T.R.
ANKARA YILDIRIM BEYAZIT UNIVERSITY
INSTITUTE OF PUBLIC HEALTH

FACTORS AFFECTING UTILIZATION OF FAMILY PLANNING SERVICES AMONG WOMEN IN CHILDBEARING AGE (15-49) IN HARGEISA SOMALILAND

MASTER'S THESIS

Sagal Yussuf ADAM

PUBLIC HEALTH PROGRAM

Ankara 2022

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Sagal Yussuf ADAM

Master's Thesis

07.03.2022

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I certify that this thesis meets all the requirements for Master's Degree.

PLAGIARISM

I declare here that everything in this thesis is my unique work. I have explicitly referenced in accordance with Ankara yildirim Beyazit University guidelines, academic rules, and ethical conduct and I accept full legal responsibility for the academic procedure of my thesis.

07.03.2022

Sagal Yussuf ADAM

DECLARATION

I declare that this thesis is my original, unpublished work, it has never been presented for the similar reason before and since every other information from other people's work contained in my thesis is fully acknowledged, it does not violate upon anyone's copyright or breach any property rights.

Sagal Yussuf ADAM

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ABSTRACT

Factors Affecting Utilization of Family Planning Services Among Women in Childbearing age (15-49) in Hargeisa Somaliland

Despite the great benefits of family planning services at individual level and the community as a whole, the rate of family planning utilization is low in Somaliland and like the other sub-Saharan countries Somaliland has high burden of unintended pregnancy, unsafe abortion and maternal mortality rate. Besides nothing much is known about the factors influencing the utilization of family planning services therefore this study was aimed to asses' factors influencing utilization of family planning services among women in reproductive age in the capital city of Somaliland, Hargeisa.

The study found that Family planning was previously underutilized among women in Hargeisa Somaliland, with just 23.9 percent utilizing it, and the percentage is now much lower, with only 22.5 percent of women using it presently. Nonetheless, just 22.2 percent of respondents stated they want to utilize family planning programs in the future, owing to the fact that the majority of women 27.4 percent expressed a desire to have more children, and their partners may not accept it 18.9 percent. therefore, the overall family planning utilization among women in Hargeisa Somaliland is low and women's utilization of family planning services is influenced by their degree of education, residence place (urban or rural), and what they do for a living. Lack of partner acceptance, myths and strong cultural believes also negatively associate with the low utilization of family planning services among women in Hargeisa Somaliland.

Keywords: Family planning, contraceptives, women, utilizations, somaliland

ÖZET

Hargeisa Somaliland'da Doğurganlık Çağındaki (15-49) Kadınların Aile Planlaması Hizmetlerinden Yararlanmalarını Etkileyen Faktörler

Aile planlaması hizmetlerinin bireysel düzeyde ve bir bütün olarak toplumda büyük faydalarına rağmen, Somaliland'da ve diğer Sahra altı ülkelerde olduğu gibi aile planlaması kullanım oranı düşüktür. . Aile planlaması hizmetlerinden yararlanmayı etkileyen faktörler hakkında fazla bir şey bilinmemekle birlikte, bu çalışma Somaliland'ın başkenti Hargeisa'da üreme çağındaki kadınların aile planlaması hizmetlerinden yararlanmalarını etkileyen faktörleri değerlendirmeyi amaçlamıştır.

Çalışma, Aile planlamasının daha önce Hargeisa Somaliland'daki kadınlar arasında yeterince kullanılmadığını, sadece yüzde 23,9 oranında kullanıldığını ve yüzdenin şimdi çok daha düşük olduğunu ve şu anda kadınların yalnızca yüzde 22,5'inin kullandığı ortaya çıktı. Bununla birlikte, kadınların çoğunluğunun yüzde 27,4'ünün daha fazla çocuk sahibi olma arzusunu dile getirmesi ve eşlerinin yüzde 18,9'unu kabul etmemesi nedeniyle, katılımcıların sadece yüzde 22,2'si gelecekte aile planlaması programlarından yararlanmak istediğini belirtti. bu nedenle, Hargeisa Somaliland'deki kadınlar arasında genel aile planlaması kullanımı düşüktür ve kadınların aile planlaması hizmetlerinden yararlanmaları, eğitim derecelerinden, ikamet yerlerinden (kentsel veya kırsal) ve yaşamak için yaptıklarından etkilenir. Eşlerin kabul edilmemesi, mitler ve güçlü kültürel inançlar, Hargeisa Somaliland'daki kadınlar arasında aile planlaması hizmetlerinden düşük düzeyde yararlanma ile olumsuz bir ilişki içindedir.

Anahtar Kelimeler: Aile planlaması, kontraseptifler, kadınlar, kullanımlar, somaliland

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LIST OF ABBREVIATIONS

ABM	: Anderson's Behavioral Model
CI	: Confidence Interval
COPs	: contraceptives
CP	: Contraceptive
FP	: Family Planning
IUD	: Intrauterine Device
LTSS	: Long Term Service and Support
M.MARRIED	: Monogamously Married
MCH	: Maternal and Child Health
MMR	: Maternal Mortality Rate
MOHD	: Ministry of Health Development
NGO	: Non-Governmental Organization
P. MARRIED	: Polygamous Married
UN	: United Nations
UNICEF	: The United Nations International Children's Emergency Fund
USD	: United States Dollar
WHO	: World Health Organization

1. INTRODUCTION

1.1. Background

Through the use of contraceptive techniques, individuals can have the desired number of children with the spacing they want but the low use of family planning in both developed and developing countries is a global issue. High fertility is highly linked with maternal and child morbidity and mortality as mothers are always exposed to the risk of childbearing and its complications(1).

The importance of family planning in reaching the Millennium Development Goals(MDGs) is well acknowledged as it has been shown to reduce mother and infant mortality rates. (2). Globally increased usage of family planning has resulted in reductions in maternal and infant mortality (3). research done in ethiopia mentioned that Meeting the current demand for family planning services in developing country would reduce pregnancies as well as maternal deaths and injuries by 20% or more (4).Family planning has also been an important component of the GOBIFFF (growth monitoring, oral rehydrating salts, breastfeeding, immunization, female education, and supplementary feeding and fertility control) in WHO and UNICEF Child Survival Strategy (4).

In addition to the individual effect of family planning service use, there are also population-level benefits. From a macroeconomic perspective, reductions in fertility boost economic growth by reducing the numbers of dependent children and youth relative to the population of working age and increasing the number of women participating in paid labor (5).

Despite the great benefits of family planning services, their use in Sub-Saharan Africa is still low (2) and While there are still plans and policies in place to curb population increase, the present annual growth rate is still extremely high and future world population forecasts are still a major source of concern on a global scale. By the end of the century, the world population is predicted to reach 10.1 billion people according to a 2010 review of world population projections. While all regions of the world contribute to the current

condition of the world population, developing regions such as Asia and Africa account for the majority of population growth.Their greater impact on population growth stems from their fertility or birth patterns. These developing regions' higher fertility rates contribute considerably to global surplus births, resulting in population expansion (6).

Besides, in many African countries, family planning services face a difficult process that is entwined in a social, political, moral, and cultural web (7). Concerns about the health implications of contraception and a lack of understanding about them, side effects and effectiveness are also one of the major barriers to adoption of family planning services in africa (8).

According to studies published in the last few years, the use of FP services is influenced by a variety of factors, including demographic traits, psychological, knowledge, and attitude factors.. Other societal factors that determine contraceptive decisions how contraceptive health care is organized, the quality of information offered by specialists, and the media's effect (9). Many other reasons may also contribute to the limited uptake of family planning, It has been observed that public awareness of the services' availability has also a major impact on their utilization (2).

On the other hand, Sub-Saharan Africa (SSA) which somaliland is part of it, has the highest number of women who have an unmet need for contraception, Unmet need for family planning (FP) occurs when a woman who wishes to delay or stop having children does not use contemporary contraception (10). As a result, each year 76 million women in poor nations have unwanted pregnancies, with 19 million resorting to unsafe abortions (11).

1.2. Problem Statement

The rate of modern contraceptive use in Somaliland is one of the lowest in the world. With a burgeoning population and a shaky health system, the present population has an urgent need to use family planning services more frequently. In Somaliland on average, Somali women have more than six children during their lifetime and like the other sub-saharan countries unintended pregnancies, unsafe abortions, and maternal death are all

prevalent in Somaliland. By use of family planning Women can have the number of children they want, with enough space between them to recover from any difficulties from the last birth and have another kid whenever they desire, which can directly related to the control of metarnal mortality. Family planning also prevent women from unwanted pregnancies and unsafe abortion. And as some other studies reported on the top of being beneficial to the individuals, family planning has also alot of benefits to the population as a whole from many prespectives like fertility control which is directly propotional to economic growth of the country as the need alot of children to share the scarce resources will be reduced and a greater number of women will have time to contribute to the country's economic growth. Therefore utilization of family planning is important in many aspects.

However, little is known about the underlying issues and challenges that prevent Somali women from using contraception. therefore this study is aimed to explore factors influencing utilization of family planning services among women in reproductive age in the capital city of Somaliland, Hargeisa.

1.3. Justification of the Study

The problems and complications of unplanned pregnancy, the high number of births without spacing, and the low use of family planning among women of reproductive age have resulted in an unacceptable maternal mortality rate in Somaliland. As a result, it is expected that the findings of this study would shed additional light on the barriers that women face in accessing family planning and this information will be useful in devising appropriate interventions to increase women's access to family planning..

This study will also aid future researchers in making further assessments in the areas that this study will uncover, such as the variables that most restrict women in Somaliland from accessing family planning and how these issues may be eliminated. Because there are few studies in this field in Somaliland.

1.4. Objectives

1.4.1. General objective

The aim of this study is to asses the factors influencing utilizations of family planning services and prevalence of pervious use, current usage and the willing to use family planning services among reproductive age women in Hargeisa, Somaliland.

1.4.2. Specific objectives

- To asses the prevalence of previous use of family planning services among women in child bearing age in Hargeisa, somaliland.
- To asses the prevalence of current use of family planning services among womenwomen in child bearing age in Hargeisa, somaliland.
- To asses the prevalence of the willing to use family planning services in the near future among women women in child bearing age in Hargeisa, somaliland.
- To explore factors affecting utilization of family planning services among women in reproductive age in Hargeisa.

1.5. Hypothesis

H1: Previously, very small women employed any method of family planning services, and use was more widespread in urban regionsthan in rural areas

H2: In both urban and rural settings, family planning is currently underutilized.

H3: In the near future, many women are willing to employ any family planning services among women in reproductive age in Hargeisa.

H4: myths and cultural believes are one of the most important reasons which women may not use family planning services in Hargeisa.

2. GENERAL INFORMATION AND LITERATURE REVIEW

2.1. Introduction

Large population increase arises from high fertility and a lack of appropriate family planning. Increased access to sustained free voluntary family planning services is one of the most effective strategies to handle population growth (12). However, in both urban and rural populations of developing nations, family planning services appear to be underutilized (12).

Globally, contraception saves an estimated 2.7 million newborn lives and the loss of 60 million of healthy life in a year. In nations with high birth rates, promoting family planning has the potential to alleviate hunger and poverty, as well as prevent 32% of all maternal fatalities and approximetly 10% of all deaths in children. It would also make a significant contribution to women's empowerment, universal primary education, and environmentalstewardship in the long run (13).

2.1.1. Family planning methods and it’s affectiveness

A technique that allows couples and individuals to plan for the number of children they are going to give birth and pregnancies in terms of space and time by the use of contraceptives is called Family planning. the major goal of family planning is to prevent undesired births and achieve the optimal number of children for any family (14).

2.1.2. The most commonly used family planning methods

Contraception can be classified in a variety of ways based on the mechanism that prevents conception, as well as the length and effectiveness of the method. Natural methods, barier methods, hormonal methods and permenant methods are the primary categorization groups.

- **Natural Birth Control Methods:** The main natural approaches that can be employed include abstinence, withdrawal, fertility awareness methods, and continues breastfeeding**.** .**Abstinance** Abstinence refers to not having any sex at all.This procedure is completely effective in preventing pregnancy. **Withdrawal** is a habit in which a person with a penis pulls his or her penis out of the vaginal opening before ejaculating and it is only 78% effective.**Fertility awareness method**approaches demand you to keep a close eye on your body in order to figure out when you're most fertile. You then avoid having intercourse without a condom around the period of ovulation, which is only 76 to 88 percent effective and breast feeding for six months after giving birth can delay ovulation (15).
- **Barier methods:**Barrier birth control methods operate as barriers between the sperm of a man sperm and the egg of a woman.Spermicide (a chemical that inactivates sperm), condoms (a physical barrier that stops sperm from reaching an egg in the uterus.), and sponges (a spermicide-containing circular gadget constructed of soft foam) a diaphragm(a tiny, dome-shaped device manufactured of silicone or latex that goes inside the vaginal canal and covers the cervix and must be used in conjunction with spermicide) and The cervical cap which is a tiny plastic dome that fits over the cervix securely and is held in place by suction are all examples of barrier methods of contraceptives (16).
- **Hormonal methods:**Birth control pills, skin patches, vaginal rings, implants, and control shot are all examples of hormonal methods (17). There are two types of **birth control** pills, combination pills (estrogen and progestin-containing oral contraceptives), hormones that prevent your ovaries from releasing an egg. And Progestin-only pillsProgestin pills contain only one hormone (progestin), with no estrogen. Only 28-day packs are available, and each pill contains hormones. This means that each of the 28-day packs contains "active" pills. To avoid becoming pregnant, you must take all of the pills in the package at the same time each day (18) (19) (20).

  Skin patch birth control estrogen and progestin are hormones found in itYou apply a small patch on your skin once a week for three weeks, for a total of 21 days of patching. You don't use a patch during the fourth week, allowing

menstrual bleeding to occur.The birth control patch works by injecting hormones into your bloodstream that block your ovaries from releasing an egg, preventing pregnancy and it has a same effectiveness as birth control pills (21). **Vaginal rings** It is a latex-free, flexible plastic ring that is put into the vaginal canal.It contains estrogen and progesterone, two hormones that are released throughout a three-week period.The vaginal ring, like combination birth control tablets, prevents conception by delivering hormones into the body. The hormones prevent your ovaries from releasing an egg, preventing ovulation (22).**Implants** are small, flexible plastic tubes that are inserted beneath a girl's upper arm skin to prevent conception. The tube secretes hormones that can safeguard against conception during a period of three years throughout pregnancy (23). The **birth control shot** is a hormone injection given once every three months to prevent conception, and it is roughly 94% effective (24).

- **Permenant methods**: In permanent methods of contraception, there are two types of sterilizations, both of which are performed through surgery.The first is a A vasectomy is a minor procedure that involves cutting the tubes that deliver sperm from the testicles to the penis for men and the second is Tubal Ligation which prevents pregnancy by cutting, tying, or blocking the fallopian tubes of women (25) (26).

the most common contraceptive methods found in somalia and somaliland are injections and pills, which are mostly available in private clinics at varying prices. There are also a few places where non-governmental organizations (NGOs) offer free long-acting reversible contraception (LARC) to women (27).

2.2. Population Growth and Fertility Rate in Somalia and Somaliland

According to current estimates, Somalia's population will continue to grow fast for the rest of the century, reaching 75.03 million people in 2099. With a current population of roughly 15.89 million people, this indicates that in 80 years, the population will be nearly five times what it is now.Since 2015, Somalia's population has grown at a pace of 2.92 percent annually. Despite negative net migration, this rate results

in a population increase of around 450,000 individuals. In addition to that Somalia has an unssual fertility rate (28).In Somalia, women have 6.9 children on average. according to the SHDS data TFRs of women differ according to their residence place. Women in nomadic areas had the greatest TFR (7.3), while those in urban settings have the lowest (6.4) andOverall, the GFR in Somalia is 228 per 1,000 women (29).

2.3. Population Growth and Fertility Rate in Somaliland

Somaliland is a historical Somali territory in the Horn of Africa. The international community does not recognize its self-declared independence from Somalia in 1991. It is bordered on the west and south by Ethiopia, on the northwest by Djibouti, on the east by Puntland, and on the other side of the Gulf of Aden by Yemen. Hargeisa is the country's capital and largest city (30).

In 2018, the population was predicted to be 4,979,218 people, with a 3.14% annual growth rate. according to data obtained in 2011, the total fertility rate in Somaliland was 5.40 children per woman . Somaliland has also a high incidence of infant mortality, with an estimated rate of 76% in 2014 (30).

On the other hand, Sub-Saharan countries which somalia and somaliland are part of it are estemated to be one of, if not the most populated regions arround the world in the coming century as UN Department of Economics and social Affairs (2019a). The 2019 World Population Prospects report reveals.

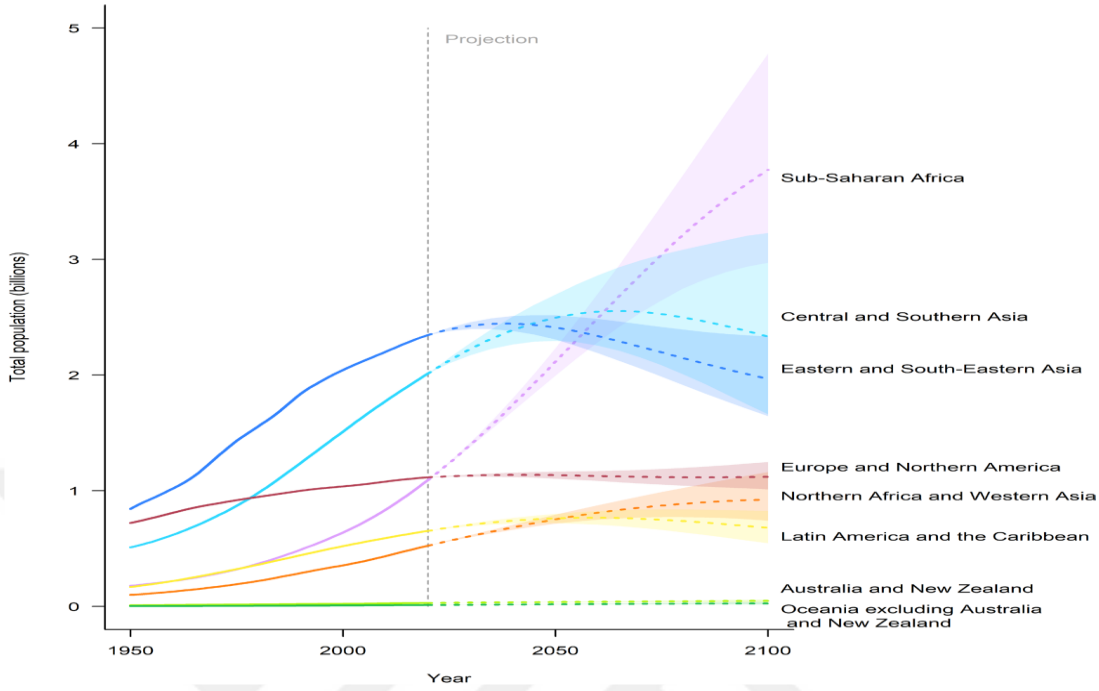


Figure 2.1. World population prospects (5)

2.4. Family Planning and Population Control

The population problem is one of the most pressing issues on the global agenda; it is particularly acute in developing nations, where fast population increase impedes social and economic development (31). Along with efforts to enhance educational opportunities and medical conditions, the main policy reaction to concerns about rapid population increase has been the adoption of consensual family planning programs that provide knowledge about and access to contraceptives. (32).Therefore, in response to worries about the negative repercussions of rapid population expansion, many developing countries have launched family planning programs (33)Family planning initiatives are a win-win situation: they benefit individual women and children, Reduce maternal and newborn mortality, and protect women's ability to choose how many children they want while also benefiting the national economy and the environment (34) (32).

The efforts of decreasing poverty and achieving sustainable development in Africa, Asia, and Latin America, which is already arduous, will be made even more

onerous by the predicted addition of 6 billion people during the next century. As a result, further measures to curb population growth are desirable. There are three basic policy choices to consider.The first was to strengthen family planning programs in order to prevent unintended pregnancies. Implementing comprehensive and high-quality family planning programs in all nations is the most direct strategy to bring about considerable further fertility decreases (35).

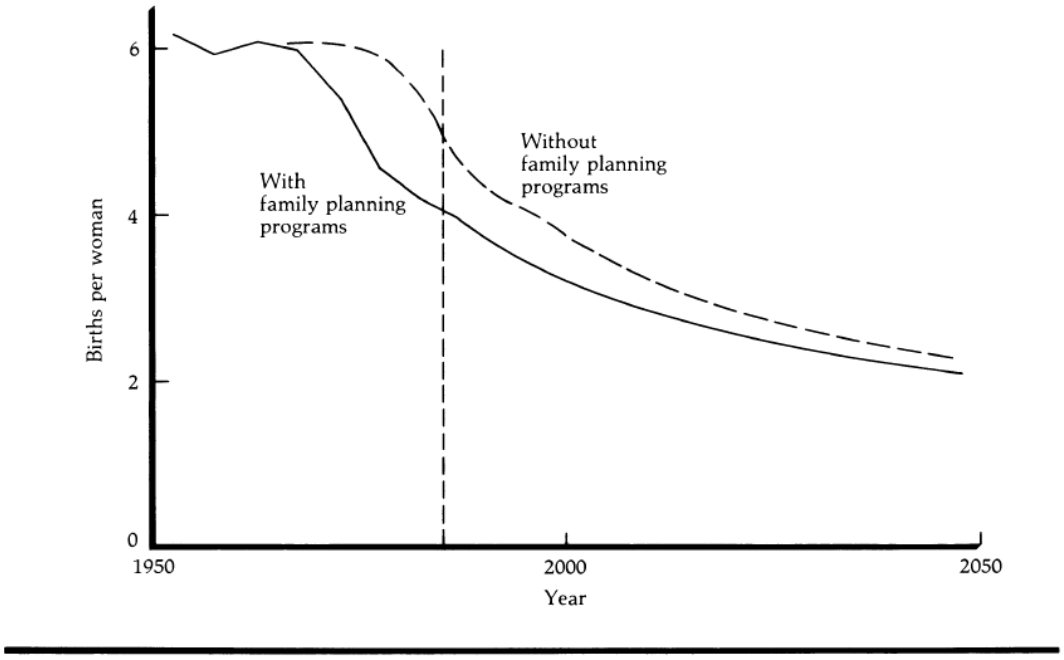


Figure 2.2. Demographic impact of family planning programs (33)

2.5. Availability of Family Planning Services

The availability of highly effective means of fertility control supplied through a comprehensive nationwide family planning program is the most important single factor in achieving sharp fertility decrease (36).

The availability and quality of family planning are both important factors in its utilization (37). Global FP policies place a premium on the availability and accessibility of family planning services. FP2020, a global FP project launched in 2012, aimed to provide modern contraceptives to 120 million girls and womenin 2020. To help achieve

this goal, the FP2020 Rights and Empowerment Working Group has developed basic guidelines for each of the ten dimensions of family planning, Two of the ten dimensions are availability and quality of the service (38).In 2019, 1.1 billion of the world's 1.9 billion Women in child bearing Age (15-49 years) needed family planning, with 842 million of them using contraceptive methods (39).

SARA (Service Availability and Readiness Assessment) surveys were conducted during 2010 and 2016 to investigate and evaluate the availability and competency of health facilities in ten African nations to deliver family planning services to patients, The largest proportion of health institutions offering family planning services was found in Niger (96%), and Sierra Leone (94%), with the lowest proportions found in the DRC (33%), Djibouti (57%), and Mauritania (67%). Only a few countries had widespread access to more than one method of contraception. Condoms for men, combined oral contraceptives and progestin-only injectable contraception were all offered at higher rates than other methods. The countries with the most contraceptive options were Burkina Faso, Niger, and Sierra Leone (40).

Somalia, which includes Somaliland, became an FP2020 pledge-making country in 2015, and the government amended its commitment in 2017 to enable access to effective reproductive health services, including family planning, in emergency and crisis situations from 50% to 80% by 2020 (41).

2.6. Unmet Need for Family Planning

The Unmet family planning needs are defined as the percentage of women of reproductive age who want to prevent or delay having children but do not use any form of contraception (42). In the world 270 million of the 1.9 billion Women in child bearing Age (15-49 years) have an unmet contraceptive demand. (39)As a consequence, every year, 76 million women in poor nations have unwanted pregnancies, with 19 million resorting to unsafe abortions (11).

Unmet contraceptive needs can result in unwanted pregnancies, posing consequences to women, their families, and society as a whole. Approximately one-fourth of pregnancies in less developed nations are unplanned, and an approximately 18 million illegal abortions occur every year in these areas, contributing to high maternal death rates and injury. Furthermore, unplanned pregnancies endanger the health and well-being of children and contribute to speedy population expansion in countries with limited resources (43).

In Somalia, there is a 26% unmet need for contraception, and just 1% of women are projected to use a modern method of contraception (44).

2.7. Contraceptive use in somaliland

According to the 2020 Somaliland Demographic Survey, the Maternal Mortality Ratio (MM Ratio) is 396 maternal deaths per 100,000 live births, and the Pregnancy Related Maternal Mortality Ratio (PMM Ratio) is 464 maternal deaths per 100,000 live births in Somaliland. Furthermore, according to the report, the Life Time Risk (LTR) of Maternal Mortality is 0.023, which means that one out of every 50 women entering childbearing age (15) today will die of pregnancy-related problems before reaching the end of childbearing age (50) (45). 2020 Somaliland deomgraphic survey also mentioned that only 7% of married women utilize family planning currently (45). On the other hand another research mentioned that in Somaliland 26% of women in childbearing age atleast use one type of contraceptive method throughout there life and Ignorance, a lack of knowledge, and the yearning for more children are the main barriers to Somaliland women practicing family planning (46).

2.8. Global Contraceptive Use

The global contraceptive rate is currently around 63%. It is higher in the developed countries at 70% compared to developing countries at 62% (47)In 2019, 49% of all child bearing women utilized in some form of contraception globally (5) Between 1990 and 2019, the use of contraceptive techniques grew in all regions (5). However,

there are high number of females who have unmet need of contraception in all arround the world and specially in the developing country. Westoff, for example, estimates unmet need in Asia to be between 5% and 33%, in Latin America and the Caribbean to be between 6% and 40%, and in Sub-Saharan Africa to be between 13 percent and 38% and according to recent study In the developing world, over 200 million women have an unmet need for family planning (48).

2.9. Prevalence Of Contraceptive Use In Reproductive Age Women

Contraceptive prevalence refers to the percentage of women usually in the age between 15 to 49 who are currently using at least one type of contraception (49).

In 2020, 1.1 billion women of reproductive age (15–49 years) are estimated to have a need for family planning, meaning they want to delay or limit having children. 851 million of them use a contemporary method of contraception, while 85 million use a traditional technique. A further 172 million women do not utilize any method at all. The number of women utilizing contemporary contraceptive techniques increased by 188 million worldwide between 2000 and 2020. The rise was fueled approximately equally by an increase in the number of women of reproductive age and a rise in the percentage of these women who utilize modern contraceptive methods (50).

Ireland has the highest prevalence of countraceptive use in the world, with 89 percent followed by China 87 percent, Malta 86 percent, the United Kingdom 84 percent, Switzerland 82 percent, South Korea 81 percent, Costa Rica 80 percent, Belgium 78 percent, Colombia 78 percent, and Brazil 77 percent (51). Besides in africa, according to a survey conducted from 20 countries in 2013-2018 the overall use of current Contraceptives was found to be 26% in Zimbabwe, Malawi, Kenya, Lesotho, Tunisia, Madagascar, Gambia, Mali, Guinea Bissau, Benin, Togo, Cameron, DRC, Sierra Leone, Mauritania, Nigeria, Sudan, and Cote (52).Furthermore, according to this study, which was conducted in 20 African countries,Women aged 25–34 years are more likely to use Contraceptives in Africa than women aged 15–24 years, Many prior African-based studies have also confirmed the link between women with at least an

elementary education and modern CP use. . Women in the upper and middle income classes are more likely to use CPs than women who are poor, while women who live in rural settings are less prone to use contraceptives than those who live in urban settings (52).

In Asia according to a survey conducted in rural area of Bangaledish in 2012, 62.3 percent of women were taking some type of contraception at the time of the study, while the remaining 37.7 percent were not. Sixty-five percent (65%) of non-users were eager to have a child, whereas twelve percent (12%) were afraid of adverse effects (6 percent) (53)Another study conducted in an urban slum of Pune, India 69.5 percent of couples used contraception. The reasons for not using contraception were 23.77% were unwilling to use it, 22.95% were newly married, 9.8% were lactating and 5.735% were not using because of lack of knowledge about contraceptives, among the 122 nonusers (54).

In Somaliland, only 26% of women of reproductive age utilize at least one form of family planning method throughout their lives, and the biggest challenges to Somaliland women practicing family planning are ignorance, a lack of education, and a desire for more children (46).

2.10. Factors That Influence Utilization Of Family Planning Services Arround the World

As researchers found in a study conducted in Pakistan, 76% of husbands and 66% of wives fear thatIf people utilize FP, God would be enraged.Women's cultural beliefs,may also challenge FP practices. Some cultures think that menstruating on a monthly basis is beneficial, hence they reject to use injectables since it causes irregular bleeding, spotting, or amenorrhea. Clients' experiences with FP and reproductive health services are shaped by their class, ethnicity, status, age, and gender, and they may fear being treated disrespectfully or discriminatorily (55). A study done in South Sudan determined that Perception and lack of information are two factors that influence contraceptive use in urban areas while In rural areas, perceptions, economic factors, the

lack of availability of family planning services, a lack of education, and the inability to afford it all have an impact on the use of family planning. (56). Astudy conducted in mojo town ethiopia reported that Fertility-related issues are among the most commonly stated reasons for underuse of family planning. Religious opposition has also been identified as a significant barrier to the adoption of family planning methods, accounting for 7.6% of nonusers (9).According to another study conducted in Cambodia, some women claimed that a lack of funds was the biggest barrier to receiving health care Many women find it difficult to get to clinics, which are generally located far apart. Even if transportation is available, women may not feel comfortable traveling alone. Some women may opt to travel to remote locations if they believe the facilities there provide superior services (55).

2.11. Determinants of Contraceptive Use Among Women

According to research carried out in Ethiopia to determine the characteristics that influence women's use of family planning, Contraception was used by twice as many wealthy women as it was by poor women. Those in rural areas had a 30% lower chance of utilizing contemporary contraception than women in cities. Educated women are more prone to utilize contraception than uneducated women and the woman's total number of living children is linked to the use of contraceptive techniques in a substantial way as a woman with at least one child is more prone to utilize contraception than a woman without children (13).

Another study which has been conducted in Ghana determined that religious views, poor service quality and attitudes of health staff, adverse effects of various contraceptives, and lack of partner approval are the top hurdles that prevent women from using contraceptives. (57) A study done in Belgaum reported that there is no link found between religious affiliation, education and contraceptive use (58) and research in Tanzania noted that Another factor that influences contraceptive use of women is husband approval of family planning. Couples who talk about family planning frequently have the highest likelihood of using contraception, followed by those who talk about it once or twice and those who don't talk about it at all (59).

2.11.1. Spousal Communication and Family Planning

In family planning programs and studies, the value of spousal communication is frequently stressed. It is the first stage in a logical fertility decision-making process, according to some analysts. Numerous research have found that the amount of communication between partners is favorably related to contraception use (60). Husbands' aversion to the use of contraceptives, fear of side effects, health concerns, and unhappiness with sexual feeling when using them have all been mentioned as barriers to contraceptive use (61). Turkish married women's refusal to use any form of contraception has been blamed on their husbands' opposition (61).Lack of discussion concerning family planning may be linked withMisunderstandings regarding a spouse's attitudes on family planning, which can obstruct collaborative decision-making.In a Zambian study, women who were uncomfortable talking to their partners about family planning were four times more likely to utilize a method covertly than those who did not. Husbands' opposition to contraception appeared to be channeled through spousal communication rather than having a direct impact on concealed use (60).

2.11.2. Polygamy

The practice of marrying many spouses is known as polygamy.Sociologists use the term polygyny to describe a man who is married to multiple women at the same time and when a woman is married to multiple husbands at the same time, it is known as polyandry.. Polyandry is when a woman is married to more than one husband at the same time.A Muslim man may have up to four wives at the same time, under reasonable and authorized conditions, according to Islamic marital jurisprudence, but under any circumstances muslim woman is not allowed to have mor than one spouse at a same time (62)therefore, As this research was carried out in a Muslim-majority country, the word polygamy will only be applied to men who have more than one spouse.

Polygamy is an acceptable and legal form of marriage in practically all African societies (63)and when compared to women who are or were in monogamous marriage,

polygamous women are less likely to use any form of contraception and have a larger desired number of children (64).

2.11.3. Impact of Fear of Side Effect and Misinformation on Family Planning

Fears of family planning's adverse effects are one of the well-documented barriers to use. Many concerns are based on false information, while others are based on personal experience, and our knowledge of both is incomplete**.** According to surveys from around the world, Fear of negative consequences of family planning has a higher influence on decision-making. The most common reason for non-use is fear of adverse effects, and it is estimated that 59 percent of unplanned pregnancies might be averted if method-related reasons for non-use were resolved.There have been reports in Nepal, India and Nigeria about fear of side effects of family planning.In a research conducted in Nepal, adverse effects were indicated as the primary reason for abandoning family planning. Although family planning is widely known in Nigeria, it is rarely used. Fear of problems and a lack of awareness of procedures are the main reasons for not using family planning (65)**.**

2.11.4. Knowledge and Utilization of Family Planning Services

Unintended pregnancy is on the rise due to socioeconomic factors, behavioral changes, and a lack of reproductive health services, which leads to a number of maternal complications, particularly a lack of knowledge and access to contraceptive methods and reproductive health services, which will have a significant impact on every mother who does not want to have children (66). Knowledge is an important aspect in influencing family planning usage and attitudes. People are more likely to have a favorable attitude and to engage if they are properly informed on the benefits, methods employed, and their side effects (46). Women who have greater knowledge about contraceptives and the benefits of FP are more likely to use them. Women can make informed judgments about which contraceptives to use and when to use them if they have enough information (67). Lack of understanding about contraceptive methods, as well as concerns about health,

side effects, and effectiveness, have limited the acceptance of family planning services (8). however, a study conducted in pakistan reported that poor knowledge does not related to use of contraceptives (68).

Despite the fact that many studies have stressed the importance of knowledge for access to and use of family planning, a study conducted in Ethiopia's Jimma Zone found that good contraceptive knowledge did not correspond to high contraceptive use (69).

2.11.5. Islamic Religion and Family Planning

Studies in Sub-Saharan Africa show that religious attitudes toward family planning vary greatly both between religious groups and among individuals within those organizations, but that the desire to obtain reproductive healthcare is universal (70). Religious authorities frequently oppose the use and development of contraceptive methods (71). Islam does not permit birth control and supports human reproduction, as the Prophet exhorted Muslims to multiply, and Muslims believe that the number of children a woman has is up to God, and that nothing should interfere with this process (46). If the mother's or existing children's quality of life or health is jeopardized, Islam allows fertility restriction with birth spacing. As a result, Islam approaches the issue of family planning through the concept of birth spacing. It's crucial to distinguish between birth spacing and limiting the number of children: the latter is prohibited in Islam (71). For a variety of reasons, traditional Islam encourages big families. Financial gain, social advancement, and religious motives are among these motivations (63).

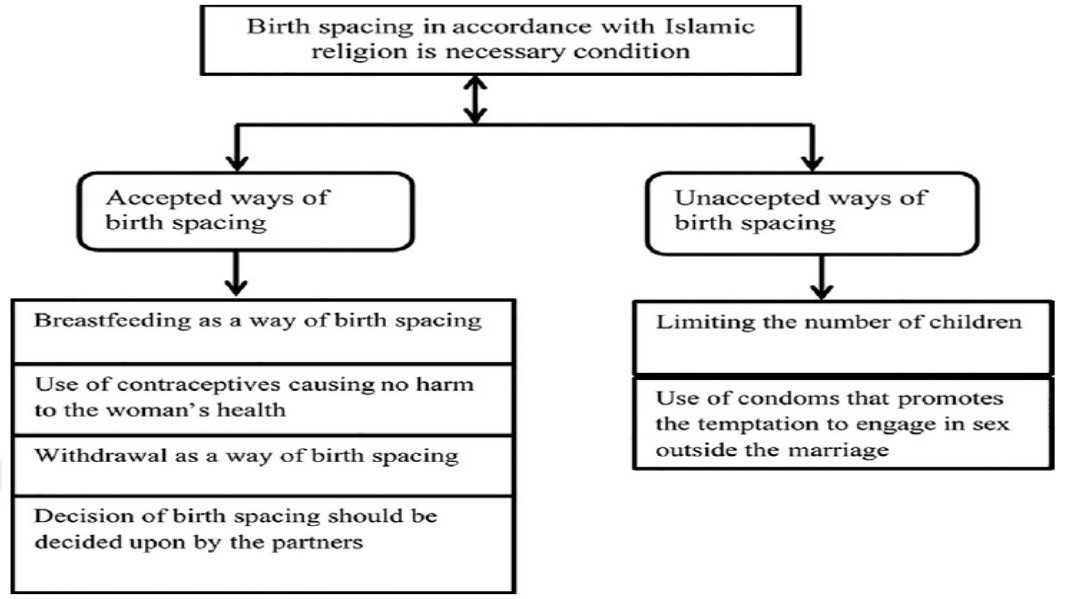


Figure 2.3. Categories of Islamic religious leaders' views on birth spacing (72)

2.11.6. Myth that Hinders Using Family Planning Services

Some studies mentioned that negative myths and misinformation to be adversely correlated with contraceptive use (73).Exaggerated or false reports about side effects, misunderstandings regarding short- or long-term health problems, and negative perceptions about those who use family planning are examples (74) of myths and misinformtion which can have a negative impact on utilization of family planning.In an eight-country survey, 50–70 percent of women believed that using the pill carried significant health risks. Many women in Mali thought that the pill and injection would result in irreversible infertility, according to a research. and a study in Kenya among sexually active women aged 15–25 found that many women had misconceptions about the negative effects of contemporary contraceptives (for example, that they induce infertility or injure a woman's uterus) (74).

According to a research conducted by Nakato in Uganda in 1994 on rumors about contraceptives, some individuals believe that contraceptives promote nausea, promiscuity, and are generally rude in public. Other misconceptions claim that contraceptives 'burn up' all of a woman's eggs or cause dangerously high blood pressure.

Some people believe condoms might circulate because they slip off and become lodged inside the women. Vasectomy has also been linked to men becoming impotent or mentally challenged (75). In Egypt and Kenya, myths and misinformation have been observed to influence contraceptive use. Myths and misinformation are also linked to perceived health concerns about long-term infertility, according to findings from Nigerian studies, and fear of adverse effects is cited as a primary factor for avoiding taking modern contraception (76).One of the main reasons for the poor use of intrauterine contraceptive devices, according to a qualitative descriptive study conducted by Khan and Shaikh in the Rawalpindi district of Pakistan in 2012, was myths and misconceptions about the device and, by extension, family planning. "The IUCD may travel through the women's body, possibly to her heart or even her brain," "the IUCD may rust in the body of the women," and "the IUCD causes infertility" are among the common myths (75).

2.12. Conceptual Framework

The framework of this study was built using Anderson's behavioral model (ABM) of health services frame work 5th phase. Expanded Behavioral Model of Health Services by Andersen The term "usage" refers to the elements that influence the utilization of long-term services and supports (LTSS) (77). To explain healthcare utilization, the model focuses on three basic components: predisposing factors (e.g., age, education), enabling factors (e.g., income, hospital density), and need factors (eg, health status). Andersen's initial behavioural model has been further developed in recent years, with new emphasis placed on diverse aspects (78). and this research used a conceptual framework adapted from phase 5 of anderson’s behavioral frame work.

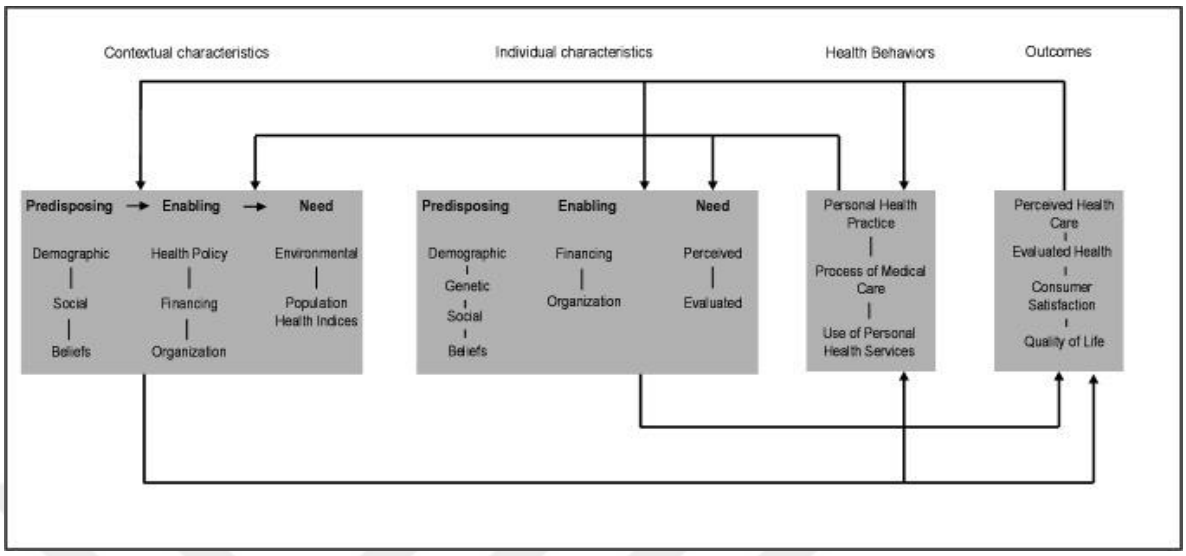


Figure 2.4. Phase five of Andersen's model of health services utilizations (78)

2.12.1. Conceptual Framework Adapted from Andersen Model.

In this paradigm, there are three characteristics that allow an individual to receive healthcare, which in this case includes family planning services. Predisposing factors are defined as the socio-cultural qualities that people have before they get sick, and women who believe in the usefulness of FP services are more likely to use them. Enabling factors are defined as the logistical aspects of obtaining health care, such as knowing how to get FP services, having enough money, having access to facilities and personnel, and having the time to wait. Finally, there are need factors, which are the most direct causes of health service utilization, and these might range from health concerns that necessitate seeking health care services to financial constraints (79).

Cultural beliefs, myths, quality of FP services and knowledge about family planning services are expected to be predisposing factors in this study, while enabling factors include the availability of family planning services, price of the services, distance from the location where they can get the service from, and need factors include the willingness to limit the number of children you have or use FP in the form of spacing to allow oneself time to recover from birth difficulties.

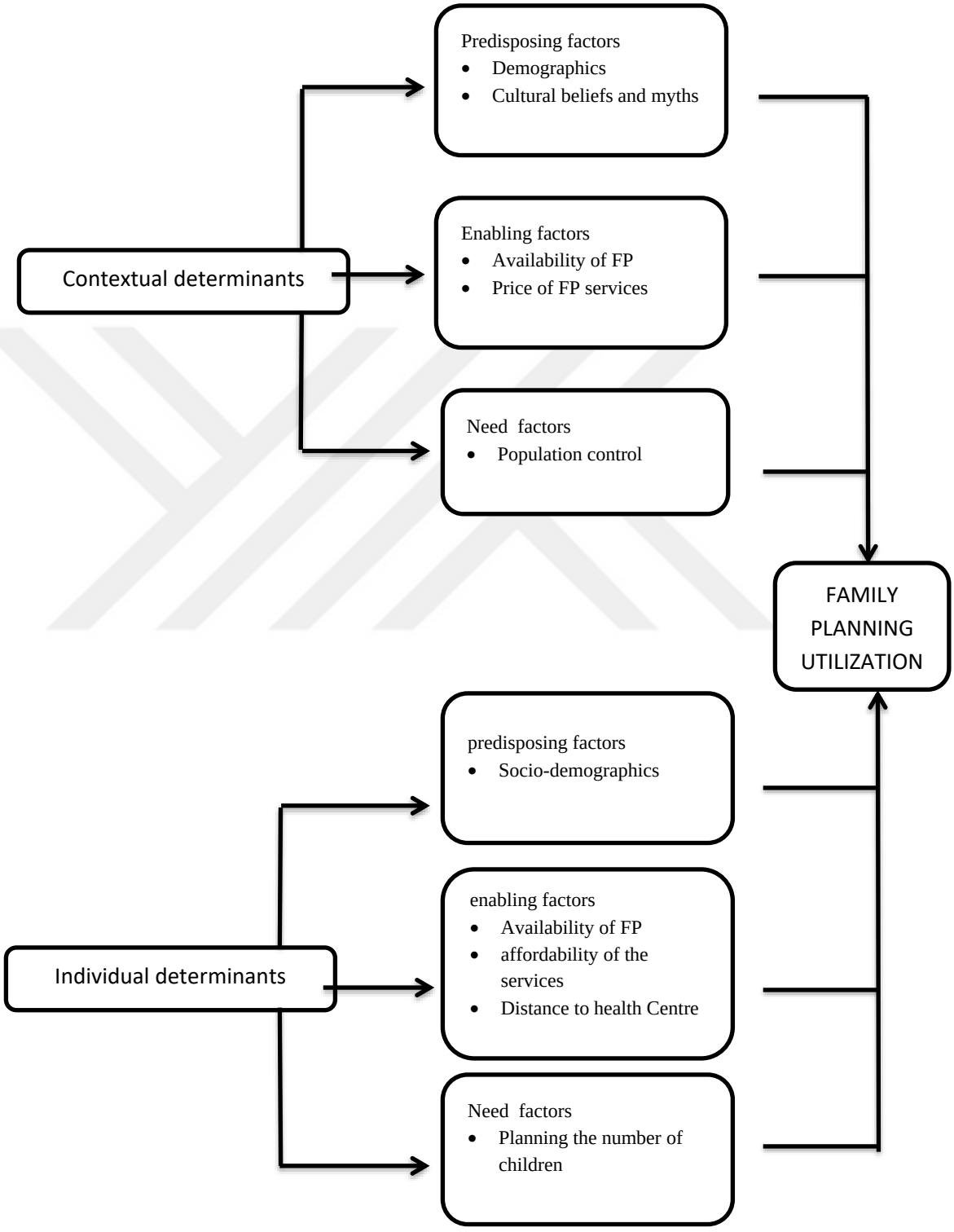


Figure 2.5. Conceptual framework adapted from Andersen Model

3. MATERIAL AND METHADOLOGY

3.1. Study Design

By using quantitative approach, descriptive cross-sectional study was conducted to asses factors influencing utilization of family planning services among women in reproductive age in Hargeisa, somaliland. The design is ideal in assessing the topic as it will provide quick and easy data gathering with regard to limited time allocated for the study to be accomplished. The design was also be reasonable for the allocated budget.

3.2. Study Setting

This research was carried out in Hargeisa the capital city of Republic of Somaliland,a self-declared state that is internationally recognized as an autonomous region of Somalia, in Horn of Africa. Hargeisa is located in the northwest of Somaliland in a valley of the Galgodon (Ogo) highlands.It is the capital and largest city of Somaliland with a population of approximately 1,300,000 and sits at an elevation of 1,334 m (4,377 ft).



Figure 3.1. Hargeisa somaliland map

Five districts make up the urban setting of Hargeisa municipality.; 26 june, Gaan libah, Ibrahim Kodbur, Mohamed Haybe and Ahmed Dhagah in figure 3.2, and two of them 26june which locates in the north-central Hargeisa and mohamoud haybe which locates in southeast of Hargeisa were chosen as representatives for this study from the urban.

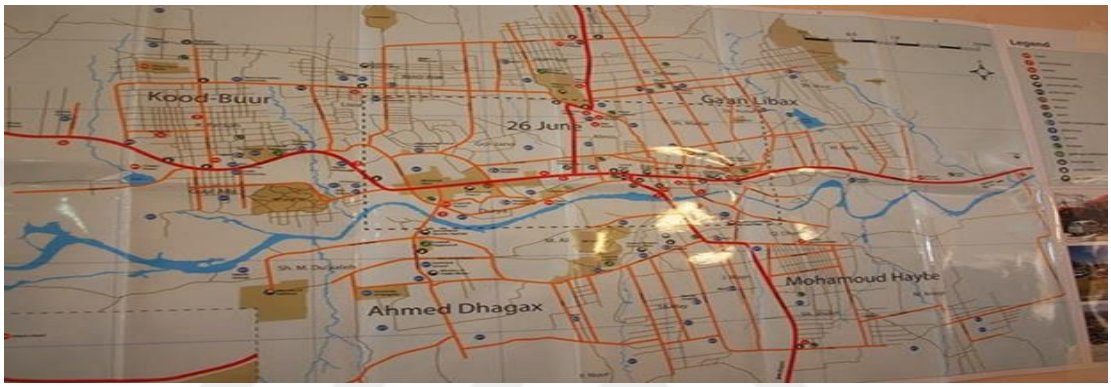


Figure 3.2. Hargeisa district maps

Two small towns on the fringes of the city (Arabsiyo and Hallaya) were also chosen: Arabsiyo, about 30 kilometers west of Hargeisa which has a total population of around 22,500 inhabitants, and Hallaya, about 15 kilometers east of Hargeisa and it is population is estimated to be around 10,100 people. and the study was conducted in two districts picked from the urban region and two small towns picked from the rural region of the capital city of Somaliland, Hargeisa.



Figure 3.3. Hallaya map



Figure 3.4. Arabsiyo map

3.3. Study Population

The study was just focusing women in childbearing age (15-49) who live only in the selected four regions. Any other person who lives outside the selected regions was not allowed be part of the study.

3.4. Sample size determination

The sample size was determined by using the following formulas:

$$n_i = \left\{p_1(1-p_1) + p_2(1-p_2)\right\}\left(\frac{Z}{E}\right)^2$$

As a study which has been done in Hargeisa mentioned 25% of women are getting access to family planning in urban areas by considering the same number of women get access to family planning in rural areas too with a precision of ±5% and at 5% level of significance the required sample size of 576 was taken from the urban areas to participate in the study and the same number was taken from the rural areas. For the comparison between urban and rural patients in relation to utilization of family planning service, a total of 1152 was sampled from the selected urban and rural villages. Convenient non-probability sampling was used to acquire study participants (women in childbearing age) in both rural and urban areas.

Samples of size n1=576 women from urban areas who participated in the study and n2=576 women from rural ereas who participated in the study with ensuring that the 95% confidence interval for the difference in proportions of women from urban and rural areas which have a margin of error of no more than 5%.

3.5. Sampling Techniques

Because of its speed, cost-effectiveness, and convenience of availability of sample individuals, convenient non-probability sampling was employed to randomly choose people from both urban and rural regions. Because the dwellings in Somaliland

do not have addresses, the researcher chose one house and then another after 30 meters to avoid bias in the sample selection in both urban and rural areas and in the houses subjects which was conveniently available for the researchers at the days which the researcher was collecting data were selected to be part of the study.

3.6. Inclusion and Exclusion criteria

3.6.1. Inclusion

- Women whose age is between 15-49
- Married woman
- Women who live only in the selected four regions

3.6.2. Exclusion

- Women who have any mental defects
- Single women was also excluded from this study

3.7. The Questionnaire and Pre-Testing

The questionnaire used in this study was previously used by Lilian Agesa in Western Kenya in 2016. The quessnaire contained 24 questions and the questions has been modified by removing culturally inappropriate questions such as inquiries on various types of religion that may be offered in other countries and 21 questions was used for this study.Furthermore, the questions were rephrase in plain English, which may be comprehended by persons who speak English as a second language, and the questions were translated into Somali for use in rural areas where English was not widely known.The researchers were also provided instructions on how to fill out the questionnaire and explain the question to the respondents in a clear and concise manner. The queastionnare contained 3 section;Demographic characteristics, History related to previous access to family planning services and factors hindering utilization of family planning services.

3.8. Variables

3.8.1. Dependent Variable

The dependent variable in this study was the use of family planning services by women of childbearing age, whether it was a previous history of use, present use, or willingness to use in the near future.

3.8.2. Independent Variables

Place of residence, cultural and religious beliefs, educational level, occupation, age, knowledge, family size, partner support, and monthly average income which are the most important factors that may affect women in reproductive age to use family planning were used in this study as an independent variables.

3.9. Data Collection Method

A primary source of data collection through a face to face interaction using questionnaire was used to collect the needed information by the researcher in between 10th august-30th august in urban areas and between 1st september-20th september in rural areas. in the urban districts the researcher was assisted by three colleagues studying master of public health at Amoud University, and rural areas the researcher was assisted by 5 colleagues with a medical backgrounds.In arabsiyo, one community doctor who works at MCH in arabsiyo was part of the team that assisted the researcher in collecting data, while another who works at MCH in Hallaya was part of the team in Hallaya.The researcher chose those two individuals to be part of the teams because they were well-known and trusted by the inhabitants, which aided us in obtaining the information we required from the respondents.

Before the data collection began, the collegous was instructed to read and explain the question to the respondents, to interpret for them if necessary, to allow them to explain their answers in the language of their choice, and to write the answers for those

who were unable to write.In this way questions were not misunderstood by the respondents. The researchers was also ensuring that questions that the questionnaire are being filled properly and completely, and was making sure that the respondents are basically the target group.

3.10. Data Analysis Tool

Data collected during the data collection phase of the research was analyzed by using IBM SPSS for WindowsVersion 25. Findings were compared and contrasted with the literature review and then later on Chi-square test was used, assuming P-value of <0.05 to be statistically significant in order to estimate association between dependent variable and individual characteristics.The significance of odds ratio was also assessed using 95% confidence intervals (95% CI).

3.11. Strength

This research is the first of it's kind which was conducted in this region, therefore the study will aid future researchers in making further assessments in the areas that this study uncovered, such as the variables that most restrict women in Somaliland from accessing family planning and how these issues may be eliminated.

3.12. Ethical Considerations

To allow this student to undertake this research, written approval was sought from Ankara Yildirim Beyazit University's Institute of Health Science's Department of Public Health, as well as authorization from the Republic of Somaliland's Ministry of health development.

The consent of the respondents were also obtained, and they were informed of the research's goal and rationale.The data collected from the respondents was coded to protect their identity and privacy and in this way the respondent were not personally identified or harmed in any way, they are assured of confidentiality, and they were also

told that they are free to decline participation when ever they want or they can stop filling the questionnare when ever they want. The interviewers were responsible for maintaining the dignity and welfare of all participants and for any harm that may be inherent during the research procedure.

4. DATA ANALYSIS AND PRESENTATION

This study sought to explore factors affecting utilization of family planning services among women in child bearing age in Hargeisa Somaliland. 1152 women whose age is between 15-49 were selected from four regions in the capital city Hargeisa and the data collected from these 1152 participants will be presented in this chapter.

4.1. Socio-Demographic Characteristics of Respondents

A data was obtained from 1152 females who live in four different regions from the capital city of Somaliland. The mean age of the respondents was 30.63(± 7.01326 SD). More than half of the respondents 803(69.7%) aged less than 35 years of age and only 46(4%) of the respondents age more than 45 years of age. Three quarter of the respondents 870(75.5%) were monogamously married while 258(22.4%) of the respondents were married polygomously with only 24(2.1%) of the respondents who were divorced. Around half of the respondents had completed college or university, while the other half had completed secondary school or less. Most of the respondents were housewives 838(72.7%) followed by 144(12.7%) of the respondents which were employed and 132(11.5%) of the respondents which was business ladies and only 38(3.3%) of the respondents were farmers. 866 (75.1%) of the respondents contribute nothing to the monthly income of the family while the other 286(24.8%) contribute monthly income between $100-500 to their family.

Table 4.1. Socio-demographic Characteristics of the Respondents

Variable	Category	Frequency	Percentage
Residence place	Urban	576	50
	Rural	576	50
Age	18-24	261	22.7
	25-34	542	47
	35-44	303	26.3
	>=45	46	4
Marital Status			
	Married monogomously	870	75.5
	Married polygomously	258	22.4
	Divorced	24	2.1
Education Level	Illiterate	146	12.7
	Primary	193	16.8
	Secondry	297	25.8
	College	212	18.4
	University	304	26.4
Occupation	Farmer	38	3.3
	House wife	838	72.7%
	Bussines lady	132	11.5%
	Employed	144	12.5%
Monthly Income Contributed	Zero income	866	75.1%
	Less than $100	49	4.2%
	$100-200	48	4.2%
	$300	75	6.5%
	$400	78	6.8%
	$ More than 400	36	3.1%

4.1.1. Socio-demographic characteristics of spouses

Among those who were married 936(81.2%) of the respondent's spouses were aged less than 40 years while only 192(16.7%) aged older than 40 years. Nearly half of the respondent's spouses 496(42.8%) attended university, while only 164(14.2%) of the respondent's spouse'seducation level were up to college followed by 270(23.4%) of the spouses which attended secondary and 125 (10.8%) of the spouses which studied just primary level and where only 76 (6.6%) of the spouses which were illiterate and did not attend any school. 825 (71.6%)of the spouses were employed and160 (13.9%) were

farmers while 139 (12.1%) were business men and only 4 (0.3%) were unemployed.299 (25.9%) of the spouses contribute monthly income between $100-200 to their families while 236 (20.5%) of the spouses contribute monthly income which is more than $400 to their families with179 (15.5%), 204 (17.7%) and 218 (18.9%) of the spouses which contribute $0-100, $200-300, and $300-400 to their families respectively

Table 4.2. Socio-demographic characteristics of spouses

Variable	Category	Frequency	Percentage
Age of spouse	20-30	410	35.6
	31-40	526	45.6
	Older than 40	192	16.7
Level of education of spouse	Illiterate	76	6.6
	Primary	125	10.8
	Secondary	270	23.4
	Collage	164	14.2
	University	493	42.8
Occupation of spouse	Farmer	160	13.9
	Employed	825	71.6
	Unemployed	4	0.3
	Bussines man	139	12.1
Income contributed by the spouse	Zero income	179	15.7
	$100-200	299	25.9
	$300	204	17.7
	$400	218	18.9
	$more than 400	236	20.5

4.1.2. Number of living children

Respondents had maximum 12 living children and the mean of the living children of the all respondents who had children was 4.677(2.12978SD).

Table 4.3. Number of living children

Place of residence	N	Minimum	Maximum	Mean	St. deviation
Urban	573	0.00	12.00	4.7173	2.21888
Rural	575	1.00	12.00	4.6383	2.03829
Total	1148	0	12	4.677	2.12978

4.2. Planning the Number of Children

Majority of the respondents 1000(86.7%) never planned the number of children they are going to give birth throughout their life while only 151(13.1%) of the respondents planned the number of children they are going to give birth to. And out of those who planned 96 (8.3%) exceeded the number of children they planned to have while only 55 (4.8%) did not exceed the number of children they planned. Women in urban areas are slightly more likely to plan the number of children they are going to have 103 (17.9%) than those in rural areas 48(8.3%)

Table 4.4. Planning the number of children

Variable	Categories	Residence place					
		Urban		Rural		Total	
		N	%	N	%	N	%
Planned number of children you are going to have	Yes	103	17.9	48	8.3	151	13.1
	No	473	82.1	527	91.7	1000	86.7
Exceeded the number of children you planned	Yes	61	10.6	35	6.1	96	8.3
	No	42	7.3	13	2.3	55	4.8

4.3. Prevalence of Previous Use of Family Planning Services and Method Used According To Socio-Demographic Characteristics Of The Respondents

4.3.1. Previous use of Family planning and method used according to the place of residence

More than three quarters of respondents 877(76.1%) never used any family planning service throughouttheir life while only 275(23.9%) used family planning before. Women who live in urban areas used family planning services 227(39.4%) more than those in rural areas 48(8.3%). 168(14.6%) of the respondents who used family planning services before used hormonal methods of family planning, both in urban areas 136 (23.6%) and rural areas 32(5.6%). And women in both urban and rural areas least used surgical methods of family planning before 54(9.4%) and 2(0.3%) respectively.

Table 4.5. prevalence of previous use of FP and method used according to the place of residence

Variable	categories	Residence place				Total	
		Urban		Rural			
Previous use of family planning service		N	%	N	%	N	%
	Yes	227	39.4	48	8.3	**275**	**23.9**
	No	349	60.6	528	91.7	**877**	**76.1**
Method used	Barier methods	37	6.3	14	2.4	**51**	**4.4**
	Hormonal methods	136	23.6	32	5.6	**168**	**14.6**
	Surgical methods	54	9.4	2	0.3	**56**	**4.9**

4.3.2. Prevalence of previous use of family planning services and method used according to age of the respondents

Previous family planning use was more common in women whose age was between 18-24 68(26.1%) and 25-34 131(24.2%) and was least among women over 45 years of age 8 (17.4%). Hormonal methods of family planning were most used in all age groups except women who were >=45 years old.

Table 4.6. Prevalence of previous use of FP and method used according to the age of respondents

Variable	Categories	Age group			
Previous use of family planning		**18-24 N=261**	**25-34 N=542**	**35-44 N=303**	**>=45 N=46**
	Yes	68(26.1%)	131(24.2%)	68(22.4%)	8(17.4%)
	No	193(73.9%)	411(75.8%)	235(77.6%)	38(82.6%)
Method used	Barrier methods	11(4.2%)	26(4.8%)	11(3.6%)	3(6.5%)
	Hormonal methods	40(15.3%)	81(14.9%)	45(14.9%)	2(4.3%)
	Surgical methods	17(6.5%)	24(4.4%)	12(4.0%)	3(6.5%)

4.3.3. Prevalence of previous use of family planning services and method used according to level of education of the respondents

Women with higher level of education used more family planning services than those in the lower level of educational backgrounds. Those who attended university used family planning service the most in the past 88(28.9%) and women who were illiterate and attended only primary school used family planning services the least 28(19.2%) and 37(19.2%) respectively.

Hormonal methods were the most highly utilized method of family planning in all the women with different educational levels.14 (9.6%) in illiterate woman, 24(12.4%) in women who attended primary, 41(12.8%) in secondary, 35(16.5%) in college and 54(17.8%) in university

Table 4.7. Prevalence of previous use of FP and method used according the level of education of the respondents

Variable	**Categories**	**Level of education**				
Previous use of family planning		**Illiterate N=146**	**Primary N=193**	**Secondary N=297**	**College N=212**	**University N=304**
	Yes	28(19.2%)	37(19.2%)	66(22.2%)	56(26.4%)	88(28.9%)
	No	118(80.8%)	156(80.8%)	231(77.8%)	156(73.6%)	216(71.7%)
Method used	Barrier methods	6(4.1%)	7(3.6%)	12(4.0%)	11(5.2%)	15(4.9%)
	Hormonal methods	14(9.6%)	24(12.4%)	41(13.8%)	35(16.5%)	54(17.8%)
	Surgical methods	8(5.5%)	6(3.1%)	13(4.4%)	10(4.5%)	19(6.3%)

4.3.4. Prevalence of previous use of family planning services and method used according to occupation of the respondents

Employed women utilized family planning services previously the most 51(35.4%) while farmers did not utilize any FP services previously. House wives 111(13.3%), business ladies 21(15.9%) and employed women 36(25%) utilized hormonal methods of family planning the most able 4.8 prevalence of previous use of FP and method used according to occupation of the respondents

Table 4.8. Prevalence of previous use of FP and method used according to occupation of the respondents

Variable	Categories	Occupation			
		Farmer N=38	**House wife N=838**	**Business lady N=132**	**Employed N=144**
Previous use of family planning	Yes	-	193(23.1%)	31(23.5%)	51(35.4%)
	No	38(100%)	645(76.9%)	101(77%)	93(64.6%)
Method used	Barrier methods	-	37(4.4%)	9(6.8%)	5(3.5%)
	Hormonal methods	-	111(13.3%)	21(15.9%)	36(25%)
	Surgical methods	-	45(5.4%)	1(0.8%)	10(6.9%)

4.3.5. Prevalence of previous use of family planning services and method used according to marital status of the respondents

Nearly three quarter of monogamously married women 202(23.2%) and polygamous married women 63(24.4%) previously used one method of family planning services while 10(41.7%) used FP among divorced women. And both married and divorced women used hormonal methods the most.

Table 4.9. Prevalence of previous use of FP and method used according to the marital status of the respondents

Variable	Categories	Marital status		
		Married monogomously N=870	**Married polygomously N=258**	**Divorced N=24**
Previous use of family planning	Yes	202(23.2%)	63(24.4%)	10(41.7%)
	No	668(76.8%)	195(75.6%0	14(58.3%)
Method used	Barrier methods	41(4.7%)	9(3.5%)	1(4.2%)
	Hormonal methods	118(13.6%)	46(17.8%)	4(16.7%)
	Surgical methods	43(4.9%)	8(3.1%)	5(20.8%)

4.3.6. Prevalence of previous use of family planning services and method used according to the income of the respondents

Independent women practiced family planning services 78(27.3%) more than those who don't make their own money 197(22.7%) and they both used hormonal methods of family planning the most.

Table 4.10. Prevalence of previous use of FP and method used according to the income of the respondents

Variable	Categories	Independent women N=286	Dependent women N=866
Previous use of family planning	Yes	78(27.3%)	197(22.7%)
	No	208(72.7%)	669(77.3%)
Method used	Barrier methods	12(4.2%)	39(4.5%)
	Hormonal methods	55(19.2%)	113(13%)
	Surgical methods	11(3.8%)	45(5.2%)

4.4. Prevalence of Current Use Of Family Planning Services and Using Method Due Tothe Socio-Demographic Characteristics of the Respondents

4.4.1. Prevalence of current use of family planning services and using method regarding the place of residence

Less than three quarter of the respondents is using family planning services currently 259(22.5%) while quarter of the respondents is not using any family planning method currently 893 (77.5%).women in urban areas 210(36.5%) are using family planning services a lot more than those in rural areas 49(8.5%). Hormonal methods of family planning are commonly used in urban 131(22.7%) while barrier methods are highly used in rural areas 35(6.1%).

Table 4.11. Current use of FP and using method regarding to the place of residence

Variable	categories	Residence place				Total	
		Urban		Rural			
Current use of family planning service		N	%	N	%	N	%
	Yes	210	36.5	49	8.5	259	22.5
	No	366	63.5	527	91.5	893	77.5
Using method	Barier methods	51	8.9	35	6.1	86	7.5
	Hormonal methods	130	22.6	14	2.4	144	12.6
	Surgical methods	29	5.0	0	0	29	2.5

4.4.2. Prevalence of current use of family planning services and method using with regard to the age group of the respondents

Women whose age is between18-24 are highly using family planning than those in other age groups 71(27.1%) and those who are above 45 years old are least using family planning services currently 6(13%). Hormonal methods of family planning are mostly being used by all the age groups except women who are older than 45 who were using barrier methods the most.

Table 4.12. Current use of FP and method using with regard to the age group of the respondents

Variable	Categories	Age group			
current use of family planning		18-24 N=261	25-34 N=542	35-44 N=303	>=45 N=46
	Yes	71(27.1%)	114(21%)	68(22.4%)	6(13%)
	No	190(72.8%)	428(79%)	235(77.6%)	40(87%)
Using method	Barrier methods	22(8.4%)	43(7.9%)	18(5.9%)	3(6.5%)
	Hormonal methods	42(16.1%)	57(10.5%)	44(14.5%)	1(2.2%)
	Surgical methods	7(2.7%	14(2.6%)	6(2%)	2(4.3%)

4.4.3. Prevalence of current use of family planning services and method used consideringthe level of education of the respondents

Women with a higher level of education and attended university are using family planning the most 98(32.2%) while women who were illiterate and attended only primary school are using family planning the least 26(17.8%) and 29(15%) respectively. Women in all education levels are utilizing hormonal methods of family planning the most.

Table 4.13. Current use of FP and method used considering the level of education of the respondents

Variable	**Categories**	**Level of education**				
Current use of family planning		**Illiterate N=146**	**Primary N=193**	**Secondary N=297**	**College N=212**	**University N=304**
	Yes	26(17.8%)	29(15%)	68(22.9%)	38(17.9%)	98(32.2%)
	No	120(82.2%)	164(85%)	229(77.1%)	174(82.1%)	206(67.8%)
Using method	Barrier methods	8(5.5%)	16(8.3%)	23(7.7%)	15(7.1%)	24(7.9%)
	Hormonal methods	15(10.3%)	12(6.2%)	38(12.8%)	17(8.0%)	62(20.7%)
	Surgical methods	3(2.1%)	1(0.5%)	7(2.4%)	6(2.8%)	12(3.9%)

4.4.4. Prevalence of current use of family planning services and method used in regard to occupation of the respondents

Employed women are currently utilizing family planning services the most 44(30.6%) followed by house wives 191(22.8%) while farmers are using family planning the least 1(2.6%). House wives 103(12.3%), business ladies 12(9.8%) and employed women 28(19.4%) are utilizing hormonal methods of family planning the most.

Table 4.14. Current use of FP and method used in regard to the occupation of the respondents

Variable	Categories	Occupation			
Current use of family planning		**Farmer N=38**	**House wife N=838**	**Business lady N=132**	**Employed N=144**
	Yes	1(2.6%)	191(22.8%)	23(17.4%)	44(30.6%)
	No	37(97.4%)	647(77.2%)	109(82.6%)	100(69.4%)
Using method	Barrier methods	1(2.6%)	68(8.1%)	9(6.8%)	8(5.6%)
	Hormonal methods	-	103(12.3%)	13(9.8%)	28(19.4%)
	Surgical methods	-	20(2.4%)	1(0.8%)	8(5.6%)

4.4.5. Prevalence of current use of family planning services and method used in regard to the marital status of the respondents

192(22.1%) among monogamously married women and 57(22.1%) among polygamous married women use family planning services currently while 10(41.7%) among divorced women currently use family planning services. married women both monogamously married 11(12.8%) and polygamous married 30(11.6%) use hormonal methods of family planning the most while among divorced women 6(25%) use barrier method of family planning the most.

Table 4.15. Current use of FP and method used in regard to the marital status of the respondents

Variable	Categories	Marital status		
Current use of family planning		**Married monogomously N=870**	**Married polygomously N=258**	**Divorced N=24**
	Yes	192(22.1%)	57(22.1%)	10(41.7%)
	No	678(77.9%)	201(77.9%)	14(58.3%)
Using method	Barrier methods	63(7.2%)	17(6.6%)	6(25%)
	Hormonal methods	111(12.8%)	30(11.6%)	3(12.5%)
	Surgical methods	18(2.1%)	10(3.9%)	1(4.2%)

4.4.6. Prevalence of current use of family planning services and method used in regard to the income of the respondents

Women who are not making their own money 196(22.6%) are using family planning slightly more than those who are making their own money 63(22%) and hormonal methods are the most common method that they are both accessing.

Table 4.16. Current use of FP services and method using in regard to the income of the respondents

Variable	Categories	Independent women N=286	Dependent women N=866
Current use of family planning	Yes	63(22%)	196(22.6%)
	No	223(78%)	670(77.4%)
Using method	Barrier methods	18(6.3%)	68(7.9%)
	Hormonal methods	36(12.6%)	108(12.5%)
	Surgical methods	9(3.1%)	20(2.3%)

4.5. According to the Socio-Demographic Features of the Respondents, The Prevalence of Contemplation of Using Any Family Planning Methods in the Future and the Reasons Why They May Not Consider Utilizing

4.5.1. Consideration of using any family planning methods in the future and the reasons why they may not consider using regarding to the place of residence

Majority of the respondents 896(77.8%) were not considering using any family planning service in the near future while only 256(22.2%) of the respondents were considering using one of the family planning services available in the country in the near future. Women who live in the urban areas were considering more to use family planning services 155(26.9%) than those who live in rural areas 101(17.5%) in the near future.

Quarter of the respondents 316(27.4%) of the respondents are not considering using any family planning service in the near future as they want to have a lot of

children while 218(18.9%) are not considering using any family planning method because their partners may not accept it and 214(18.6%) of the respondents are not considering using family planning as they don't have enough information about family planning services with 110(9.5%) who are afraid of the side effects, 20(1.7%)and 18(1.6%) are not considering using family planning as they believe they will become infertile if they use family planning and they don't need it respectively. Both In urban 132(22.9%) and rural areas 184(31.9%) women were not considering to use any family planning services because they wanted to have a lot of children the most.

Table 4.17. Consideration of using FP and the reason they may not regarding to the place of residence

Variable	**Categories**	**Place of residence**				**Total**	
		Urban		**Rural**			
		N	%	N	%	N	%
Consideration of using FP method	Yes	155	26.9	101	17.5	256	22.2
	No	421	73.1	475	82.5	896	77.8
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	51	8.2	59	10.2	110	9.5
	Don't have enough information about it	97	17	116	20.1	214	18.6
	My partner will not accept it	108	18.6	111	19.3	218	18.9
	I want to have a lot of children	132	22.9	184	31.9	316	27.4
	I will become infertile if I use it	20	3.5	0	0	20	1.7
	I don't need it	13	2.3	5	0.9	18	1.6

4.5.2. Consideration of using family planning services in the near future and the reasons they may not consider to use it regarding the age group of the respondent

Women who are 18-24 years old were considering using family planning services in the near future the most 63(23.8%). Women in all age groups were not considering using family planning services in the near future because they wanted to have a lot of

children except those who were over 45 years old who were not considering using family planning services because they did not have enough information about it 11(23.1%) and their partner may not accept it 12(21.6%).

Table 4.18. Consideration of use of FP and the reason they may not regarding the age group of the respondents

Variable	**Categories**	**Age group**			
Consideration of using FP method		**18-24 N=261**	**25-34 N=542**	**35-44 N=303**	**>=45 N=46**
	Yes	63(23.8%)	118(20.8%)	65(21.1%)	10(27.1%)
	No	198(75.9%)	424(78%)	238(78.5%)	36(78.3%)
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	25(9.6%)	46(8.5%)	35(11.6%)	4(8.7%)
	Don't have enough information about it	41(15.7%)	99(18.3%)	63(20.8%)	11(23.9%)
	My partner will not accept it	48(18.4%)	111(20.5%)	47(15.5%)	12(26.1%)
	I want to have a lot of children	73(28%)	150(27.7%)	84(27.7%)	9(19.6%)
	I will become infertile if I use it	4(1.5%)	10(1.8%)	6(2%)	-
	I don't need it	7(2.7%)	8(1.5%)	3(1%)	-

4.5.3. Consideration of using family planning services in the near future and the reasons they may not consider to use it regardingthe level of education of the respondent

Illiterate women were considering using family planning in the future the most 43(29.5%) followed by those who attended college 48(22.6%) and university 66(21.7%). And women in all education level backgrounds who were not considering using family planning in the future because they wanted to have a lot of children.

Table 4.19. Consideration of use of FP and the reason they may not regarding the level of education of the respondents

Variable	Categories	Level of education				
Consideration of using FP method		**Illiterate N=146**	**Primary N=193**	**Secondary N=297**	**College N=212**	**University N=304**
	Yes	43(29.5%)	34(17.6%)	65(21.9%)	48(22.6%)	66(21.7%)
	No	103(70.5%)	159(82.4%)	232(78.1%)	164(77.4%)	238(78.3%)
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	13(8.9%)	18(9.3%)	33(11.1%)	17(8%)	29(9.5%)
	Don't have enough information about it	21(14.4%)	31(16.1%)	70(23.6%)	35(16.5%)	57(18.8%)
	My partner will not accept it	23(15.8%)	42(21.8%)	48(16.2%)	45(21.2%)	60(19.7%)
	I want to have a lot of children	39(26.7%)	60(31.1%)	75(25.3%)	60(28.3%)	82(27%)
	I will become infertile if I use it	3(2.1%)	4(2.1%)	3(1%)	4(1.9%)	6(2%)
	I don't need it	3(2.1%)	4(2.1%)	3(1%)	3(1.4%)	4(1.3%)

4.5.4. Consideration of use of FP and the reason they may not regarding the occupation of the respondents

House wives were considering using family planning the most 204(24.3%) followed by business ladies 26(19.7%). Women who are farmers 11(28.9%) house wives 234(27.9%) and business ladies 40(30.3%) were not considering using family planning services in the near future because they want to have a lot of children while women who are employed were not considering using family planning because their partners may not accept it 37(25.7%) the most.

Table 4.20. Consideration of use of FP and the reason they may not regarding the occupation of the respondents

Variable	Categories	Occupation			
Consideration of using FP method		**Farmer N=38**	**House wife N=838**	**Business lady N=132**	**Employed N=144**
	Yes	4(10.5%)	204(24.3%)	26(19.7%)	22(15.3%)
	No	34(89.5%)	634(75.7%)	106(803%)	122(84.7%)`
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	6(15.8%)	73(8.7%)	10(7.6%)	21(14.6%)
	Don't have enough information about it	6(15.8%)	150(17.9%)	27(20.5%)	31(21.5%)
	My partner will not accept it	11(28.9%)	142(16.9%)	28(21.1%)	37(25.7%)
	I want to have a lot of children	11(28.9%)	234(27.9%)	40(30.3%)	31(21.5%)
	I will become infertile if I use it	-	18(2.1%)	-	2(1.4%)
	I don't need it	-	17(2%)	1(0.8%)	-

4.5.5. Consideration of use of FP and the reason they may not regarding to the marital status of the respondents

Less than three quarteramong monogamously married women 189(21.7%) and 60(23.3%) among polygamous married women are considering using family planning in the near future while only 7(29.2%) among divorced women were considering using family planning in the near future. Among those who were not considering using family planning in the near future in both monogamously married 238 (27.4%) and polygamous married 71(27.9%) were not considering because they wanted a lot of children while three quarter of 6(25%) divorced women were not considering using family planning because they did not have enough information about it.

Table 4.21. Consideration of use of FP and the reason they may not regarding to the marital status of the respondents

Variable	Categories	Marital status		
Consideration of using FP method		**Married monogomously N=870**	**Married polygomously N=258**	**Divorced N=24**
	Yes	189(21.7%)	60(23.3%)	7(29.2%)
	No	681(78.3%)	198(76.7%)	17(7.8%)
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	84(9.7%)	25(9.7%)	1(4.2%)
	Don't have enough information about it	165(19%)	43(16.7%)	6(25%)
	My partner will not accept it	161(18.5%)	54(20.9%)	3(12.5%)
	I want to have a lot of children	238(27.4%)	71(27.9%)	6(25%)
	I will become infertile if I use it	16(1.8%)	3(1.2%)	1(4.2%)
	I don't need it	17(2%)	1(0.4%)	-

4.5.6. Consideration of the use of FP and the reason they may not regarding the income of the respondents

Women who are dependent were considering using family planning services in the near future 212 (24.5%) more than those who are making their own money 44(15.4%). Bothindependent 83(29%) and dependent 233 (26.9%) women attributedthey want to have a lot of childrenand that is the reason they may not consider to use FP services in the future.

Table 4.22. Consideration of the use of FP and the reason they may not regardingthe income of the respondents

Variable	Categories	Independent women N=286	Dependent women N=866
Consideration of using FP method	Yes	44(15.4%)	212(24.5%)
	No	242(84.6%)	645(75.5%)
Reasons why not considering to use any family planning method	Afraid of the side effects they may cause	29(10.1%)	81(9.4%)
	Don't have enough information about it	55(19.2%)	159(18.4%)
	My partner will not accept it	72(25.2%)	146(16.9%)
	I want to have a lot of children	83(29%)	233(26.9%)
	I will become infertile if I use it	2(0.7%)	18(2.1%)
	I don't need it	1(0.3%)	17(2.0%)

4.6. Effect of Socio-Demographic Characteristics Of The Spouses' on the Previous, Current and the Willing to use FP Services Among Women In Hargeisa Somaliland

Women whose spouses' age is less than 40 years previously utilized FP services slightly more than those who have spouses older than 40 years but currently, women whose spouses are older than 40 years utilize FP more than those who have spouses in younger age. Furthermore as the spouses education level increases the percentage of women who previously used, currently use and willing to use FP services were increasing, women with university degree partners are highest to have utilized, currently utilizing and are willing to utilize FP services 161(32.7%), 153(31%),119(24.1%) respectively.

Furthermore, women whose partners were employed and business men are highest to have utilized, utilizing and are willing to utilize FP services more than those who have partners who are farmers. Nevertheless, women whose partners were unemployed did not utilize any FP services before but they are currently utilizing and

willing to utilize FP services. Women whose partners also generate more income were likely to utilize FP services than those whose monthly income was less than 200 USD.

Table 4.23. Effect of socio-demographic characteristics of the spouses on the previous, current and the willing to use FP services among women in Hargeisa Somaliland

Variable	Category	Previously utilized FP	Currently utilizing FP	Considering to utilize FP
Age of spouse	20-30	98(23.9%)	86(21%)	86(21%)
	31-40	123(23.4%)	106(20.2%)	120(22.8%)
	Older than 40	44(22.9%)	57(29.7%)	43(22.4%)
Level of education of spouse	Illiterate	15(19.7%)	14(18.4%)	9(11.8%)
	Primary	22(17.6%)	14(11.2%)	25(20%)
	Secondary	37(13.7%)	44(6.3%)	68(25.2%)
	Collage	30(18.3%)	24(14.6%)	28(17%)
	University	161(32.7%)	153(31%)	119(24.1%)
Occupation of spouse	Farmer	7(4.4%)	4(2.5%)	9(5.6%)
	Employed	225(27.3%)	211(25.6%)	209(25.3%)
	Unemployed	-	4(100%)	4(100%)
	Bussines man	33(23.7%)	30(21.6%)	27(19.4%)
Income contributed by the spouse				
	$0-100	28(15.9%)	21(11.9%)	33(18.8%)
	$100-200	30(10.1%)	38(12.8%)	52(17.4%)
	$200-300	51(25.1%)	48(23.6%)	45(22.2%)
	$300-400	62(28.7%)	72(33.3%)	56(25.9%)
	$more than 400	92(39.5%)	70(30%)	62(26.6%)

4.7. Factors Effecting Utilization Of Family Planning Services Among Woman

Quantitative analysis of factors that may affect utilization of family planning services among women in child bearing age was conducted and result is presented in the tables below.

4.7.1. Factors affecting utilization of family planning services among women according to the residence place

Methods of family planning are more available in urban regions 181(31.4%) than they are in rural regions 30(5.2%). Family planning methods are also more affordable by

women in urban areas 196(34.2%) than those who live in rural areas 37(6.4%). Both women in urban and rural areas get family planning services from health centers more than they get from other places.

204(17.7%) of women get counseled before they use family planning in both urban and rural regions nevertheless women in urban areas get counseled more 189(32.8%) than those in rural areas 15(2.6%) and among those women who were not counseled, those in urban areas get information related to FP methods from the internet more 59(10.2%) while those in rural areas get FP related information's from their friends and relatives the most 45(7.8%).

Majority of women who live both in urban and rural areas prefer to get FP related information's from health centers nonetheless women in urban areas prefer to get FP related information's from health centers 575(99.8%) slightly more than those in rural 4

Distance to the preferred source of information is near to women in urban areas 483(83.9%) than it is to women in rural areas 299(51.9%) and the cost incurred to travel to and from the health centers is more affordable by women in urban areas 526(91.3%) than those in rural areas 262(45.5%).

Majority of women did not experience any side effects related to FP use 845(73.4%) and among those who experienced side effects, women in urban areas 19(3.3%)experienced slightly more than those in rural areas 6(1%).

In both areas women believe that there are myths that impede them from using FP services 1087 (94.4%). In rural areas "*your man will get married to another women if you control your birth"* is one of the common myths that may hinder women from utilizing FP services 192 (33.3%) and in urban areas "*using FP services is a curse*" is one of the most common myths 167(29%).

Majority of women 971(84.3%) in both urban and rural regions do not communicate with their partners about the use of FP services however women in urban

areas 108(18.8%) communicate with their partners slightly more than those in rural areas 73(12.7%). And the reason that they do not communicate with their partners is that their partners love a lot of children and among those who communicated with their partners about the use of FP services only 46(4%) approved it.

Majority of women in both urban and rural areas believe that their religion is allowing them to use FP services and women in urban areas 552(90.6%) have this believe slightly more than those in urban areas 478(83%). Furthermore, women both in urban and rural regions stated that Somali culture does not support using FP services because "*We believe that refusing god's blessings (children) is a curse"* 343 (29.8%).

Table 4.24. Factors affecting FP utilizations according to the place of residence

Variable	Categories	Place of residence		Total
		Urban	**Rural**	
Is the method you use always available	Always	181(31.4%)	30(5.2%)	211(18.3%)
	Not always	29(5%)	19(3.3%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	197(34.2%)	37(6.4%)	234(20.3%)
	Not affordable	14(2.4%)	12(2.1%)	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	197(34.2%)	38(6.6%)	235(20.4%)
	Other places	14(2.4%)	10(1.7%)	24(2.1%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	189(32.8%)	15(2.6%)	204(17.7%)
	No	21(3.6%)	32(5.6%)	53(4.6%)
if no, where else do you get information on modern fp services	Internet	59(10.2%)	3(0.5%)	62(5.4%0
	Friends/relatives	152(26.4%)	46(8%)	198(17.2%)
preferred source of information	Health centers/ dispensaries	575(99.8%)	573(99.5%)	1148(99.7%)
	Other places	1(0.2%)	3(0.5%)	4(0.3%)
distance to the preferred source	Far	93(16.1%)	277(48.1%)	370(32.1%)
	Not far	483(83.9%)	299(51.9%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	526(91.3%)	262(45.5%)	788(68.4%)
	Not affordable	50(8.7%)	313(54.3%)	364(31.6%)
Have you ever	Yes	19(3.3%)	6(1%)	25(2.2%)

experienced side effects after using any modern FP services?	No	556(96.5%)	289(50.2%)	845(73.4%)
is there any myth that hinders you from using modern FP services	Yes	543(94.3%)	544(94.4%)	1087(94.4%)
	No	33(5.7%)	32(5.6%)	65(5.6%)
if yes describe these myths	if you use FP you will become infertile	98(17%)	95(16.5%)	193(16.8%)
	your man will get married to another woman if you control your birth	186(32.3%)	192(33.3%)	378(32.8%)
	it is a curse to use FP	167(29%)	158(27.4%)	325(28.2%)
	you will get sick if you use FP	82(14.2%)	98(17%)	180(15.6%)
	Others	10(1.7%)	2(0.3%)	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	108(18.8%)	73(12.7%)	181(15.7%)
	No	468(81.3%)	503(87.3%)	971(84.3%)
If no, why?	Afraid that he will get mad	91(15.8%)	115(20%)	206(17.9%)
	He loves many children	223(38.7%)	239(41.5%)	462(40.1%)
	He will get married to another woman if I use it	142(24.7%)	135(23.4%)	277(24%)
	Others	13(2.3%)	14(2.4%)	27(2.3%)
If yes, does your partner approve the use of these modern FP services?	Yes	23(4%)	23(4%)	46(4%)
	No	88(15.3%)	48(8.3%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	380(66%)	36(6.3%)	416(36.1%)
	He believes that they cause diseases	134(23.3%)	12(2.1%)	146(12.7%)
	Don't know	44(7.6%)	1(0.2%)	45(3.9%)
Does your religion support the use of these services?	Yes	552(90.6%)	478(83%)	1000(86.8%)
	No	54(9.4%)	98(17%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	163(28.3%)	180(31.3%)	343(29.8%)
	We believe that	167(29%)	176(30.6%)	343(29.8%)

	refusing god's blessings(children) is a curse			
	Fp causes infertility	142(24.7%)	149(25.9%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	94(16.3%)	70(12.2%)	164(14.2%)
	Others	11(1.8%)	-	11(1%)

4.7.2. Factors affecting utilization of family planning services among women according to their age group

The family planning methods are more available for women who were between 18-24 years old 60(23%) and women in that age group afforded family planning services the most 61(23.4%). Among those who are using, all age groups are getting family planning services from health centers or dispensaries 235(20.4%) more than they get from the other non-medical places 21(1.8%).

204(17.7%) of women in all age groups who visited health facilities to get family planning services were counseled before they get the service and among those who were not counseled 198(17.2%) of them get information related to FP from their friends or relatives.

Majority of women in all age groups 1148(99.7%) was preferring to get family planning information from health facilities. Cost incurred in travelling to and from preferred source was most affordable by women whose age was between 25-34 382(70.5%).

Only 25(2.2%)of women in all age groups experienced side effect after using family planning services. Women in all age groups admitted that there are myths that may hinder them from utilizing family planning services and women who are 24-34 years old believed the existence of these myths the most 254(97.3%).

85(32.6%) among18-24 years old 166(30.5%) among 25-34 years old, 113(37%) among 35-44 years old and 14(30.4%) among>=45 years old stated that "*your man will get married to another woman if you use family planning and control the number of children you are giving birth*" is the myth that hinders them from utilizing family planning services the most.

Women who are >=45 years old communicated with their partner about family planning the most 11(23.9%) while women who are 18-24 and 25-34 years old communicated with their partner about family planning the least. Women in all age groups were not communicating with their partner about the use of FP services because he wants to have a lot of children and among those who communicated with their partners the most (women who aged>=45 years) 9(19.6%) of them, their partners did not approve to use FP services.

Majority of the women in all age groups believe that their religion (Islam) gives the permission to use family planning services 1000(86.8%). All age groups mentioned that Somali community supports large families and don't encourage the use of family planning services, furthermore they stated that in Somali culture, refusing god's blessings(children) is a curse.

Table 4.25. Factors affecting FP utilizations according to the age group of the respondents

Variable	Categories	Age group				Total
		18-24	25-34	35-44	>=45	
Is the method you use always available	Always	60(23%)	101(18.6%)	46(15.5%)	4(8.7%)	211(18.3%)
	Not always	11(4.2%)	13(2.4%)	22(7.3%)	2(4.3%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	61(23.4%)	106(19.6%)	61(20.1%)	6(13%)	234(20.3%)
	Not affordable	10(3.8%)	8(1.5%)	8(2.6%)	-	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	66(25.3%)	100(18.5%)	63(20.8%)	6(13%)	235(20.4%)
	Other places	5(1.9%)	14(2.6%)	5(1.7%)	-	21(1.8%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	58(22.2%)	91(16.8%)	53(17.5%)	2(4.3%)	204(17.7%)
	No	13(5%)	21(3.9%)	15(5%)	4(8.7%)	53(4.6%)
if no, where else do you get information on modern FP services	Internet	17(6.4%)	27(5%)	17(5.6%)	1(2.2%)	62(5.4%0
	Friends/relatives	54(20.7%)	87(16.1%)	52(17.2%)	5(10.9%)	198(17.2%)
preferred source of information	Health centers/ dispensaries	258(98.9%)	542(100%)	302(99.7%)	46(100%)	1148(99.7%)
	Other places	3(1.1%)	0	1(0.3%)	-	4(0.3%)
distance to the preferred source	Far	85(32.6%)	180(33.2%)	85(28.1%)	20(43.5%)	370(32.1%)
	Not far	176(67.4%)	362(66.8%)	218(71.9%)	26(56.5%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	182(69.7%)	382(70.5%)	198(65.3%)	26(56.5%)	788(68.4%)
	Not affordable	79(30.3%)	160(29.5%)	105(347%)	20(43.5%)	364(31.6%)
Have you ever experienced side effects after using any modern FP services?	Yes	7(2.7%)	12(2.2%)	5(1.7%)	1(2.2%)	25(2.2%)
	No	199(76.2%)	398(73.4%)	221(72.9%)	27(58.7%)	845(73.4%)
is there any myth that hinders you from using modern FP services	Yes	254(97.3%)	504(93%)	287(94.7%)	42(91.3%)	1087(94.4%)
	No	7(2.7%)	38(7%)	16(5.3%)	4(8.7%)	65(5.6%)
if yes describe these myths	if you use FP you will become infertile	38(14.6%)	88(16.2%)	60(19.8%)	7(15.2%)	193(16.8%)
	your man will get married to another women if you control your birth	85(32.6%)	166(30.5%)	113(37.3%)	14(30.4%)	378(32.8%)

	it is a curse to use FP	81(31%)	156(28.8%)	71(23.4%)	17(37%)	325(28.2%)
	you will get sick if you use FP	46(17.6%)	87(16.1%)	43(14.2%)	4(8.7%)	180(15.6%)
	Others	4(1.5%)	7(1.3%)	1(0.3%)	-	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	37(14.2%)	89(16.4%)	44(14.5%)	11(23.9%)	181(15.7%)
	No	224(85.8%)	453(83.6%)	259(85.5%)	35(76.1%)	971(84.3%)
If no, why?	Afraid that he will get mad	50(19.2%)	96(17.7%)	53(17.5%)	7(15.2%)	206(17.9%)
	He loves many children	106(40.6%)	220(40.6%)	125(41.3%)	11(23.9%)	462(40.1%)
	He will get married to another woman if I use it	67(25.7%)	126(23.2%)	68(22.4%)	16(34.8%)	277(24%)
	Others	2(0.8%)	12(2.2%)	12(4%)	1(2.2%)	27(2.3%)
If yes, does your partner approve the use of these modern FP services?	Yes	7(2.7%)	25(4.6%)	12(4%)	2(4.3%)	46(4%)
	No	29(11.1%)	65(12%)	33(10.9%)	9(19.6%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	96(36.8%)	198(36.5%)	110(36.3%)	12(26.1%)	416(36.1%)
	He believes that they cause diseases	32(12.3%)	68(12.5%)	42(13.9%)	5(10.9%)	146(12.7%)
	Don't know	16(6.1%)	16(3%)	12(4%)	0	45(3.9%)
Does your religion support the use of these services?	Yes	230(88.1%)	476(87.8%)	257(84.8%)	37(80.4%)	1000(86.8%)
	No	31(11.9%)	66(12.2%)	46(15.2%)	9(19.6%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	81(31%)	165(30.4%)	81(26.7%)	16(34.8%)	343(29.8%)
	We believe that refusing god's blessings(children) is a curse	74(28.4%)	166(30.4%)	89(29.4%)	14(30.4%)	343(29.8%)
	FP causes infertility	71(27.2%)	128(23.6%)	83(27.4%)	9(19.6%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	32(12.3%)	80(14.8%)	45(14.9%)	7(15.2%)	164(14.2%)
	Others	3(1.1%)	3(0.6%)	5(1.7%)	-	11(1%)

4.7.3. Factors affecting utilization of family planning services among women according to their level of education

Family planning services are more available for women with higher level of education and those who attended university 84(27.6%) than women who attended primary 23(11.9%) and are illiterate 21(14.4%). FP services are also highly afforded by women with university degrees 88(28.9%) and least afforded by illiterate women 25(17.1%).

Women in all level of educations got the family planning services they were using from health facilities the most. 204(17.7%) among women who got family planning services were counseled at the place they got from the family planning and women who attended university got counseled the most 87(28.6%), and among those who were not counseled 198(17.2%) of them got information from their friends or relatives. Women in all level of educations preferred to get the information of family planning services from health facilities 1148(99.7%). Costs spend in travelling to and from preferred source were more affordable by women with university degrees 247(81.3%). Women who attended college experienced side effects related to FP the most 7(3.3%).

Women in all level of educations believe that there is a myth against use of family planning services 1087(94.4%). And women in all education levels stated that "*your men will get married if you use family planning services*" 378(32.8%) and "*using family planning services is a curse*"325(28.2%) are some of the most common myths that may hinder women from utilizing family planning services.

Women with some level of educations communicated with their partners about the use of family planning more than those who are illiterate. Among those who do not communicate their partners about the use of FP, 462(40.1%) of them mentioned that their partners want to have a lot of children, and among those who communicated with their partners about the use of FP 181(15.7%), only 46(4%) approved it because 416(36.1%) of them wanted to have a lot of children.

274(90.1%) of women with university degrees believe that their religion allows to use FP services while 116(79.5%) of illiterate women believe that it is permissible in Islam to use family planning services and most of women in all education levels mentioned that Somali community supports large families and don't encourage the use of family planning services 343(29.8%) and in Somali culture refusing god's blessings (children) is a curse 343(29.8%).

Table 4.26. Factors affecting FP utilizations according to the level of education of the respondents

Variable	Categories	Level of education					Total
		Illiterate	**Primary**	**Secondary**	**College**	**University**	
Is the method you use always available	Always	21(14.4%)	23(11.9%)	52(17.5%)	31(14.6%)	84(27.6%)	211(18.1%)
	Not always	5(3.4%)	6(3.1%)	16(5.4%)	7(3.3%)	14(4.6%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	25(17.1%)	24(12.4%)	63(21.2%)	34(16%)	88(28.9%)	234(20.3%)
	Not affordable	1(0.7%)	5(2.6%)	5(1.7%0	4(1.9%)	11(3.6%)	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	25(17.1%)	25(13%)	61(20.5%)	34(16%)	90(29.6%)	235(20.4%)
	Other places	1(0.7%)	4(2.1%)	6(2%)	4(1.9%)	9(3%)	24(2.1%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	17(11.6%)	20(10.4)	52(17.5%)	27(12.7%)	88(28.9%)	204(17.7%0
	No	7(4.8%)	4(2.1%)	8(2.7%)	6(2.8%)	6(2%)	53(4.6%)
if no, where else do you get information on modern fp services	Internet	5(3.4%)	3(1.6%)	11(3.7%)	7(3.3%)	36(11.8%)	62(5.4%0
	Friends/relatives	21(14.4%)	26(13.5%)	57(19.6%)	31(14.6%)	63(20.7%)	198(17.2%)
preferred source of information	Health centers/ dispensaries	146(100%)	191(99%)	296(99.7%)	211(99.5%)	304(100%)	1148(99.7%)
	Other places	-	2(1%)	1(0.3%)	1(0.5%)	-	4(0.3%0
distance to the	Far	48(32.9%)	83(43%)	111(37.4%)	65(30.7%)	63(20.7%)	370(32.1%)

preferred source	Not far	98(67.1%)	110(57%)	186(62.6%)	147(69.3%)	241(79.3%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	91(62.3%)	106(54.9%)	188(63.3%)	156(73.6%)	247(81.3%)	788(68.4%)
	Not affordable	55(37.7%)	87(45.1%)	109(36.7%)	56(26.4%)	57(18.8%)	364(31.6%)
Have you ever experienced side effects after using any modern FP services?	Yes	2(1.4%)	3(1.6%)	4(1.3%)	7(3.3%)	9(3%)	25(2.2%)
	No	91(62.3%)	132(68.4%)	200(67.3%)	158(74.5%)	264(86.8%)	845(73.4%)
is there any myth that hinders you from using modern FP services	Yes	134(91.8%)	186(96.4%)	279(93.9%)	196(92.5%)	292(96.1%)	1087(94.4%)
	No	12(8.2%)	7(3.6%)	18(6.1%)	16(7.5%)	12(3.9%)	65(5.6%)
if yes describe these myths	if you use FP you will become infertile	21(14.4%)	35(18.1%)	48(16.2%)	36(17%)	53(17.4%)	193(16.8%)
	your man will get married to another women if you control your birth	49(33.6%)	61(31.6%)	109(36.7%)	63((29.7%)	96(31.6%)	378(32.8%)
	it is a curse to use FP	46(31.5%)	56(29%)	78(26.3%)	63(29.7%)	82(27%)	325(28.2%)
	you will get sick if you use FP	17(11.6%)	33(17.1%)	45(15.2%)	33(15.6%)	52(17.1%)	180(15.6%)
	Others	1(0.7%)	1(0.5%)	-	2(0.9%)	8(2.6%)	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	13(8.9%)	31(16.1%)	60(20.2%)	38(17.9%)	39(12.8%)	181(15.7%)
	No	133(91.1%)	162(83.9%)	237(79.8%)	174(82.1%)	265(87.2%)	971(84.3%)
If no, why?	Afraid that he will get mad	25(17.1%)	36(18.7%)	48(16.2%)	39(18.4%)	58(19.1%)	206(17.9%)
	He loves many children	65(44.5%)	72(37.3%)	111(37.4%)	83(39.2%)	131(43.1%)	462(40.1%)
	He will get married to another woman if I use it	41(28.1%)	50(25.9%)	70(23.6%)	43(20.3%)	73(24%)	277(24%)
	Others	2(1.4%)	5(2.6%)	9(3%)	7(3.3%)	4(1.3%)	27(2.3%)
If yes, does	Yes	3(2.1%)	9(4.7%)	20(6.7%)	7(3.3%	7(2.3%)	46(4%)

your partner approve the use of these modern FP services?					)		
	No	10(6.8%)	21(10.9%)	40(13.5%)	33(15.6%)	32(10.5%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	38(26%)	49(25.4%)	90(30.3%)	79(37.3%)	160(52.6%)	416(36.1%)
	He believes that they cause diseases	11(7.5%)	12(6.2%)	33(11.1%)	29(13.7%)	62(20.4%)	146(12.7%)
	Don't know	4(2.7%)	6(3.1%)	6(2%)	12(5.7%)	16(5.3%)	45(3.9%)
Does your religion support the use of these services?	Yes	116(79.5%)	171(88.6%)	254(85.5%)	185(87.2%)	274(90.1%)	1000(86.8%)
	No	30(20.5%)	22(11.4%)	43(14.5%)	27(12.7%)	30(9.9%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	47(32.2%)	66(34.2%)	89(30%)	55(25.9%)	86(28.3%)	343(29.8%)
	We believe that refusing god's blessings(children) is a curse	35(24%)	54(28%)	95(32%)	71(33.5%)	88(28.9%)	343(29.8%)
	Fp causes infertility	39(26.7%)	51(26.4%)	69(23.2%)	51(24.1%)	81(26.6%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	24(16.4%)	21(10.9%)	39(13.1%)	34(16%)	46(15.1%)	164(14.2%)
	Others	1(0.7%)	1(0.5%)	5(1.7%)	1(0.5%)	3(1%)	11(1%)

4.7.4. Factors affecting utilization of family planning services among women according to their occupations

FP were available for employed women the most 37(25.7%) and least available for farmers. cost spend in purchasing of FP services were most affordable by employed women 39(27.1%). In those who were using family planning services house wives, business ladies and employed women were all getting FP services from health facilities the most and most of women were counseled before they utilize family planning services and employed women were counseled the most 39(27.1%). Among those who were not

counseled in the place from which they got FP service were getting the information related to FP from their friends or relatives 198(17.2%).

144(100%) of employed women, 38(100%) of farmer women, 835(99.6%) of house wives and 131(99.2%) of business women prefer to get information from FP from health facilities. 782(67.9%) of women the distance to the preferred source was not far and cost used for travelling to the preferred source was affordable to the most of women 788(68.4%). Only 4(2.8%) among employed women, 3(2.3%) among business women and 18(2.1%) among house wives experienced side effects after use of family planning methods.

38(100%) in farmer women, 789(94.2%) in house wives, 120(90.9%) in business ladies and 140(97.9%) in employed women believe that there are myths that are hindering them from utilizing family planning services.

Business women communicate with their partners the most about the use of FP services 24(18.2%) while farmers communicate with their partners about the use of FP services the least 1(2.6%) and among those who communicated with their partners about the use of FP business women's partners approved the highest percentage 6(4.5%). 416(36.1%) of women believes that he did not approved because he wanted to have a lot of children.

Majority of women in all occupations believe that their religion allows the use of FP. Farmers, house wives, business ladies and employed women all mentioned that Somali culture did not encourage the use of family planning services because Somali community prefer large families and more children 343(29.8%) and FP use causes infertility 291(25.3%).

Table 4.27. Factors affecting FP utilizations according to the occupation of the respondents

Variable	Categories	Occupation				Total
		Farmer	House wife	Business lady	Employed	
Is the method you use always available	Always	-	153(18.3%)	21(15.9%)	37(25.7%)	211(18.3%)
	Not always	1(2.6%)	38(4.5%)	2(1.5%)	7(4.9%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	1(2.6)	175(20.9%)	19(14.4%)	39(27.1%)	234(20.3%)
	Not affordable	-	16(1.9%)	4(3%)	6(4.2%)	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	-	174(20.8%)	21(15.9%)	40(27.8%)	235(20.4%)
	Other places	1(2.6%)	16(1.9%)	2(1.5%)	5(3.5%)	24(2.1%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	-	147(17.5%)	18(13.6%)	39(27.1%)	204(17.7%0
	No	1(2.6%)	42(5%)	5(3.8%)	5(3.5%)	53(4.6%)
if no, where else do you get information on modern fp services	Internet	-	42(5%)	2(1.5%)	18(12.5%)	62(5.4%0
	Friends/relatives	1(2.6%)	149(17.8%)	21(15.9%)	27(18.850	198(17.1%)
preferred source of information	Health centers/ dispensaries	38(100%)	835(99.6%)	131(99.2%)	144(100%)	1148(99.7%)
	Other places	-	3(0.4%)	1(0.8%)	-	4(0.3%0
distance to the preferred source	Far	29(76.3%)	277(3.1%)	46(34.8%)	18(12.5%)	370(32.1%)
	Not far	9(23.7%)	561(66.9%)	86(65.2%)	126(87.5%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	13(34.2%)	565(67.4%)	79(59.8%)	131(91%)	788(68.4%)
	Not affordable	25(65.8%)	273(32.6%)	53(40.2%)	13(9%)	364(31.6%)
Have you ever experienced side effects after using any modern FP services?	Yes	-	18(2.1%)	3(2.3%)	4(2.8%)	25(2.2%)
	No	29(76.3%)	589(70.3%)	87(65.9%)	140(97.2%)	845(73.4%)
is there any myth that hinders you from using modern FP services	Yes	38(100%)	789(94.2%)	120(90.9%)	140(97.2%)	1087(94.4%)
	No	-	49(5.8%)	12(9.1%)	4(2.8%)	65(5.6%)

if yes describe these myths	if you use FP you will become infertile	10(26.3%)	145(17.3%)	19(14.4%)	19(13.2%)	193(16.8%)
	your man will get married to another women if you control your birth	13(34.2%)	272(32.5%)	39(29.5%)	54(37.5%)	378(32.8%)
	it is a curse to use FP	11(28.9%)	243(29%)	34(25.8%)	37(25.7%)	325(28.2%)
	you will get sick if you use FP	4(10.5%)	120(14.3%)	28(21.2%)	28(19.4%)	180(15.6%)
	Others	-	10(1.2%)	-	2(1.4%)	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	1(2.6%)	135(16.1%)	24(18.2%)	21(14.6%)	181(15.7%)
	No	37(97.4%)	703(83.9%)	108(81.8%0	123(85.4%)	971(84.3%)
If no, why?	Afraid that he will get mad	9(23.7%)	139(16.6%)	25(18.9%)	33(22.9%)	206(17.9%)
	He loves many children	15(39.5%)	342(40.8%)	49(37.1%)	56(38.9%)	462(40.1%)
	He will get married to another woman if I use it	12(31.6%)	201(24%)	31(23.5%)	33(22.9%)	277(24%)
	Others	1(2.6%)	22(2.6%)	3(2.3%)	1(0.7%)	27(2.3%)
If yes, does your partner approve the use of these modern FP services?	Yes	1(2.6%)	36(4.3%)	6(4.5%)	4(2.8%)	46(4%)
	No	37(97.4%)	100(11.9%)	18(13.6%)	17(11.8%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	-	295(35.2%)	36(27.3%)	85(59%)	416(36.1%)
	He believes that they cause diseases	1(2.6%)	89(10.6%)	15(11.4%)	42(29.2%)	146(12.7%)
	Don't know	-	32(3.8%)	1(0.8%)	11(7.6%)	45(3.9%)
Does your religion support the use of these services?	Yes	35(91.1%)	720(85.9%)	110(83.3%)	135(93.8%)	1000(86.8%)
	No	3(7.9%)	118(14.1%)	22(16.7%)	9(6.3%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	8(21.1%)	256(30.5%)	40(30.3%)	39(27.1%)	343(29.8%)
	We believe that refusing god's blessings(children) is a curse	11(28.9%)	253(30.2%)	39(29.5%)	40(27.8%)	343(29.8%)
	Fp causes infertility	11(28.9%)	207(24.7%)	31(23.5%)	42(29.2%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	8(21.1%)	114(13.6%)	21(15.9%)	21(14.6%)	164(14.2%)
	Others	-	8(1%0	1(0.8%)	2(1.4%)	11(1%)

4.7.5. Factors affecting utilization of family planning services among women according to their marital status

FP services are more available to divorced women 8(33.3%) then women who are married. And the cost is affordable to the divorced women the most 10(41.7%). Both married and divorced women get FP services from health facilities the most. Both married and divorced women got counseled from the place they got the FP services from only 39(4.5%) among M. married women and P.Married women 13(5%) and 1(4.2%) among divorced women did not get counseled. Among those who were not counseled 197(17.1%) got information from friends and relatives. 867(99.7%) of M. married women, 257(99.6%) of P. married women and 24(100%) of divorced women prefers to get FP service information from health centers. Cost spend to the preferred distance is affordable by divorced women 17(70.8%) slightly more than M. married women 603(69.3%) and P. Married women162 (62.8%).

Only 21(2.4%) among M. married women and 4(1.6%) among P. married women experienced side effect caused by family planning methods. 822(95.5%) among M. married women, 241(93.4%) among P. Married women and 24(100%) of divorced women believe that there are myths that are hindering them from using family planning services.

M. married women 140(16.1%) communicated their partners about the use of FP slightly more than those who are P.Married 40(15.5%). And the reason that both M. married and P. married women do not communicate with their partners about the use of FP the most is their partner wants to have a lot of children. And among those who communicated with their partners about the use of FP only 31(3.1%) amongM. married women and 15(5.1%) among P. married women approved it.

759(87.2%) of M. married women, 217(84.1%) of P. married women and 23(95.8%) in divorced women believes that in Islam it is allowed to use family planning services. Majority of both married and divorced women mentioned that Somali culture

does not encourage the use of FP as they believe that using FP is a curse and prefer large families.

Table 4.28. Factors affecting FP utilizations according to the marital status of the respondents

Variable	Categories	Marital status			Total
		Monogamously married	P. married	Divorced	
Is the method you use always available	Always	154(17.7%)	49(19%)	8(33.3%)	211(18.3%)
	Not always	38(4.4%)	8(3.1%)	2(8.3%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	171(19.7%)	53(20.5%)	10(41.7%)	234(20.3%)
	Not affordable	21(2.4%)	5(1.9%)	-	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	171(19.7%)	55(21.3%)	9(37.5%)	235(20.4%)
	Other places	20(2.3%)	3(1.2%)	1(4.2%)	24(2.1%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	151(17.4%)	44(17.1%)	9(37.5%)	204(17.7%)
	No	39(4.5%)	13(5%)	1(4.2%)	53(4.6%)
if no, where else do you get information on modern fp services	Internet	47(5.4%)	14(5.4%)	1(4.2%)	62(5.4%)
	Friends/relatives	145(16.7%)	44(17.1%)	9(37.5%)	198(17.2%)
preferred source of information	Health centers/ dispensaries	867(99.7%0	257(99.6%)	24(100%)	1148(99.7%)
	Other places	3(0.3%)	1(0.4%)	-	4(0.3%0
distance to the preferred source	Far	267(30.7%)	96(37.2%)	7(29.2%)	370(32.1%)
	Not far	603(69.3%)	162(62.8%)	17(70.8%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	599(68.9%)	172(66.7%)	17(70.8%)	788(68.4%)
	Not affordable	271(31.1%)	86(33.3%)	7(29.2%)	364(31.6%)

Have you ever experienced side effects after using any modern FP services?	Yes	21(2.4%)	4(1.6%)	-	25(2.2%)
	No	653(75.1%)	169(65.5%)	23(95.8%)	845(73.4%)
is there any myth that hinders you from using modern FP services	Yes	822(94.5%)	241(93.4%)	24(100%)	1087(94.4%)
	No	48(5.5%)	17(6.6%)	-	65(5.6%)
if yes describe these myths	if you use FP you will become infertile	143(16.4%)	50(19.4%)	-	193(16.8%)
	your man will get married to another women if you control your birth	290(33.3%)	76(29.5%)	12(50%)	378(32.8%)
	it is a curse to use FP	250(28.7%0	68(26.4%)	7(29.2%)	325(28.2%)
	you will get sick if you use FP	129(14.8%)	47(18.2%)	4(16.7%)	180(15.6%)
	Others	11(1.3%)	-	1(4.2%)	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	140(16.1%)	40(15.5%)	1(4.2%)	181(15.7%)
	No	730(83.9%)	218(84.5%)	23(95.8%)	971(84.3%)
If no, why?	Afraid that he will get mad	159(18.3%0	43(16.7%)	4(16.7%)	206(17.9%)
	He loves many children	348(40%)	106(41.1%)	8(33.3%)	462(40.1%)
	He will get married to another woman if I use it	205(23.6%)	64(24.8%)	8(33.3%)	277(24%)
	Others	17(2%)	7(2.7%)	7(2.7%)	27(2.3%)
If yes, does your partner approve the use of these modern FP services?	Yes	31(3.1%)	15(5.8%)	-	46(4%)
	No	109(12.5%)	26(10.1%)	1(4.2%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	323(37.1%)	75(29.1%)	18(75%)	416(36.1%)
	He believes that they cause diseases	120(13.8%)	24(9.3%)	3(12.5%)	146(12.7%)
	Don't know	35(4%)	9(3.5%)	-	45(3.9%)

Does your religion support the use of these services?	Yes	759(87.2%)	217(84.1%)	23(95.8%)	1000(86.8%)
	No	111(12.8%)	40(15.5%)	1(4.2%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	263(30.2%)	71(27.5%)	9(37.5%)	343(29.8%)
	We believe that refusing god's blessings(children) is a curse	257(29.5%)	83(32.2%)	3(12.5%)	343(29.8%)
	Fp causes infertility	221(25.4%)	62(24%)	8(33.3%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	122(14%)	38(14.7%)	4(16.7%)	164(14.2%)
	Others	7(0.8%)	4(1.6%)	-	11(1%)

4.7.6. Factors affecting utilization of family planning services among women according to the income of the respondents

FP services methods are available for both dependent and independent women 159(18.4%) and 52(18.2%) respectively. FP services are affordable by dependent women 179(20.7%) slightly more than independent women 55(19.2%). 235(20.4%) of both dependent and independent women get FP services from health facilities and 204(17.7%) of them get counseled from the place they got the FP services before the use of FP methods. 198(17.2%) of women get the information related to FP methods from their friends and relatives, however 1148(99.7%) prefer to get FP related information from health facilities. the cost traveled to that distance is more affordable by independent women 208(72.7%) than dependent women 580 (67%).

Majority of women did not experienced any side effects after use of FP method 845(73.4%) but majority of women both dependent and independent women1087 (94.4%) believe that there are myths that hinders them from using FP services.

Independent women communicate with their partners about the use of FP 46(16.1%) slightly more than those who are dependent however, 36(12.6%) of independent women's

husbands did not approved It, and the most common reason they gave was that he wanted to have a lot of children 117(40.9%).

Majority of both dependent and independent women 1000(86.8%) believe that it is permissible to use FP services in Islam but independent women 256(89.5%) believe slightly more than dependent women 743(85.8%). Furthermore 270(31.2%) of independent women believe that Somali community prefer large families and more children and discourages using FP services on the other hand 84(29.4%) of independent women believe that in Somali culture it is curse to refuse God's blessings.

Table 4.29. Factors affecting FP utilizations according to the income of the respondents

Variable	Categories	Income		Total
		Dependent	Independent	
Is the method you use always available	Always	159(18.4%)	52(18.2%)	211(18.3%)
	Not always	37(4.3%)	11(3.8%)	48(4.2%)
Is the cost incurred in purchasing this method affordable?	Affordable	179(20.7%)	55(19.2%)	234(20.3%)
	Not affordable	17(2%)	9(3.1%)	26(22.5%)
If used or using any family planning methods where did you get it from?	Health centers/dispensaries	179(20.7%)	56(19.6%)	235(20.4%)
	Other places	15(1.8%)	8(2.8%)	24(1.9%)
in the place where you sourced your modern FP services were you counseled before you get it	Yes	152(17.6%)	52(18.2%)	204(17.7%)
	No	42(4.8%)	11(3.8%)	53(4.6%)
if no, where else do you get information on modern fp services	Internet	42(4.8%)	20(7%)	62(5.4%)
	Friends/relatives	154(17.8%)	44(15.4%)	198(17.2%)
preferred source of information	Health centers/ dispensaries	863(99.7%)	285(99.7%)	1148(99.7%)
	Other places	3(0.3%)	1(0.3%)	4(0.3%0
distance to the preferred source	Far	290(33.5%)	80(28%)	370(32.1%)
	Not far	576(66.5%0	206(72%)	782(67.9%)
cost incurred in travelling to and from preferred source	Affordable	580(67%)	208(72.7%)	788(68.4%)
	Not affordable	286(33%)	78(27.3%)	364(31.6%)
Have you ever experienced side effects after using any modern FP services?	Yes	18(2.1%)	7(2.4%)	25(2.2%)
	No	605(69.9%)	240(83.9%)	845(73.4%)
is there any myth that	Yes	816(94.2%)	271(94.8%)	1087(94.4%)

hinders you from using modern FP services	No	50(5.8%)	15(5.2%)	65(5.6%)
if yes describe these myths	if you use FP you will become infertile	147(17%)	46(16.1%)	193(16.8%)
	your man will get married to another women if you control your birth	280(32.3%)	98(34.3%)	378(32.8%)
	it is a curse to use FP	255(29.4%)	70(24.5%)	325(28.2%)
	you will get sick if you use FP	125(14.4%)	55(19.2%)	180(15.6%)
	Others	10(1.2%)	2(0.7%0	12(1%)
Have you ever communicated with your partner on use of modern FP services?	Yes	135(15.6%)	46(16.1%)	181(15.7%)
	No	731(84.4%)	240(83.9%)	971(84.3%)
If no, why?	Afraid that he will get mad	145(16.7%)	61(21.3%)	206(17.9%)
	He loves many children	352(40.6%)	110(38.5%)	462(40.1%)
	He will get married to another woman if I use it	214(24.7%)	63(22%)	277(24%)
	Others	21(2.4%)	6(2.1%)	27(2.3%)
If yes, does your partner approve the use of these modern FP services?	Yes	36(4.2%)	10(3.5%)	46(4%)
	No	100(11.5%)	36(12.6%)	136(11.8%)
If he don't approve, why does he not approve the use of modern FP services?	He wants to have many children	299(34.5%)	117(40.9%)	416(36.1%)
	He believes that they cause diseases	90(10.4%)	57(19.9%)	146(12.7%)
	Don't know	32(3.7%)	12(4.2%)	45(3.9%)
Does your religion support the use of these services?	Yes	743(85.8%)	256(89.5%)	1000(86.8%)
	No	122(14.1%)	30(10.5%)	152(13.2%)
What other cultural issues from your society may encourage or discourage you from using FP services?	Somali community prefer large families and more children	270(31.2%)	73(25.5%)	343(29.8%)
	We believe that refusing god's blessings(children) is a curse	259(29.9%)	84(29.4%)	343(29.8%)
	Fp causes infertility	214(24.7%)	77(26.9%)	291(25.3%)
	Men got married to another woman if you don't give birth more children	116(13.4%)	48(16.8%)	164(14.2%)
	Others	7(0.8%)	4(1.4%)	11(1%)

4.8. Bivariate Analysis

To test the associations between independent variables and dependent variables of the previous utilization of FP, current utilization of FP and consideration of utilization of FP services Ch- square test was conducted at a significance of < 0.05.

4.8.1. Association between independent variables and the dependent variable of previous FP utilization services

Level of education of women was significantly associated with the previous use of family planning services (p 0.047) women in higher education level were more likely to utilize FP services than those in lower level of educations and it is founded that utilization of FP services were more likely to increase as the level of education of women increases.

Occupation was statically significant (p<0.001) employed women utilized FP services the most 51(35.4%) and the percentage declined when it comes to house wives 193(23.1%) and farmer.

Residence place was strongly associated with previous use of FP services (p<0.001) women in urban areas 227(39.4%) utilized FP services a lot more than those in urban areas 48(8.3%).

Age, marital status and income of women were not significantly associated with the previous utilization of FP services.

Table 4.30. Association between independent variables and dependent variable of previous FP utilization

Variable	Categories	Previous FP utilization		P-value*
		Yes	No	
Age group	18-24	68(26.1%)	193(73.9%)	0.549
	25-34	131(24.2%)	411(75.8%)	
	35-44	68(22.4%)	235(77.6%)	
	>=45	8(17.4%)	38(82.6%)	
Level of education	Illiterate	28(19.2%)	118(80.8%)	0.047
	Primary	37(19.2%)	156(80.8%)	
	Secondary	66(22.2%)	231(77.8%)	
	College	56(26.4%)	156(73.6%)	
	University	88(28.9%)	216(71.7%)	
Marital status	M.married	202(23.2%)	668(76.8%)	0.109
	P.married	63(24.4%)	195(75.6%0	
	Divorced	10(41.7%)	14(58.3%)	
Occupation	Farmer	-	38(100%)	<0.001
	House wife	193(23.1%)	645(76.9%)	
	Business women	31(23.5%)	101(77%)	
	Employed	51(35.4%)	93(64.6%)	
Residence place	Urban	227(39.4%)	349(60.6%)	<0.001
	Rural	48(8.3%)	528(91.7%)	
Income	Dependent	197(22.7%)	669(77.3%)	0.120
	Independent	78(27.3%)	208(72.7%)	

*Significant relationship, $p < 0.05$

4.8.2. Association between independent variables and the dependent variable of current FP utilization services

Level of education is significantly associated with current utilizations of FP services ($p<0.001$) women with university degree utilize FP services the most 98(32.2%) and illiterate women utilize FP services the least.

Occupation is significantly associated with utilization of FP services ($p<0.001$) employed women utilize FP services the most 44(30.6%) and farmers utilize FP services the least 1(2.6%). Residence place was also found to be statically significant ($p<0.001$) women in urban areas 210(36.5%) utilize FP services more than those in rural areas 49(8.5%).

Currently income was also statically significant (p<0.001) dependent women 196(22.6%) was found to utilize FP services slightly more than independent women 22%.

In the current utilization of FP services only age and marital status was not significantly associated with the use of FP services.

Table 4.31. Association between independent variables and the dependent variable of current FP utilization

Variable	Categories	Current FP utilization		P-value*
		Yes	No	
Age group	18-24	71(27.1%)	190(72.8%)	0.096
	25-34	114(21%)	428(79%)	
	35-44	68(22.4%)	235(77.6%)	
	>=45	6(13%)	40(87%)	
Level of education	Illiterate	26(17.8%)	120(82.2%)	<0.001
	Primary	29(15%)	164(85%)	
	Secondary	68(22.9%)	229(77.1%)	
	College	38(17.9%)	174(82.1%)	
	University	98(32.2%)	206(67.8%)	
Marital status	M.married	192(22.1%)	678(77.9%)	0.075
	P.married	57(22.1%)	201(77.9%)	
	Divorced	10(41.7%)	14(58.3%)	
Occupation	Farmer	1(2.6%)	37(97.4%)	0.001
	House wife	191(22.8%)	647(77.2%)	
	Business women	23(17.4%)	109(82.6%)	
	Employed	44(30.6%)	100(69.4%)	
Residence place	Urban	210(36.5%)	366(63.5%)	<0.001
	Rural	49(8.5%)	527(91.5%)	
Income	Dependent	196(22.6%)	670(77.4%)	<0.001
	Independent	63(22%)	223(78%)	

*Significant relationship, $p < 0.05$

4.8.3. Association between independent variables and the dependent variable of consideration of FP utilization in the future

In women who are considering utilizing of FP services in the future, occupation was found to be statically significant (p-0.021) house wives are considering to use FP services the most 204(24.3%) while employed women percentage decreased compared to the previous and current use of FP services 22(15.3%) and income contributed by women was found to be

statically significant(p<0.001) dependent women 212(24.5%) are considering utilization of FP services more than independent women. 44(15.4%). Furthermore residence place is statically significant (p<0.001) women in urban areas 155(26.9%) are considering to use FP services more than those in rural areas 101(17.5%).

Age group, level of education and marital status are not significantly associated with the willing of women to use FP services in the future.

Table 4.32. Association between independent variables and the dependent variable of consideration of FP utilization in the future

Variable	Categories	Consideration of FP utilization		P-value*
		Yes	No	
Age group	18-24	63(23.8%)	198(75.9%)	0.867
	25-34	118(20.8%)	424(78%)	
	35-44	65(21.1%)	238(78.5%)	
	>=45	10(27.1%)	36(78.3%)	
Level of education	Illiterate	43(29.5%)	103(70.5%)	0.143
	Primary	34(17.6%)	159(82.4%)	
	Secondary	65(21.9%)	232(78.1%)	
	College	48(22.6%)	164(77.4%)	
	University	66(21.7%)	238(78.3%)	
Marital status	M.married	189(21.7%)	681(78.3%)	0.621
	P.married	60(23.3%)	198(76.7%)	
	Divorced	7(29.2%)	17(7.8%)	
Occupation	Farmer	4(10.5%)	34(89.5%)	0.021
	House wife	204(24.3%)	634(75.7%)	
	Business women	26(19.7%)	106(803%)	
	Employed	22(15.3%)	122(84.7%)	
Residence place	Urban	155(26.9%)	421(73.1%)	<0.001
	Rural	101(17.5%)	475(82.5%)	
Income	Dependent	212(24.5%)	645(75.5%)	0.001
	Independent	44(15.4%)	242(84.6%)	

*Significant relationship, p < 0.05

4.8.4. Association between the independent variable of the spouses and the independent variables

Association between the independent variable of the spouse and the independent variables of the previous utilization of FP, current utilization of FP and consideration of utilization of FP services Ch- square test was conducted at a significance of < 0.05.

Level of education was found to be significant (p<0.001) women who have partners who attended university utilized FP services the most 161(32.7%). occupation was also found to be significant women who have spouses who are employed and business men utilized FP services the most, furthermore income was also significant and women whose spouses earn more money utilized FP the most.

Age was not significantly related to the previous use of FP services.

Table 4.33. Association between the independent variable of the spouses and the independent variables of previous FP utilization

Variable	Category	Previously utilized FP	p-value
Age of spouse	20-30	98(23.9%)	0.962
	31-40	123(23.4%)	
	Older than 40	44(22.9%)	
Level of education of spouse	Illiterate	15(19.7%)	<0.001
	Primary	22(17.6%)	
	Secondary	37(13.7%)	
	Collage	30(18.3%)	
	University	161(32.7%)	
Occupation of spouse	Farmer	7(4.4%)	<0.001
	Employed	225(27.3%)	
	Unemployed	-	
	Bussines man	33(23.7%)	
Income contributed by the spouse			
	$0-100	28(15.9%)	<0.001
	$100-200	30(10.1%)	
	$200-300	51(25.1%)	
	$300-400	62(28.7%)	
	$more than 400	92(39.5%)	

*Significant relationship, p < 0.05

4.8.5. Association between the independent variable of the spouses and the independent variables of current FP utilization

Level of education was found to be significant ($p<0.001$) women who have partners who attended university currently utilize FP services the most. Occupation was also found to be significant women who have spouses who are employed and business men utilized FP services the most, furthermore income was also significant and women whose spouses earn more money utilized FP the most.

Age was not significantly related to the current use of FP services

Table 4.34. Association between the independent variable of the spouses and the independent variables of current FP utilization

Variable	Category	Currently utilizing FP	p-value
Age of spouse	20-30	86(21%)	0.019
	31-40	106(20.2%)	
	Older than 40	57(29.7%)	
Level of education of spouse	Illiterate	14(18.4%)	<0.001
	Primary	14(11.2%)	
	Secondary	44(6.3%)	
	Collage	24(14.6%)	
	University	153(31%)	
Occupation of spouse	Farmer	4(2.5%)	<0.001
	Employed	211(25.6%)	
	Unemployed	4(100%)	
	Bussines man	30(21.6%)	
Income contributed by the spouse			
	$0-100	21(11.9%)	<0.001
	$100-200	38(12.8%)	
	$200-300	48(23.6%)	
	$300-400	72(33.3%)	
	$more than 400	70(30%)	

*Significant relationship, $p < 0.05$

4.8.6. Association between the independent variable of the spouses and the independent variables of consideration of FP utilization

In the consideration of FP utilizations only occupation was significant ($p<0.001$) women whose spouses were partners were considering using FP more than the others 100%.

Age, level of education and income contributed to family were not significantly related to the use of FP.

Table 4.35. Association between the independent variable of the spouses and the independent variables of previous FP utilization

Variable	Category	Considering to utilize FP	p-value
Age of spouse	20-30	86(21%)	0.792
	31-40	120(22.8%)	
	Older than 40	43(22.4%)	
Level of education of spouse	Illiterate	9(11.8%)	0.039
	Primary	25(20%)	
	Secondary	68(25.2%)	
	Collage	28(17%)	
	University	119(24.1%)	
Occupation of spouse	Farmer	9(5.6%)	<0.001
	Employed	209(25.3%)	
	Unemployed	4(100%)	
	Bussines man	27(19.4%)	
Income contributed by the spouse			
	$0-100	33(18.8%)	0.023
	$100-200	52(17.4%)	
	$200-300	45(22.2%)	
	$300-400	56(25.9%)	
	$more than 400	62(26.6%)	

*Significant relationship, $p < 0.05$

4.9. Logistic Regression Analysis

Binary logistic regression analysis was carried out; variables which were initially significant were selected for the regression analysis.

4.9.1. Multivariate analyses of the association between independent variables and current FP utilization

The odds of previous use of FP services decreased as the women's education level increase. Women in secondary level of education used FP services 8 times less than those in higher levels (OR=0.831, CI=0.506-1.362, P-0.462) and women who attended college utilized FP services 6 times less than those who attended university (0R=0.661, CI=0.396-1.104, P-O.114).

Occupation was also significant and house wives and business ladies were utilized less likely than employed women (OR=1.833, CI=1.256-2.673, P-0.002) and (OR=1.787, CI=1.054-3.029, P-0.031) respectively.

Table 4.36. Multivariate analysis of association between significant variables and previous FP utilization

		Dependent variable, previous use of FP		
Independent variable	**Categories**	**OR**	**95%CI**	**P- value**
Education Level	University	0.582	0360-0.942	0.028
	College	**0.661**	**0.396-1.104**	**0.114**
	Secondry	**0.831**	**0.506-1.362**	**0.462**
	Primary	1.000	0.5791.727	0.999
	Illiterate	Ref	Ref	Ref
Residence place	Urban	0.140	0.100-0.196	<0.001
	Rural	Ref	Ref	Ref
Occupation	Farmer	885905570.9	0.000	0.997
	House wife	**1.833**	**1.256-2.673**	**0.002**
	Bussines lady	**1.787**	**1.054-3.029**	**0.031**
	Employed	Ref	Ref	Ref

4.9.2. Multivariate analyses of the association between independent variables and current FP utilization

Level of education of women was one of the determinants of the current use of FP services, women who attended secondary were 7 times less likely to FP services than those who attended till university level (OR=0.730, CI, 0.441-1.207,P-0.219).

occupation was also one of the determinants and farmers were 16 times less likely utilizing than employed women (OR=16.280,CI=2.165-122.439, P-0.007.

Table 4.37. Multivariate analysis of the association between significant variables and the current FP utilization

		Dependent variable, current utilization of FP		
Independent variable	**Categories**	**OR**	**95%CI**	**P- value**
Education Level	University	**0.455**	**0.280-0.742**	**0.007**
	College	0.992	0.572-1.720	0.977
	Secondary	**0.730**	**0.441-1.207**	**0.219**
	Primary	1.225	0.280-0.742	0.492
	Illiterate	Ref	Ref	Ref
Occupation	Farmer	16.280	2.165-122.439	0.007
	House wife	1.490	1.010-2.200	0.45
	Bussines lady	2.0885	1.176-3.697	0.12
	Employed	Ref	Ref	Ref
Residence place	Urban	0.162	0.115-0.227	<0.001
	Rural	Ref	Ref	Ref
Income of women	Dependent	0.966	0.700-1.332	0.832
	Independent	Ref	Ref	Ref

4.9.3. Multivariate analyses of the association between independent variables and consideration of FP utilization

In consideration of the use of FP services in the future occupation was determinant and business ladies were considering to utilize FP in the future 7 times less than the employed women (OR=0.735 CI=0.394-1.373, P-0.018). And farmers were least considering to use FP services in the future (OR=1.533, CI=0.495-4.750, 0.459).

Table 4.38. Multivariate analysis of association between the significant variable and the consideration of FP utilizations

		Dependent variable consideration of FP use in the future		
Independent variable	**Categories**	**OR**	**95%CI**	**p-value**
Occupation	Farmer	**1.533**	**0.495-4.750**	**0.459**
	House wife	0.560	0.347-0.906	0.018
	Bussines lady	**0.735**	**0.394-1.373**	**0.334**
	Employed	Ref	Ref	Ref
Residence place	Urban	0.578	0.435-0.766	<0.001
	Rural	Ref	Ref	Ref
Income	Dependent	0.561	0.393-0.801	0.001
	Independent	Ref	Ref	Ref

5. DISCUSSION

Factors that may affect utilization of FP services among women in childbearing age in Hargeisa, Somaliland and the prevalence rate of previous, current and the willing to use family planning services among women, with a special focus on the extent to which demographic variables influenced contraceptive use was investigated in this study.

The study revealed that family planning was previously underutilized among women in Hargeisa Somaliland, with only (23.9 %) using it before, and the percentage is now even lower, with a prevalence rate of (22.5 %) of women using FP services currently, which is almost similar to the finding of a previous study conducted in the same location, which found that the prevalence rate of FP utilization among women in Hargeisa Somaliland was 26% and hormonal methods of family planning are most highly practiced method of Family planning among women (46). Nonetheless, just (22.2%) of the respondents said they are planning to use one of the country's family planning programs in the future, because most of women mentioned that they want to have more children (27.4%) and their partner may not accept it (18.9%), which is indicating that family planning use among women in reproductive age in Hargeisa will remain low in the foreseeable future.

On the other hand, the situation of women's FP use in Somaliland is similar to that in other African countries, according to a study conducted in 20 African countries, the overall use of current CPs in 20 African countries was found to be 26% in Zimbabwe, Malawi, Kenya, Lesotho, Tunisia, Madagascar, Gambia, Mali, Guinea Bissau, Benin, Togo, Cameron, DRC, Sierra Leone, Mauritania, Nigeria, Sudan, and Cote (52). In contrast according to a survey conducted in rural area of Bangladesh (62.3 %) of women were taking some type of contraception at the time of the study (53), Another study conducted in an urban slum of Pune, India (69.5 %) of couples used contraception (54), showing that Asian women are more likely to utilize FP services than African women.

Furthermore, this study discovered that Somali women don't usually plan the number of children they are going to give birth to, 1000(86.7%) of the respondents never planned the number of children they are going to give birth throughout their life, while only 151(13.1%) of the respondents planned the number of children they are going to give birth to. And out of those who planned 96 (8.3%) exceeded the number of children they planned to have. Meanwhile, (72.7%) of the participants were housewives, which could be one of the reasons why women delay using family planning services and not trying to plan the number of children they are going to give birth to, as spending most of their time at home may lead women to believe that they need to have more children to spend time with.

Women in urban areas (36.5%) were utilizing FP services more than those in rural areas (8.5%).Furthermore,the findings reveal that women in rural areas are less likely to seek FP services since they prefer to have a large number of children (31.9%), similarly research conducted in rural area of Bangladesh stated that women are not using FP because (65%) of non-users were eager to have a child (53)

The study also found that women aged 18-24 use family planning more (27.1%) than those aged 25-34 (21%), in contrast to studies conducted in 20 African nations, which revealed that women aged 25–34 years were more likely to use contraceptives than women aged 15–24 years (52). in addition to that Level of education of women was

one of the socio-demographic determinants of the current and previous use of FP services among women, women who attended secondary were 7 times less likely to FP services than those who attended till university level (OR=0.730, CI, 0.441-1.207, P-0.219). the same was founded by study carried out from 20 African countries, a positive link between women and it is level of education (52). Furthermore, the study revealed that, as the education level of the spouse rises, the percentage of women to use FP services rises, with women with university degree partners previously utilized, utilizing, and willing to use FP services at 161(32.7%), 153(31%), and 119 percent, respectively (24.1 percent) respectively, more than those with partners whose level of education is lower than university. This shows that education background of both partners is positively related to the positive attitude toward family planning utilization.

Women who do not earn their own money were also discovered to be utilizing FP services (22.6%) slightly more than those who earn their own money (22%), indicating that women's underutilization of FP services in Somaliland is not more likely related to their income, conflicting with a research carried out in Ethiopia to determine the characteristics that influence women's use of family planning, which founded that FP is used by twice as many wealthy women as it was by poor women. (13)

The accessibility of a service is highly influenced by its availability and the study found that family planning methods are available to18.3% among the women who were currently utilizing at least one method of contraceptives. Family planning methods were more available in urban regions (31.4%) than they are in rural regions (5.2%). FP methods were also more afforded by women in urban areas (34.2%) than those who live in rural areas (6.4%).

Family planning counseling is necessary to assist women in achieving their reproductive purposes and encourage them to use FP services in both initiation and continuation face (80) (17.7%) of women get counseled before they use family planning in both urban and rural regions nevertheless women in urban areas get counseled more (32.8%) than those in rural areas (2.6%) and among those who were not counseled women in urban areas get information related to FP methods of FP services from the

internet more 59(10.2%)while those in rural areas get FP related information's from their friends and relatives the most 45(7.8%). This could be due to the fact that internet connectivity is readily available in urban regions.

The importance of spousal communication is also regularly emphasized in family planning programs and studies. According to some analysts, it is the first step in a logical fertility decision-making process and the amount of communication between spouses is positively connected to contraception use. (60) but the study found that majority of women (84.3%) in both urban and rural regions do not communicate their partners about the use of FP services however women in urban areas (18.8%) communicate with their partners slightly more than those in rural areas (12.7%). The study also found that women with some level of educations were more likely to communicate their partners about the use of family planning more than those who are illiterate. Furthermore, Business women communicate their partners the most about the use of FP services (18.2%) and Independent women communicate their partners about the use of FP (16.1%) slightly more than those who are dependent (12.6%).Nonetheless, spousal acceptance is quite low only (4%) among those who communicated with their partners accepted it, which may play a key role in the underutilization of family planning services.

According to the study, the majority of women in Hargeisa Somaliland believe that myths are one of the most important factors that may prevent them from using FP services (94.4%), and some of the beliefs that keep people from using FP include "your man will marry another woman if you restrict your birth (32.8%)" and "it is a curse to use FP (28.2%). Similarly some studies previously mentioned that Myths about family planning have a negative impact on its use. In a poll conducted in eight countries, 50–70 percent of women believed that taking the pill posed major health concerns. Another study, in Mali many women believed that the pill and injection would cause irreversible infertility. A research of sexually active women aged 15–25 in Kenya indicated that many women had misunderstandings about the harmful consequences of modern contraceptives (for example, that they cause infertility or harm the uterus). (74)

Furthermore, the study discovered that Somali culture does not support the use of FP services, as many women express negative cultural beliefs such as "the Somali community prefers larger families, it is a curse to use FP and refuse God's blessings of children, FP causes infertility, and Somali men always marry another woman if their woman starts to use FP services," which is also one of the main reasons that FP services are underutilized by women in Hargeisa Somaliland.

6. CONCLUSION

It is being observed that Family planning was previously underutilized among women in Hargeisa Somaliland, with just 23.9 percent utilizing it, and the percentage is now much lower, with only 22.5 percent of women using it presently. Nonetheless, just 22.2 percent of respondents stated they want to utilize family planning programs in the future, owing to the fact that the majority of women 27.4 percent expressed a desire to have more children, and their partners may not accept it 18.9 percent. Women's previous and current use of family planning services was influenced by their degree of education, where they lived, and what they do for a living; Women with higher levels of education used and currently use family planning services more than those with lower levels of education, Indicating that FP use is positively associated to women's educational attainment. Women in urban areas used FP services more than women in rural areas and business women used and use FP services more than housewives and farmers.

Lack of partner acceptance is also one of the main reasons that women are not utilizing and not willing to utilize any family planning services, as Somali men always crave for more children and another noteworthy finding from this study is that Somali men marry other women if their wives attempt to use modern family planning options.

In addition to that myths against utilization of FP are widespread in the community which may contribute to women's underutilization of FP services. The study also revealed that Somali culture strongly discourages the use of FP services.

6.1 Limitations of the study

Geographical and data limitations; There was a scarcity of literature resources in the country because the researcher couldn't identify any previous research from the same location. Furthermore, topic of researches such as ‘factors affecting utilization of family planning services among women’ need obviously to be done country wide. However, this study was limited to Hargeisa.

Furthermore, the sample size did not represent the entire population because convenient non-probability sampling was employed to randomly select individuals from the target group.

7. RECOMMENDATIONS

- Educating Somali men on the importance of family planning and the benefits it provides to their wives and families are strongly recommended. This could be accomplished through men-focused programs run by the Ministry of Health with the assistance of other stakeholders to raise male understanding of the different benefits of family planning.
- Increasing women's educational attainment is also necessary, as there is a significant correlation between higher educational attainment and the use of family planning services.
- Educating women on the need of spacing for their health and the health of their children, and how giving themselves time to recover from birth problems is good for them, will also be beneficial.
- Extensive mass media education is also needed as these myths and cultural believes that discourage the use of FP services could be caused by a lack of understanding of the advantages of family planning services. TV shows, dramas, public signs, songs, and podcast programs that promote the necessity of using family planning services and can improve the community's unfavorable attitude and beliefs about FP services could also be beneficial.
- On the other hand, women in rural areas, do not have enough access to family planning services, and the distance from the sources which they receive FP services is far. Therefore, it is recommended that the government make efforts to improve the supply of family planning methods in all the places in a timely and optimal manner by involving volunteer health professionals and private health institutions in the provision of family planning services.
- In order to develop an effective intervention to increase women's use of family planning in Hargeisa Somaliland, the minister of health should provide free family planning services to women in both urban and rural areas, which could encourage women to utilize FP services more frequently.

- Area for further research, because this study was limited to the capital city, larger studies addressing factors influencing contraceptive usage across the country is required.

8. REFERENCES

1. Mganga VM. “Factors Influencing Male Involvement and Participation in Family Planning in Kenya.” 2000;
2. Apanga PA, Adam MA. Factors influencing the uptake of family planning services in the Talensi district, Ghana. Pan Afr Med J. 2015;20:1–9.
3. Dougherty A, Kayongo A, Deans S, Mundaka J, Nassali F, Sewanyana J, et al. Knowledge and use of family planning among men in rural Uganda. BMC Public Health. 2018;18(1):1–5.
4. Beyene Wondafrash MN. Knowledge, Attitude and Practice of Family Planning Methods Among Laboring Mothers in Adama Hospital, Oromia Region, Ethiopia. J Women’s Heal Issues Care. 2015;04(03).
5. UN. World Fertility and Family Planning 2020: Highlights United Nations Department of Economic and Social Affairs Population Division: New York. 2020. 42 p.
6. Maluleke NT. Assessing family planning use and its impact in controlling population growth in Africa. 2010;1–11.
7. Dangat CM, Njau B. Knowledge, attitude and practices on family planning services among adolescents in secondary schools in Hai district, northern Tanzania. Tanzan J Health Res. 2013;15(1):1–8.
8. Nangendo SM. Knowledge and Use of Family Planning Methods and Services in West Yimbo Division, Bondo District, Western Kenya. Afr Study Monogr. 2012;33(4):233–51.
9. Gizaw A, Regassa N. Family planning service utilization in Mojo town, Ethiopia: A population based study. J Geogr Reg Plan. 2011;4(6):355–63.
10. APHRC. What it takes: Meeting unmet need for family planning in East Africa. African Popul Stud. 2018;29(5):1483–1499.
11. Kols a. Reducing unmet need for family planning: evidence-based strategies and approaches. 2008;25(1):[8]
12. Eyong C, Eghong IE. Utilization of family planning services among women of child bearing age (15-45 years) from 2011 to2013 in Calabar south local government area of Cross River State-Nigeria. Int J Public Heal Pharm Pharmacol 2017;2(1):13–23.
13. Lakew Y, Reda AA, Tamene H, Benedict S, Deribe K. Geographical variation and factors influencing modern contraceptive use among married women in Ethiopia: Evidence from a national population based survey. Reprod Health 2013;10(1):1

14. The Importance of Family Planning | Family Planning Benefits | 2022 Jan 6 .

15. Natural Birth Control Methods 2022 Jan 6.

16. Barrier Methods of Birth Control: Spermicide, Condom, Sponge, Diaphragm, and Cervical Cap | ACOG d 2022 Jan 6.

17. Quick Facts: Hormonal Methods of Birth Control - Merck Manuals Consumer Version 2022 Jan 6.

18. Birth Control Pills | The Pill | Contraceptive Pills . 2022 Jan 6

19. Combination birth control pills - Mayo Clinic 2022 Jan 6.

20. Birth Control Pills | BirthControl 2022 Jan 6.

21. Birth control patch - Mayo Clinic 2022 Jan 6.

22. Vaginal ring - Mayo Clinic 2022 Jan 6.

23. What Is Contraceptives Implants? – Caepv 2022 Jan 6.

24. Birth Control Shot - What It Does, How Long It Lasts & More | Kaiser Permanente 2022 Jan 6.

25. Permanent Methods of Family Planning - Hesperian Health Guides 2022 Jan 6.

26. Tubal ligation - Mayo Clinic 2022 Jan 6.

27. Gele AA, Musse FK, Qureshi S. Unmet needs for contraception: A comparative study among Somali immigrant women in Oslo and their original population in Mogadishu, Somalia. PLoS One [Internet]. 2019;14(8):1–12.

28. Revision) WPP (2019. Somalia Population 2021.

29. The Directorate of National Statistics, Ministry of Planning, Investment and Economic Development F, Somalia. G of S. and Demographic Survey 2020. 2020;

30. Somaliland • Country facts • PopulationData.net 2022 Jan 23

31. Februarcouncil NT. Famnily Planning _____ LTIN. 1969;1(38):1–16.

32. Bongaarts J, Sinding SW. A Response to Critics of Family Planning Programs COMMENT A Response to Critics of Family Planning Programs. 2009;35(1):39–44.

33. Bongaarts J, Mauldin WP, Phillips JF, Bongaarts J, Mauldin WP, Phillips JF. The Demographic Impact of Family Planning Programs The Demographic Impact of Family Planning Programs. 1990;21(6):299–310.

34. December N. Can Family Planning Programs Reduce High Desired Family Size in Sub-Saharan Africa ? Author (s): John Bongaarts Source : International Perspectives on Sexual and Reproductive Health , DECEMBER 2011 , Linked references are available on JSTOR for this art. 2011;37(4):209–16.

35. Bongaarts J, Sinding S. Population policy in transition in the developing world. Science (80-). 2011;333(6042):574–6.

36. Ravenholt BRT, Chao J. Availability of Family Planning Services The Key to Rapid Fertility Reduction Author (s): R . T . Ravenholt and John Chao Published by : Guttmacher Institute Stable URL : http://www.jstor.org/stable/2133709 Accessed : 02-04-2016 14 : 46 UTC Your use of . 2016;6(4):217–23.

37. Mpunga D, Lumbayi JP, Dikamba N, Mwembo A, Mapatano MA, Wembodinga G. Availability and quality of family planning services in the democratic republic of the congo: High potential for improvement. Glob Heal Sci Pract. 2017;5(2):274–85.

38. Barden-O'Fallon J. Availability of family planning services and quality of counseling by faith-based organizations: a three country comparative analysis. Reprod Health. 2017;14(1):1–11.

39. Family planning/contraception methods cited 2022 Jan 6.

40. Ali M, Farron M, Dilip TR, Folz R. Assessment of family planning service availability and readiness in 10 African countries. Glob Heal Sci Pract. 2018;6(3):473–83.

41. Somalia | Family Planning 2030 2022 Jan 6.

42. UNMET NEED FOR FAMILY PLANNING. 2022 Jan 6].

43. Ashford L. UNMET NEED FOR FAMILY PLANNING : Recent Trends and Their Implications for Programs. Popul Ref Bur. 2003;1–7.

44. Gure F, Dahir MK, Yusuf M, Foster AM. Emergency Contraception in Post-Conflict Somalia: An Assessment of Awareness and Perceptions of Need. Stud Fam Plann. 2016;47(1):69–81.

45. DNSFGS. The Somali Health and Demographic Survey 2020. Cent Stat Dep Minist Plan Natl Dev Somalil Gov Somalil Heal Demogr Surv 2020 Addit 2020;462. 46. family planning final thesis. 2021;(February 2020).

47. Maitethia MJ. Utilization of Long-Term and Permanent Family Planning Methods Among Family Planning Clients At Westlands Health Facilities, Nairobi County, Kenya. Int Fam Plan Perspect. 2016;28(11):138–43.

48. Moreland S, Smith E, Sharma S. World Population Prospects and Unmet Need for Family Planning. Futur Gr. 2010;(April):62.

49. WHO | Contraceptive prevalence. WHO 2016 2022 Jan 23]

50. Bongaarts J. United Nations Department of Economic and Social Affairs, Population Division World Family Planning 2020: Highlights, United Nations Publications, 2020. 46 p. Popul Dev Rev 2020 Dec 1 46(4):857–8.

51. Countries with the Highest Prevalence of Contraceptive Usage

52. Apanga PA, Kumbeni MT, Ayamga EA, Ulanja MB, Akparibo R. Prevalence and factors associated with modern contraceptive use among women of reproductive age in 20 African countries: A large population-based study. BMJ Open. 2020;10(9).

53. Khan NR, Jerifa S. Prevalence of contraceptive use among married women of reproductive age groups in a rural area of Bangladesh. J Dhaka Med Coll. 2015;23(1):7–13.

54. Taklikar C, More S, Kshirsagar V, Gode V. Prevalence of contraceptive practices in an urban slum of Pune city, India. Int J Med Sci Public Heal. 2015;4(12):1772.

55. Rugendo MM. Asessing Utilization of Family Planning Services among Women of Reproductive Age (15-49 Yrs) in North Kanyabala Sub-Location , Homabay Sub-County. J Biol Agric Healthc. 2015;5(7):142–54.

56. Amen Mohammed Ahmed W, Boutros Shokai S, Hassan Abduelkhair I, Yahia Boshra A. Factors Affecting Utilization of Family Planning Services in a Post-Conflict Setting, South Sudan: A Qualitative Study. AIMS Public Heal. 2015;2(4):655–66.

57. Sunnu E, Adatara P, Opare FY, Kuug A, Nyande F. Factors Influencing the Utilisation of Family Planning contraceptives among Men and Women in the Ho Municipality of Ghana. Int J Heal Sci Res [Internet]. 2016;6(8):204.

58. Walvekar PR. Determinants of contraceptive use among married women residing in rural areas of Belgaum. J Med Allied Sci [Internet]. 2012;2(1):07–11.

59. Anasel MG, Mlinga UJ. Determinants of contraceptive use among married women in Tanzania: Policy implication. Etude la Popul Africaine. 2014;28(2):978–88.

60. Sharan M, Valente TW. Spousal communication and family planning adoption: Effects of a radio drama serial in Nepal. Int Fam Plan Perspect. 2002;28(1):16–25.

61. Najafi-Sharjabad F, Rahman HA, Hanafiah M, Syed Yahya SZ. Spousal communication on family planning and perceived social support for contraceptive practices in a sample of Malaysian women. Iran J Nurs Midwifery Res. 2014;19(7 Suppl 1):S19-27.

62. Zeitzen MK. Polygamy: A Cross-Cultural Analysis. Oxford: Berg; 2008. 206 p.

63. Farrell M, Masquelier A, Tissot E, Bertrand J. Islam, polygyny and modern contraceptive use in francophone sub-Saharan Africa. Etude la Popul Africaine. 2014;28(3):1389–98.

64. Greenbaum C, Bitire D. Polygamy in West and Central African Countries: Implications for Fertility Intentions and Family Planning.

65. Diamond-Smith N, Campbell M, Madan S. Misinformation and fear of side-effects of family planning. Cult Heal Sex. 2012;14(4):421–33.

66. J. O. M, J. A. O, B. T. M, O. A, M. I. O, T. A. L. Knowledge and Utilization of Family Planning Services among Women of Reproductive Age in Ilishan Community Health Center, Ogun State. African J Heal Nurs Midwifery. 2021;4(1):94–111.

67. Mutombo N, Bakibinga P, Mukiira C, Kamande E. Benefits of family planning: An assessment of women's knowledge in rural Western Kenya. BMJ Open. 2014;4(3):1–8.

68. Bienvenu K. GSJ : Volume 9 , Issue 2 , February 2021 , Online : ISSN 2320-9186 knowledge , attitudes and practices of family planning among women attending kabutare district hospital , Rwanda. 2021;9(2):341–58.

69. Semachew Kasa A, Tarekegn M, Embiale N. Knowledge, attitude and practice towards family planning among reproductive age women in a resource limited settings of Northwest Ethiopia. BMC Res Notes 2018;11(1):7–12.

70. Sundararajan R, Yoder LM, Kihunrwa A, Aristide C, Kalluvya SE, Downs DJ, et al. How gender and religion impact uptake of family planning: Results from a qualitative study in Northwestern Tanzania. BMC Womens Health. 2019;19(1):1–10.

71. Pinter B, Hakim M, Seidman DS, Kubba A, Kishen M, Di Carlo C. Religion and family planning. Eur J Contracept Reprod Heal Care. 2016;21(6):486–95.

72. The views of Somali religious leaders on birth spacing – A qualitative study | Elsevier Enhanced Reader 2022 Jan 29]

73. Endriyas M, Eshete A, Mekonnen E, Misganaw T, Shiferaw M. Where we should focus? Myths and misconceptions of long acting contraceptives in southern nations, nationalities and People's region, Ethiopia: Qualitative study. BMC Pregnancy Childbirth. 2018;18(1):1–6.

74. Gueye A, Speizer IS, Corroon M, Okigbo CC. Belief in family planning myths at the individual and community levels and modern contraceptive use in Urban Africa. Int Perspect Sex Reprod Health. 2015;41(4):191–9.

75. Sakara A, Namoog MY, Badu-nyarko SK. Misconceptions and Rumours About Family Planning Among Moslem Males in Tamale Metropolis , Ghana. Glob J Interdiscip Sci. 2015;4(1):9–14.

76. Ankomah A, Oladosu, Anyanti. Myths, misinformation, and communication about family planning and contraceptive use in Nigeria. Open Access J Contracept. 2011;95.

77. Travers JL, Hirschman KB, Naylor MD. BMC Geriatrics. 2022 Jan 29

78. Lederle M, Tempes J, Bitzer EM. Application of Andersen's behavioural model of health services use: a scoping review with a focus on qualitative health services research. BMJ Open 2021;11:45018.

79. Somalia Population 2021 (Demographics, Maps, Graphs) Retrieved December 25, 2021,

80. Dehingia N, Dixit A, Averbach S, Choudhry V, Dey A, Chandurkar D, et al. Family planning counseling and its associations with modern contraceptive use, initiation, and continuation in rural Uttar Pradesh, India. Reprod Health. 2019;16(1):1–11.

9. APPENDICES

APPENDIX 1: Informed Consent and Questionnaire

1.1 Consent Form

My name is sagal yussuf adam. I am a master's student at Ankara Yildirim Beyazit University in turkey and I am conducting this research to explore' factors effecting utilization of family planning services among women in childbearing age in Hargeisa Somaliland.

I selected you to be part of my study to get information from the topic mentioned above, by responding questions in a questionnaire and know that the information you give is confidential with me and will only be used for the purpose of this research.

I expect you to answer all the questions in the questionnaire to insure the validity and reliability of the findings but you have the right to skip any question that you don't feel comfortable answering, and you can withdraw from the study at any moment.

Respondent agreement- informed consent form

The research has been explained to me and I voluntarily accepted to participate the study and answer the questions in the questionnaire.

Respondents signature
Date

Information to the respondents

Research Title

Factors Affecting Utilization Of Family Planning Services Among Women In Childbearing Age (15-49) In Hargeisa Somaliland

Research Background

This research was brought in under the interest of the researcher to determine the factors affecting utilization of family planning services among women in reproductive age in Hargeisa Somaliland.

Purpose of Study

This research aims to assess factors affecting utilization of family planning services among women in reproductive age in Hargeisa Somaliland

Confidentiality

All individual information given in the questionnaires and tests results will be treated as confidential. Any results to be used will be summarized as collective results, not as individual.

Respondents' rights

This research requires voluntary participations from all respondents. Any respondents has the right to withdraw their consent at any time should they feel uncomfortable at any stages of the research. No penalties will be given to those who withdrawn

Thank you for your cooperation

Sagal Yussuf Adam

Ankara Yildirim beyazit university, public health department

Questionnaire

Date ……

Section A: DEMOGRAPHIC CHARACTERISTICS

1. Bio-Data (Respondent)

Age	**MaritalStatus**	**Highest Level ofEducation**			**Occupation**
What is your age?	MarriedMonogamous	University			Farmer
……	Marriedpolygamous	College			Housewife
	Single	Secondary			Business lady
	Separated	Primary			Employed
	Windowed	None			
	Divorced				

2. Bio-Data (Spouse's Characteristics if married)

Age	**HighestLevelofEducation**			**Occupation**	
What is your spouse's age?	University			Farmer	
……	College			Unemployed	
	Secondary			Businessman	
	Primary			Employed	
	None				

3. Economic characteristic (Household)

Monthlyincomecontributedbyrespondent		**Monthly income contributed byspouseifmarried**		**Numberoflivingchildren**
0		0		**Total**
$0-100		$0-100		
$100-200		$100-200		
$200-300		$200-300		
$300-400		$300-400		
$ More than 400		$ More than 400		

4. Did you ever plan on how many children you wanted to give birth to?
   a) Yes ( ) b) No ( )

5. If yes, do the children you have given birth to exceed the number you had planned for?

   a)Yes ( ) b) No ( )

SECTION B: FACTORS HINDERING ACCESS TO FP SERVICES

6. Previous use of modern FP services

Everusedanymodern FPservices		**Methodeverused**	**Ifneverused,wouldyou consider usingit?**	
Yes		Barriermethods,e.g.condoms	Yes	
No		Hormonalmethods,e.g.e-pills	No	
		Surgicalcontraception,e.g.Tubal ligation		

7. If never used and would not consider using it, why would you not use FP services?

   ……
   ……
   ……

8. Current use of modern FP services

Currentlyusing any modern FPservices		**Methodyouareusing**		**Availabilityof methodyouareusing**		**Costincurredin purchasing thismethod**	
Yes		Barrier methods, e.g.condoms		Always		Veryaffordable	
No		Hormonalmethods, e.g.e-pills		Notalways		Affordable	
		Surgical contraception, e.g.Tuballigation				Notaffordable	

9. Ifusingany family planning services wheredo yougetitfrom?
   a. Healthcenters/dispensaries
   b. Chemists/shops
   c. Other

10. IntheplacewhereyousourcedyourmodernFPserviceswereyouco unseledbeforeyou got it?
    a)Yes ( ) b) No ( )
11. If no, where else do you get information on modern FP services?
    ……
    ……
    ……
12. Preferred source of modern FP services

Preferredsource		**Distancetothe preferredsource**		**Costincurredintravelling toandfrompreferredsource**	
Health centers/dispensaries		Veryfar		Veryaffordable	
Chemists/shops		Far		Affordable	
Other(specify)		Notfar		Notaffordable	

13. Have you ever experienced side effects after using any modern FP services?
    a)Yes ( ) b) No ( )

14. Is there any myth that hinders you from using modern FP services?
    a) Yes ( ) b) No ( )

15. If yes, describe these myths.
……
……
……

SECTION C: FACTORS HINDERING UTILIZATION OF FP SERVICES

16. Have you ever communicated with your partner on use of modern FP services?
a) Yes ( ) b) No ( )

17. If no, why not?
……
……
……

18. If yes, does your partner approve the use of these modern FP services?
a) Yes ( ) b) No ( )

19. If no in 18 above, why does he not approve the use of modern FP services?
……
……
……

20. Does your religion support the use of these services?
a) Yes ( ) b) No ( )

21. What other cultural issues from your society may encourage or discourage you from using FP services.
……
……
……

Translated form of the questionnaire

Qaybta A: Xog-nololeed

1. Xog-nololeed(ka qayb qaatayaasha daraasada)

Da'	**Xaalada guurka**	**Heerka waxbarashada**	**Shaqada**
da'daadu waa imisa?	La nool hal xaasle	Jaamacad	Beeralay
	La nool nin leh hal xaas ka badan	kolaj	Guri joog
	La furay	Dugsi sare	Ganacsato
	Kala maqan	Dugsi hoose	Shaqaysata
	Laga dhintay	Waxba ma baran	

2. Xogta Noolaha (Sifooyinka Lamaanaha haddii la guursado

Da	**Heerka waxbarashadiisa**			**Shaqada**
Waa imisa jir ninkaagu	Jaamacad			Beeralay
……	Kolej			Ma shaqeeyo
	Dugsi sare			Ganacsade
	Dugsi hoose			Shaqeysta
	Waxba ma baran			

3. Sifada dhaqaale (Guryaha)

Dakhliga billaha ah ee uu ku darsaday jawaab-celiyuhu		**Dakhliga bilaha ah ee ay ku darsato lammaanaha haddii la guursado**		**Tirade caruurta nool**
0		0		**Wadarta**
$0-100		$0-100		
$100-200		$100-200		
$200-300		$200-300		
$300-400		$300-400		
$ in ka badan 400		$ in ka badan 400		

4. Weligaa ma qorsheynaysay inta carruur ah ee aad rabtay inaad dhasho?
   a) Haa ( ) b) Maya ( )
5. Hadday haa tahay, carruurta aad dhashay miyay ka badan yihiin tiradii aad u qorshaysay??

   a)Haa ( ) b) Maya ( )

QAYBTA B: SABABAHA KA SOO HORJEEDA ISTICMAALKA KALA KORIYAHA

6. Isticmaalkii hore ee kala koriyaha

Weligaa ma isticmaashay kala koriye		**Nooca kala koriyaha aad isticmaashay**		**Haddi aanad waligaa isticmaalin, ma ku fakaraysaa isticmaalkeeda?**	
Haa		Qaababka ka hortaga eg.condoms		Haa	
Maya		Qaabka hoormoonada,e.g.kiniin ama irbad		Maya	
		Qaabka qaliinka,e.g.Tubal ligation			

7. Haddi aanad waligaa ka fikirin isticmaalida kala koriyeyaasha, waa maxay sababta aanad u rabin inaad isticmaasho?
   ……
   ……
   ……
8. Isticmaalka kala koriyayaasha hadda

Hadda ma isticmaasha wax kala koriye ah		**Nooca kala koriyaha aad isticmaasho**		**Helitaanka nooca kala koriyaha aad isticmaasho**		**Lacagta aad ku iinsato nooca aad isticmaasho**	
Haa		Qaababka ka hortaga e.g.condoms		Markasta la heli karo		Aad u jaban	
Maya		Qaababka hoormoonada , e.g.kiniino iyo irbado		Aan la heli Karin markasta		jaban	
		Qaababka qaliinada, e.g. Tuballigation				Qaali ah	

9. hadii aad hadda isticmaasho kala korye xagee ayaad ka qaadata/ ka heshaa?
    d. Xarumaha caafimaadka
    e. Farmashiyeyaasha/dukaamada
    f. Meel kale

10. Meeshii aad ka soo iibsatay adeegyadaada casriga ah ee kala koriyaha ma lagugula taliyay ka hor inta aanad helin?

    a)Haa ( ) b) Maya ( )

11. Hadday maya tahay, xaggee kale oo aad ka heshaa macluumaadka adeegyada casriga ah ee kala koriyayaasha?

    ……
    ……
    ……

12. Meesha aad doorbidayso in aad ka hesho adeegyada kala koriyayaasha

Meesha aad doorbidayso in aad ka hesho adeegyada		**Masaafada ay kuu jirto meeshu**		**Kharashka ku baxa si aad u gaado meeshaas**	
Xarumaha caafimaadka		Xoog bay u fogtahy		Aad u jaban	
Farmasiyayaasha/dukaamada		Way fogtahay		Jaban	
Meel kale		Masaafo dhow		Qaali ah	

13. Weligaa ma la kulantay waxyeellooyin ka dib markaad adeegsatay adeegyada kala koriyayaasha?

    a)Haa ( ) b) Maya ( )

14. Ma jiraa wax khuraafaad ah oo kaa hor istaagaya isticmaalka adeegyada casriga ah ee kala koriyayaasha?

    a) Haa ( ) b) Maya ( )

15. Hadday haa tahay, sharax khuraafaadka.

    ……
    ……
    ……

QAYBTA C: WAXYAABAHA SAAMEEYA KA FAAIIDAYSIGA ADEEGYADA KALA KORIYAYAASHA

16. Weligaa ma kala hadashay lammaanahaaga isticmaalka adeegyada FP ee casriga ah?
    b) Haa ( ) b) Maya ( )

17. Hadii ay tahay maya,waayo?
    ……
    ……
    ……

18. Hadii ay tahay haa ma kuu ogolaaday lamaanahaagu isticmaalka adeegyadaas?
    b) Haa ( ) b) Maya ( )

19. Hadii ay tahay maya maxaad u malaysaysa in uu u ogolaan waayay isticmaalka adeegyadaas?
    ……
    ……
    ……

20. diinta islaamka ma ogoshahay isticmaalka kala koriyayaasha ?
    a) Haa ( ) b) Maya ( )

21. Waa maxay arrimaha kale ee dhaqameed ee bulshadaada kugu dhiirigelin kara ama kaa niyad jebin kara isticmaalka adeegyada kala koriyayaasha?
    ……
    ……
    ……

APPENDIX 2: AYBU Ethical Approval

APPENDIX 3: MOH Ethical Approval

APPENDIX 4: Curriculum Vitae

KİŞİSEL BİLGİLER	
Adı Soyadı	: SAGAL YUSSUF ADAM
Doğum tarihi	
Doğum yeri	
Medeni hali	
Uyruğu	
Adres	
Tel	
Faks	
E-mail	
EĞİTİM	
Lise	:
Lisans	: ADMAS university
Yüksek lisans	: Ankara Yıldırım Beyazıt Üniversitesi, Halk sagligi Enstitüsü, Halk sagligi Anabilim Dalı
YABANCI DİL BİLGİSİ	
İngilizce	: Excellent
Turkce: Good	
ÜYE OLUNAN MESLEKİ KURULUŞLAR	