was presented by using tables and figures.

For fitting the regression model taking level of contraceptive utilization as outcome variables categorized it in two categories which will be “YES”, and “NO” regarding on various independent variable.

Bivariate logistic regression was carried out between the selected independent factors and the outcome variables (current status of contraceptive use). At bivariate level, odds ratio was used to assess the level of contraceptive use and independent variables. Statistical significance will be set at p-value of less than 0.05. Variables that shows a statistically significance (p <0.05) at bivariate level was further analyzed by multiple logistic regression methods.

Multiple logistic regression analysis was used to show factors determine the outcome variable. To determine the factor most statistically significance with utilization of

contraceptive methods AOR with 95% CI level was determined using logistic regression analysis. All of the analysis process was conducted by using IBM SPSS version 23.

### **3.9. Ethical Consideration**

The consent letter was obtained from the institutional research ethical committee (IREC) of Addis Ababa University College of development studies and the official letter will be taken and given to Ethiopian statistical agency to get the full reporting data of 2016 EDHS.

Detailed information on the study area, study population, organization of the study, sampling design, questionnaires, data collection, data quality, data processing and ethical issues is published in the Ethiopian demographic and health survey 2016 report (CSA, 2016). The author communicated with measure CSA and ICF international and permission will be granted to download and use the data for the proposed study.

### **3.10. Dissemination of the Result**

The result will be disseminated both with hard and soft copy to Addis Ababa university college of development studies, post graduate program. The result also will be disseminated and accessed to other to employed as source of information to do further research and even to critique the finding and also will be provided to Ethiopian public health institution, federal minister of health and Ethiopian central statistical agency. Also, document will be established and published on local or international journal.

### **3.11. Data quality control**

The data quality of the survey was maintained by first training of data collectors, field staffs and supervisors about the paper based and CAPI based questionnaires. The response of the participant was rechecked by the health information card from the participant and in the nearest health facility. All data collection was conducted by electronic based and were transferred via the secured internet file streaming system to the Ethiopian public health institution center office in Addis Ababa to the password protected computer. Data editing was accomplished using ESpro system software and specific feedback was given to the team to improve performance. (CSA, 2016)

## CHAPTER FOUR

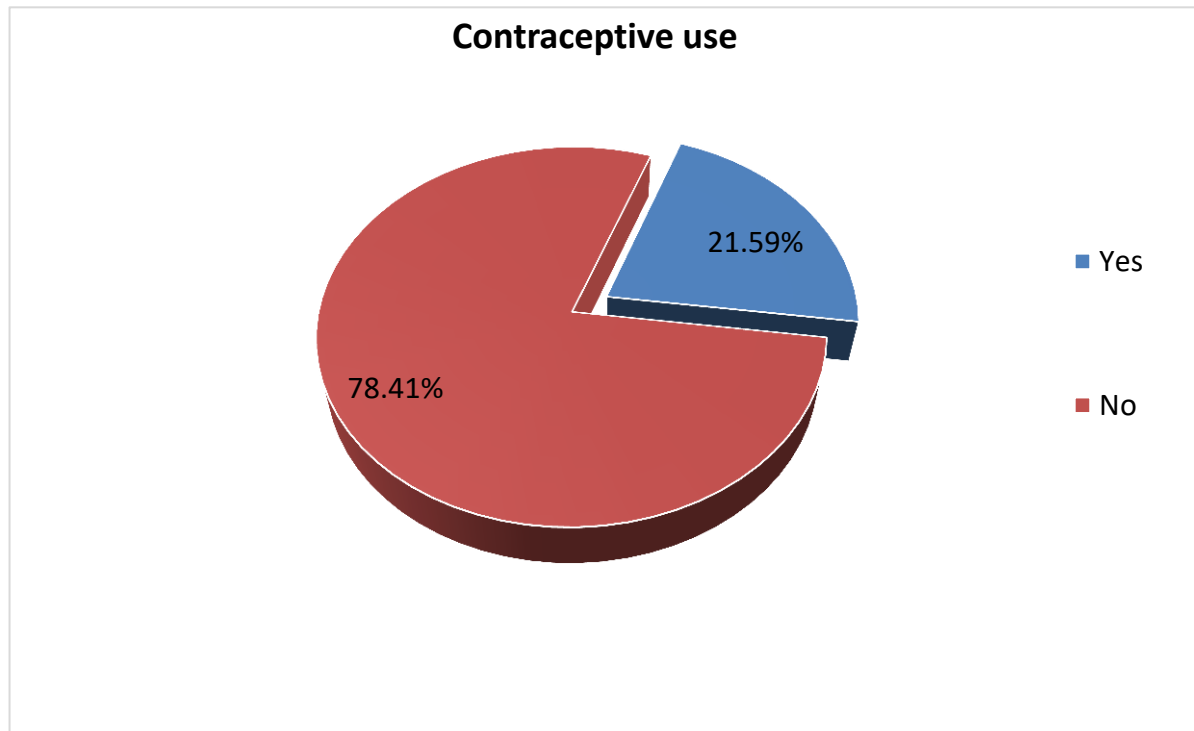
### DATA PRESENTATION AND DISCUSSION

In this section finding of the study was presented which encompass bivariate and multivariate results, frequency and percentage distribution of variable against the dependent variable was presented under subsections. The multivariate result of association between the explanatory and outcome variable was also preformed which is to be presented.

#### 4.1. Bivariate result of contraceptive utilization

The utilization of contraceptive method among women in the age group of 15 to 24 was assessed, from those young aged women only 37 % of study participant was used modern contraceptive method, on the other hand, the majority (63%) of young aged women do not used any method of contraceptive methods. These indicate that in Ethiopia the utilization rate of contraceptive among adolescent and young age women was very low.

Figure 4.3. Level of contraceptive use among women in 15 to 24 years of age



Source: processed from 2016 EDHS data set.

## 4.2 .Demographic characteristics of respondent

### ❖ Education

Based on the highest educational attainment of the women, the majority 5490 (85.8%) of women do not use any contraceptive method from those do not used any methods 1254 (89.10%) were no education and the proportion of women who use modern contraceptive method 94 (17.8%) were attaining higher education. This implies that education plays an important role contraceptive use for young ages.

Table 4.1. Highest education attainment of mother with level contraceptive use among young age group in Ethiopia

		Current use by method type			Total
		No method	Traditional	Modern method	
Highest educationa l level	No education	1254 (89.10%)	0	154(10.90%)	1408
	Primary	2638 (85%)	4 (0.10%)	462(14.90%)	3104
	Secondary	1169 (85.9%)	6 (0.40%)	186 (13.7%)	1361
	Higher	429 (81.3%)	5 (0.9%)	94 (17.8%)	528
Total		5490 (85.8%)	15 (0.2%)	896 (14%)	6401

### ❖ Current age of women

Based on the age of women, from those used at least on method of contraceptive methods the majority (36.47%) of women are in the age group of 18 -20 and also from those do not use any contraceptive method those age group are the majority (35.64%). This implies that women in the age of 18 to 20 were highly utilized contraceptive methods than other age groups.

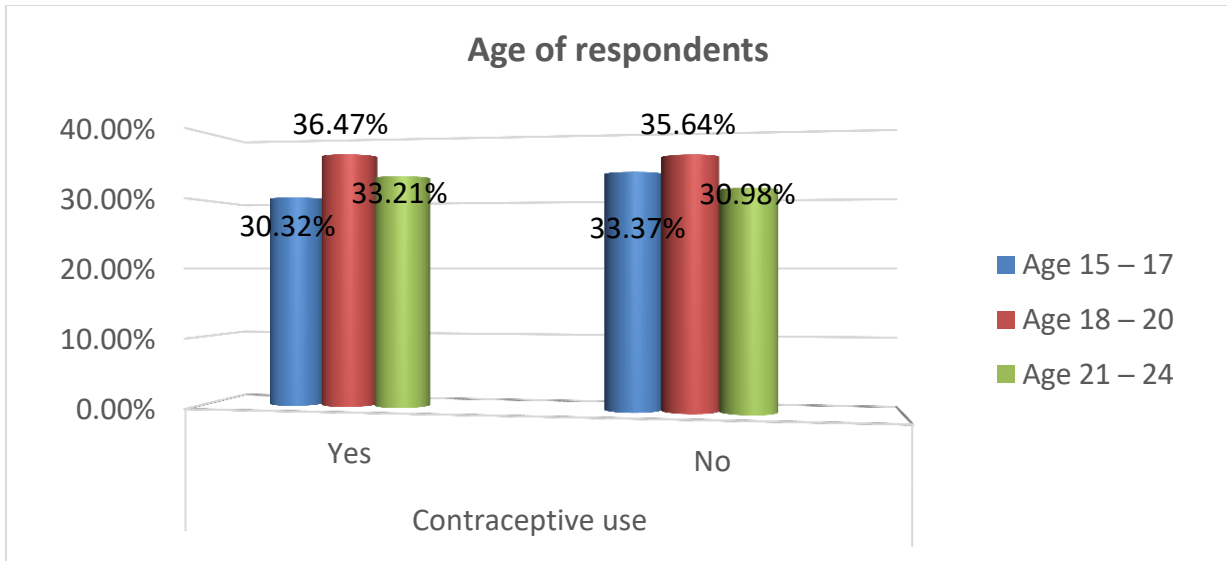


Figure 4.4. Contraceptive utilization of women based on age

❖ Type of place of residence

Based on the place of residence, the majority of young women (68.2%) who lived in rural area was do not used modern contraceptive methods compared to that of urban used at least one contraceptive method currently.

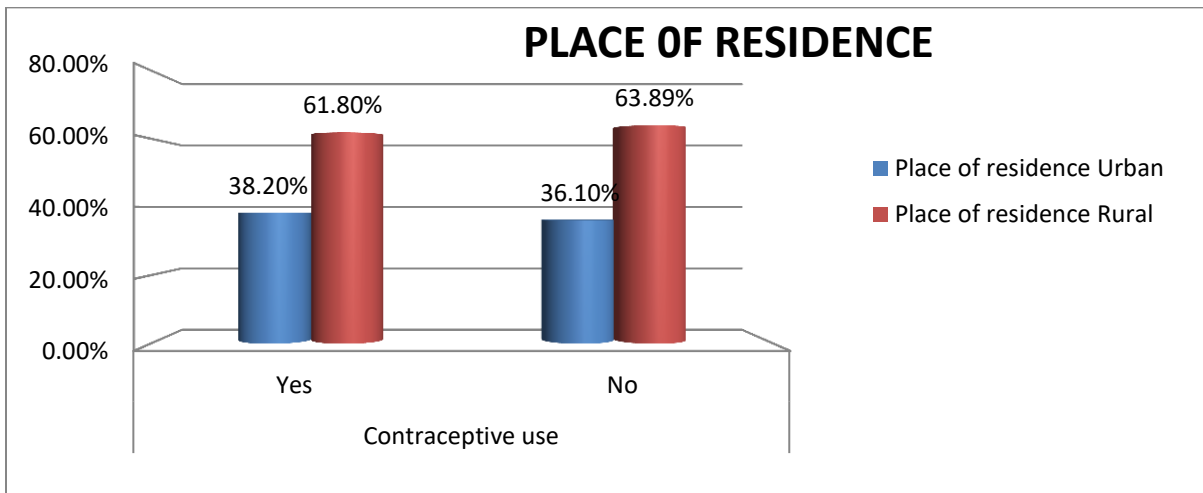


Figure 4.5. Contraceptive utilization of women based on their place of residence

❖ Marital status and Wealth index

Based on the marital status of the women, from the total women those used modern contraceptive methods; about 80.5 % were married compared to others. This implies that marriage was play an important role for women to use contraceptive methods

From the total study participant those used modern contraceptive methods about 11.4% of the poorest, 13.8% of the poorer, 14.7% of the middle, 15.3% of the rich and 44.8% of the richest were currently used contraceptive method. The table shows that when increase in the wealth states of women the utilization of modern contraceptive method was also increase This implies that the degree of wealth status increases the chance of women to use contraceptive methods.

Table 4.2. Cross tabulated data of contraceptive utilization of women with wealth and marital status of women

		Current use by method type			Total
		No method	Traditional method	Modern	
Wealth index	Poorest	1374(25%)	0	102(11.4%)	1476(23.1%)
	Poorer	650(11.8%)	0	124 (13.8%)	774 (12.1%)
	Middle	665 (12.1%)	2 (13.3%)	132 (14.7%)	799 (12.5%)
	Richer	700 (12.8%)	0	137 (15.3%)	837 (13.1%)
	Richest	2101 (38.3%)	13 (86.7%)	401 (44.8%)	2515 (39.3%)
Total		5490	15	896	6401
Current marital status	Never in union	3533 (64.4%)	7 (46.7%)	82 (9.2%)	3622 (56.6%)
	Married	1638 (29.8%)	7 (46.7%)	721 (80.5%)	2366 (37%)
	with partner	47 (0.9%)	1 (6.70%)	33(3.70%)	81(1.30%)
	Widowed	11(0.20%)	0	1(0.10%)	12
	Divorced	202 (3.70%)	0	43 (4.8%)	245 (3.8%)
	separated	59 (1.1%)	0	16 (1.8%)	75(1.2%)
Total		5490	15	896	6401

❖ Religion

Roughly 39.07 % of Muslims, 41.24% of orthodox Christian, and 18.45% of Protestants, religious followers use contraceptive methods at current level. From this one can decide or suggest that a woman from orthodox Christian used more contraceptive methods.

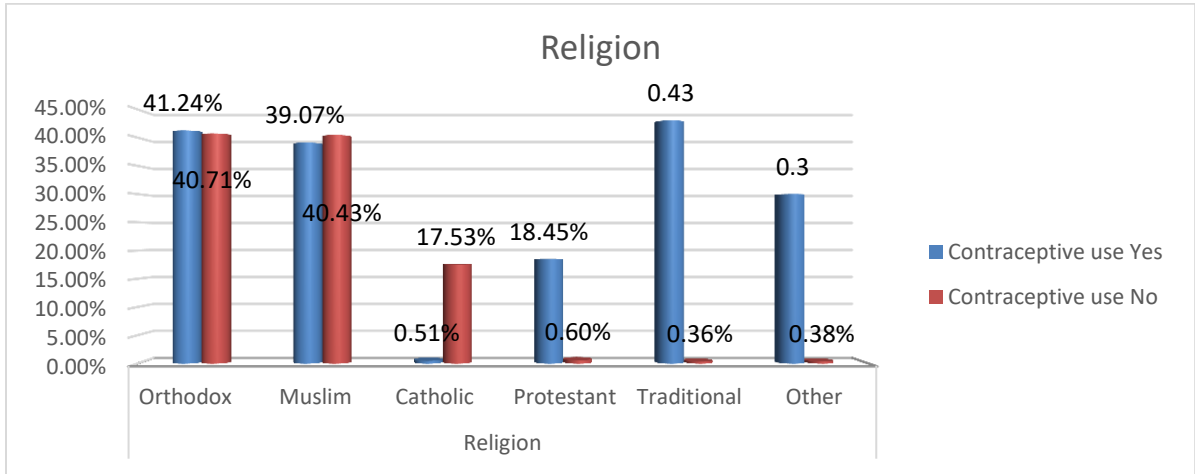


Figure 4. 6. Contraceptive utilization of women based on their religion

**4.3. Biological and family planning related variables**

Based on the status of women who heard about family planning methods, about 78 % of women who do not heard about family planning methods but do not use any methods of contraceptive. Women with less than or equal to 3 living children (22.9%), more than 3 living children (18.57%) and women do not have any child (22.11%) was used.

Table 4.3. Cross tabulated result of contraceptive and biological related variable

		Contraceptive use			
		Yes		No	
		Freq	%	Freq	%
Number of living children	None	955	21.11	3568	78.89
	1 – 3	414	22.90	1394	77.10
	≥ 4	13	18.57	57	81.43
Number of children ever born	None	945	21.15	3523	78.83
	1 – 3	416	22.72	1415	77.28
	≥ 4	21	20.59	81	79.41
Knowledge	Yes	1320	21.85	4720	78.15
	No	62	17.17	299	82.83
Pattern to use	Never used	0	0	3058	100
	Currently used	1382	100	0	0
	Used before last child	0	0	462	100
	Used since last child	0	0	599	100
Wanted last child	Wanted later	169	5.24	3059	94.76
	Wanted no more	61	36.75	105	63.25
	Wanted then	672	29.17	1632	70.83
Fertility preference	Declared in fecund	6	5.45	104	94.55
	Have another	849	20.07	3382	79.93
	Ni more	465	29.77	1097	70.23
	Sterilized	12	100	0	0
	Undecided	50	10.29	436	89.71

#### **4.4.Multivariate result for contraceptive methods**

The current contraceptive use as a dependent variable was categorized in to yes or No categories. The independent variables were entered in to binary logistic regression model to check the association between the dependent or explanatory variables. The result of binary regression that shows a level of significance less than 0.05 was further analyzed by multivariate logistic regression model. Out of 20 independent variables only 9 variables shows a significant association to the dependent variables those are age of the mother, education, religion, place of residence, marital status, wealth indexes, number of living children, fertility preference and heard about family planning methods was found to have a statistical significant association to the outcome variable children ever born. The other independent variable level of significance was greater than 0.05 ( $P > 0.05$ ) which is not have a significant effect on the dependent variable.

Table 4 .4. Binary and multinomial logistic regression of women contraceptive use.

Variables		Binary regression		Multinomial regression		
		COR	P-value	AOR	P-value	CI
Age	15 – 17					
	18 – 20	3.25	0.000	2.57	0.000	1.56 – 14.68
	21 – 24	3.64	0.0001	3.25	0.026	1.32 – 9.52
Place of residence	Urban					
	Rural	1.357	0.0000	0.836	0.014	0.724 - 0.965
Marital status	Single					
	Married	4.343	0.004	3.976	0.000	2.623 – 4.406
	Cohabited	3.129	0.001	2.018	0.891	1.376 – 2.834
	Divorced	2.063	0.0056	1.032	0.001	0.724 – 3.472
	Widowed	2.976	0.0049	2.801	0.004	1.724 – 3.472
Education	No education					
	Primary	1.842	0.000	1.98	0.0015	1.018 – 2.415
	Secondary	1.696	0.000	2.34	0.023	2.014 – 2.654
	Higher	2.811	0.000	2.56	0.001	1.67 – 6.73
Religion ref Orthodox	Muslim	0.33	0.003	0.10	0.01	0.01 – 0.85
	Catholic	0.76	0.01	0.45	0.03	0.30 – 0.67
	Protestant	1.46	0.003	1.37	0.47	1.02 – 1.83
	Traditional	0.58	0.46			
	Others	1.10	0.13			
Wealth status	Poorest					
	Poorer	1.42	0.06			
	Middle	1.89	0.001	1.76	0.001	1.25 – 2.47
	Richer	2.52	0.001	1.96	0.001	1.40 – 2.74
	Richest	3.35	0.001	3.38	0.001	1.76 – 6.37
#living children	None					
	1 – 3	1.781	0.001	1.284	0.000	0.249 – 3.951
	≥ 4	1.904	0.038	1.508	0.000	0.134 – 4.951
# CEB Ref. None	1 – 3	0.784	0.987			
	≥ 4	0.98	0.069			
Knowledge on FP	Yes	2.801	0.004	1.974	0.000	0.561 – 6.093
	No					
Pattern to use	Never use					
	Currently used	1.160	0.942			
	before last birth	0.761	0.939			
	Since last birth	0.432	0.846			
Wanted last child ref. Later	No	0.429	0.229			
	Then	0.279	0.076			
Age at first sex	15 – 17					
	18 – 20	2.06	0.000	1.98	0.0067	0.572 – 3.865
	21 – 24	3.32	0.354			

Education status of women was found to be important predictor of young aged women contraceptive utilization. The odd of contraceptive utilization of women with primary education were 1.98 (AOR = 1.98 95 % CI 1.018 -2.415), with secondary education were 2.34 (AOR = 2.3495 % CI 2.014 -2.654) and the odd for higher education was 2.56 (AOR = 2.56, 95 % CI 1.67 – 6.73) by using not educated young aged women as a reference variables. The result shows the odd of contraceptive used was higher for higher educated women.

Place of residence of the mother's shows a significant association a young women utilization of contraceptive methods. Women lived in rural area were 17% less likely to used contraceptive methods with compared to young women in urban area with (AOR = 0.836, 95% CI 0.724 -0.965) based on religious belief of the women, the multinominal regression of the data the religion was also found to be predictor of contraceptive utilization of women. The odd of modern contraceptive utilization among adolescent and young aged women with Islamic faith were (0.10 95 % CI 0.01 – 0.85), catholic was (0.45 95 % CI 0.30 – 0.67), protestant was (1.37 95 % CI 1.02 – 1.83) which compared to orthodox Christian follower. Moreover, women from traditional and other religion were not significantly associated with young aged women utilization of contraceptive.

The odd of modern contraceptive utilization among adolescent and young aged women with women in the age group of 18 – 20 and 21 – 24 were 2.57 with (AOR = 2.57, 95% CI 1.56 – 14.68) and 3.25 with (AOR = 3.25, 95% CI 1.32 – 9.52) respectively more likely use modern contraceptive methods with women in the age group of 15 – 17. The odd of contraceptive use among young women based on the multinominal regression women those know about contraceptive methods have higher odd of use than women not know about any contraceptive methods with (AOR = 1.974, 95% CI 0.561 – 6.093).

By controlling the effect of other variables Marital status was also found to be predictor of contraceptive utilization of adolescent and young age women. The odd of contraceptive utilization among women in the age of 15 -24 these are married, divorced and widowed were (AOR = 3.976, 95% CI 2.623 – 4.406), (AOR = 2.724, 95% CI 0.724 – 3.472), and (AOR = 2.801, 95% CI 1.724 – 3.472) respectively more likely to use modern method of contraceptive compared with never married women. Based on the wealth status of the women

the odd of contraceptive utilization among women in the age of 15 -24 these are poorer, middle income, richer and richest adolescent and young aged women were (AOR = 1.760, 95% CI 1.25 – 2.47), (AOR = 1.960, 95% CI 1.40 – 2.740), and (AOR = 3.38, 95% CI 1.760 – 6.37) respectively more likely to use modern method of contraceptive compared with poorest women.

#### 4.5. Discussion

Contraceptive utilization is one of indicators that can inform status of family planning program especially for adolescent and young age women. Level of Education of women was showing significant predictors of adolescent and young aged women. Women with primary education was 1.98 times more likely to use contraceptive method than not educated women and women with secondary and higher education were 2.34 and 2.56 respectively times more likely to use modern contraceptive methods than uneducated women the result shows that the educational attainment level of young women increase the likelihood to use contraceptive methods was also increase. This result was supported by the research conducted in southern Ethiopia (Gretachew. 2022), Mombasa Kenya, (Wilson, 2020) and southern Tanzania (Sedekia., Y. 2017). This might be due to educational interventions can help increase knowledge of available contraceptive methods, enabling individuals to make informed decisions and use contraception more effectively and level of education women can increase a women about comprehension of risks and benefits of contraceptive choices, including knowledge of side effects and method effectiveness.

Based on the number of living children the women had was significantly associated with contraceptive utilization, women who have more than four living children were 1.5 times more likely to use modern contraceptive methods than those women do not have any children and women those have 1 -3 living children were 1.284 times more likely to use contraceptive than women do not have any children. This might be due to the fact that if the women have more children at the younger age she wanted to minimize their number of birth or increase a space between the two children.

The place of residence shows a significant effect on the adolescent and young age women contraceptive uses, based on the result of multinominal regression women lived in rural area were 17% less likely to c used contraceptive method than urban area. The finding of this study was supported by the research conducted in Zambia (Quraish et al, 2022), study conducted in Ethiopia (Mulugeta. S, 2022) and conducted in china (Wang C, 2012). This might be due to small desire in family size and desire of late marriage in urban area, logistic advantage of contraceptive supply, availability of private clinical facilities, unmet need, and distance of health facilities and also due to low socioeconomic status in rural areas.

Multilevel multivariable analysis showed that there were significant variables related to the use of modern contraceptive method among young aged women. The women's age had a significant impact on their acceptance to use modern contraceptive methods. The result shows that women in the age group of 18 – 20 and 21 – 24 were 2.57 and 3.25 times more likely to use modern contraceptive methods than those women in the age group of 15 – 17. The finding of this study was supported by the findings of a study conducted in Nepal (Adhikari et al., 2019), Nigeria (Asaolu et al., 2019), and Malawi (Mandiwa et al., 2018), the studied discovered that the ages of women's increase their likelihood to use modern contraception was also increase The low contraceptive prevalence among women aged 15 to 17 years or decrease in the utilization of contraceptive methods with lowering of age might be due to the fact that the majority of these women not engage in sex, married not allowed before 18, difficulty of young age women to access modern contraceptive methods services, not yet begun childbearing and also due to societal beliefs that they should not have premarital sex.

Education status of women and knowledge of contraceptive methods was also show a significant association with women contraceptive utilization. The result shows that women know at least one method of contraceptive method was 2 times more likely to use modern contraceptive method than those do not know the methods and also women those had higher educational attainment was 2.56 times more likely to use modern contraceptive methods than those uneducated young age women and also women those have secondary and primary level of education were 2 and 2.34 times respectively more likely to use contraceptive methods than those uneducated mother. This might be due to enhanced knowledge about contraceptive side effects, advantages of using contraceptives, the efficient method of use, its importance can influenced women's attitudes towards contraceptive use and. informed decision making ability of educated women.

According to the study's findings, religion was strongly associated with women's utilization of modern contraception. Muslim women were less likely to use contraception compared orthodox Christian women. This finding is consistent with the conducted in Nigeria (Alomair et al. 2020). This might be due to in Muslim societies; sexual and reproductive health issues are rarely discussed and are considered sensitive subjects. The findings of the study

conducted in Nigeria find out that multiple levels of factors that influence Muslim women's sexual and reproductive health. Poor sexual and reproductive health knowledge and practices among Muslim women are a complex issue influenced by personal, community, cultural, and religious factors, as well as existing policies and regulations. (Alomair et al. 2020)

The finding of multinomial logistic regression also show women contraceptive utilization and wealth quintile status of women shows a significant association. Women in richest wealth quintile, richer and middle wealth quintile women were 3.38, 1.96 and 1.76 times more likely to use modern contraceptive utilization than women in the poorest wealth quintile. The finding of this study was supported by the study conducted in Senegal (Cohen, 2020), study in Congo (Casey, 2020), study in southern Ethiopia (Getachew, 2019). The possible explanation is that wealthy women have a better lifestyle and self-reliance to decision-making on their reproductive health outcome, women from rich families might be more educated and have careers that enable them to pursue their business agendas longer. Moreover, in our community, most rich women need to have smaller family size than poorest women in their life and this indicates that they are more likely to utilize modern contraceptive methods

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

#### 5.1. Conclusion

The study revealed that individual and reproductive health related factors that can affect the use of modern contraception among adolescent and young aged women in Ethiopia. Individual-level factors including age of women, education level, religion, wealth, place of residence and marital status, and reproductive health related factors including knowledge on family planning method, number of living children, children ever born, age at first sex, preference of other birth and wantedness of last child.

The results of multilevel logistic regression shows that age of women, marital status, education status, place of residence, religion, wealth quintile, age at first sex, knowledge of contraceptive, number of living children, and wantedness of last child was significantly affect the use of modern contraceptive methods among adolescent and young aged women in Ethiopia. Unusual result also showed in binominal and multi-nominal regression analysis such as current use contraceptive, unmet need, and fertility preference was not significantly associated with the use of modern contraceptive methods this means a significant variation in the effect of those variable does not change the utilization of the contraceptive method among adolescent and young aged women in Ethiopia.

The study contributed to the lack of consistent empirical findings among adolescent and young women national wide by including all regions and city administration. The results also contribute to a better understanding of the individual-level factors that shape modern contraceptive use and confirm the importance of investigating reproductive health related factors influences in addition to individual-level determinants.

The study findings gave baseline information for future researchers and contributed new insight to family planning research among targeted age groups. In addition to strengthening the health-systems level response to less utilization for contraceptives among those neglected age group women, programs need to be sensitive to prevailing very low prevalence of contraceptive utilization in women in young age group.

In general, the study revealed that majority of sexually active and married adolescents and young age women were not using contraceptives at the prevalence of contraceptive use among adolescents and young age girls in Ethiopia was very low and Mothers' knowledge on contraceptive methods was found to be higher effect on adolescents and young age women contraceptive use.

Contraceptive utilization is one of indicators that can inform status of family planning program especially for adolescent and young age women. Level of Education of women was showing significant predictors of adolescent and young aged women. In general, the study revealed that majority of sexually active and married adolescents and young age women were not using contraceptives at the prevalence of contraceptive use among adolescents and young age girls in Ethiopia was very low and Mothers' knowledge on contraceptive methods was found to be higher effect on adolescents and young age women contraceptive use.

## **5.2. Recommendation**

1. The government should increase women education at primary level and also incorporate utilization and importance of contraceptive methods beyond secondary school because formal education and knowledge of contraceptive methods significantly increases the demand and utilization of contraceptive methods among young and adolescent women's
2. Encouraging open communication among families by incorporating women age less than 18 and increase decision making power of women among couples about reproductive health issues including fertility intentions, desired family size, and family planning.
3. Government should discuss strategies to keep girls in school to prevent early marriage and also empowering women to by involving and increasing women employment opportunity to decrease the fertility level of women especially in rural areas of the country
4. Strengthening information dissemination about family planning methods by different means especially health extension workers increase education of women by incorporating young women

5. The policy maker and district health care provider are recommended to increase awareness on modern contraceptive methods, practices referral system to nearby hospital for permanent and long term modern FP services, health education provision to change traditional attitudes towards children that was considered as a benefit for the family, increase counseling about modern contraceptive methods and empowering women on method choice through spousal discussion.
6. Governmental and non-governmental organizations, service providers, policymakers and respective organs working on reproductive health issues should ensure availability, accessibility and sustainable of family planning services especially for those adolescents and young age women.
7. The family planning and all other reproductive health programs should incorporate males in the uptake of family planning services. This could strengthen the service utilization and male involvement in all reproductive health issues.
8. Lastly, researchers should consider how male partners influence contraceptive use in relationships because very little is known about this, and intuitively the male sexual partner seems like an important influence.

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