Chapter One

Introduction

1.1 Background to the Study

Contraceptive use plays a critical role in promoting reproductive health and family planning. It empowers women to make informed decisions about their reproductive lives, spacing of pregnancies, and overall well-being. In many countries, including Nigeria, unintended pregnancies and inadequate contraceptive use remain major public health challenges. Unplanned pregnancies can lead to adverse health outcomes for both the mother and the child, including increased maternal and infant mortality rates[1].

In many countries, maternal mortality has persisted as a serious issue. According to records from the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the World Bank, and the UNFPA, around 295 000 women worldwide do not survive pregnancy-related diseases. At 500 per 100,000 live births, Sub-Saharan Africa has the highest maternal death rate worldwide[1].

The WHO advised waiting 24 months between a live delivery and an attempt at the following pregnancy in order to lower the risk of unfavorable maternal, prenatal, and baby outcomes. Short birth intervals (less than 24 months) may potentially have an impact on the woman's health[2]. In practically every area of the world, the majority of married or in-union women use contraceptives. There are notable regional variances within these key categories. In 2015, prevalence of Northern Africa and Southern Africa (53 and 64 percent, respectively) was significantly higher than that in Middle Africa (23 percent) and Western Africa (17 per cent). In Eastern Africa, the prevalence of contraception has been rising recently and is now 40%.

Contraceptive Prevalence Rate (CPR) of 26.7% was reported in the most recent Ghana Demographic and Health Survey for 2019. An extensive examination of the EDHS 2000–2011 in Ethiopia reveals that the contraceptive prevalence rate (CPR) has dramatically increased over the past ten years, rising from a low of 8.2% in 2000 to 14.7% in 2005 and 28.6% in 2011. In Nigeria today, 36% of presently married women use one or more contemporary contraceptive methods, with understanding of family planning being the initial step in adopting a contraceptive technique[3]. Young women's failure to utilize contraception has been linked to a lack of awareness and education, according to research. It has been discovered that using it is related with having previously been pregnant, thus young women are only informed about and then provided contraceptive options after a pregnancy. Young women who seek abortions frequently lack awareness of and inadequate understanding of contraceptive techniques. Many people who claimed to be familiar with contraceptives were found to be misinformed, and very few knew when they should be used. Lack of accurate and thorough information about contraceptives was found to have caused some people to be reluctant to embrace family planning techniques because they would like to know the contraindications and adverse effects.

1.2 Statement of the Problem

Globally, maternal mortality is a significant problem. WHO, UNICEF, UNFPA, and the World Bank estimate that 295,000 women worldwide pass away each year due to conditions associated to pregnancy[1].Additionally, they discovered that Africa, particularly Sub-Saharan Africa, had the greatest rate of maternal death. About 86% (254 000) of the predicted global maternal fatalities in 2017 occurred in Sub-Saharan Africa and Southern Asia. Two-thirds (196 000) of maternal

fatalities occurred in Sub-Saharan Africa alone, whereas one-fifth occurred in Southern Asia (58 000). 534 per 100,000 births is the Sub-Saharan estimate[1].

In Nigeria, there is a pressing issue of low contraceptive prevalence, high fertility rates, accelerated population growth, high maternity ratios, and significant unmet needs for family planning. These factors are interconnected and contribute to the overall reproductive health challenges faced by women in the country.

The high maternity ratio, characterized by a significant number of pregnancies and childbirths, poses a burden on the healthcare system. Insufficient access to quality prenatal care, skilled birth attendants, and postnatal care further compounds the challenges faced by pregnant women, leading to increased maternal and infant mortality rates.

The low utilization of contraceptives among women of reproductive age is a major concern. Many women lack access to contraceptive services and have limited knowledge about the various methods available. This results in a low uptake of contraception, leading to a high number of unintended pregnancies and subsequent negative health outcomes.

Nigeria has one of the highest fertility rates globally, with an average of around 5 children per woman. This high fertility rate contributes to rapid population growth, straining healthcare systems, social services, and economic resources. The inability to effectively control fertility through contraception exacerbates the challenges associated with population growth and sustainability. Many women in Nigeria have unmet needs for family planning services. They desire to limit or space their pregnancies but do not have access to the necessary information, resources, or support. Unmet needs for family planning contribute to the high incidence of

unintended pregnancies and unsafe abortions, which pose serious risks to women's health and well-being.

The globe has made some effort over the past 20 years to address the problem of inadequate maternal health care through the support and provision of safe motherhood services, including safe abortion and contraception. Access issues to contraceptive goods and services have also been identified as a factor in the low incidence of its usage[4]. Unmet need is the large percentage of women who wish to avoid becoming pregnant but are not utilizing any kind of contraception. 214 million women globally fall into this category, according to the WHO fact sheet on family, families should be planned with appropriate kid spacing in mind. When children are not born too close to one another, both mother and kid are healthy, and low birth weight babies are less common.

1.3 Aim and Objectives of the Study

This study aimed to evaluate the knowledge, attitude and practice of contraceptive use among females of reproductive age accessing care in selected Health Facilities of Odeda LGA, Ogun, Nigeria.

Specific Objectives

This study objectives are to:

i. assess the level of the knowledge of contraceptive use among females of reproductive age accessing care in Odeda LGA, Ogun State, Nigeria.

ii. assess the attitude among women of reproductive age in Odeda LGA, Ogun State, Nigeria towards contraceptive use.

iii. determine the level of the utilization of contraceptive use among females of reproductive age in Odeda LGA, Ogun State, Nigeria.

iv. assess the various contraceptive method use among women of reproductive age in Odea LGA, Ogun State, Nigeria.

v. identify the factors that influences contraceptive use among women of reproductive age in Odeda LGA, Ogun State, Nigeria.

1.4 Research Question

1. What is the level of knowledge of contraceptive use intention among females of reproductive age in Odeda LGA, Ogun State, Nigeria?
2. What is the attitude of females of reproductive age in Odeda LGA, Ogun State towards contraceptive use?
3. What is the level of utilization of contraceptive among females of reproductive age in Odeda LGA, Ogun State, Nigeria?
4. What are the various contraceptive methods being use among females of reproductive age accessing care in Odeda LGA, Ogun State, Nigeria?
5. What are the factors that influences contraceptive use among females of reproductive age accessing care in Odeda LGA, Ogun State, Nigeria?

1.5 Justification of the Study

Understanding women's contraceptive knowledge, attitudes and practices can help us understand why they aren't using the contraceptive methods that are accessible. As a result, it could be a reasonable next step in the planning and design of various programs to assist these women in making better use of contraceptive services.

The results will assist health planners and policymakers in identifying potential areas for improving financing, development, and support programs to encourage the use of contraceptive services among women in Odeda Local Government, Ogun State, and Nigeria as a whole. The results of this study were useful to stakeholders working in Nigeria, including the Ministry of Gender and Community Development, the Nigeria Human Rights Commission, the Ministry of Health, UNICEF, and other stakeholders. The information on the effects of contraceptive usage programs on women living in Odeda Local Government Area, Ogun State, Nigeria, was used in this study to aid in the integration of contraceptive services into maternal care and programs.

1.6 Significance of the Study

Understanding women's contraception knowledge, attitudes, and practices helped us understand why they aren't using the contraceptive methods that are accessible. As a result, it was a reasonable next step in the planning and design of various programs to assist these women in making better use of contraceptive services. This was accomplished by including such services into already existing maternal care and programs, as well as reinforcing contraception education to enhance women's understanding and attitudes.

1.7 Scope of the Study

This study was delimited to the followings:

1. Women of reproductive age (15 – 49 years) using Health Facilities in Odeda LGA.
2. Self-developed and expert validated questionnaire
3. Descriptive statistics of frequency counts, percentage, bar chart, pie chart, mean and standard deviation.

This study was carried in Odeda local Government Area of Ogun State to assess the knowledge, attitude and practices of contraceptive use among women of reproductive age in some selected health facilities.

1.8 Limitation of Study

This study is limited by time constraint and language barrier in the process of data collection.

1.9 Operational Definition of Terms

Modern Family Planning Method: This refers to Family Planning methods such as oral contraceptive pills (OCPs), injectable (Depo-Provera), implants, intrauterine contraceptive devices (IUCDs), condoms, vasectomy (male sterilization), and bilateral tubal ligation (female sterilization).

Modern Contraceptive Use: This refers to the use of at least one type of modern contraceptive method.

Unmet Need for Contraceptives: women of Reproductive age who say they are not using contraception and who say either that they do not want any more children or that they want to

wait 2 or more years before having another child, who do not make use of any Contraceptive method, are considered to have an unmet need for contraceptives.

Reproductive Age: these are women that fall between the age of 18 to 49 years and this is due to ethics of the research.

Endnotes

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[5]Ahissou, NoudéhouénouCrédo Adelphe, Lenka Benova, Thérèse Delvaux, Charlotte Gryseels, Jean-Paul Dossou, SourouGoufodji, Lydie Kanhonou. "*Modern Contraceptive Use among Adolescent Girls and Young Women in Benin: A Mixed-Methods Study."* **BMJ Open** 12, no. 1 2022: e054188.

Chapter Two

Literature Review

As a foundation for this study, this part evaluates the literature on studies that have been done in the field of factors that influence the usage of contraceptives. Studies on the topic of women in Nigeria's knowledge, attitudes, and practices around the use of contraceptives.

2.1 Conceptual Review

2.1.1 Contraception

Contraception is the intentional avoidance of conception through the use of various tools, sexual behaviors, substances, medications, or surgical techniques[1]. So, a contraceptive can be defined as any method or tool used to prevent a woman from getting pregnant. Effective contraception offers ample freedom to have children when desired and allows a couple to enjoy a physical relationship without worrying about an unintended pregnancy in any social setting[2].

2.1.2 Benefits of Contraception

One of the most economical investments a nation can make in its future is contraception[3]. It offers a wide range of potential advantages, including those for women's empowerment, maternity and child health, economic growth, and education.

The majority of married or in a union, women in the reproductive age range (15-49 years) take contraceptives practically everywhere in the world. 63% of these women used some sort of type of contraception globally in 2017. While less than 25% of people in Middle and Western Africa used contraception, it was more than 70% in Europe, Latin America and the Caribbean, and Northern America[4].

To protect women's autonomy and well-being while fostering community growth and health, it is crucial to promote family planning and ensure that women, girls, and couples have access to chosen contraceptive methods.

According to estimates by the United Nations (UN), for every dollar spent on contraception, between $2 and $6 can be saved due to fewer people needing other public services including vaccines, health care, education, and sanitation[6].

2.1.3 **Classification of Contraceptive Methods**

The world uses a variety of contraceptive methods. Contraception is the practice of reducing fertility in sexually active heterosexual individuals through the use of medications, chemicals, devices, surgery, or other methods. The many forms of contraception can be divided into groups based on how they work, whether they are conventional or modern, and whether they depend on the provider or the user. Oral contraception (combination pills, progesterone-only pills, and emergency contraceptive pills), non-oral contraceptives (injectables, contraceptive implants, and the patch), barriers contraception (male and female condoms), intrauterine devices (IUDs), male and female sterilization, and natural family planning are the main methods of contraception used in family planning.

2.1.3.1 **Sexual Abstinence**

The only method of birth control that completely removes the possibility of sperm fertilizing an egg is total sexual abstinence. The only approach of family planning that can completely avoid conception is this one. Abstinence stops semen from coming into touch with the vagina, in contrast to other methods of birth control that function to prevent pregnancy regardless of the exchange of sexual fluids. Total sexual abstinence entails refraining from all forms of sex,

including oral, anal, and vaginal sex. It does not contain sex play but does call for great resolve on the side of the individual to refrain from penetrative sex and mutual understanding between the partners. Total abstinence is a viable option that requires communication with a partner to accomplish a particular goal. No of your age, gender, or sexual orientation, anyone can abstain for a certain length of time or for a cause that may change over time. People may choose to abstain for a variety of reasons, such as the desire to avoid pregnancy and STDs, religious convictions, medical concerns, waiting for the appropriate partner, delaying till marriage, and many more[7].

Contrary to abstinence, non-vaginal sex such as anal and oral sex can still result in the transmission of STDs. To effectively and consistently abstain from having sex, a person must: Set their own boundaries and feel good about their decision; think that having sex is not something to do just because everyone else is doing it; want to uphold their own personal, religious, or moral beliefs; and recognize that there are many other ways to experience intimacy. It motivates you to develop your connection and find alternative ways to communicate affection. However, you might decide otherwise in the "moment of truth" and not have a backup method of contraception on hand.

2.1.3.2 **Withdrawal Method**

In order to prevent the sperm expelled from his penis from entering the woman's vagina, a guy uses the withdrawal method to remove his penis from her vagina before he ejaculates. Another name for withdrawal method is coitus interruptus[8].

There are issues with using withdrawal as a form of birth control. Before ejaculating, a male may first discharge a little amount of sperm. Second, a guy must have the self-control and timing to

remove his penis from the woman's vagina before ejaculating. The withdrawal strategy is only around 75%-80% effective at preventing conception because it can be challenging for the guy to complete effectively.

The withdrawal approach has some advantages, including being economical, not requiring medical monitoring, and requiring no forward planning. The withdrawal method has dangers since, in comparison to other forms of birth control, it is not a dependable method. Because it more heavily depends on the male partners' discretion to withdraw, it is not a dependable method of contraception. Therefore, doing so could prevent pregnancy. Failure could also be the result of a lack of self-control, particularly on the part of the male spouse. The technique's inability to fully satisfy both parties' sexual needs as well as its relatively high failure rate are other downsides. Additionally, men who ejaculate too soon or who are unsure of when to withdraw should not use the withdrawal method.

2.1.3.3 **Natural Family Planning methods (NFP)**

Calendar / Rhythm Method/ Cycle bead/ mobile app (period tracker)

Of the approaches for periodic abstinence, this one is the most popular. The calendar technique is a calculation-based strategy that forecasts the beginning and last fertile days of future menstrual cycles by using information from prior cycles. Understanding the fertile and infertile phases of a woman's menstrual cycle is necessary for this procedure. The menstrual cycle's regularity and the fact that an ovum (egg) can only be fertilized within 24 hours of ovulation are the foundations for this theory. For irregular cycles, it is necessary to identify the longest and shortest cycles that have been recorded over a period of six to eight cycles; from the shortest cycle, subtract 18 to get the first day of the fertile phase; from the longest cycle, subtract 11 to get the last day; and avoid

sex, use a barrier method, or use withdrawal during the calculated fertile phase. To remind young women of their periodic calendar, there is a mobile application available for phones called "periodic tracker" that is simple to download[9].

The calendar approach is old and ineffectual when used alone because it only works around 80% of the time to prevent conception.

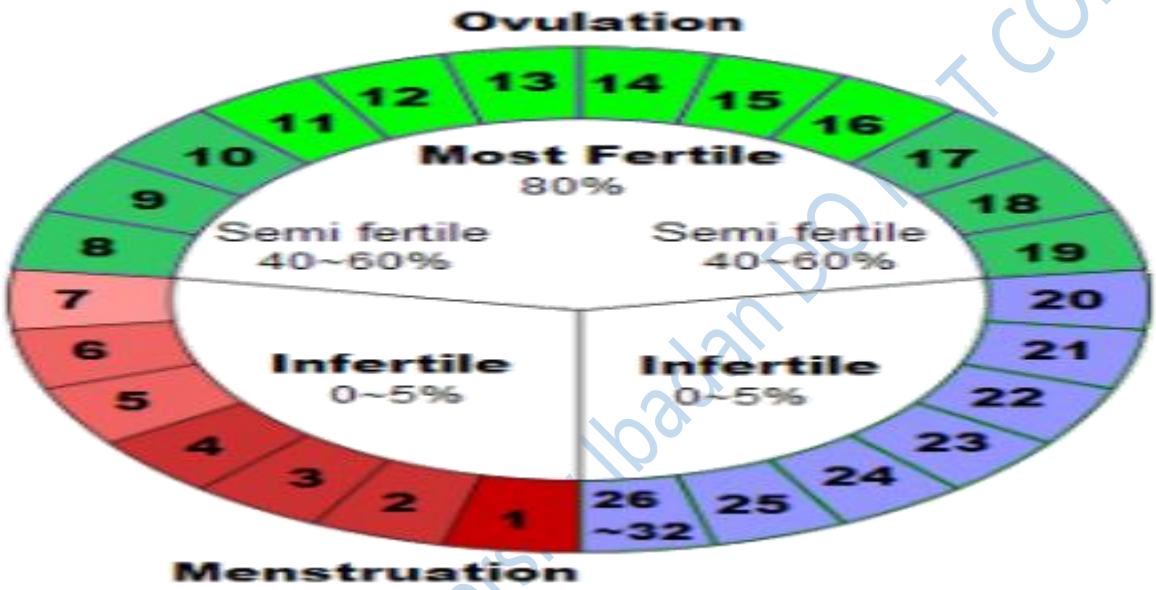

Fig 2.1: Diagrammatic presentation of Calendar Method

Source[35]

The daily observation of fertility markers is not necessary with this strategy. However, it has a high failure rate and might be challenging to utilize if a woman has irregular menstrual cycles. Additionally, learning how to utilize it effectively takes a lot of time.

Basal Body Temperature (BBT) Method

The basal body temperature approach is based on the observation that women's resting body temperatures rise by roughly 0.3–0.5°C during and after ovulation as a result of increased corpus luteal secretion of progesterone. When the body temperature increases for three days in a row, ovulation has happened, and it stays at this higher level until the beginning of the subsequent menstrual cycle[10]. This approach has no negative effects. Couples are encouraged to talk about contraceptives and a specific thermometer is needed.

A woman must take her temperature every morning before getting out of bed in order to use the basal body temperature method. It is necessary to use a specialized thermometer that is more precise and sensitive than an oral thermometer and to take careful note of the daily temperature variations. Every month, you must carry out this. Women can chart their basal body temperatures using online calculators.

A woman should forgo sexual activity from the moment her temperature dips until at least 48 to 72 hours after her temperature rises again if she wants to use the basal body temperature as a birth control strategy.

Cervical Mucus Method (CMM)

The cervical mucus approach, also known as the Billings method, is based on the identification and interpretation of changes in cervical mucus and vaginal feelings as a result of oestrogen cycle-related alterations. In order to induce ovulation, ladies who are attempting to become pregnant and have a baby can also utilize this technique[11].

She has the option to engage in sexual activity between the time of her last menstrual cycle and the cervical mucus change. It is advised that she only engage in sexual activity every other day

during this time because the presence of seminal fluid makes it more challenging to identify the type of cervical mucus she is producing. When a woman sees a change in her cervical mucus, she should wait 3 to 4 days before engaging in any sexual activity if she doesn't want to get pregnant.

According to the explanation of natural family planning methods, the cervical gland's secretion of mucus during ovulation changes from a feeling of dryness in the vagina (characterized by thick, viscous, and sticky mucus) to a feeling of wetness in the vulva (characterized by thin, white, slippery, and stretchy thread-like, transparent strands similar to uncooked egg white), so it is not safe to use these methods during this time. It is advised that women try to avoid mistaking semen with cervical mucous by doing so every other night. Additionally, it is risk-free from the evening of the fourth day following the peak day until the start of the following period. The final day of cervical or vaginal wetness is the peak day because once a woman has ovulated, her cervical mucus starts to dry up. The instruction is to use a clean cloth or piece of tissue paper to capture the mucus pattern every morning and after using the restroom in order to identify the color and consistency of the mucus. You can feel the mucus secretion to judge how stretchy and slippery it is. No matter how thick the mucus is, refrain from having sex that day until the third evening following the "peak day" [39].

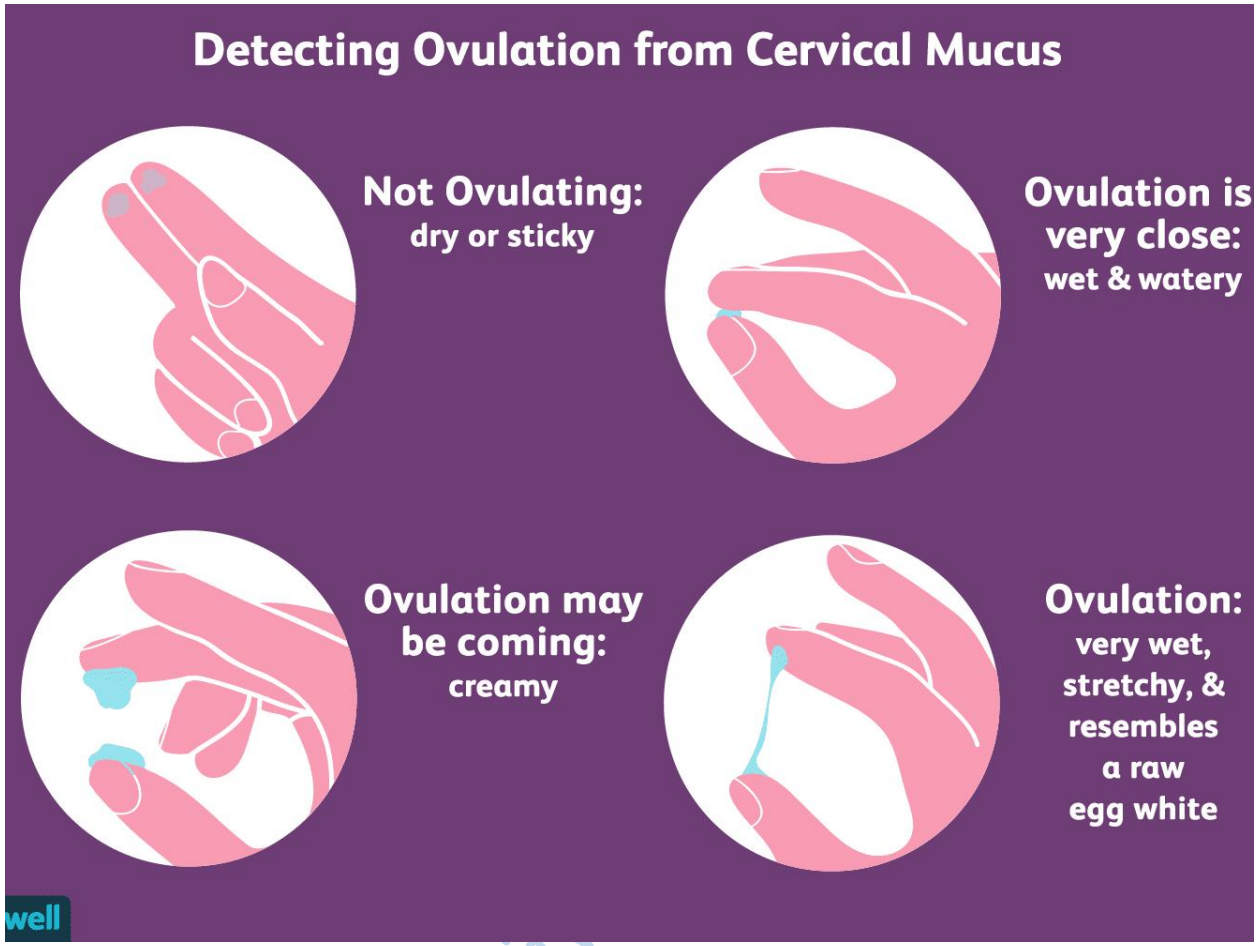

Fig 2.2: Cervical Mucus Method

Source[39]

It encourages couples to talk about contraceptives and has no negative side effects. However, because the cervical mucus secretions may be deceptive, it is also challenging to apply this approach in the event of vaginal infections.

Symptothermal Method

The symptothermal approach incorporates elements of the mucus examination, basal body temperature, and calendar approaches. All of these elements are taken into account, as well as

additional symptoms like mild cramps and sore breasts. During the discharge of an egg, some women feel discomfort in the lower abdomen (around the ovaries) (ovulation).[40]

Ovulation indicator testing kits

When a woman is most likely to ovulate, she can use an ovulation prediction kit to find out. The amount of luteinizing hormone (LH) in the urine is measured using this unique kit. The level of luteinizing hormone typically rises 20 to 48 hours before ovulation because it aids in the development of an egg in the ovary. The luteinizing hormone surge is the name given to this rise, which can be seen 8 to 12 hours later in a woman's urine. The luteinizing hormone concentration in the urine can be determined using the ovulation prediction kit.

There are several ovulation predictions kits available in pharmacies, ranging in complexity from straightforward to complex. The simplest test is having the woman urinate onto a test stick, then measuring the amount of luteinizing hormone by a color change. The level of luteinizing hormone in her urine is inversely correlated with the intensity of the hue. In accordance with the dates of her prior monthly cycles, a woman starts testing her urine 2 to 3 days before she expects to ovulation[41].

The two days prior to ovulation, the day of ovulation, and the day after ovulation are the best times for fertilization. Having sex within 24 hours of the luteinizing hormone surge increases your risk of getting pregnant. Ovulation prediction kits can also alert a woman that she is going to ovulate and should use the necessary contraceptives. However, their main purpose is to boost a woman's probability of getting pregnant.

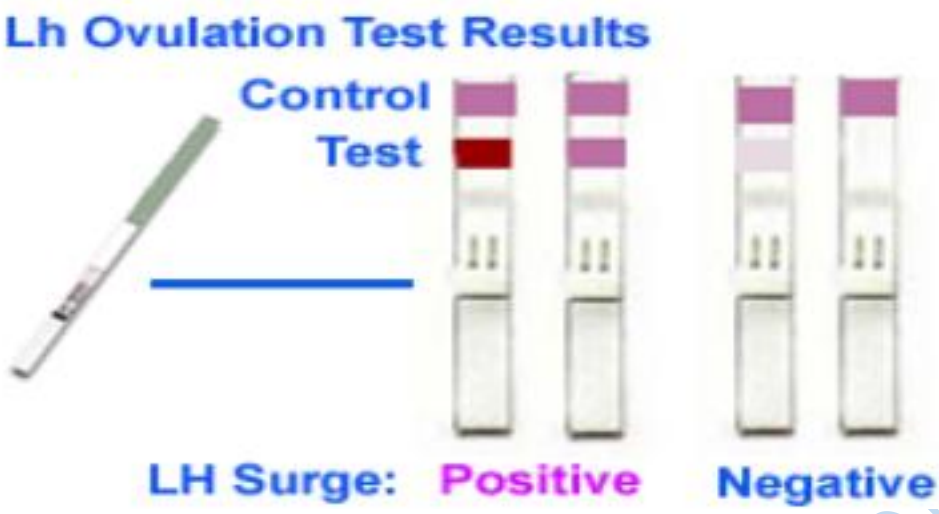

Fig 2.3: Ovulation Indicator Testing Kit

Source[41]

Use of Breast Feeding or Lactation AmenorrhoeaMethod (LAM)

The foundation of the Lactational AmenorrhoeaMethod (LAM) is the notion that a woman cannot become pregnant while still nursing her infant. It is true that a woman might not ovulate as quickly as she would if she wasn't breastfeeding after giving child. After giving birth, women who are breastfeeding typically begin ovulating again 10 to 12 weeks later.

The technique is not seen to be suitable as a sole form of contraception, though. As ovulation can take place before the resumption of a woman's menstrual cycle, a nursing mother may begin ovulating again without realizing she is fertile. If this occurs and the mother engages in unprotected sexual activity, she may become pregnant while still nursing her child. A nursing mother must begin using an appropriate form of contraception if she doesn't want to get pregnant again[44].

Urination and douching

Vaginal douching is the process of employing a liquid solution to clean a woman's vagina of mucus and other biological waste. Many women choose to douch frequently as part of their routine to maintain vaginal cleanliness. The majority of doctors and the American College of Obstetricians and Gynecologists (ACOG) are against the practice.

Whether a woman vaginal pouches for hygiene or other reasons, it is not a reliable method of contraception. Active sperm can enter a woman's cervix and even the upper part of her uterus during sexual activity within five minutes of ejaculation. If done too soon after a sexual activity, douching even has the potential to drive sperm further up into the uterus and negate any potential contraceptive benefits. If a woman douches within six to eight hours of using a spermicide, she may potentially reduce the effectiveness of this method of contraception.

When it comes to preventing pregnancy, some women traditionally thought that urinating as quickly as possible after a sexual experience may be helpful. Gravity, they reasoned, would make it more difficult for the sperm to swim "uphill" to the uterus, and the urine stream flowing over their vaginal area would wash the sperm away similarly to douching. However, urinating after a sexual act serves no contraceptive function, just like douching[45].

2.1.3.4 **Oral Contraceptives**

Oral contraceptives, usually referred to as "the pills," are medicines taken internally for birth control. The three types of oral contraceptives include progesterone-only pills, combined oral contraceptives, and emergency contraceptives.

i) **Combined Oral Contraceptives**: The most popular oral contraceptive pills mix progestin and estrogen, two synthetic hormones. These oral contraceptives are often known as "the Pills" or

"combination pills." Combination oral contraceptives function by preventing ovulation or thickening cervical mucus to block sperm passage and by altering the uterine lining to prevent an egg from attaching to it. Pills are nearly 100%effective when they have been prepared to acceptable standards, stored properly, and used properly.

The benefit of using tablets as a method of contraception is that they may be discontinued whenever a couple decides they wish to start a family[46].

Combination oral contraceptives have the drawback of needing to be taken daily and having the potential to decrease a nursing mother's ability to produce milk. The human immunodeficiency virus (HIV) and other sexually transmitted diseases (STIs) are not protected against by combined oral contraceptives. When taken at the proper time, combined oral contraceptives are an effective method of contraception, but if they are missed or taken later, the likelihood of becoming pregnant increases[47].

ii) **Progestogen-Only Pills (POPs):**One synthetic hormone—progestin—is the only component of another form of oral contraceptive pill. These pills are frequently referred to as "mini-pills" or "progestin-only pills." Breastfeeding mothers are advised to take progestin-only pills since, unlike estrogen, progestin won't cause less breast milk to be produced.

Additionally, progestin-only pills work better in nursing mothers than in non-breastfeeding mothers. The mini-pill might not be as helpful for non-breastfeeding women as the pill that contains both estrogen and progestin.

The effectiveness hinges on taking the little pill every day at roughly the same time. According to a report, progestogen-only pills make the cervical mucus thicker to prevent spermatozoa from penetrating to meet the ovum. After taking the progestogen-only pills for 4 hours, the impact

starts to take hold and lasts for around the next 20 hours before cervical mucus returns to normal. Women who are breastfeeding, have cardiovascular conditions, or smoke should also take progestogen-only pills[48].

These pills don't have any harmful side effects. When taken properly, they are very effective at preventing pregnancy. Only progesterone-containing tablets may lessen menstruation discomfort and bleeding. If the client becomes pregnant before or after stopping the progestogen-only pills, there is no increased risk of a fatal defect. It was noted that progestogen-only pills change the chemical composition, viscosity, and volume of cervical mucus[49]. The end consequence is cervical mucus that is hostile to or obstructed, which reduces the chance that sperm will penetrate. By rendering the uterine lining unsuitable for ovum implantation, progestogen-only pills may also obstruct the cyclic development of the lining. It appears that progestogen-only pills decrease the number and size of endometrial glands and prevent the endometrium from producing progesterone receptors. POPs may have an impact on the cilia in the fallopian tubes by reducing the strength and frequency of their movement, which may have a slowing effect on the rate of ovum transport.Menstrual cycle disruption is the main adverse effect of progestin-only medications.

Users of progestogen-only pills frequently experience amenorrhea, brief cycles, and spotting or breakthrough bleeding. Only-progesterone medications do not offer protection against STDs. The side effects of progestogen-only pills can include nausea, vomiting, weight gain or loss, as well as abdominal pain. Users may find the variation in menstrual cycle lengths to be particularly unsettling. The most common justification given for stopping POPs is method-related menstrual adverse effects[50].

Fig 2.4: Oral Contraceptive

Source[50]

iii) **Emergency Contraception Pills (ECPs):**Oral contraceptives called emergency contraceptives are designed to stop unexpected pregnancies. Hormonal methods of contraception such as emergency contraceptives can be used to prevent pregnancy after an unprotected act of sexual activity. They've also been called "morning after pills"[51]. However, since emergency contraception pills include a high concentration of the hormones found in birth control pills, they shouldn't be taken frequently. However, the prolonged high hormone dose is transient.

The hormones in "morning after pills" also prevent pregnancy by thickening a woman's cervical mucus, which prevents sperm from adhering to an ovum and prevents conception. Additionally, they impede fertilization by interfering with the ovum or sperm and stop or postpone the release of an egg. Within the first 72 hours following unprotected intercourse, the first dose should be taken. When eaten at the appropriate moment, according to certain research, they are effective. Women who use the emergency procedure have been documented to experience deep vein thrombosis (blood clotting). However, morning after pills are not recommended for usage as a means of contraception for sexually active women. They are less effective than any current technique of contraception.

Family planning techniques shouldn't always be substituted for emergency oral contraception. Only an emergency should be used in this situation. For instance, it can be applied when a woman has engaged in sexual activity against her will or under duress (rape). Additionally, it can be used if a condom has ruptured or if the woman wants to prevent pregnancy after having intercourse without using contraception. When a woman runs out of oral contraceptives, emergency oral contraception can be used. Emergency oral contraception, however, may result in exhaustion, nausea, and vomiting[52].

Fig 2.5: Emergency Contraceptive

Source[52]

2.1.3.5 **Non-oral Hormonal Contraceptives**

Non-oral hormonal contraceptives are birth control drugs that are not swallowed. New non-oral hormonal contraceptive treatments have been created over the past 40 years. They consist of:

i) **Progesterone-Only Injectables:**Progesterone-only injectables are injections that are administered every two to three months to prevent pregnancy and can tolerate irregular menstrual bleeding, according to the Ministry of Health. Most women who desire extremely efficient protection against pregnancy can use them.

Depo-Provera is one of the widely used injections that contain just progesterone. According to the Centre for Young Woman's Health, Depo-Provera is a hormonal form of birth control for

women. It works wonders in preventing pregnancy. A synthetic version of the hormone progesterone is present in Depo-Provera. The Depo-Provera injection offers three months of pregnancy prevention. A woman should have one injection every three months for the best pregnancy prevention (13 weeks). If a person's 3-month appointment date does not work into her schedule, it is okay to have an injection up to two weeks in advance.

According to a study, the injectable form of Depo-Provera prevents ovulation in females. The ovum is necessary for fertilization to occur. Additionally, Depo-Provera alters the mucus in the cervix and the uterine lining. Therefore, the hormones make it more difficult for sperm to reach the ovum by altering the cervical mucus. Depo-Provera shots are more than 98% successful when given to women at the right time every three months. A Depo-Provera shot, however, does not offer protection from STDs. Depo-Provera injectable side effects are different for every woman. They consist of abnormal menstrual cycles, which might be longer or shorter, heavier or lighter, menstruation loss, weight gain, and headaches.

Fig 2.6: **Injectables**

Source[52]

ii) The availability and usage of family planning among women and adolescent girls is being revolutionized by a new kind of injectable contraception. DMPA-SC, also known as subcutaneous (SC) depot medroxyprogesterone acetate (DMPA), is a novel medication that makes injections easier.

An injectable contraception that is given subcutaneously is referred to as DMPA-SC in general. Since traditional DMPA is injected into a muscle, it typically takes more practice and expertise. The DMPA-SC product is currently offered in most nations under the brand name Sayana Press,

which is produced by Pfizer Inc. The "all-in-one" product combines a needle and a contraceptive pill into a single item. In the future, DMPA-SC products might be offered in further variations.

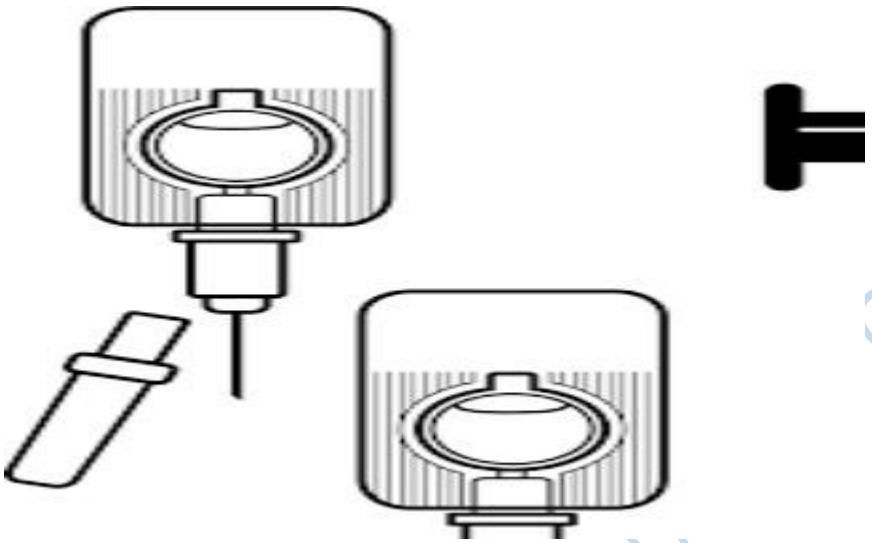

Fig 2.7: DMPA-SC

Source[50]

iii) **Contraceptive Implants:** Hormonal implants are described as "tiny rods around the size of a matchstick that are implanted under the skin and contain hormones" by the Center for Young Woman's Health. Norplant, which has six small rods, Norplant II, which has two small rods, and Implanon, which has one small rod, are examples of hormonal implants. Levonorgestrel or etonogestrel hormones, which are slowly released by the tubes, prevent ovaries from releasing an ovum. These ova are necessary for fertilization to take place. The uterine lining and cervical mucus are both altered by the hormones. The hormones make it more difficult for sperm to reach the eggs by altering the cervical mucus. The most popular contraceptive implants are Jadelle and Norplant. A slow-release progesterone analogue is contained in the matchstick-sized silicone-rubber implant known as Norplant and Jadelle. On the woman's arm, implants are placed beneath the skin, where they release hormones for up to five years.

The effectiveness of hormonal implants is greater than ninety-nine percent (99%). Depending on the type, hormonal implants are a type of contraception that lasts for 3 to 5 years. A woman can become pregnant at any time after having her implants removed. The implant may also lower some women's cancer risk. Abnormal menstrual bleeding is the most frequent side effect of hormone implants.

Other negative effects include headaches, weight gain, and hair loss on the scalp. Implants made of Norplant don't offer STI and HIV protection. One may have spotting between periods, light or long periods, or no periods at all, and it only requires a small procedure for insertion and removal. Norplant is no longer utilized in several nations as a result. For instance, Norplant is no longer sold in the United States of America.

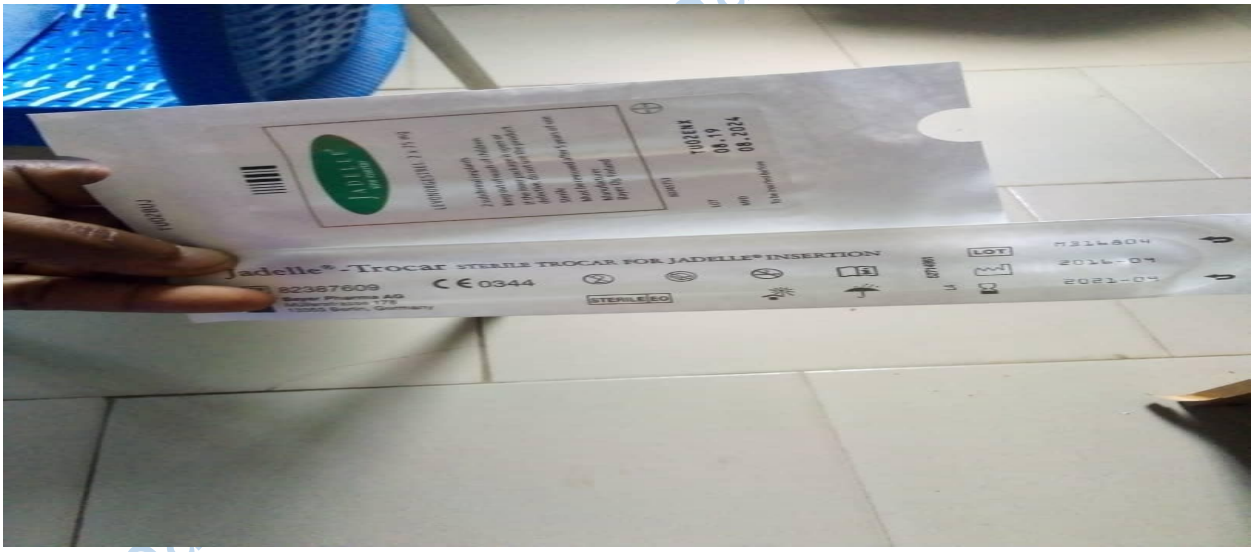

Fig 2.8: Jadelle

Source[51]

iv) **Contraceptive Patch:**The contraceptive patch is a tiny, delicate, self-adhesive patch that is skin-colored. It is put directly onto the skin and measures 4.5 x 4.5 cm. The female sex hormones

estrogen and progestin, which are absorbed via the skin, are also present in the contraceptive patch, just like they are in the combination pill. Therefore, monthly ovulation won't occur[24]. On the first day of menstruation, the patch is applied to the skin and left there for seven days. The patch needs to be then changed out for a fresh one. The same day of the week should always be chosen for this change. There is a seven-day gap after three weeks during which there is bleeding[25]. Even if the bleeding persists after the patch-free week, a new patch is applied once more. The following bodily parts make good locations for the plaster's adhesive points:

▪Belly

▪Buttocks

▪Outside of the upper arms

▪Entire torso except for the chest

If you don't remember to update the patch, you have 48 hours to do so. After that, there is no longer any trustworthy defense against unintended pregnancy. Use a second method of contraception, such as condoms, to be safe. For all ladies who don't want to think about contraception every day, the contraceptive patch is perfect. The contraceptive patch, like any drug, might have unfavorable side effects in addition to its intended function[26].

The advantages

▪Only one application of the contraceptive patch per week is necessary.

▪Diarrhea and vomiting have no impact on its effectiveness.

The disadvantage

▪Sexually transmitted infections are not safeguarded against by the contraceptive patch.

▪The hormone release may cause irregular bleeding.

▪The negative effects of the contraceptive patch can include headaches, reactions where the patch was applied, nausea, and sore breasts.

▪The contraceptive patch cannot be worn while nursing since the baby would consume too much hormone-containing breast milk. The oestrogen impact may also cause the milk supply to cease.

▪The contraceptive patch works less effectively if you are overweight (above 90 kg).

▪The patch can be seen.

▪Not recommended for women with high blood pressure, a susceptibility to thrombosis, liver illness, or smokers over [35].

▪ Skininflammation could

happen.

Fig 2.1.9: Contraceptive Patch

Source [35]

2.1.3.5 **Barrier Contraceptives**

Barrier contraceptives are family planning strategies that function as obstacles to the union of a sperm and an ovum, which is a requirement for conception. Barrier methods of birth control come in a variety of forms. Since they are used by people more frequently, this study has concentrated on male and female condoms. The purpose of condoms is to prevent conception by covering the penis during coitus.

Rubbers or sheaths are other names for condoms, and there are numerous brands of them. They are also the world's first and most extensively used method of birth control.

Condoms

Condoms are barrier methods of contraception that work by keeping spermatozoa away from the ovum. They also guard against sexually transmitted diseases (STIs). Both male and female condoms are available, and they are hormone-free. The majority of them are made of thin latex rubber as well as nitrile, lambskin, polyurethane, and polyisoprene. The most popular and widely used barrier method among male partners worldwide is the condom. The female condom is inserted into the vagina just before sex, while male condoms are rolled onto the penis and serve as a physical barrier. The benefits include ease of accessibility, protection from STDs, affordability, and safety[56].

Male condom use has extra benefits as well. They urge males to cooperate with their partners in birth control. They are easily accessible and can be acquired. They are affordable, availsable without a prescription, and youngsters are permitted to acquire them legally[57].

In the 1980s, the number of people using condoms increased by three times, with the main cause being fear of AIDS. However, many women don't wear a condom for every coitus act because they think it's embarrassing to buy them or get them from a clinic[58]. The male condom is a representation of the barrier method of contraception. It is a thin sheath that covers the penis and serves as a barrier between any sperm that may be present and the woman's body by absorbing them. Male condoms typically contain latex and polyurethane; however, lambskin is a more natural substitute. Condoms made of lambskin do not prevent STIs[59]. The effectiveness of male condoms, which can only be used once before being discarded, can be increased by the usage of spermicidal condoms. Regardless of whether they use another method of birth control, all sexually active women should wear latex condoms since they significantly reduce the risk of sexually transmitted infections (STIs)[58]. The use of condoms as a means of contraception for family planning and as a defense against sexually transmitted diseases (STDs) has taken on enormous importance in the modern world due to the high prevalence of HIV infection. Although it is one of the most widely utilized methods, condom utilization rates are still quite low due to the negative view of male condoms among women. This is comparable to how women perceive other forms of contraception[58].

The word "condom" can be used to describe either male or female sterilizers (femidom). The biggest benefit of using condoms as a birth control technique is the protection they provide against STDs. Additionally, indirect protection from infertility and cervical cancer is provided by condoms. The female condom, also referred to as a Femidom, is another type of barrier method for contraception. These are miniature, flexible plastic bags that are rather small. A piece of the condom is inserted into a woman's vagina before she engages in sexual activity. By doing this, no sperm will be able to enter her uterus. Approximately 18 percent of feminism is used

ineffectively overall. However, by wearing a female condom, the risk of STIs can be reduced. Female condoms are designed to be thrown away after being used just once[59].

Fig 2.10: Male Condom

Source[59]

Fig 2.11: Female Condom

Source[59]

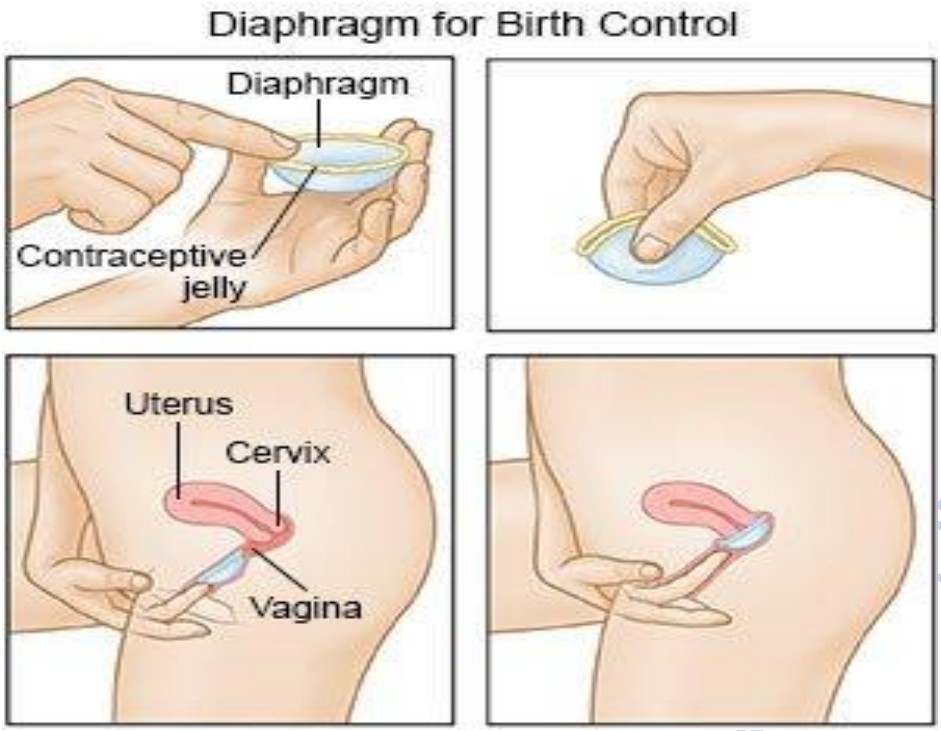

Fig 2.12: Diaphragm

Source [60]

Before engaging in sexual activity, a thin, dome-shaped cap called the diaphragm is put over the cervix, which is located high inside the vagina. It is initially coated with a spermicidal chemical before being inserted into the vagina (jelly, canned foam, or cream). Diaphragms come in a variety of sizes and need to be fitted for the first time or given practical training by a professional with the necessary training. To estimate the size of the diaphragm that will be administered by the provider, a pelvic examination is typically required. The diaphragm physically blocks sperm from accessing the cervix, but it also keeps spermicidal cream or gel in place against the cervix, immobilizing sperm in the vicinity of the cervical canal. Contrary to the cervical cap, which is held in place by suction, the diaphragm is made to be held in place by the walls of the vagina, the

posterior fornix, and the pubic arch. Although silicone and plastic diaphragms are also available for use, latex diaphragms are more frequently used[60].

Cervical Cap

Another barrier form of contraception is a cervical cap. It covers the cervix and is smaller than a diaphragm. A cervical cap is utilized together with spermicide, just as the diaphragm. The cervical cap stops sperm from attaching an egg and closes the uterine entrance[49].

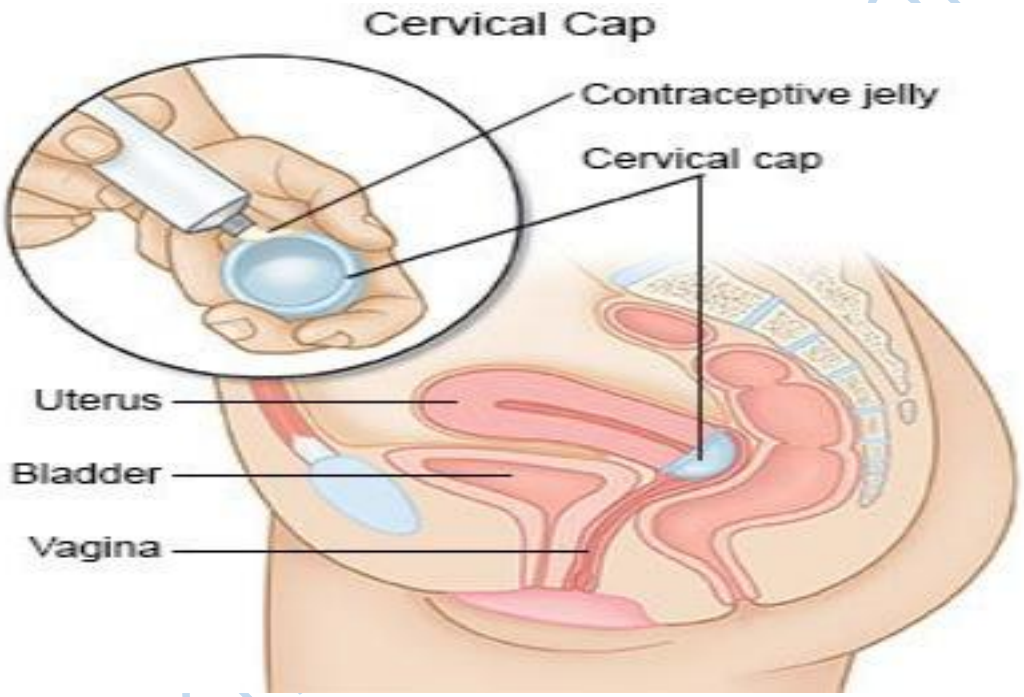

Fig 2.13: Cervical Cap

Source [49]

Spermicide

Women use spermicidal as a barrier technique of birth control. These are sperm-killing agents that are applied as foam or cream inside the vagina (plate3). These could offer some degree of

protection from sexually transmitted illnesses. Spermicides are advised to be used in conjunction with other birth control methods, particularly latex condoms, to increase their effectiveness[47].

Fig 2.14: Spermicide

Source [49]

Vaginal Sponge

The spermicide-filled vaginal sponge, commonly known as a birth control sponge or a modern sponge, is formed of foam. 24 hours before sex, it is put into the vagina dampened with water so that it lies against the cervix. Each sponge should only be used once. It is not, however, generally accessible. With a failure rate of 16% for women who have never had children and 32% for those who have, the sponge is roughly as effective as the cervical cap. However, unlike the diaphragm or cervical cap, no doctor fitting is necessary[50].

Fig 2.15: Vaginal Sponge

Source[50]

2.1.3.4 **Intrauterine Devices (IUDs)**

Intrauterine devices are an efficient, secure, and practical type of contraception. They are made of plastic, metal, or a mix of these materials, and are intended for insertion into the uterine cavity. They are especially suited for women who want to put off getting pregnant for a while, are nursing, find other reversible methods difficult to use, or prefer a method that doesn't require supervision or action prior to sexual activity.

The intrauterine device, according to Marie Stopes International, is a tiny, "T"-shaped piece of flexible plastic that is put into the uterus by a qualified medical expert. The intrauterine

contraceptive method is risk-free, affordable, and incredibly successful over the long term. According to the World Health Organization, copper devices generate an inflammatory or foreign body reaction that alters the cellular and biochemical makeup of the endometrium as well as the fluids in the uterus and the tubal cavity. In addition, the inflammatory response and prostaglandin release may delay or derange normal cyclical change in the endometrium, rendering it unsuitable for blastocyst implantation. Progesterone, which is present in intrauterine devices, keeps sperm from passing through cervical mucous.

A copper intrauterine device is simple to use and requires little upkeep. It lowers the risk of pregnancy and is effective for up to 10 years. It is possible to implant an intrauterine device during labor or soon after. It might as well be placed following an infection-free induced abortion. The intrauterine technique of contraception is reversible, they add in their writing. In other words, after having their intrauterine devices removed, women may conceive just as soon as those who haven't used them.

Because they don't have to worry about getting pregnant, couples who utilize intrauterine devices enjoy their relationships more during their sexual encounters. The fact that it is a one-time surgery with no ongoing requirement for tablets or barrier contraceptives is its greatest benefit. It has neither the adverse systemic effects of oral contraceptives nor does it influence sex play. The lack of protection against sexually transmitted diseases like HIV and AIDS is one of the hazards associated with intrauterine devices. Additionally, this approach does not favor women who have several partners for sexual activity. A day or two after placement, an intrauterine device may cause some pain or bleeding, but these side effects usually subside. Additionally, an intrauterine device may make period cramps or bleeding worse. When being inserted, women may also feel discomfort. Users of intrauterine devices also run the danger of being unable to quit using them

on their own and needing the help of a qualified healthcare professional to do so. Therefore, she needs the intrauterine device removed by a qualified healthcare professional.

The intrauterine device's potential to come out of the uteruspossibly without the woman's knowledgeis another potential risk of utilizing it (it is more common when the intrauterine device is inserted soon after childbirth). The intrauterine device can only be inserted or removed by a qualified healthcare professional. However, it has been established that the intrauterine device is a reliable and secure method of contraception.

Fig 2.16: Intrauterine Devices

Source [50]

2.1.3.6 **Male and female sterilization**

Sterilization is a long-term technique of contraception for both men and women.

A relatively straightforward surgical procedure called sterilization offers permanent protection against pregnancy. For men and women who are certain they do not want any more children,

sterilization is appropriate. Female sterilization, also known as tubal ligation, and male sterilization, sometimes known as vasectomy, are the permanent means of contraception. Both approaches require little surgery. In most situations, there is no need for hospitalization after this operation because it is so safe.

Although there is a slight possibility of conception, male and female sterilization are considered permanent means of contraception and are almost 100% successful. Once the surgery is performed, it is extremely likely that the woman or man will be unable to have any more children because, in most cases, the treatment cannot be undone. The pair must carefully consider their decision to employ a permanent procedure and be sure they do not want any additional children. If a person is not ready for a permanent technique, they should be aware that there are other extremely effective and reversible contraceptive options available. They should talk to a family planning professional about their options. The provider will ensure that their choice is voluntary, perform a physical assessment, and work with the client to choose a suitable time for the sterilization. A provider can reassure both men and women that sterilization has no effect on sexual function and neither lessens men's or women's masculinity or femininity.

Female Sterilization

The surgical process of female sterilization is rather straightforward. The fallopian tubes of a woman are cut and blocked with a very small abdominal incision, preventing the eggs from passing through the tubes to meet the sperm. Female sterilization has no negative effects, and when carried out by a skilled medical professional, complications are exceedingly rare. If she chooses to donate it before giving birth, it can be given virtually anytime, even right after delivery. A woman may experience some stomach pain and swelling after surgery, but these side

effects go away quickly. After about a week, she should, if at all feasible, go back to the doctor to have the stitches taken out and have the incision checked for infection.

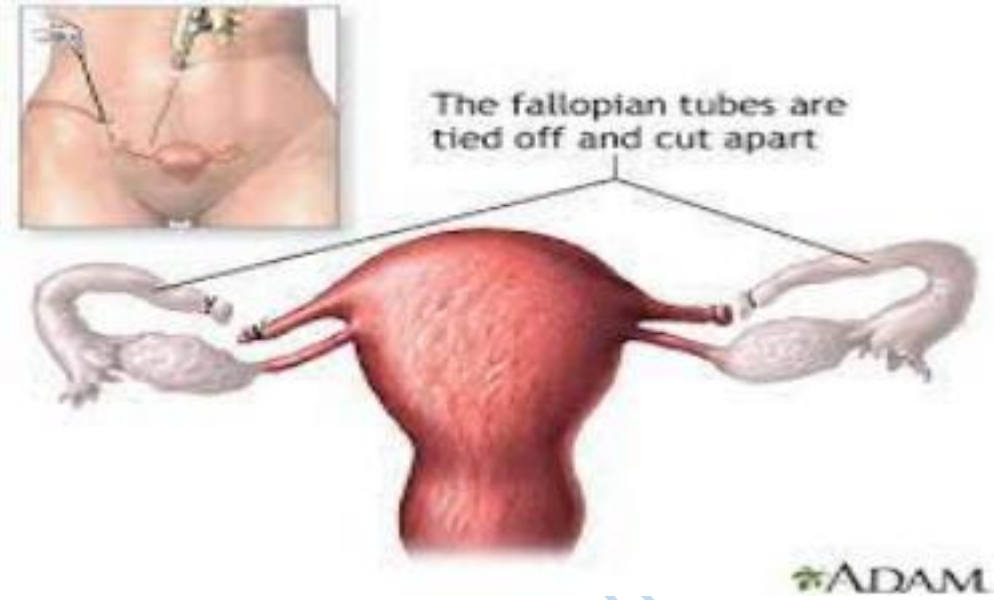

Fig 2.17: Female Sterilization

Source[41]

Male sterilization

Vasectomy, sometimes known as male sterilization, is an even easier surgical procedure. The two tubes (vas deferens) that convey a man's sperm to his penis are cut and stopped, and a tiny hole is formed in the scrotum (the sac that houses the testicles). This prevents sperm from getting into the semen, which is the liquid that men ejaculate. The guy will still be able to ejaculate and experience orgasms, but since there won't be any sperm in the semen, he won't be able to start a pregnancy. Vasectomy problems are rare and there are no side effects from the procedure. A male may have soreness, scrotal swelling, and bruising following the surgery. Usually, these symptoms disappear within two to three days.

A vasectomy does not take effect right away, but a man can engage in sexual activity two to three days after the treatment. The removal of all sperm from semen takes roughly three months. A male or his partner should use another family planning method, such as condoms, throughout these three months. Alternatively, if a woman was already utilizing family planning techniques before her boyfriend had a vasectomy, she can keep doing so for another three months before stopping. A vasectomy is considered effective after three months. If at all possible, a medical professional can look at a sample of semen under a microscope to determine whether or not it contains live sperm. After 3 months, however, this test is not necessary. Millions of men who do not want more children have chosen vasectomy. Vasectomy is simpler than female sterilization, recovery is quicker usually a day or two and the method allows men to take responsibility for family planning. After this procedure, a man can enjoy sex with his partner as before, except now without fear of pregnancy.

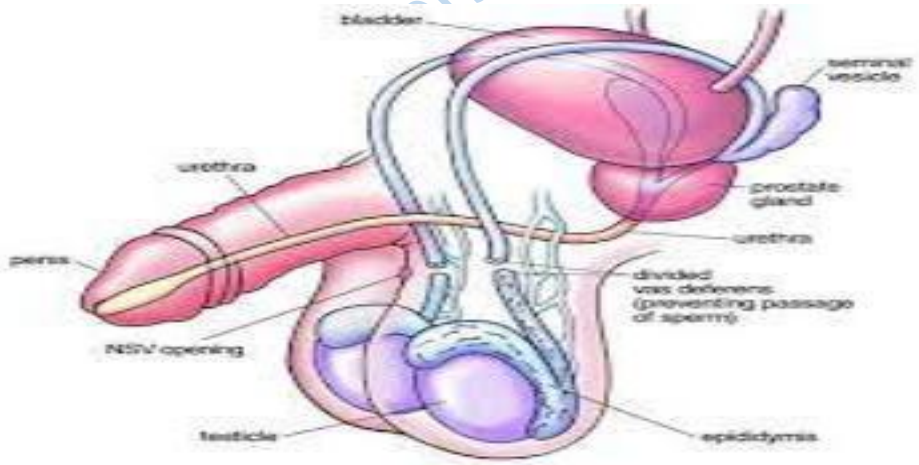

Fig 2.18: Male Sterilization

Source[41]

2.1.4 **Prevalence and Improving the Use of Contraceptive methods**

Although it has increased globally (to 63 percent), Sub-Saharan Africa still has low rates of modern contraception use. Estimates show that 22% of Nigerian women of reproductive age use modern contraception. Family planning has been identified as the key method for helping nations achieve Sustainable Development Goal 5 (SDG-5), which aims to foster gender equality and empower both women and girls[60].

Only 19% of women in their twenties and 18% of women in their forties use modern contraception in LMICs, which is insufficient. Contraception use was less likely among women between the ages of 15 and 24 but more likely among those between the ages of 25 and 35, and less likely among those over 35. Although there are substantial regional differences, affluent countries are often regarded to have high rates of female sexual engagement. The number of unwanted pregnancies among women in this age bracket may reach up to 14 million each year in sub-Saharan Africa. Pregnancy is more likely during premarital partnerships since premarital sexual activity has increased along with the interval between sexual maturity and marriage age[61].

2.1.5 **National Profile**

The Federal Republic of Nigeria is a Sub-Saharan country located in western Africa. Sub-Saharan Africa is known to have the highest socioeconomic gaps, particularly in healthcare, because of its pervasive poverty. The British protectorates known as the Northern and Southern protectorates were combined to form Nigeria in 1914. Nigeria became an independent nation in 1960, and a republic in 1963. Nigeria, which had six main regions at first, has experienced numerous restructuring attempts and as of 1997, there are 36 states. Every state also has a local government area. Currently, Nigeria has 774 LGAs (local government areas). Local, state, and

federal are the three tiers of Nigeria's government. In Nigeria, some form of health provision is assigned to every level of government. The federal government is the highest level of government, while local governments are the lowest. The Yoruba, Ibo, and Hausa ethnic groups make up Nigeria's top three ethnic groups. In total, there are more than 300 distinct ethnic groups[3]. It is the 10th most populous country worldwide and the most populous country in sub-Saharan Africa. Its land area ranks 15th in all of Africa. The population is projected to reach 225,082,083 by June 2022, but the rate of population growth has dropped from 3.2% in 2006 to 2.5% in 2012[4].Data show that more than 54% of people live in urban areas, and that rate of urbanization will increase from 2.2% in 2006 to 3.9% in 2022[4]. Nigeria has a young population, according to the population's age distribution. The National Bureau of Statistics5 found that people under the age of 14 made up 41.7% of the population, those aged 15 to 64 made up 55% of people who were economically engaged, and people 65 and above made up 3.3%[4].Although fertility rates in Nigeria vary amongst LGAs, cities, states, and regions, they continue to be high. The northern regions frequently score lower on measures of development and health when compared to the southern regions. According to statistics from the Nigerian Demographic and Health Survey, total fertility rates (TFR) varied by region in 2013, with the northern region's TFR between seven and eight births per woman and the southern region's TFR between four and five births (NDHS). The lowest segments of the population had a TFR of 7, while the richest had a TFR of 3, and they also observed differences in TFR based on socioeconomic level. TFR in rural areas was eight births per woman, compared to six in urban areas. (NPC and ICF, 2014) [6]. The Nigerian healthcare system has primary, secondary, and tertiary levels. Primary healthcare is the responsibility of Local Government Areas (LGAs), secondary healthcare is the responsibility of the states, and tertiary healthcare is the responsibility of the federal government. In Nigeria,

the LGA level of government is the least well-organized and has the fewest resources, making it unable to appropriately fund and coordinate primary healthcare, leaving the healthcare system with a very thin basis[7].

2.1.6 **Contraception Trends, Patterns and Choices in Sub-Saharan AFRICA (SSA)**

Sub-Saharan Africa has a wide range of fertility rates from a demographic perspective[8]. Overall fertility rates currently range from 2.38 births per woman in southern Africa to 3.05 in northern Africa to 4.52 in eastern Africa to 5.2-5.3 in western and central Africa. In the early 1960s, these rates were 6.5 births per woman on average across all regions. Demographers have found distinct onsets despite the pace showing substantial regional and temporal variety[9]. According to a study that looked at fertility trends using DHS data, there are at least 30 fertility transitions happening, even if they are all at various stages. In SSA, the transition from peak to replacement fertility levels occurred in urban areas over a 30-to-40-year period in roughly three-fifths of cases, and in rural areas over a 20-to-30-year period in around one-fifth of cases, according to an observation[10, 11, 12]. According to a UN investigation, nine geographical clusters in SSA exhibit variation in the pace of fertility declines, some of which occur rather quickly. If the rate of the more rapid shifts spreads to other regions of the subcontinent, the SSA nations may defy the estimates of most demographers on the potential and actual speed of their fertility transitions. According to UN predictions, Africa will experience the largest fertility reductions between 2045 and 2050[13].

The sharp and recent declines in infant and child mortality will serve as a major driving force. Between 2000-2005 and 2010-2015, the under-five mortality rate decreased by 20% or more in 42 of the 57 countries on the continent4. Only one-third of the expected level of 183 deaths per 1000 live births in 1950–1955, the infant mortality rate in the SSA area dropped throughout this

time, from 88 to 64 deaths per 1000 live births. The under-five mortality rate in the SSA region dropped from 142 to 99 deaths of children under the age of five per 1,000 live births during the course of ten years, a 30% decrease from the rate of 307 in the years 1950–1955. The positive developments of the past ten years not only reflect enhanced wellbeing and longevity, but they also hint at prospective changes in parental preferences for future procreation, especially in light of rising child care costs.

Rising female marriage ages and levels of education completion, two important determinants determining fertility, are regarded to be the root causes of some of the reported fertility declines. One of the short-term advantages of later marriage and better education for women will be lower teenage fertility rates, an age component of total fertility rates. As the desire to have children declines, there will likely be a rise in the need for birth spacing supported by contraception. Contraceptive demand should be distinguished from the desire for fertility, as changes in one do not always lead to changes in the other. Unmet demand and Sub-Saharan Africa's reproduction trends have a shaky relationship, it was noticed[13,14]. The optimal family size and fertility preferences are reportedly changing in the SSA region more slowly than they did in Asia or Latin America in the 1970s[15].

Unplanned pregnancies pose serious health risks to women of reproductive age, particularly in Sub-Saharan Africa (SSA). There are estimated to be 210 million pregnancies worldwide, of which 38% are unplanned and 22% end in abortion[16]. More than 100 million women in sub-Saharan Africa wish to delay getting pregnant again or maybe forgo having children at all, but many still use antiquated, inefficient methods of contraception, and many more do not use any at all. Lack of knowledge or awareness, problems with availability, issues with culture and religion, worry about health risks or side effects, and partner or family rejection are some of the barriers

that keep women from using contraceptives[17 18]. In the entire world, SSA has the highest average fertility rate. According to the UN, numerous African countries have total fertility rates (TFR) of 5.0 in 2015. This is double the TFRs observed in South Asia (2.8) and the Caribbean (2.2).

Similar to how the rates in South Asia (53%) were less than half of the average CPR (contraceptive prevalence rate) in SSA (22%)[19]. The SSA region is still developing its population far more quickly than any other region. Some SSA countries have observed dynamic shifts in the fertility pattern, but these patterns at the aggregate level conceal ongoing national demographic transition.

There are regional differences in the use of contraceptives, according to numerous studies. Southern African countries report the highest rates of use, followed by Eastern African countries, and with very few exceptions, Central and Western African countries report very low rates of family planning use, some of the lowest levels in the entire world[20].

The development of female contraceptive methods demonstrates the advancement of family planning usage. These categories divide family planning methods into conventional and contemporary methods. There are three categories of contemporary family planning methods: temporary, long-term, and permanent. The emergency contraceptive pill, diaphragms, condoms, the lactational amenorrhoea method (LAM), foamy pills, jelly, and the pill are some of the short-term methods. Injectables, implants, and intrauterine devices are among the long-term treatment options (IUDs). Intermittent abstinence, withdrawal, and a range of conventional treatments including strings and herbs are examples of traditional therapies. The employment of traditional methods is more common in areas where there is little public support for family planning and little usage of family planning programs. Traditional methods frequently fail miserably and are

not regarded as effective. According to trends in the selection of contraceptive methods, the use of traditional techniques has declined while the use of modern techniques has increased in many SSA nations.

Although the use of modern technologies expanded in several Central and West African countries, the general use of traditional methods persisted[22]. Both personal preferences and aspects of the healthcare system have an impact on how often modern contraceptives are used.

Strong family planning programs cannot succeed without effective family planning service delivery strategies, such as those that provide methods tailored to users' needs, provide counselling in addition to medical expertise for the administration of contraceptives, and track users' reactions to the method[23]. Many of the SSA region's countries strive constantly to extend their array of contraception options while operating within their present constraints due to their weak health systems[22].

2.1.7 **Nigerian Contraceptive and Family Planning Trends**

According to some statistics, Nigerian women prefer to have fewer children overall than they actually do. Or, to put it another way, Nigerian women are more accepting of family planning than their male counterparts are, partly because they shoulder the burden of having children while simultaneously taking care of home duties and occasionally acknowledge the potential health hazards connected with parenting[24].

In Nigeria, the maternal mortality ratio (MMR) decreased from 1,110 deaths per 100,000 live births in 1990 to 814 deaths per 100,000 live births in 2015. This is a decrease of about 30%. In spite of the apparent drop in maternal fatalities, many pregnant women still die in Nigeria, and more recent patterns in MMR indicate that the decline has come to a halt. For instance, according

to the WHO, around 40,000 women died in 2013 from maternity-related causes. Despite Nigeria having only 3% of the world's population, this amount accounts for 14% of maternal deaths worldwide. The percentage of married women who did not meet their requirement for contraception increased between 1990 and 2003 and 2008, but not between 2008 and 2013 according to data from the Nigeria Demographic and Health Surveys (NDHS).

A study examined the attitudes and practices surrounding contraception across the entire country of Nigeria. They found that progestin implants (2.3%), oral contraceptive pills (4.1%), and injectable contraceptives (12.6%), used by 77.9% of Nigerian women, were the third most prevalent methods of contraception. Female sterilisation, spermicides, and condoms were the least preferred choices (1.5%, 0.1%, and 0.1%, respectively). This can demonstrate how affordable and practical each approach is[25].

Bilateral tubal ligation (BTL) may be less accepted than other contemporary treatments due to its invasive nature, religious beliefs, and cost issues[26]. The majority of Nigerian research on contraceptives has discovered that IUCDs are used most often by women. The most common form of reversible contraception in the world, IUCDs are reportedly used by more than 130 million women of reproductive age worldwide. Numerous studies have also found regional variations in preferences. Ife (South-Western Nigeria) showed a progestogen-only injectables usage rate of 12.6%, which is lower than the 71.8% recorded in Aba (South-Eastern Nigeria) but equal to the 14.2% recorded in Jos (North-Central Nigeria)[27].

2.1.8 **Taking steps to reduce maternal mortality and morbidity**

Family planning reduces unplanned pregnancies, which has the direct effect of lowering maternal mortality and morbidity. Space out pregnancies, delay conception in young girls who are more likely to experience health issues from an early delivery, and avoid pregnancy in older women who also run higher risks by utilizing contraception. Women who wish to have fewer children can do so by using contraception. With the use of contraceptive, the likelihood of unwanted pregnancies decreases, which also lessens the need for risky abortion. Cheap and very effective at saving lives, contraception. In developing nations, the average annual cost of contraceptive supplies is $1.55 USD.

The international community generally concurs that family planning reduces the number of times a woman is exposed to pregnancy riskshelps women avoid unintended and closely spaced pregnancies—a study in Bangladesh found that very short pregnancy intervals are linked with a 7 times increased risk of induced abortion 32—helps women avoid more than 4 births; births after 35 years of age 32; and so forth[32,33].

The number of induced abortions, unplanned births, and unwanted pregnancies would decrease from the current 89 million to 22 million annually, as well as the number of unwanted pregnancies would decrease from the current 30 million to seven million annually, in developing countries if all unmet needs for modern contraception were met (from 48 million to 12 million per year)[34].

Preventing unplanned pregnancies will benefit your health. There would be an estimated 76,000 fewer maternal deaths annually if the unmet need for modern contraception was fully addressed[34].

2.1.8.1**Reducing risky abortion rates brought on by unintended pregnancy**

Unwanted and unexpected pregnancies are a problem for a lot of women and couples around the world. 56% of unintended pregnancies, or 44% of all conceptions worldwide, result in induced abortions[35]. Between 2010 and 2014, there were an estimated 56 million induced abortions per year, or 35 abortions for every 1,000 women between the ages of 15 and 44[36].

Contraception can help prevent dangerous abortions by lowering the number of unplanned pregnancies.

2.1.8.2**Reducing Newborn and Infant Deaths**

Closely spaced and poorly planned pregnancies and births, which are a contributing factor in some of the highest infant mortality rates in the world, can be avoided by family planning and contraception. The odds of a kid dying in their first year are twice as high for those born within two years of their next-oldest sibling as they are for those born within three years, according to data from an international study. The infant mortality rate increases with closer spacing between deliveries. The chance that a mother will die giving birth increases the possibility that her unborn child will get sick or die.

Assuming no change in the use of contraceptives or the number of unintended pregnancies, maternal mortality would reduce by 64%, to 112,000 per year, if all pregnant adults and their babies received the level of maternal and newborn health care recommended by the World Health Organization. Neonatal fatalities would decrease by 76% to 655,000.

Maternal mortality would decrease from 308,000 to 848,000 per year and infant deaths would decrease from 2.7 million to 538,00 per year if complete treatment for all expectant mothers and babies was paired with full availability of modern contraception to those who choose to forego conception[34].

2.1.8.3 **Helping to Prevent HIV/AIDS**

Despite research showing that women with HIV have more unmet requirements for family planning and reproductive health services than the general population, this is in part due to the lack of funding for integrated HIV and contraception services[36]. In sub-Saharan Africa, about 1 in 4 women have unmet family planning needs. Another recent study indicated that if the needs of women with HIV for modern contraception and antiretroviral medication were completely met, HIV transmission from mothers to babies would be virtually eliminated—reduced by 93% annually[37].

Both male and female condoms provide dual protection against STIs including HIV and unintended pregnancy.

2.1.8.4**Improving Education and Giving Individuals More Power**

In addition to giving people the possibility to improve their education and participate in society, including obtaining paid work, family planning and contraception also allow people the ability to make informed decisions about their sexual and reproductive health.

In order to help women and girls achieve their educational and career goals, family planning may help them stay in school, become literate, pick up a skill, launch a business, or in other ways. Those who have become mothers will find this to be especially true. An early or undesired pregnancy may both cause and result in dropping out of school[38].

2.1.8.4**ReducingTeen Pregnancy Rates**

Preventing unintended pregnancies is essential for enhancing the sexual and reproductive health of adolescents as well as their social and economic wellbeing[39]. Teenage pregnancies are more

likely to result in preterm and low birth weight babies. Teenage mothers give birth to babies at higher rates of neonatal mortality. Teenage girls who became pregnant frequently had to leave school. This will have long-term consequences for them as individuals, for their families, and for their communities.

2.1.8.5 **Contributes to Economic Growth**

Due to rapid fertility decline and increased contraceptive use, the ratio of dependents to wage earners declines. As a result, the nation's savings rate rises and there are more wage workers. With supportive socioeconomic policies and a focus on equity, nations might then benefit from a "demographic dividend" of rapid economic growth. The demographic dividend effect of contraception is thought to be most pronounced in countries with high fertility rates. By 2035, these countries could experience rates of return on economic productivity and potential lifetime income from increased access to and use of contraception that are greater than 8% of GDP [41].

2.1.9**Unmet Needs for Contraception**

Fecund and sexually active women who do not use any form of contraception are those who state they do not want any more children or would rather delay having another child. The concept of unmet need highlights the contrast between women's desires for procreation and their use of contraception[43]. In sub-Saharan Africa, 23.7% of women of reproductive age lack access to the contraception they need. There was a 16% unmet need for contraception, according to the 2013 Nigeria Demographic and Health Survey (NDHS)[45].

Unmet needs are a result of people not having access to preferred methods of contraception, especially for women, the most vulnerable members of society, and single people. Obstacles based on gender, cultural or religious convictions, adverse consequence fear or experience, and poor service quality all contribute to the unmet need for contraception. In terms of practitioners' involvement in advancing this practice, there doesn't seem to be enough empirical research on the possibility that safe sex and the use of contraceptives could reduce the number of unintended pregnancies among women and thereby help to lower maternal morbidity and mortality.

2.1.10 **Elements that Affect the Amount of Acceptance and Use of Contraceptives**

Family planning is widely acknowledged as a crucial intervention for achieving Sustainable Development Goals (SDGs) three (3), four (4), and five (5). This is due to evidence that it enhances health, decreases unforeseen pregnancies, and prevents unsafe abortions. It has also been demonstrated that family planning promotes gender equality and women's economic and educational development[62].

Women are aware that there are various forms of birth control.

A key component of care for expectant moms, new mothers, and kids is the use of contraceptives. Fertility reduction is significantly influenced by the spacing and restriction of births among women of reproductive age, which is necessary to reduce the risk of maternal and neonatal complications from early childbirth[57]. A decrease in newborn, child, and maternal mortality may result from this.

In spite of having a good understanding of family planning, few young adults in Osun State, Nigeria, adopted the usage of contraceptives, according to a study done there[58]. Due to this, there was a poor uptake of contraceptives, which is also linked to a high fatality rate. In Nigeria, there

are reportedly 610,000 abortions performed annually. Unwanted pregnancies happen to women of all ages, but teenagers are the most at risk[59]. Despite awareness, there is still a shortage of comprehensive information on contraceptives and services.

2.1.10.1 **Propensity for or Beliefs in Religion**

Religious diversity may also be to account for Nigerian women of reproductive age's poor adoption and use of family planning, despite the fact that it is a culturally laudable trait. Islam and Christianity are the two religions that are most widely practiced in Nigeria, and Muslims tend to use family planning less frequently than Christians do[60]. The cultural belief among Muslims that one should not stop having children until all of them are born is one reason for the low adoption of family planning among Muslims. Another explanation is that many Muslim women believed having a big brood would impress their husbands because polygamy is legal in the religion. As a result of Christianity's opposition to polygamy, which places a limit on the number of children a woman can have, Christians are, on the other hand, more inclined than Muslims to employ family planning. The use of contraception is abnormally low in the northern region of Nigeria, maybe as a result of early marriage and cultural expectations that women have their second menstrual period at the home of their husbands. By inadvertently promoting young marriage, this either increases the demand for contraception or leaves a low uptake unsatisfied[61].

2.1.10.2 **Fear of Unwanted Repercussions**

One's ignorance and lack of awareness might affect how one feels about an incident or behavior. The fear of adverse side effects such severe bleeding, insomnia, and hypertension is the biggest barrier to adopting family planning techniques. In addition, some women worry that utilizing family planning methods may result in death, infertility, or the loss of reproductive potential,

while others fear that their spouses may leave them if they are unable to conceive. Despite the fact that only a small fraction of family planning users experiences negative effects, which are minor given the tremendous benefits of the procedure, this worry persisted[63].

2.1.10.3 **False impression**

People who don't know enough about family planning sometimes overestimate how bad it is for other women, and because they don't know enough themselves, they believe incorrect information and oppose family planning. For example, these sources frequently disseminate erroneous information about how family planning causes infertility, birth defects, won't allow a woman to become pregnant and have children in the afterlife, etc. They also exaggerate rare side effects by portraying them as uncontrollable vaginal bleeding and significant weight gain[64].

2.1.10.4 **Husband's Assent**

Most of the world's nations, particularly those that are developing, still have cultures that are dominated by men. For instance, traditional beliefs in the Sub-Saharan region of Africa place males in charge of women's reproductive capability, and we may speculate that a woman may want her husband's permission before utilizing family planning. Many studies support this assertion. According to the societal expectation that anything the spouse did not approve of should not be done; one study found that 33.3% of respondents cited their husband's disapproval as the reason they had not used a family planning approach. Similar results were found in Ghana, Kenya, Angola, and other African countries,thus it seems like this propensity is a common phenomenon there[65] [66]. According to a study, husband-wife acceptance and agreement are the biggest barriers to family planning in Nigeria. They postulated that women would use family planning if their husbands were in favor of it.

2.1.10.5 Unmet Family Planning Need

Unmet needs for family planning remain a crucial indicator of how well the world is doing in lowering maternal mortality and risky sexual behavior. The north of the country has been identified as having a lower prevalence of unmet need based on the demographic health survey. The unmet needs in the southern region have, however, shifted from the South West to the South-South, which may be related to the superior education and westernized lifestyles in South Western Nigeria. The decrease in the number of unmet needs in the southwest of Nigeria is probably due to the area's industrialization and westernization[67].

Even though there is a high level of understanding and rising global rates of contraceptive use, there are still significant gaps between young people's aspirations to delay or stop having children and their actual usage of contraception[68]. Around 15% of the 1.4 billion women in developing nations who are of reproductive age (15–49) at the end of 2009 wanted to avoid becoming pregnant but weren't using an effective method of contraception. Unmet demands would be lessened if they were satisfied, which would improve young adults' socioeconomic condition and greatly lower Nigeria's high fertility rate, which is predominately unwanted pregnancies and abortions[69]. Unmet needs are a key SDG indicator of FP and demonstrate the disconnect between the reproductive aspirations of women who are now members of the union and their use of contraception[69].

2.2 Theoretical Review

2.2.1 The Health Belief Model

The HBM, or Health Behavior Model, is a method that aids in the discovery of factors that influence the usage of contemporary contraceptives. Since the researchers' findings suggest that

the use or nonuse of modern contraceptives may be related to specific circumstances, the HBM was employed to evaluate the factors associated with their use[70].

An overview of the literature on key reproductive health issues is also included in this chapter. A description of the HBM will be given to you in the following sentences. The precise goals of the ongoing investigation are compatible with the model's HBM components[71]. It is also frequently used to pinpoint the elements that influence how modern contraceptives are used in various contexts.

To give a strong theoretical basis for comprehending how contraceptives are used by women of reproductive age, the HBM was modified. The Human Behavior Model (HBM), a psychosocial model, tries to explain and predict behavior. The concept was first conceived in 1950 in an effort to comprehend why people frequently choose not to take part in campaigns designed to prevent and diagnose illnesses[70]. Perceived vulnerability, perceived severity, perceived advantages, perceived hurdles, perceived self-efficacy, and signals to action are the six components that make up this paradigm. The paradigm states that people are more likely to act once they are convinced that the benefits of the action outweigh the drawbacks. As a result, people are more driven to take action. The use of this model helped to develop research questions based on its elements and served as a direction for the investigation.

The HBM was selected as the ideal framework to direct the investigation into the prevalence of modern contraception use among women of reproductive age[72]. An examination of the HBM revealed that the constructs have been successfully applied by many researchers in their research.

Using the HBM, researchers have examined a wide range of problems. In South East Wales, for instance, a study that employed the HBM to investigate women's intentions to take long-acting

contraceptives. The HBM has also been utilized for research on other health issues, such as adherence to hypertension medicine, HIV testing habits, and views of the hazards and advantages of smoking among women. The HBM proved to be the most useful theoretical model for explaining the research participants' use of contraception. In order to advance the body of earlier research on women's contraceptive practices and increase reproductive health, it was thought that the research would use this paradigm[73].

The HBM has been used by researchers to examine a variety of topics. For instance, a study in South East Wales that employed the HBM to investigate women's intentions to take long-acting contraceptives The HBM has also been utilized for research on other health issues, including as adherence to hypertension treatment, HIV testing habits, and women's perceptions of the hazards and advantages of smoking[74]. The HBM proved to be the most useful theoretical model for explaining the participants in the study's contraceptive practices. It was anticipated that applying this paradigm to the research will contribute to the body of knowledge already available on women's contraceptive practices and benefit reproductive health[72].

When employing this strategy, it was vital to determine how capable each individual was of adhering to its recommendations and engaging in preventative healthcare.

The Health Belief Model focuses on people's attitudes and belief patterns in an effort to forecast their behavior with regard to their health. In the 1950s, psychologists working for the US Public Health Service first introduced the strategy. They falsely believed that people were afraid of illnesses and that decisions regarding health were influenced by the degree of fear (perceived threat) and the anticipated ability of those decisions to reduce fear, provided that potential outweighed the practical and psychological obstacles to taking those decisions (net benefit).

Since then, a variety of both short- and long-term health behaviors, including hazardous sexual behavior, HIV/AIDS transmission, family planning, and other reproductive health issues, have been studied using HBM. The HBM attempts to predict health-related behaviors in terms of particular thought patterns. This model is used to describe and forecast health behavior along with sick-role and disease behavior[76].

2.2.1.1 Perceived Susceptibility to Unwanted Pregnancy

The health belief model makes predictions about the behavior of people who are at risk of having a health issue, such as an unwanted pregnancy, and how they will act to lessen or avoid that issue in order to protect themselves from experiencing it. The perceived susceptibility element of the HBM is a very important portion of the model that focuses on the motivated actions taken to prevent health issues. The HBM functioned under the assumption that conduct requires motivation in order to occur. If a person has a good chance of avoiding a dangerous health risk, they are assumed to engage in a certain health-related behavior. This assumption is backed by the results of a number of studies, including: The majority of women believe that they have a low chance of being pregnant or that they do not feel at danger of being pregnant even if they do not use any type of birth control, according to research findings. Some of the ladies believe it will be difficult for them to have a child since they are less fertile than other women. The results of this study indicate a relationship between perceived susceptibility and perceived pregnancy risk. A woman choose whether or not to use a modern contraception based on the risk involved[70,72].

According to research using a cross-sectional design to examine the factors that are responsible for the use of family planning services and the use of contraceptives among married women who

were in their reproductive age group, women who do not use any form of birth control are at a significantly increased risk of an unplanned pregnancy (15- 49 years).

The study was conducted in three locations of the Pakistani province of Punjab, where about 35% of married women of childbearing age use family planning methods[77].Younger women and those from lower socioeconomic status were more likely to utilize family planning. The authors claim that because of the facilities' proximity, the provider's stellar reputation, and the types of treatments offered, women sought out health facilities for contraceptive services. The study used this data as its foundation to find out whether or not women in the Municipality who were of reproductive age (20-39 years old) experienced comparable problems.

According to study, women who don't take birth control at all have a much higher risk of becoming pregnant unexpectedly. An investigation was conducted using a cross-sectional methodology to determine the characteristics that influence married women who are in their reproductive years using family planning services and contraception (15- 49 years).

The study was conducted in three locations of the Pakistani province of Punjab, where about 35% of married women of childbearing age use family planning methods[78].

Younger women and those from lower socioeconomic status were more likely to utilize family planning. The authors claim that because of the facilities' proximity, the provider's excellent reputation, and the types of treatments offered, women sought out health facilities for contraceptive services. The study used this data as its foundation to find out whether or not women in the Municipality who were of reproductive age (20-39 years old) experienced comparable problems[78].

2.2.1.2 **Perceived Threats to Non-Use of Modern Contraceptives/Severity of Unplanned Pregnancy**

Perceived Threat: This involves the perceived propensity for and gravity of a medical problem. A person's assessment of the likelihood of developing a condition that may negatively impact their health is referred to as perceived susceptibility. While perceived severity refers to how serious a medical condition is perceived severity as the model suggests could be applied to women's attitudes toward family planning as women are likely to show a favorable attitude toward family planning when there is a perceived threat to their health from another pregnancy[78].

Another important component of the HMB is how individuals perceive the consequences of not using contraceptives. The low or non-use of contemporary contraceptives is seen to be a health burden for reproductive-age women, especially in Africa, due to their nomadic way of life, early introduction into marriages, high level of illiteracy, and female circumcision. Particularly true in nations where female circumcision is widespread[23]. A multitude of health issues, such as stillbirths, higher rates of infant mortality, illegal abortions, and elevated rates of maternal illness and mortality, are usually associated with inadequate spacing between pregnancies. Poor health outcomes in the offspring of unplanned pregnancies, which are caused by the mother's poor prenatal behavior, have been associated with the consequences of those pregnancies. The women are unable to recognize their pregnancies at an early enough stage, according to study. They postpone seeking prenatal care as a result, and they engage in other unhealthy habits. There is a widespread assumption that unintended pregnancies result in humiliation, social withdrawal, child neglect, and abandonment. Unwanted pregnancies usually result in unsafe abortions and deaths associated to abortion [24]. Unwanted pregnancies frequently lead to unsafe abortions and abortion-related deaths. Being pregnant at a young age can have a number of detrimental effects,

such as social stigma, fear, shame, embarrassment, depression, social marginalization, low self-esteem, and serious financial repercussions. The goal of the research study was to discover whether or not the study participants suffered comparable potential risks as a result of not using modern contraceptives.

2.4.1.3 **Perceived Benefits of Modern Contraceptives Use**

Perceived Benefits: This is the conviction that methods for lessening the risk of sickness work. Women's perceptions of the advantages of family planning will encourage and inspire them to practice both general and specific methods of family planning, depending on the advantages they see in each. Such will also have a significant impact on how they feel about such techniques and family planning in general. The term "perceived advantages of taking action" refers to taking steps to prevent disease problems, such as using family planning techniques to stop pregnancies and childbirth that are thought to be harmful to women's health.

Other reproductive health services, such as the reduction of maternal mortality and the prevention and treatment of sexually transmitted infections, are provided through the provision of contraceptive services.

In order to stagger births and subsequent pregnancies and protect the health of moms and children, modern contraceptives are an effective technique [25]. Modern contraceptive use has been prioritized as a crucial element in preventing unforeseen pregnancies and the poor outcomes that are associated with them. Modern contraceptives provide a number of advantages, including as bettering maternal and child health and giving women more agency. Modern contraceptives have been linked to a number of additional advantages, including the prevention of health hazards for women during pregnancy, a decrease in infant mortality, a decrease in adolescent pregnancies,

empowerment and improved education, and a slowdown of population increase. For the purposes of this investigation, the research questions should be able to elicit from the study participants their opinions of the benefits they are anticipated to obtain as a result of using modern birth control methods[25].

A woman's general health and well-being are correlated with her capacity to exercise control over her reproductive decisions. As a result, using modern contraceptives can aid in reducing both the likelihood of abortion and the number of unintended pregnancies. An increase in the use of contemporary contraceptives could, as a result, result in a decrease in the risk of maternal death, according to the researcher who carried out the study to assess the knowledge and determine future desires of women in urban Cameroon to use contraceptives[26]. Childbearing women who took part in a community-based survey were given face-to-face questionnaires that served as the source of the data for this cross-sectional study. No attempt was made to gauge the participants' perceptions or attitudes toward family planning; instead, the data collected mostly concentrated on the participants' degrees of awareness regarding the practice[27].

2.2.1.4 **Perceived Self-Efficacy to Use Modern Contraceptives**

Unplanned pregnancy prevention programs have been compared to health prevention initiatives, and there are differences in the importance or urgency of contraceptive treatments.

Even though they are sexually active and do not want children, some women do not want to get pregnant and do not put off having children in the future. Among women trying to avoid pregnancy, the non-use or discontinuation of contraceptives is connected with almost 70% of unwanted pregnancies[32].

Lack of access to services emphasizing physical proximity has been the primary contributor to unmet demand for family planning. Lack of knowledge about procedures, fear of negative consequences, and the husband's rejection are a few other contributing causes. The majority of these criteria suggest that women find it difficult to decide whether to use the contraceptives that were the subject of this study[33].

Women frequently have to contend with limiting factors that conflict with their wishes for the quantity and timing of pregnancies[34,35]. Women's capacity to prevent unintended pregnancies is limited when they confront impediments accessing contraception. The non-use of contraception is linked to personal factors such lack of motivation, low self-efficacy, health concerns, and ignorance of family planning options and resources[36,37,38]. The position or status of women acts as a barrier to the use of contraceptives, particularly when the woman is financially reliant on the spouse and may feel under pressure to make reproductive decisions in accordance with the wishes of other people. In addition to eligibility requirements and medical barriers that require a spouse's approval, women may face difficulties using contraceptives. The use of modern contraceptives may also be hampered by low self-efficacy and misinformation. It was critical to this study's success to ascertain self-efficacy levels and how they affected participants' use of contemporary contraceptives[39].

2.2.1.5 **Perceived Barriers to the Use of Modern Contraceptives**

The idea of a perceived barrier, which relates to the difficulties women encounter when taking modern contraception, is a key component of the HBM. The availability of various techniques, the cost of treatment, and medical contraindications, among other structural and external constraints, might affect how frequently people utilize contraception[40]. For instance, a barrier to

the use of contraceptives is the male partners' aversion to their spouses' use of contraceptives, but some women oppose contraceptive methods generally since they decrease fertility[41]. Additionally identified as hurdles to utilizing contraceptives are the inability to stick with some techniques and worry about unfavorable side effects. The fear of marital revenge resulting from disagreements over the decision to take contraception has been found to be a significant obstacle for women, among other factors[42].

Another study found that women don't utilize contraception because their partners don't support them[43]. A UNFPA report claims that there is an unmet need for contraception among sexually active women who don't want to get pregnant but aren't utilizing it[44]. A number of things, such as a lack of informational resources and a lack of support from partners or communities, might be blamed for this unfulfilled demand. According to the study, side effects, health concerns, and infrequent sexual activity are the main reasons why married women in developing countries who wish to prevent pregnancy but are not using contraception do so[45]. These women needed assistance from programs that will reduce unexpected pregnancies and unsafe abortions while promoting reproductive health in order to prevent unplanned pregnancies.

The Sustainable Development Goals of enhancing maternal health, lowering child mortality, and eradicating extreme poverty can only be reached when there is an improvement in reproductive health, as a result of the removal of obstacles to contraceptive usage. Among women of reproductive age, the adoption of modern contraceptive techniques can considerably lower the number of unsafe abortions and unintended pregnancies[46].

A restricted selection of techniques, concern about side effects or personal experience with them, cultural or religious opposition, poor service quality, as well as user and provider prejudice, have

all been connected internationally to the nonuse of modern contraceptives[47]. The results of this study will assist in removing barriers to contemporary contraceptive use, enhancing maternal health, and enabling young women to prevent unwanted births[48,49].

Studies reveal several obstacles to utilizing contraception or avoiding unplanned pregnancies. Contraceptive use is hindered by male partners' aversion to their partners using contraceptives and some women's general distaste for contraceptive methods since they decrease fertility[50]. Numerous variables, including as concern over unfavorable side effects and challenges with maintaining certain contraceptive techniques, make it difficult for people to use contraception. The fear of spousal retaliation brought on by a disagreement over the decision to take contraception is a major obstacle for women[51].

High rates of contraceptive use and accompanying restrictions among women of reproductive age are present in all sub-Saharan African countries[49,52]. An example might be a qualitative study to find out more about the difficulties young women in Kenya encounter when using contraceptives. The survey was carried out in urban and peri-urban districts of Kenya where people have a slower socioeconomic profile and the prevalence rate of contraception is closer to the national average[53].

The study's conclusions showed that the young women did not use contraceptives because they mistakenly thought that some techniques would render them infertile and that they were linked to birth deformities or other abnormalities. The difficulties indicated in the aforementioned study are likely to be encountered by the participants in this study, which may hinder them from embracing and using modern contraception[53].

Nigeria is one of the developing countries with one of the lowest prevalence rates for contraceptives and a long-term trend of diminishing contraceptive use. Some research studies in Nigeria have emphasized the methods used to examine and identify the barriers that prevent women from utilizing contraception[54]. A qualitative investigation to uncover additional factors, besides the previously mentioned fear of unfavorable effects, that prevent Nigerian women from using contraception[55]. Focus groups with vignettes were employed by the researchers to gather normative beliefs about contraception. Additionally, they were able to recollect worries about menstrual irregularities brought on by hormonal contraceptives, as well as ignorance about fundamental reproductive biology and the workings of contemporary contraceptive technologies. In a related study, the researchers interviewed people in-depth and held focus groups to find out more about the misconceptions that keep people from using contemporary contraceptives and to identify the root reasons of those misunderstandings. The study required to consider both the obstacles to the use of modern contraceptives and the method or approach employed to collect the data[56].

Women of reproductive age who desire to delay or avoid having children but do not use any kind of contraception have been the focus of some studies on the factors impacting contraception in low- and middle-income countries[57]. A sizable portion of women do not use contraception due to reasons such as relationship animosity, husbands' fears of infidelity, fear of side effects, and health difficulties associated to the use of contraceptives. Women's professional status and educational attainment were also found to have an impact on their use of contraception[58].

By separating contraceptive knowledge from procedural comprehension, the fallacious notion that population education on contraceptive techniques is not necessary will be eradicated. Since there are many of these barriers in low- and middle-income settings, it is essential to create a

plan for obtaining data on the obstacle's women in my community face in using contraceptives and to fill in any gaps in their knowledge and adoption[59,60,61].

2.2.1.6 **Cues to Action on The Use of Modern Contraceptives**

Both internal and external signals trigger the woman's awareness of a risk to pregnancy, which facilitates her decision to utilize contraceptives to alleviate that concern. For instance, it has been observed that postpartum women in Africa who lived in cities and were in poverty started using contraception based on the timing of the onset of their menses[62]. Another study found that women who began having periods soon after giving birth on average, within one month tend to use a contraceptive technique. The signals to action have also been connected, using a quantitative approach, to the influence of healthcare professionals on contraceptive choice or information from peers and the internet that influences contraceptive choice. In order to analyze and understand the contraceptive behavior of reproductive-age women in the study area, a phenomenological approach was adopted in this study[63]. Both internal and external signals trigger the woman's awareness of a risk to pregnancy, which facilitates her decision to utilize contraceptives to alleviate that concern. For instance, it has been observed that postpartum women in Africa who lived in cities and were in poverty started using contraception based on the timing of the onset of their menses[64]. Another study found that women who began having periods soon after giving birth—on average, within one month tend to use a contraceptive technique. The signals to action have also been linked, using a quantitative approach, to either peer and internet-based information or the effect of healthcare professionals on the decision to take contraception. In order to analyze and understand the contraceptive behavior of reproductive age women in the study area, a phenomenological approach was adopted in this study[65].

2.2.2 **Social Cognitive Theory**

In order to promote family member wellbeing, family planning approaches assist an individual in striking a balance between the number of children and the family's socioeconomic circumstances. Planning a family successfully requires knowledge, motivation, and proactive actions. These signs are in line with the social cognitive theory, whose "social" elements recognize the social roots of human cognition and behavior and whose cognitive elements recognize the critical role played by the cognitive process in determining human behavior. Social cognitive theory acknowledges that people are self-organizing, proactive, and self-regulating[66]. The idea's three essential parts are the environment, the people, and the behavior. All three of these components work together. Just as behavior is not just the result of the individual and their behavior, the environment is not solely the result of the person and their environment [67,105]. The environment provides examples of behavior. Observation learning occurs when a person watches another person's actions and the reward they receive. The concept of behavior is open to many interpretations, but generally speaking, it means that in order to exhibit a behavior, a person must be aware of it and have the abilities necessary to do so. According to social cognitive theory, using contraceptives necessitates that individuals possess the cognitive ability and behavioral skills to continue using contraceptives in light of their health status[68].

2.3 **Review of Empirical Studies**

2.3.1 **Studies on the Use of Contraception by Women of Reproductive Age**

A study was done in 7 states of Nigeria. The study's target population consisted of females (15–49 years old) of reproductive age who were currently using contraception at the time of the survey. The sample of individuals who met the criteria for inclusion included 1927 women. The

research found that 28.5% of individuals read about family planning in newspapers or magazines, 67.2% of people heard about it on the radio, and 49.7% of people heard about it on television. Just 18.5% of respondents indicated they had heard about family planning when a health worker visited them in the preceding 12 months, compared to 53.6% of respondents who said they had. This is in contrast to the 53.6% of respondents who said they had. The study's findings on knowledge of contraceptives showed that 70.3% of the women knew about implanted contraceptives and 55.5% knew about IUDs. In order to appropriately educate women of reproductive age on the safety and effectiveness of contraceptives, the study suggests the creation of a communication strategy. Finally, medical providers should discuss the benefits and drawbacks of LARCs and recommend them as a first line of defense when speaking with women about contraception[70].

A significant portion of women in a descriptive cross-sectional study are familiar with one or more methods of birth control. In this study, the knowledge and viewpoint of WRA towards the use of contraceptives are explored. It was found that 82.4% of respondents knew about contraceptives, and that for nearly two-thirds (66.4%) of those who did, health professionals were the main source of information. Despite the fact that child spacing remained the most popular use of contraceptives across all respondents (85.8%), more than three-fifths of respondents (63.4%) were aware that contraceptives might be used to prevent unwanted pregnancy. The function of contraceptives that respondents were least familiar with (25.2%) was limiting family size. The diaphragm (81.0%) and male condoms (84.8%) were the two most popular modern contraceptive techniques, while vasectomy (26.6%) and the diaphragm (28.2%) were the least popular. The respondents were well-informed about contraception, with 428

(85.6%) of them saying they understood it well. Compared to married respondents (88.8%), just 69.2% of respondents who are currently single had a great understanding of contraception.[71]

Everyone who took part in the cross-sectional study in Lagos, Nigeria, knew about contraception in the interim. Ninety-two percent of respondents said they had learned about family planning via a hospital or health center. All respondents believed that family planning prevented pregnancies, and 51.7% said that it helped space out children. However, more women who had good understanding (55.3%) than those who had poor understanding (36.2%) used family planning. 194 respondents (597%) reported using some form of contraception, while 125 (38.5%) reported using a more cutting-edge method. The most common modern method among those who used contraception was the male condom 51 (26.3%), closely followed by implants (17.0%) and injectables (9.3%). The usage of salt water/strong alcohol/lime juice 9 (4.6%) and rings, amulets, and padlocks 4 (2.1%) were the two most common traditional methods. The coitus interruptus 43 (22.2%) was the most common natural method. More than 75% of respondents in this study had a thorough comprehension of modern contraceptive methods, and 86.8% of respondents said they were aware of family planning approaches[72].

To find out the factors affecting Nigerian women's decisions on contraception, a study was conducted. 82.8 percent of women had a high level of knowledge about contraceptives, 15% had a moderate level of knowledge, and 2.2% had little to no information. The most common methods of contraception were birth control pills and implants (38.3% and 36.1%, respectively), whereas tubal ligation and withdrawal were the least common methods (29.4% and 29.4%, respectively). According to the report, healthcare facilities provide counseling sessions to assist women in choosing a method of contraception. It is crucial to adopt medical procedures that promote the application of knowledge to healthy sexual and reproductive behaviors[73].

2.3.2 **Studies on Attitude towards Contraception by Women of Reproductive Age**

According to the World Health Organization's (WHO) Medical Eligibility Criteria for Contraceptive usage, the majority of contraceptive methods are secure and effective for WLHIV, including those with asymptomatic HIV and AIDS. Modern contraceptives should be made accessible and inexpensive to women living with HIV in order to reduce mother-to-child transmission of HIV and consequent new pediatric HIV infections[81].Numerous studies have demonstrated the need for WLHIV to have more information on safer forms of contraception[82].In sub-Saharan Africa, about 2 million (90%) of all pediatric HIV cases are caused via mother-to-child transmission. This figure highlights the high fertility rates and low use of modern contraception among HIV-positive women in Sub-Saharan Africa[83]. A model of integrated HIV and family planning (FP) services, however, has been developed that enables eligible clients to be connected with ART treatments[85].In the world, there are at least 25% of HIV-married women who still need family planning services[86]. In sub-Saharan Africa, eight male condoms are made available annually for each person who engages in sexual activity; nonetheless, young people have restricted access to condoms. Evidence suggests that in Sub-Saharan Africa, notably in Nigeria and Zambia, women with HIV use contraception more frequently than women without HIV do in order to prevent unplanned pregnancies. Contrary to the relatively low utilization of family planning services, the majority of WLHIV were aware of at least one type of family planning[87]. The use of contraception by women is highly predicted by their knowledge of their HIV status. In Nigeria, it was found that 39.8% of WLHIV with cohabiting partners utilized condoms[88].However, according to some recent studies, WLHIV are happier and use contraception more frequently[89]. The likelihood of pregnancy among women living with HIV is increased by the accessibility and availability of highly active antiretroviral therapy (HAART)

for the treatment of HIV infection. Although every woman has the right to have children, there are many pregnancy-related problems, especially among WLHIV. According to the evidence, these women have a variety of reproductive goals, with delivery being the most popular. The rate of HIV transmission from mother to child still exists despite the fact that delivering antiretroviral treatment to people with HIV and AIDS has improved pregnancy outcomes[90].

Unintended/unwanted pregnancy is still an issue in Sub-Saharan Africa, with an estimated 14 million occurrences per year[92]. There is a significant association between the desire to have children and the use of ART among WLHIV in Ethiopia[91]. In a similar vein, researchers discovered that HIV-positive South African women are at a significant risk of unwanted pregnancy. The majority of HIV-positive women in South Africa and Kenya who use ART, on the other hand, had births that were intended, according to some people[93]. Furthermore, unplanned pregnancies increase the risk of HIV infection and put efforts to halt the spread of new infections in danger[94].

A significant number of HIV-positive women have reported that their pregnancies were unplanned, which has been noted in numerous studies. In an effort to avoid unintended pregnancies, family planning services are made accessible and available to women with HIV[95] .According to the study's conclusions, WLHIV may plan their reproductive lives to avoid unwanted pregnancies and enjoy parenthood just like their counterparts who are virus-free. Therefore, the goal of this study was to close the knowledge gap regarding contraceptive alternatives and help with the distribution of crucial data for WLHIV treatment and reproductive practices.

HIV infection and the immune suppression it causes, particularly in resource-poor countries like Nigeria, further complicate the challenge of global health. The availability of effective antiretroviral therapy (ART), which is now the standard of care in most settings, has significantly reduced morbidity and death linked to HIV infection. Because of ART, vertical transmission has also been reduced during pregnancy, childbirth, and nursing. HIV-positive persons are living longer and in better health in an era of effective combination medication and expanded access to treatment[96]. The ability of HIV-positive people to live normal lives, work, and seek education has had a tremendous positive influence on reducing poverty in the affected areas[97]. Women with HIV/AIDS frequently want children and engage in sexual activity. In the world, there are more than 13 million (61%) women with HIV/AIDS who are sexually active and between the ages of 18 and 30[98].Effective mother-to-child transmission prevention therapies, family planning education, and sensitization to the use of contraceptives all contribute to decreased mommy worry. Numerous studies have confirmed that HIV-positive women still want to start families and have children despite learning of their status. The desire for children among HIV-infected women has been correlated with strong conventional values and societal pressure. In some societies, childlessness can be more stigmatized than the HIV virus itself. Many HIV prevention programs in the past have focused on reducing the risk of HIV acquisition among people who are unaffected or unaware of their status. Keeping HIV-positive women from becoming pregnant unnecessarily has been identified as the second pillar of UNFPA's strategy for reducing mother-to-child transmission[99].A number of factors, such as knowledge of one's own HIV status, sociocultural expectations of motherhood, awareness of the reduced risk of mother-to-child transmission, the availability of ART, knowledge of one's partner's HIV status, and stigmas associated with both childlessness and HIV status, have an impact on whether or not an HIV-

infected person decides to have children. Infected women and their partners have a variety of reproductive health decisions to make about pregnancy, delivery, and contraception. Just like other women and couples, they ought to make these decisions for themselves[100]. Many sexually active women with HIV/AIDS may not want to have children and use a contraceptive for the same reasons as women who are not HIV positive. However, family planning clinics and those providing HIV-related medical care are frequently distinct in Sub-Saharan Africa. This arrangement will create a structural barrier for women who need family planning services[101].Barrier methods, hormonal methods, the intrauterine device (IUD), female and male sterilization, the lactational amenorrhea method, and treatments based on reproductive awareness are all acceptable contraceptive options for women with HIV/AIDS. These choices are on par with those available to those who do not have HIV. The use of condoms is the only form of birth control that reduces the risk of all STIs, including HIV[102].They perform best when used to stop STIs like HIV that are transferred through bodily fluids. Most forms of contraception are largely risk-free for women with HIV/AIDS who are using ART[103]. The widespread view is that ART medications and contraceptives do not interact. The challenge for Sub-Saharan African countries is to offer reproductive health services, such family planning, to women living with HIV/AIDS in an efficient and affordable manner[104].

2.3.3 **Studies on Use of Contraceptive among Women with Reproductive Age**

In 37 SSA nations between 1995 and 2020, a study of women of reproductive age was carried out (15–49 years). 22.0% of people use contraception, with coverage varying greatly between nations, with Namibia having the highest coverage (49.7%) and Central Africa Republic having the lowest (3.5%). Other nations with high contraceptive use rates included Lesotho (48.5%), Zimbabwe (47.9%), South Africa (47.9%), Malawi (45.2%), and Kenya (39.1%). Male condoms

(17.5%), implants (16.5%), pills (15.7%), and injections (39.4%) were the most frequently used contemporary contraceptives. Age, education level of the woman, husband's or partner's education level, place of residence, employment, marital status, wealth index, number of living children, knowledge of modern methods, hearing about family planning in the media (television, radio, newspaper, text messages), and a visit from a health worker to discuss family planning are all factors associated with the use of modern contraceptives[105].

Additionally, a descriptive cross-sectional survey with 560 respondents found that 49.7% (271) had ever used any kind of contraception, while 25.4% (69) of those respondents were still doing so today. Traditional, natural, and contemporary approaches were all employed. Condoms for men (74.8%), condoms for women (43.3%), a diaphragm (18.4%), injectables (45.5%), an IUCD (42.1%), oral pills (57.7%), implants (1.9%), a vasectomy (19.5%), and bilateral tubal ligation (23.2%). The likelihood of using contraception was around four times higher among married women than among unmarried women. Contraception is viewed as having side effects/disadvantages by 83.1% of respondents, with weight gain (201 [44.3%]) and irregular menstruation (221 [48.7%] being the two most common negative effects stated. Despite the fact that every respondent to this survey was aware of contraception, only approximately half had ever used it and only about a quarter were doing so at the time of the study[106].

Research conducted in Ethiopia found that few women of reproductive age use contraceptives. Only 14.2% of the individuals in the present survey reported using contraceptive methods now, according to the study. Young women's use of contraception was highly influenced by socio-cultural factors, particularly perceptions of societal acceptance of contraception and belief in contraception urban legends. Family planning education should attack myths and misconceptions about contemporary contraceptive technologies as well as social norms that are against using

contraception. In order to remove widespread beliefs and misconceptions, health professionals must receive training in how to communicate with and provide information to moms seeking maternal and child health[107].

2.3.4 **Studies on Barriers to Contraceptive Use**

2.3.4.1 **Barriers to taking action:**

Even though a person may believe that taking action will have positive effects, action may not actually be taken. This could be because of obstacles linked to how a therapy might be uncomfortable, expensive, painful, or upsetting. As in the case of obstacles like price, affordability, availability, accessibility, and simplicity of family planning options. These traits could discourage someone from taking the intended action[106].

Lack of awareness about techniques, trouble acquiring services from providers, and an inability to bargain with partners are all obstacles to adolescents using contraceptives. Lack of information about sexual and reproductive health issues, particularly family planning, acts as another barrier that discourages adolescents from using contraceptives. Teens who are not married in some nations are prohibited access to contraceptive services and information, leaving them without guidance when making decisions regarding their reproductive health. [107]According to a Ghana Demographic and Health Survey report from 2008, women frequently use contraceptives irregularly due to poor parent-child communication, ignorance of parents' contraceptive experiences, friends' experiences becoming parents, low educational achievement and aspirations, low self-esteem, and feelings of futility and alienation.

It is almost impossible for women to freely speak and discuss matters about sex and contraception use with parents due to the traditional and cultural misconception that sex is just

for adults. Similar to this, counselors lack knowledge of how to advise males about sexuality and contraception due to the stereotype that family planning facilities are just for women. According to research, even though most women are aware of the many contraceptive methods and where to get them, access to reproductive health services for women is hampered by a number of perceived and actual (logistical) obstacles[108].

2.3.4.2. Logistic Barriers

Family planning adoption is influenced by a variety of variables that can be complex and challenging to manage in real-world settings, particularly in conflict-ridden regions where things often occur in an emergency situation[109].These variables span from individual and social concerns, cultural factors, availability and access issues, to issues like fear of side effects related to the qualities of a contraceptive technique[110].There isn't enough data to know how these variables interact to affect the usage of contraceptives in conflict areas of sub-Saharan Africa, including South Sudan. The assessment of the current levels of contraceptive use and of the factors that determine to agree that family planning is timely and essential, inaccessible areas, unequal distribution of health facilities, lack of motorways, and relatively low contraceptive use in South Sudan are taken into consideration[111].

2.4 Theoretical Framework

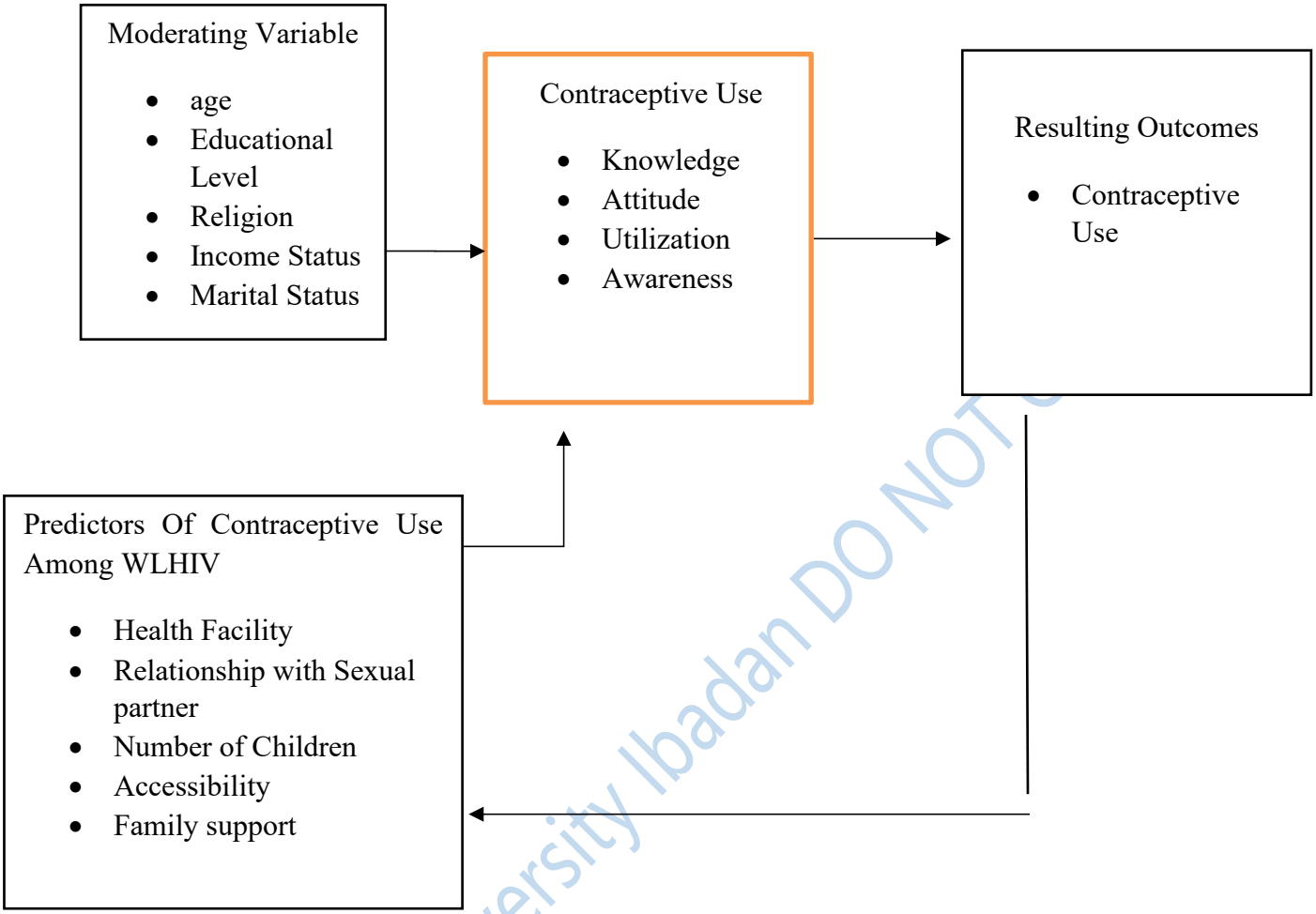

Fig 2.4 Conceptual Framework for Contraceptive use among women of reproductive age

2.5 Summary of Gaps in Literature

While existing research has examined various aspects of contraceptive use and related factors among women of reproductive age in Nigeria, there is a noticeable gap in the literature concerning the specific context of Odeda Local Government Area (LGA) in Ogun State. Limited attention has been given to understanding the knowledge and attitudes towards contraceptive use among women in this particular region. Consequently, there is a lack of comprehensive information on the specific challenges, beliefs, and perceptions that influence contraceptive decision-making among women in Odeda LGA.

Addressing this gap is important for several reasons. Firstly, gaining insights into the knowledge levels and attitudes towards contraceptive use in this specific geographical context can provide valuable information for developing targeted interventions and programs aimed at improving contraceptive utilization. Secondly, understanding the unique sociocultural factors and community dynamics in Odeda LGA can help identify barriers and facilitators to contraceptive use that may differ from other regions in Nigeria. Lastly, the findings of this study can contribute to the existing body of literature on contraceptive use in Nigeria and provide a more comprehensive understanding of the factors influencing women's reproductive health choices.

By conducting research in Odeda LGA of Ogun State, this study aims to fill the literature gap by examining the knowledge and attitudes towards contraceptive use among women of reproductive age in this specific context. The findings will contribute to a more nuanced understanding of contraceptive behaviors and inform the development of tailored strategies to improve contraceptive uptake and promote reproductive health in the region.

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Chapter Three

Methodology

3.1 Research Design

This study employed a cross-sectional survey, conducted among women of reproductive age in Odeda Local Government of Ogun State. This research described the knowledge, attitude and practices of women of reproductive age in Odeda Local Government Area in terms of contraceptive use.

3.1.1 Area of the Study

Odeda is a town and Local Government Area in the Nigerian state of Ogun. The LGA's administrative center is located in Odeda Town.

1,560 km^2 in size, with 109,449 people living there as per the 2006 Census. At Bakatari, the local governance is constrained. A small village that is bordered by Oyo State and Alogi, a sizable urban region that separates the local government area from Abeokuta-south[1].

3.2 Study Population

The study population consisted of all women of reproductive age living in Odeda Local Government of Ogun State.

3.2.1 Study Location

This study was conducted in selected Health facilities in Odeda Local Government of Ogun State and the facilities include:

1. Odeda General Hospital, Odeda,
2. Osiele Health Centre, Osiele,

3. Obantoko Health Centre, Alogi and
4. Odeda Health Centre, Odeda.

3.3 Sample and Sampling Method/Technique

The selection of study respondents was by random sampling which is a probability technique of sampling. Probability involved using random selection procedures to ensure that each unit of the sample is chosen on the basis of chance[2].All units of the study population should have an equal, or at least a known chance of being included in the sample.

Study participants were selected by random sampling technique with the replacement daily appointment list of all female clients at the facilities.

The minimum sample size was determined using the Fishers' formula for the determination of sample size for descriptive studies that have a population greater than 10,000. The sample size for this study was determined considering the following factors:

- Estimated population of women of reproductive age in Odeda Local Government.
- A standard normal deviate of 1.96,
- 95% confidence interval
- Acceptable margin of error 5%.

Based on the Fisher's formula,[3] that is

$$n = \frac{Z^2 p (1 - p)}{d^2}$$

Where: n - minimum sample size required

d - Is margin of error 5%

z - Confidence level 95%

p - Estimated contraceptive prevalence rate, 36%[4]

$$n = \frac{(1.96)^2 * 0.36(1- 0.36)}{(0.05)^2}$$

$$n = \frac{3.8416 * 0.36*0.64}{0.0025}$$

$$n = \frac{0.885}{0.0025}$$

n = 354

Correcting for a possible non- response rate of 10%, the final calculation will be 354/0.9 = **391**

Therefore, a total of 391 women of reproductive age in Odeda Local Government was interviewed.

3.3.1 **Eligibility Criterion**

3.3.1.1 Inclusion Criteria

Women of reproductive age living in Odeda Local Government and attends the stated Health facilities and were willing to participate in the study.

3.3.1.2 Exclusion Criteria

Women of reproductive age that were not living in Odeda Local Government, did not give consent, that were sick.

3.4 Data Collection Tool

Data was collected using questionnaire this is well structured with only closed questions. The questionnaires were both self-administered and interviewer-administered.

The plan of study and methods for maintaining privacy was explained to each probable client. The interviewer read an overview including the risks and benefit to all participants and in which the participant gave consent for go ahead or decline.

3.4.1 Procedures/Processes for Data Collection

It acted as a means of meeting ethical criteria in social research, and each respondent filled out a questionnaire that offered the data. Respondents gave their consent before participating in the study.

The questionnaire was constructed based on key issues related to contraceptive use in the study area and also making reference to existing questionnaires. The questionnaire was organized to include:

1. Socio-demographic characteristics of respondents,
2. knowledge of contraception among the respondents,
3. attitude towards contraceptive methods by the respondents,
4. use of contraception methods, and
5. factors influencing contraceptive use among respondents.

The questionnaire contained closed questions with spaces for explanation where required. The questions and structuring of the questionnaire was informed by findings from reviewed literature. An introduction letter and ethical approval were given to the Ward Focal Persons of each health facility before proceeding to collect data. Data collection took place between July to August 2022. After the approval, the study plan and methods for maintaining privacy were explained to each client. This was done to increase efficiency and privacy during data collection. The selected participants were those who voluntarily consented to participate. The Research Assistants translated the questionnaires into the language participants understood, Yoruba for ease of communication

3.5 Validity of the Study and Instrument

To ensure the validity and reliability of the instrument for this study, a questionnaire was adopted.

3.6 Method of Data Analysis

The information obtained from the questionnaire was processed in an objective manner with the help of SPSS 20. (Statistical Package for Social Sciences, Version 20). The completed copies of questionnaires were collated, coded and analyzed using descriptive statistics of frequency counts, percentage, bar charts and pie-charts to describe the demographic data

Both univariate and bivariate approaches was utilized in the analysis of the data that was acquired. In univariate analysis, the mean and mode were utilized to characterize and explain variance in a single variable. On the other hand, in bivariate analysis, the Chi-square was utilized to test the for the associated factors.

The questionnaire on knowledge, attitude, and use was scored and graded. There were 10 questions on knowledge, 13 questions on attitude, and 1 question on the use of contraceptives among women of reproductive age.

Good Knowledge: According to this study participant who responds correctly for at least six or more contraceptive method question is considered having good Knowledge.

Poor knowledge: According to this study the participants who responds correctly for five or less contraceptive method question is considered having poor knowledge.

Positive attitude: Those who are able to answer ≥ 70% of the attitude questions correctly will be regarded as having positive attitude.

Negative attitude: Those who are able to answer < 70% of attitude questions will be regarded as having negative attitude.

3.7 **Ethical Approval**

Lead City University Ibadan, Oyo State's University Research Ethics Committee (LUC-REC/22/146) and the Ogun State Ministry of Health's Department of Planning, Research, and Statistics Division (HPRS/381/498) both granted their permission for this study's ethical conduct. Hospitals included in this study provided official consent. Prior to getting verbal consent, an information statement was given to each participant. The information statement was delivered out in Yoruba to participants in order to guarantee their verbal assent after being fully informed. Informed verbal permission was deemed more suitable and was authorized by both ethical committees because the study included both women with formal education and women without formal education. Additionally, the research only included low risk and was conducted as a

survey. Prior to the interview, participants had a chance to offer questions. After the women had finished their regularly scheduled clinical care appointment, a trained data collector conducted the consent procedure in a separate private room. Participants were made aware that taking part was completely up to them and that they could opt out or withdraw their consent at any time. It was made clear that their receiving of clinical care was unaffected by their participation in this trial. The survey's questions might be humiliating or overly intimate for some respondents, and some may make them worry about their reproductive health difficulties, it was also made clear to the participants. Participants were also told they could withdraw at any time or simply decide not to answer any questions they did not feel comfortable answering. Participants were not required to answer any questions they did not feel comfortable answering. If necessary, female nurses were ready to offer psychological support. During data collecting, anonymized data were stored on laptops with password protection. Data were kept on safe computers with password protection.

Endnotes

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Chapter Four

Results and Discussion of Findings

A total of 391 women accessing the health facilities consented to be interviewed and the information gotten through the questionnaire was entered into the analysis.

4.1 Demographic Data Analysis

Table 4.1 shows the socio demographic characteristics of the participants and this finding shows the mean age of the respondent was 28 (S.D ± 8.05) in which 54.2% of them are married and 35.5 are single. 36.1% are students, the others occupation which consist of 41.4% of the respondents are the petty traders, artisans. 62.4% of the respondents are Christians, 43.7% of the respondents have tertiary level of education,41.2% earn about 10,000 to 20,000 naira monthly. 79.5% are sexually active and 60.4 % of the respondents have given birth.

Table 4.1: Socio-demographic Characteristics of Respondents

Variable	Frequency	Percent (%)
Age (n = 391)		
Mean ± SD	28.14 ± 8.05	
Marital Status		
Married	212	54.2
Previously Married	24	6.5
Single	139	35.5
Cohabiting	15	3.8
Occupation		
Student	141	36.1
Professional	61	15.6
Unemployed	16	4.1
Farmer	11	2.8
Others	162	41.4
Religion		
Christianity	244	62.4
Islam	147	37.6
Educational Level		
Primary level	39	10.0
Secondary level	169	43.2
Tertiary level	171	43.7
None	12	3.1
What Is Your Monthly Income		
>30,000	275	70.3
<30,000	116	29.7

Source: Field Survey 2022

4.2 **Presentation of Data**

4.2.1 **Research Question One:**

The level of awareness of contraceptive use intention among female of reproductive age in Odeda LGA, Ogun State, Nigeria

Table 4.3 shows the level of knowledge of participants on contraceptive and it shows that 74.9% of the respondents have good knowledge about contraceptive and 25.1% have poor knowledge.

Table 4.2: Awareness of Contraceptive Use

Variable	Frequency	Percent (%)
Do you ever receive any formal reproductive health education?		
Yes	269	68.6
No	122	31.2
Are you aware of any contraceptive methods?		
Yes	295	75.4
No	96	24.6
Have you ever been advised about contraceptives by Health Care provider?		
Yes	242	61.9
No	149	38.1
Do you have any awareness of sexually transmitted infections?		
Yes	330	84.4
No	61	15.6
Are you aware of any emergency contraceptive method		
Yes	277	70.8
No	114	29.2
Have you ever heard about Condom?		
Yes	359	91.8
No	32	8.2
Have you ever heard about male Sterilization?		
Yes	214	54.7
No	177	45.3

Have you ever heard about female Sterilization?		
Yes	225	57.5
No	166	42.5
Are you aware of Implant as a means of contraceptive methods?		
Yes	243	62.1
No	148	37.9
Are you aware of cycle beads as a means of contraceptive method		
Yes	163	41.7
No	228	58.3
Are you aware of intra uterine methods		
Yes	195	49.9
No	196	50.1
Should men be involved in taking decision on the usage of contraceptive methods		
Yes	309	79
No	82	21
Do you think unmarried person should know about contraceptive methods		
Yes	284	72.6
No	107	27.4

Source: Field Survey 2022

Table 4.3 Grading of Respondents Knowledge

Variable	Frequency	Percent (%)
Good	293	74.9
Poor	98	25.1

Source: Field Survey 2022

4.2.2 **Research Question Two:**

The attitude of females of reproductive age in Odeda LGA, Ogun State, Nigeria

Table 4.5 shows the attitude of participants towards contraceptive. 61.6% have positive attitude towards contraceptive and 38.4% have negative attitude.

Table 4.4: Attitude towards Contraceptive Methods

Variable	**SA & A Frequency (%)**	**SD &D Frequency (%)**
I feel safe when am having sex with condom	303(77.5)	88(22.5)
I feel so bad that my spouse does not like use of contraceptives.	189(48.3)	202(51.7)
I prefer cohabitation relationship to hook up	229(58.6)	162(41.4)
I enjoy having sex without contraceptives	236(60.4)	155(39.6)
I feel great with contraceptives it enhances my sexual productivity	222(56.8)	169(43.2)
I feel delighted with contraceptive usage it makes me feel radiant.	229(58.5)	162(41.4)
I dislike contraceptive usage it makes me feel uncomfortable.	225(57.5)	166(42.5)
I dislike contraceptives usage; it reduces the level of mutual trust between couples	215(55)	176(45)
I am happy that my faith supports use of contraceptive.	292(74.7)	99(25.3)
I don't value contraceptives usage it enhances sexual promiscuity.	227(58.1)	164(41.9)
My spouse supports contraceptives usage, it enhances mutual understanding and family support	268(68.5)	123(31.5)

I dislike using contraceptives because it reduces my urge for sex	235(60.1)	156(39.9)
I feel good with contraceptive usage it gives me sense of control.	271(69.3)	120(30.7)

Source: Field Survey 2022

Table 4.5 Grading of Respondents Attitude

Variable	Frequency	Percent (%)
Positive	241	61.6
Negative	150	38.4

Source: Field Survey 2022

4.2.3 **Research Question Three:**

The level of utilization of contraceptive among females of reproductive age in Odeda LGA, Ogun State, Nigeria

Table 4.7 shows the level of contraceptive use among participants. 36.3% of the participants use contraceptive and 63.7% do not make use of contraceptive.

Table 4.6: Use of Contraceptive Method

Variable	Frequency	Percent (%)
Are you using contraceptive now?		
Yes	142	36.3
No	249	63.7
If yes to the above variable, which method of Contraceptive (n= 142)		
Male Condom		
Yes	80	56.3
No	62	43.7
Female Condom		
Yes	46	32.4
No	96	67.6
Pills		
Yes	57	40.1
No	85	59.9
Injectable		
Yes	39	27.5
No	103	72.5
IUCD		
Yes	28	19.7
No	114	80.3
Implants		
Yes	47	33.1
No	95	66.7
Female Sterilization		
Yes	3	2.1
No	139	97.9
Male Sterilization		
No	142	100
Emergency Contraceptives		
Yes	7	4.9
No	135	95.1

Periodic Abstinence		
Yes	14	9.9
No	128	90.1
Withdrawal		
Yes	23	16.2
No	119	83.8
Drink Herbal Concoction		
Yes	3	2.1
No	139	97.9
Others		
Yes	2	1.4
No	140	98.6
Time on Contraception		
12 months or less	57	40.1
>12 to 36 months	51	35.9
> 36 months	34	24
Have you ever experienced any problem after using contraceptive		
Yes	14	9.9
No	128	90.1

Source: Field Survey 2022

Table 4.7 **Level of Contraceptive Usage**

Variable	Frequency(n=391)	Percent(%)
Usage Level		
No Usage	249	63.7
Usage	142	36.3

Source: Field Survey 2022

Research Question Four: The various contraceptive methods being use among females of reproductive age accessing care in Odeda LGA, Ogun State, Nigeria

Figure 4.1 below shows the various Contraceptive Methods being Use among females of reproductive age accessing care in Odeda LGA. 26.3 % are making use of male condoms, 13.1% are making use of implants, 17.4% are making use of pills, 11.8% are making use of injectables, 11.3 % are making use of female condoms, 6.7 % do withdrawal method, 5.8% make use of IUCD, 2.0% makes use of emergency contraceptives and 0.7%,0.5% and 0.4% makes sue of female sterilization, drink herbal concoctions and male sterilization respectively.

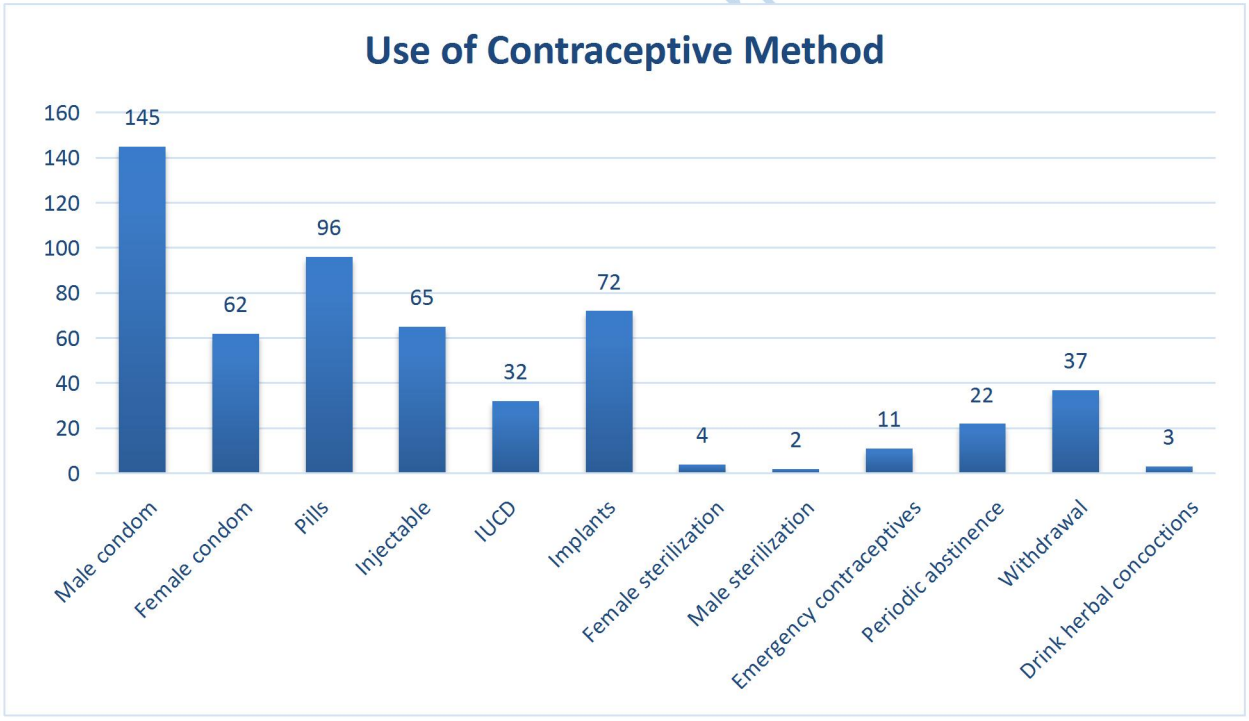

Fig 4.1: Contraceptive Methods Use

Source: Field Survey 2022

4.2.4 Research Question Five

The factors that influences contraceptive use among females of reproductive age accessing care in Odeda LGA, Ogun State, Nigeria

Table 4.8 shows the factors that are associated with contraceptive use. Hearing about family planning {p=0.000, 95% CI= 5.719(2.210,14.693)}, Previous problem after using contraceptive {p=0.000,95% CI=24.112(10.234,56.8080} and knowledge about contraceptive use {p=0.000,95%CI=0.122(0.59,0.251)} show significant association with contraceptive use.

Table 4.8 **Factors Associated to Contraceptive Use**

Variable	Odd Ratio (CI)	P-Value
Religion		
Christianity	0.644(0.330,1.259)	0.198
Islam		
Educational level		
Primary	1.347(0.180,10.101)	0.772
Secondary	0.780(0.122,4.974)	0.792
Tertiary	1.435(0.238,8.638)	0.693
None		
Marital status		
Married	0.224(0.035,1.421)	0.112
Ever Married	3.183(0.219,46.319)	0.397
Never Married		
Occupation		
Working	0.517(0.174,1.534)	0.234
Students	1.218(0.421,3.523)	0.716
Not working		
Average monthly income		
<33,000	1.40(0.294,6.673)	0.673
>33,000		
Have you ever heard about family planning		
No	Ref	
Yes	5.719(2.210,14.693)	0.000*
Previous problem after using contraceptive		
No		
Yes	24.112(10.234,56.808)	0.000*

How far is the health facility from, your home		
< 1 minute	0.000(0.00)	1.00
1 to 5 minutes	7.616(0.761,76.205)	0.84
6 to 10 minutes	0.605(0.220,1.667)	0.331
11 minutes and above		
Do you pay for services at the health facility		
Yes	0.110(0.54,0.222)	0.047*
No		
Satisfaction of services rendered		
Yes	0.000(0.000)	0.089
No		
Does religion or faith contradict the use of contraceptive		
Yes	1.240(0.783,1.964)	0.226
No		
Knowledge about Contraceptive		
Good	0.122(0.59,0.251)	0.000*
Poor		

Source: Field Survey 2022

Source of Information about Family Planning

Figure 4.2 shows the sources of information about contraceptive among respondents and it shows 63.6% heard about contraceptive from the hospital (health facility),59.2% heard from internet search, about 68% heard from radio, television and 67.6% heard from friends.

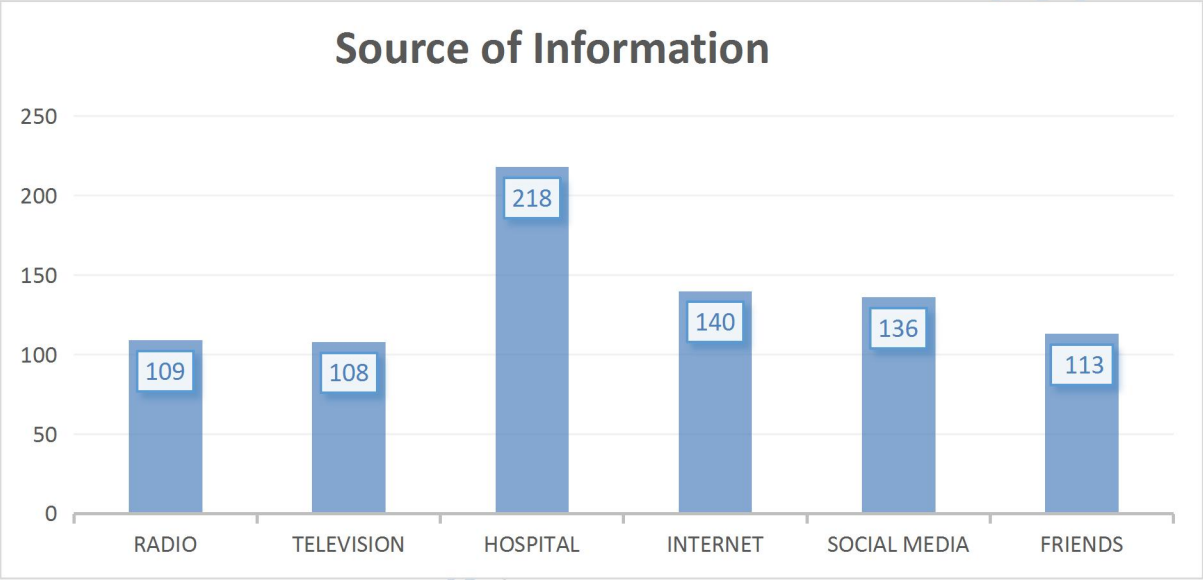

Fig 4.2: Sources of Information about Contraceptive

Source: Field Survey 2022

Recommended Contraceptive Methods by Respondents

Figure 4.3 shows the various contraceptive methods recommended by the participants and it showed that 25.4% of the participants recommended male condom, 12.1% recommended female condom, 15.8% recommended pills, 10.5% recommended injectables, 6.4% recommended IUCD, 12.7% recommended Implants, 1.3% recommended female sterilization, 0.8% recommended male sterilization, 2.0% recommended emergency contraceptive, 6.6% recommended periodic abstinence and 6.6% recommended withdrawal.

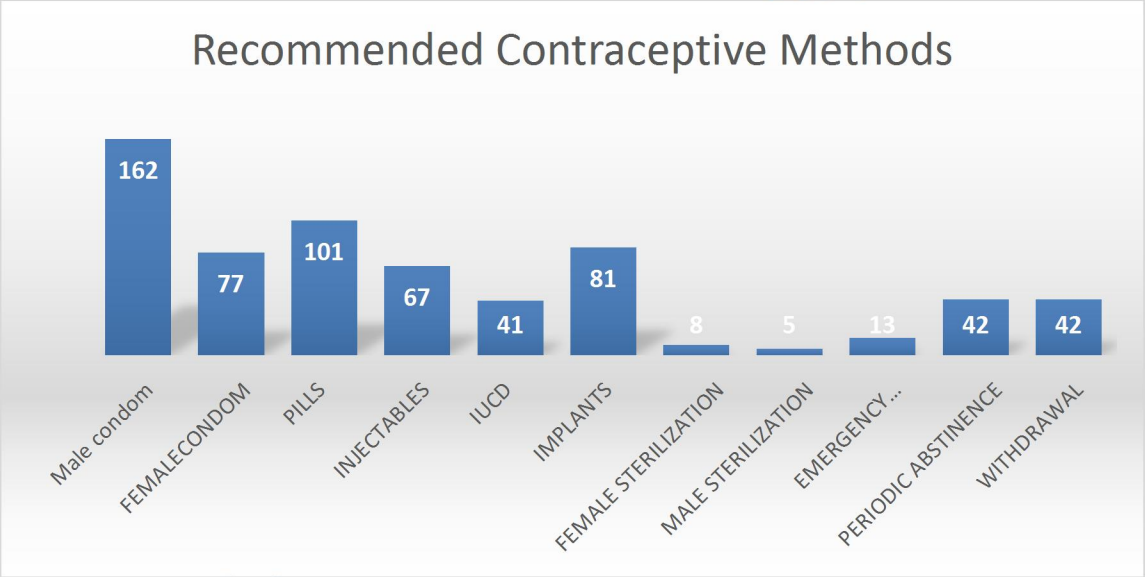

Fig 4.3: Recommended Contraceptive Methods

Source: Field Survey 2022

4.3 Discussion of Findings

On the level of knowledge of contraceptives among the participants. It was observed that the participants level of knowledge of contraceptive methods among female of reproductive age in Odeda LGA, Ogun State was high. This finding is in agreement with a cross-sectional observational study in Nigeria, knowledge on contraceptives was high among the respondents with 428 (85.6%) having good knowledge on contraceptives [1].This findings is also in agreement with a study done in Lagos where knowledge of family planning methods in the study was equally high (86.8%), with more than three quarters of the respondents having good knowledge of modern contraceptive methods.

On the level of the attitude towards contraceptive methods among females of reproductive age in Odeda LGA, Ogun State, the finding revealed that there was positive attitude towards contraceptive methods among the participants. This finding agrees with the submission of a study carried out in Pakistan which shows a positive attitude 76%[3]. In line with the findings, positive attitude towards the use of contraceptives with a good fraction of people explaining either that it interferes with pleasure during sex or they just would not use contraceptive in sexual relationships with their trusted partners from a study conducted in Delta State, Nigeria[4]. However, a study agrees the finding, who affirmed that there was a positive attitude towards modern family planning methods and it use. The reason for the positive attitude towards contraceptive methods is because of easy accessibility to contraceptive and it removes the obstacles such as 'doctor's prescription' [3].

On the level of contraceptive use among females of reproductive age in Odeda LGA, Ogun State , the finding revealed that there is low use of contraceptive among the participants. The findings

reveal that the majority knew about some modern contraceptive methods, but the overall contraceptive use was very low and this is in agreement with a study in Ethiopia, there is a low contraceptive usage among women of reproductive age. The current study found that only 14.2% of the participants reported the current utilization of contraceptive methods[5].

On the factors affecting contraceptives use among female of reproductive in Odeda LGA, Ogun State, the study shows statistical significance with Hearing about family planning , Previous problem after using contraceptive and knowledge about contraceptive use and this is in agreement with a study in Sub Saharan Africa, factors associated with modern contraceptive use include educational level of husband/partner, age, women's educational level, , place of residence, employment, marital status, wealth index, number of living children, been told of family planning at a health facility, heard family planning on the media, knowledge of modern method, a visit by a health worker to discuss family planning and number of sex partners excluding the spouse[6].

On the various methods being used this findings shows 26.3 % are making use of male condoms, 13.1% are making use of implants, 17.4% are making use of pills, 11.8% are making use of injectables, 11.3 % are making use of female condoms, 6.7 % do withdrawal method, 5.8% make use of IUCD, 2.0% makes use of emergency contraceptives and 0.7%,0.5% and 0.4% makes sue of female sterilization, drink herbal concoctions and male sterilization respectively,this is in agreement with a study done in Oyo State, Nigeria, the methods being used were the traditional type, natural type and modern type. Male condom (74.8%), female condom (43.3%), diaphragm (18.4%), injectables (45.5%), Intrauterine Contraceptive Device (IUCD, 42.1%), oral pills (57.7%), implants (19.1%), vasectomy (19.5%), and Bilateral tubal ligation (23.2%)[7].

On sources of information about contraceptive, 63.6% heard about contraceptive from the hospital (health facility),59.2% heard from internet search, about 68% heard from radio, television and 67.6% heard from friends. This is in agreements with a study done in Nigeria, the results showed that 28.5% read about family planning in newspaper/magazine, 49.7% heard about it on television, and 67.2% heard on the radio. Concerning awareness at a health facility and from a health worker, 53.6% of the respondents reported that they were talked to about family planning at the health facility, and only 18.5% heard about family planning when visited by a health worker in the last 12 months[8].

Endnotes

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Chapter Five

Conclusion

5.1. Summary of Findings

This study examined the knowledge and attitude towards contraceptive use among women of reproductive age. The study adopted a cross-sectional survey design which recruited 391 women in the selected Health facilities of Odeda Local Government. For data collection, a quantitative method was adopted, which included the Socio-Demography Data Questionnaire, Knowledge of Family Planning Methods Questionnaire, Attitude towards Contraceptive Methods Questionnaire, Use of Contraceptive Method Questionnaire and Factors Influencing the Use of Contraceptive Questionnaire.

The result of the analysis showed that74.9% of the participants have good knowledge about contraceptives,61.6% of the participants have positive attitude towards contraceptive use,36.3% of the participants use contraceptive and 63.7% do not make use of contraceptive.63.6% of the participants heard about contraceptive from hospital (health facility), 59.2% heard from internet search, about 68% heard from radio and television and 67.6% from friends.25.4% of the participants recommended male condom, 12.1% recommended female condom, 15.8% recommended pills, 10.5% recommended injectables, 6.4% recommended IUCD, 12.7% recommended Implants, 1.3% recommended female sterilization, 0.8% recommended male sterilization, 2.0% recommended emergency contraceptive, 6.6% recommended periodic abstinence and 6.6% recommended withdrawal. The factors that are associated with contraceptive usage include hearing about family planning, previous problem after using contraceptive and knowledge about contraceptive use.

5.2 **Conclusion**

In conclusion, the level of knowledge of contraceptive methods among female of reproductive age in Odeda LGA, Ogun State is high and it does not correspond with the use which is low. To improve the usage of contraceptives, more sensitization is necessary. The study underscores the importance of not only disseminating information about contraceptive methods but also addressing the barriers that deter individuals from using them. These barriers include previous negative experiences with contraceptives and factors like accessibility and availability.

Efforts to improve contraceptive use in Odeda LGA should focus on tailored educational programs, involving both women and their partners in family planning discussions, and addressing specific concerns and misconceptions. The accessibility of contraceptive methods should be enhanced, and a diverse range of options should be made available to cater to individual preferences.

Furthermore, healthcare facilities, the internet, and peer networks appear to be effective sources of information, highlighting the need to continue using these channels for education and awareness campaigns. Additionally, local healthcare workers should be actively engaged in promoting family planning services and providing accurate information.

5.3 **Recommendations**

Recommendations from this study are based on findings that emerged during the research

1. Healthcare givers at the facilities should put more work into educating female of reproductive age on the knowledge and attitude towards contraceptive use.

2. More information about contraceptive use should be done so as to increase its use. Use of social media and educating women whenever they come to the health facility.
3. Targeted Information Sources: Since a significant number of participants heard about contraceptives from healthcare facilities and the internet, it's crucial to continue providing accurate information through these channels. Additionally, peer education and awareness programs through friends and community leaders can also be effective in disseminating information.
4. Improve Accessibility: The positive attitude towards contraception may be attributed to easy accessibility. Continue to ensure that contraceptives are readily available in healthcare facilities and remove any obstacles, such as the need for a doctor's prescription, that might deter individuals from accessing them.

5.4 **Contribution to Knowledge**

This study has provided answers to the specific objectives and it was discovered that there is high information level on contraceptive use among female of reproductive age in selected facilities of Odeda LGA, Ogun State.

5.5 **Suggested Areas for Future Research**

This study focused on knowledge and attitude towards contraceptive use among female of reproductive age in selected facilities of Odeda LGA, Ogun State; it is suggested that further studies in the field can be done:

i. Using other study areas.
ii. Using knowledge and attitude of men towards contraceptive use.
iii. Using impact of relatives towards contraceptive use.

iv. Using involvement and support of men in increasing utilization of contraception.

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Appendix I

Informed Consent

Knowledge and Attitude Towards Contraceptive Use among Women of Reproductive Age in Odeda LGA of Ogun, Nigeria

Principal Investigator
Bankole Esther Olufunke

Public Health Department, LeadCity University

LeadCity University, Toll Gate, Ibadan.

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Purpose of Study

My name is Esther Olufunke,BANKOLE, a master of public health student at the Faculty of public health, Lead City University, Ibadan. I am conducting a study on the Knowledge, Attitude and Practice of Contraceptive Use among Women of Reproductive Age in Ogun.

I am interested in understanding the level of knowledge, of contraceptive among women of reproductive age in Odeda, the attitude of women of reproductive age in Odeda towards contraceptive and also various methods of contraceptive used by women in Odeda, whether women in the Odeda use contraceptives. I equally want to know the factors that influence the use of contraceptives among women of reproductive age in Odeda. I will greatly appreciate your participation in my study. Your insight will assist me understand the reasons behind use of contraceptive.

Research Procedure

If you agree to be in this study, you will be asked to answer questions about yourself, your knowledge of contraceptive, your attitude towards contraceptive use and various methods you are using as well as questions about the factors that influence use of contraceptive. These questions will be asked using a structured questionnaire. To fill the questionnaire will take about 5 to 10 minutes of your time.

Risks and Benefits

There are minimum or no risks if you take part in this study. There are also no incentives but the information you provide will help you improve on your health and that of your loved ones.

Compensation

There is no monetary compensation or incentive for this study. Participation is voluntary.

Confidentiality

Like it is stated above, your comments will not be anonymous. Every effort will be made by the researcher to preserve your confidentiality. Only the research team will have access to the answered questionnaires. Confidentiality and privacy will be maintained by keeping all materials under lock and key. Your name will not be recorded.

Contact Information

If you have questions at any time about this study as the result of participating in this study, you may contact

Bankole Esther Olufunke

Public Health Department,

Leadcity University, Toll Gate, Ibadan.

+2348033859925

bankoleesther370@gmail.com

VoluntaryParticipation

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing from this study will not affect the relationship you have, if any, with the researcher. If you withdraw from the study before data collection is completed, your data will be returned to you or destroyed.

Consent

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature _____ Date _____

Investigator's signature _____ Date _____

Questionnaire

Knowledge, Attitude and Practice of Contraceptive Use among Women of Reproductive Age in Selected Health Facilities in Odeda LGA, Ogun State.

Section A: Socio – Demographic Characteristics.

Kindly tick (√) or fill in the space provided in the statements below;

1. Age as at last birthday: _____
2. Religion: Christianity ( ) Islam ( ) Others (Specify)_____
3. Educational level: Primary level ( ) Secondary level ( ) Tertiary level ( ) None ( )
4. Marital status: Married ( ) Divorce ( ) Widowed ( ) Separated ( ) Single ( )
5. Occupation:
   a) Student ( )
   b) Petty Trader ( )
   c) Artisan ( )
   d) Professional ( )
   e) Unemployed ( )
   f) Farmer ( )
   g) Others (Specify)
6. Average Monthly Income:
   a) < 10,000 ( )
   b) 10,000 to 20,000 ( )
   c) 21,000 to 50,000 ( )
   d) 50,000 to 75,000 ( )

e) 75,000 and above ( )

Section B: Knowledge of Family Planning Methods

Tick (√) or mark the option that best represents your opinion in the statements provided;

	Statement	**Yes**	**No**
7.	Have you ever heard about family planning?		
8.	If Yes to Q.7 What was your source of Information? Radio Television Hospital Internet Social Media Friends		
9.	Do you ever receive any formal reproductive health education?		
10.	Are you aware of any contraceptive methods?		
11.	Have you ever been advised about contraceptives by Health care provider?		

12.	Do you have any awareness of sexually transmitted infections?		
13.	Are you aware of any emergency contraceptive methods?		
14.	Have you ever heard about Condom?		
15.	Have you ever heard about male Sterilization?		
16.	Have you ever heard about female Sterilization?		
17.	Are you aware of Implant as a means of contraceptive methods?		
18	Are you aware of cycle beads as a means contraceptive method?		
19	Are you aware of Intra uterine methods?		
20	Should men be involved in taking decision on the usage of contraceptive methods?		
21	Do you think unmarried person should know about contraceptive methods?		

Section C: Attitude towards Contraceptive Methods

Kindly indicate your level of response

Key: SA- Strongly Agree, A- Agree, D- Disagree SD- Strongly Disagree

SN	Statement	SA	A	D	SD
22.	I feel safe when am having sex with condom				
23.	I feel so bad that my spouse does not like use of contraceptives.				
24	I prefer cohabitation relationship to hook up				
25.	I enjoy having sex without contraceptives				
26.	I feel great with contraceptives it enhances my sexual productivity.				
27.	I feel delighted with contraceptive usage it makes me feel radiant.				
28.	I dislike contraceptive usage it makes me feel uncomfortable.				
29.	I dislike contraceptives usage; it reduces the level of mutual trust between couples				
30.	I am happy that my faith supports use of contraceptive.				
31.	I don't value contraceptives usage it enhances sexual promiscuity.				
32.	My spouse supports contraceptives usage, it enhances mutual understanding and family support				

33.	I dislike using contraceptives because it reduces my urge for sex				
34.	I feel good with contraceptive usage it gives me sense of control.				

Section D: Use of Contraceptive Method

Tick appropriate choice of your contraceptive method

35. Have you ever given birth before?

a) Yes

b) No

36. Are you sexually active

a) Yes

b) No

37. Are you using contraceptive now? (A) Yes ( ) (B) No ().

38. Do you desire to have a child or more children? (A) Yes ( ) (B) No ( )

39. If yes to question (38), which of the following contraceptive method do you use? (You can tick more than one

(A) Male condom ( )

(B) Female condom ( )

(C) Pills ( )

(D) Injectable ( )

(E) IUCD ( )

(F) Implants ( )

(G) Female sterilization ( )

(H) Male sterilization ( )

(I) Emergency contraceptives ( )

(J) Periodic abstinence ( )

(L) Withdrawal ( )

(N) Drink herbal concoctions ( )

(P) Others (specify) _____

40. For how long have you been on contraception?

a) 12 months or less

b) >12 to 36 months

c). >36 months

41. Have you ever experienced any problem after using contraceptive?

a) Yes

b) No

42. If yes to question 41, what is the problem?

43. If yes to question 39, which method will you recommend?

(A) Male condom ( )

(B) Female condom ( )

(C) Pills ( )

(D) Injectable ( )

(E) IUCD ( )

(F) Implants ( )

(G) Female sterilization ( )

(H) Male sterilization ( )

(I) Emergency contraceptives ( )

(J) Periodic abstinence ( )

(L) Withdrawal

Section E: The Factors Influencing the Use Of Contraceptive

44. Have you ever visited a health facility to assess contraceptive use? Yes ( ) No ( )

If yes continue

If No Skip to Question 49

45. How far is the health facility from you home?

a) < 1 minute

b) 1 to 5 minutes

c) 6 to 10 minutes

d) 11 minutes and above

46. Do you pay for the services at the health facility

a) Yes

b) No

47. Were you satisfied with the service rendered at the health facility?

a) Yes

b) No

48. How long ago did your visit the health facility for contraceptive access:

a) within 6months ( )

b) 12months ( )

c) More than 12months ago ( )

49. Does your religion or faith contradict the use of contraceptive?

a) Yes

b) No

Bio-data

A. Personal Data

Name:	Bankole Esther Olufunke
Sex:	Female
Date of Birth:	3rd March, 1970
Marital Status:	Married
State of Origin:	Ogun
Local Government:	Odogbolu
Nationality:	Nigerian
Religion:	Christianity
Discipline:	Health Education
Number of Children:	Four
Address:	14,Ore Ofe estate, Gbonogun, Obantoko, Abeokuta Ogun state
Telephone:	+2348033859925
Email:	bankoleesther370@gmail.com

B. Educational Institutions Attended with Dates

Master's in Public Health	in view
Post graduate Diploma in Health Education	2002
Bachelor Degree in Science, Health Education	1999
Higher Diploma in Public Health(Environmental Health)	1992
West Africa School Certificate	1988
West Africa School Certificate	1987
Primary School Leaving Certificate	1982

C. Working Experience

Ogun State Local Government Service Commission, OkeMosan,

Abeokuta(Environmental Health Officer) 1992 to 2000

Ogun State Local Government Service Commission, OkeMosan,

Abeokuta(Health Promotion and Education Officer) 2001 to date

D. Awards and Fellowships: NIL

E. Professional Membership: Health Education Practitioners of Nigeria

F. F. Publications: NIL

G. Major Conferences Attended: NIL

H. Referees

Dr Francis Balogun

Dept. Community Health

Lead City University

Ibadan

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Signature **Date**

The University Compliance Certification

This is to certify that this thesis by Esther Olufunke, BANKOLE, with Matric No. LCU/PG/002329 in the Department of Public Health, Faculty of Allied and Health Sciences, Lead City University, Ibadan is in full compliance with the approved University format.

_____ _____

Signature Date

Ogun State Primary Health Care Development Board

(OGPHECADEB)

Block D, Second Floor, Wing A, New Secretariat Complex,
Oke - Mosan, Abeokuta, Ogun State Nigeria.

Ref. No: [illegible] [illegible] Date:

OGPHECADEB EC Registration Number: [illegible]

NOTICE OF INTERIM APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Knowledge and Attitude towards Contraceptive use among Women of Reproductive Age in Selected Health Facilities of Odeda L.G.A. Ogun State.

OGPHECADEB Ethics Committee assigned number: [illegible]

Name of Principal Investigator: **Bankole Esther Olufunke**
Department of Public Health,
Lead City University, Toll Gate
Ibadan Oyo State, Nigeria.

Date on application: 7th July 2022.
Date of the meeting when the determination of interim ethical approval was made: **29th September 2022**

This is to inform you that the research described in the submitted protocol, the consent forms and other participant information materials have been reviewed and given interim approval by the OGPHECADEB ethics committee.

This interim approval dates from 29/09/2022 to 30/09/2023.

The committee strongly recommend that all corrections highlighted and comments in the feedbacks be duly effected without delays to expedite full ethical clearance.

Dr. K.B. Olajide
Director, Planning, Research and Statistics
for Chairman/Ethics Committee

"To develop a sustainable Primary Health Care system which is equitable, affordable and qualitative through the participation of Gateway State people in partnership"

Lead City University (LCU)

NHREC

Motto: Knowledge for Self-reliance

Lagos - Ibadan Expressway, Toll Gate Area, Ibadan, Oyo State, Nigeria

Email: [illegible]

University Research Ethics Committee

PROJECT TITTLE:	KNOWLEDGE AND ATTITUDE TOWARDS CONTRACEPTIVE USE AMONG WOMEN OF REPRODUCTIVE AGE IN ODEDA LGA OF OGUN STATE, NIGERIA.
PROJECT NUMBER	LCU-REC/22/146.

APPROVAL LETTER

The above named proposal has been adequately reviewed; the protocol and safety guidelines satisfy the conditions of *LCU-REC* policies regarding experiments that use human subjects.

Therefore, the study under its reviewed state is hereby approved by the LCU - Research Ethics Committee.

Prof. Olusola Ladokun	
Name of LCU-REC Chairman	*Signature of LCU-REC Chairman*
Dr. Folakemi Akinola	
Name of LCU-REC Secretary	*Signature of LCU-REC Secretary*

This approval is given with the investigator's **Declaration** as stated below ;

By signing below I agree/certify that:

1. I have reviewed this protocol submission in its entirety and that I am fully cognizant of, and in agreement with all submitted statements.
2. I will conduct this research study in strict accordance with all submitted statements except where a change may be necessary to eliminate apparent immediate hazard to a given research subject.
   - I will notify the REC promptly of any change in research procedures necessitated in the interest of the safety of a given research subject.
   - I will request and obtain REC approval of any proposed modification to the research protocol or informed consent document(s) prior to implementing such modifications.

MINISTRY OF HEALTH

DEPARTMENT OF HEALTH PLANNING, RESEARCH & STATISTICS
ABEOKUTA, OGUN STATE, NIGERIA

HRS/351/456 04/10/2022

RE: "KNOWLEDGE AND ATTITUDE TOWARDS CONTRACEPTIVE USE AMONG WOMEN OF REPRODUCTIVE AGE IN SELECTED HEALTH FACILITIES OF OBEDA LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA."

Notice of Research Exemption.

This is to inform you that the activities described in the submitted protocol/documents have been reviewed by the State Health Research Ethics Committee the activities described there in meet the criteria for exemption and is therefore approved as exempt from SHREC oversight.

The State code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code. The HREC reserves the right to conduct compliance visit to your research site without previous notification.

Please note that, you are expected to share with us the findings of your research work via ogunshprs2019@gmail.com and olukoyedekusimo@yahoo.com

Dr. Olukoyede James Kusimo
Director, Health Planning, Research and Statistics
Secretary, State Research Ethics Committee

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