

An Investigation Into The Use Of Contraceptive Devices On The Health Of Literate Mothers In Ekiti State

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Abstract

This study investigated the effect of contraceptive devices on the health of literate mothers in Ekiti State Local Government Area of Ekiti State. The study adopted descriptive survey method which consisted of literate mothers who are of reproduction age at the government owned health facilities in Ekiti state. The study selected the five (5) General hospitals, five (5) comprehensive health centers and ten (10) basic health centers, in Ekiti state through purposive samplings technique. Simple random sampling technique was used to select ten (10) literate mothers from each of these health centers making a total of 200 literate mothers. A self-developed questionnaire was used for data collection. The reliability coefficient of 0.93 were obtained through split half method. Data collected were analysed using descriptive statistics (Mean and Standard Deviation) and Analysis of Variance for test of hypotheses at 0.05 level significance. The result showed that there is significant effect of contraceptive devices such as the use of condom, combined pills, contraceptive implant and IUD on the health of literate mothers in Ekiti State. it was therefore recommended that couples should be guided on the proper use of both male and female condom as a contraceptive device. This will enable them avoid leakage and bust of condom during intercourse. Mothers should go for test before the use of combined pills to avoid any side effect. There is need for mothers to go for medical check before doing contraceptive implant. This method is very effective however, there is need for test before implantation to know the right method to apply. Intrauterine device (IUD) should be encouraged but carefully inserted to avoid pain and withdrawal during sexual intercourse.

Keywords: Contraceptive, Condom, Intrauterine Device, Pills, Implant

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I. Introduction

Birth control also known as contraception is the use of medicine, devices or surgery to prevent pregnancy. It is the use of artificial methods or other techniques to prevent pregnancy as a consequence of sexual intercourse. Contraception allows a woman to be in control of her reproductive health and affords the woman the ability to be an active participant in her family planning. It allows a physical relationship without fear of the unwanted and ensures freedom to have children when desired (Bansode, 2022).

Contraceptive devices are designed to prevent conception or interrupt implantation and growth. Conception can be prevented by hormonally disrupting the menstrual cycle (oral contraceptive OC pills) by physically blocking the passageway (barrier methods or sterilization) or less successfully, by abstinence during fertile period or withdrawal method. Implantation is impaired via the use of a foreign body (intrauterine device [IUD]) or surgical removal (Bansode, 2022).

There are different types of contraceptive devices Condom, combined pills, contraceptive implant, IUD, contraceptive patch, intrauterine system (IUS), Progestogen -only-pill, Diaphragm. This study will focus on Comdom, Combined pills, contraceptive implant and IUD.

There are two types of condom which are the female condom and the male condom. The male condom is a transparent rubber worn by male before sexual intercourse to prevent pregnancy and sexually transmitted infection. The male condom is a thin covering that fits over a hard penis.it decreases the risk of pregnancy and (STIs) by stopping sperm and body fluids from passing between partners (Sexual and reproductive health, 2020).

The female condom is a barrier method of contraception worn inside the vagina. They prevent pregnancy by stopping sperm meeting an egg. A female condom can be put into the vagina before sex but make sure the penis does not come into contact with the vagina before the condom has been put in.

The female condom is also called internal condoms. Internal condoms are larger and about the same length as regular condoms, they can be used in the vagina but can also be used in the anus to protect against STDs

when put in the vagina, internal condoms help protect you from pregnancy and STDs when used correctly, (Attia at planned Parenthood 2021). Condom work by keeping semen (the fluid that contains sperm) from entering the vagina.

The combined oral contraceptive pills (cocc) often referred to as the birth control pill or colloquially as the pill is a type of birth control that is designed to be taken orally by women. The pill contains two important hormones: a progestin (a synthetic form of the hormones progesterone/progesterone) and estrogen usually (ethinylestradiol or 17B estradiol). When taken correctly it alters the menstrual cycle to eliminate ovulation and prevent pregnancy. It was first used in the state in 1960. (Cocp) were first approved for contraceptive use in the United States in 1960 and remain a very popular form of birth control (Wikipedia 2023).

Contraceptive implants are a long term birth control method. They are also called long-acting reversible contraception or LARC. A contraceptive implant is a flexible plastic rod about the size of a matchstick that is placed under the skin of the upper arm. The implant releases a low, steady dose of the hormone progestin. Progestin prevents pregnancy by pausing ovulation and it thickens the mucus of the cervix. This makes it hard to sperm to reach an egg. Progestin also thins the lining of the uterus, if sperm do reach an egg, this makes it harder for the fertilized egg to attach to the uterus..

Intrauterine device (IUD) is a type of birth control a healthcare provider inserts into the uterus. IUD is the most commonly used type of long-acting reversible contraception LARC. Once an IUD is inserted you don't have to worry about birth control until it's time to replace it. LARCs which include IUDs and contraceptive implants are the most effective form of birth control that doesn't require surgery. If you do decide to become pregnant, your provider can remove your IUD. Unlike other forms of contraception, like condoms, IUDs do not prevent sexually transmitted infections (STIs). You can use an IUD with condoms to prevent pregnancy while also reducing your risk of contracting an STIs. There are two kinds of IUDs copper IUDs and hormonal (levonorgestrel IUD). They both have plastic frames that open into the shape of a T once inside your uterus. They have strings attached at the bottom that extend into your vaginal so that your provider can remove your IUD as needed, (Cleveland Clinic, 2023).

It was observed that the use of contraceptive devices by literate mothers without adequate knowledge of the exact contraceptive method for them and without knowing the effect of the contraceptive cannot be overemphasized. Mothers tend to use any type of contraceptive because of the fact that their friends are using it and it is effective for them. They decided to use the same contraceptive devices without going for counseling or meeting with health practitioner for proper check-up and test to know which of the contraceptive devices is good for them.

Literate mothers who supposed to have acquired knowledge of contraceptive devices seem not to identify the methods of contraceptive best for them. The ways they use contraceptive devices and side effect of wrong use is not clear to them. The study therefore investigate the effect of contraceptive devices on literate mothers with the view of identifying the effect of condom, combine pills, contraceptive implant and intrauterine device on the health of literate mothers. Hence, providing knowledge on the use of contraceptive devices for the safety of mothers in Ekiti state.

Objective of the study

The focus of this study is to investigate the effect of contraceptive devices on the health of literate mothers in Ekiti State. Specifically the study:

1. Investigated the effect of condom on health of literate mothers in Ekiti state;
2. Investigated the effect of combined pills on health of literate mothers in Ekiti state;
3. Investigated the effect of contraceptive implant on health of literate mothers in Ekiti State and
4. Investigated the side effect of intrauterine device (IUD) on health of literate mothers in Ekiti State.

Research Question

The following four research questions will be answered in the course of the study.

1. What is the effect of condom on health of literate mothers in Ekiti State?
2. Does combined pill have effect on health of literate mothers in Ekiti State?
3. What is the effect of contraceptive implant on health of literate mothers in Ekiti State?
4. Does IUD intrauterine device have effect on health of literate mothers in Ekiti State?

Research Hypothesis

The following hypothesis were raised.

1. There is no significant effect of condom on health of literate mothers in Ekiti State.
2. There is no significant effect of combined pills on health of literate mothers in Ekiti State.
3. There is no significant effect of contraceptive implant on health of literate mothers in Ekiti State.
4. There is no significant effect of intrauterine device (IUD) on health of literate mothers in Ekiti State

II. Literature Reviews

The use of contraceptive methods which is the major component of Family Planning (FP) is a key of health as it has been shown to reduce the need for abortion by preventing unwanted pregnancies, and the cases of maternal death worldwide. It also helps women to plan their pregnancies and contribute to population growth (WHO, 2018). Contraception is the use of various devices, drugs, agents, sexual practices or surgical procedures to prevent pregnancy (WHO, 2014). They are usually referred to as birth control methods. Methods of contraception practiced today include “modern” and “traditional” ones. The Ghana Demographic and Health Survey (GDHS) confirms the types of fertility control methods to be categorized into traditional methods and modern methods (GDHS, 2014).

Modern methods refer to clinic and supply methods such as voluntary surgical sterilization, IUD, pills, injectable, condoms, implants, lactation amenorrhea method (LAM) and vaginal barrier methods. The main traditional or non-supply methods are periodic abstinence and withdrawal as well as traditional folk methods with uncertain efficacy. A Global Handbook for Providers by World Health Organization and Johns Hopkins Bloomberg School of Public (2018) identifies methods of contraception to include oral contraceptive pills, implants, injectables, patches, vaginal rings, intra uterine devices, condoms, male and female sterilization, lactational amenorrhea methods, withdrawal and fertility awareness-based methods. These methods have different mechanisms of action and effectiveness in preventing unintended pregnancy. Effectiveness of methods is measured by the number of pregnancies per 100 women using the method per year. Methods are classified by their effectiveness as commonly used into: Very effective (0–0.9 pregnancies per 100 women); Effective (1–9 pregnancies per 100 women); Moderately effective (10–19 pregnancies per 100 women); Less effective (20 or more pregnancies per 100 women) (Colquitt & Martin, 2023).

Effect of condom on health of literate mothers

Condoms are barrier methods of contraception, and they work by preventing spermatozoa from coming into contact with the ovum; they also protect against sexually transmissible infections (STIs). Condoms come in male and female varieties, and they are hormone free. Most of them are made of thin latex rubber, and other materials like polyurethane, polyisoprene, lambskin, and nitrile. Condoms are the most widely known and used barrier device by male partners around the world. Male condoms are rolled onto the penis, and act as a physical barrier; the female condom is placed into the vagina right before sex. Advantages are: easy availability, protection against sexually transmitted diseases, cheap, and safe (Aliyu, 2021; Clotey, 2022).

Condom is an important method of family planning and prevention of sexually transmitted infections (STIs). Using condom is the only contraceptive method that can protect against both pregnancy and sexually transmitted infections (STIs). Family planning saves lives of women and children and it also improves the quality of life (Ajong (2023). The use of the condoms was traced back to several thousand years ago. Unprotected sex causes many unintended pregnancies and sexually transmitted infections (STIs). Nevertheless, the condom use for dual protection is important and women need counseling on the correct and consistent use of condom. Condom is among the most popular forms of mechanical barriers as it gives protection for the genital tract from sexually transmitted infections (STIs). It also prevents pregnancy by acting as a barrier stopping semen from passing into the vagina (Afriyie & Tarkang, 2022).

Effect of combined pills on health of literate mothers

Contraceptive pills or combined contraceptives pills are available in both the public and private sector. In the public sector, Microgynon (the combination pill of ethinylestradiol and levonorgestrel) and Microlut (levonorgestrel only) are available, whereas in the private sector, other branded combined oral contraceptives such as Secure and Lydia Oral Contraceptive Pills and Lydia Daphne Pill which is progestin only are available. Due to their high efficacy, there is an opinion by some women that the use of oral contraceptives may be associated with impairment in fertility after their discontinuation.

Effect of contraceptive implant on health of literate mothers

Implants are small plastic rods, each about the size of a matchstick. These rods are placed just under the skin on the inside of a woman’s upper arm. Implants are almost 100% effective and can provide 3 to 5 years of protection from pregnancy, depending on the type of implant. Women have found implants to be among the easiest family planning methods to use. After implants are inserted, there are no further actions to take or additional costs until they are removed. Implants work primarily by preventing the release of eggs from the ovaries (ovulation), and thickening cervical mucus (this blocks the sperm from meeting an egg). Implants are immediately reversible, and they require specifically trained provider to insert and remove. Bleeding changes are common but not harmful; most women experience prolonged irregular bleeding over the first year, then lighter bleeding, followed by regular bleeding, and subsequently infrequent bleeding or no bleeding (Ajong, 2023).

The hormones prevent the ovaries from releasing an egg and it also prevents fertilization by affecting the lining of uterus and thickening the cervical mucus. The effectiveness of the implant to prevent pregnancy is greater than 99% (Apanga & Adam, 2021). Most women agree that subdermal implants seem to be one of the most affordable, efficient, effective, and convenient contraceptive options for contraception in the 21st century (Fraser & Weisberg, 2020).

Effect of intrauterine device (IUD) on health of literate mothers

The intrauterine contraceptive device (IUD) is one of the most frequently used methods for birth control around the world. Globally, IUD has been recognized as a modern long- acting reversible contraceptive method suitable for all reproductive aged women. The IUD is one of the most effective reversible contraceptive methods with an average pregnancy rate after 1 year of use 3-5 per 100 typical users. IUD represents the most cost-effective reversible method for preventing unwanted pregnancy, and it has been scientifically proven to be safe, and efficient (WHO, 2022).

IUDs are inserted into the uterus at any point of the menstrual cycle as long as pregnancy has been excluded. Some health practitioners prefer to insert it towards the end of menstruation or just after. However, it is used far less often than experts believe it should be. Basically, this is believed to be the result of the concerns of clinicians for the risk of complications linked to its use, particularly pelvic inflammatory disease (PID) and subsequent sequels. The most common medical reasons for early discontinuation of IUD are bleeding and/or pain along with genital infection (Gbagbo & Kayi, 2018). Failure rates are very low as there is no daily, weekly, or monthly maintenance by the user

III. Methodology

This study adopted survey design of the descriptive type. Survey design allows a wide coverage within a short time, using questionnaire to elicit information to generate data upon which inference would be made on the population and conclusion drawn. The population consisted of literate mothers who are of reproduction age at the government owned health facilities Ekiti state. The sample size of Two hundred (200) respondents was used for this study. The respondents are literate mothers that visit the health facilities frequently to receive health services. The study selected the five (5) General hospitals, five (5) comprehensive health centers and ten (10) basic health centers, in Ekiti state through purposive samplings technique. Simple random sampling technique was used to select ten (10) literate mothers from each of these health centers making a total of 200 literate mothers

The instrument used for this study was self- structured closed ended questionnaire. The questionnaire was made up of two sections A, and B. Section A was used to elicit information on the bio- data of the respondents. Section B was used to gather information which was tailored towards the research variables of the study and it was Yes or No format of response. The face and content validation of the instrument was done by giving the draft of the questionnaire to an experts in the field of health Education from the department of Human kinetic and health Education, Ekiti State University, Ado Ekiti for correction and amendment. The instrument was later presented to Centre For Research and Development (CERAD) of Bamidele Olumilua University of Education, Science and Technology, Ikere Ekiti for further scrutiny and for ethical clearance. Reliability of the instrument was ascertained by using split half method which yielded a reliability coefficient of 0.99 indicating that the instrument is highly reliable. Data collected was analyzed using mean and standard deviation to answer the research question while inferential statistics such as Analysis of variance (ANOVA) was used to test all the hypotheses at 0.05 level of significant. A version 26.0 Statistical Package for Social Science (SPSS) software was used to analyze the data.

IV. Results And Discussion

Research Question 1: What is the effect of condom on health of literate mothers?

Table 1: Effect of condom on health of literate mothers

S/N	Items	Mean	Standard Deviation	Decision
1.	Can the use of condom cause decrease in sex drive?	1.83	0.42	Agreed
2.	Does the use of condom help prevent unwanted pregnancy?	1.75	0.53	Agreed
3.	Does the use of condom help prevent sexually transmitted diseases?	1.66	0.63	Agreed
4.	Does the use of condom cause allergic reaction?	1.70	0.50	Agreed
Grand Mean		1.74	0.52	Agreed

Mean greater than 1.50 'Agreed' otherwise 'Disagreed'

Source: Field Study, 2024

The result of analysis presented in table 1 revealed the effect of condom on health of literate mothers. The mean values in the table ranges from 1.66 to 1.83 and they are greater than 1.50 which indicated that majority of the respondents agreed with the statement in item 1-4 of table one. This implies that the use of condom cause decrease in sex drive (1.83), the use of condom help prevent unwanted pregnancy (1.75), the use of condom help prevent sexually transmitted diseases (1.66) and the use of condom cause allergic reaction (1.70). The grand mean (1.74) in the table is greater than 1.50 which confirmed the fact that the use of condom has effect on health of literate mothers.

Research Question 2: Does combined pills have effect on health of literate mothers?

Table 2: Effect of combined pills on health of literate mothers

S/N	Items	Mean	Standard Deviation	Decision
5	Can combined pills used as contraceptive devices give persistent pain in the stomach?	1.63	0.74	Agreed
6	Can mood swing occur as a result of aftermath of using combine pills?	1.69	0.70	Agreed
7	Is breast tenderness an effect of combined pills?	1.59	0.77	Agreed
8	Can the use of combined pills cause nausea?	1.76	0.52	Agreed
9	Does the use of combined pills leads to blood pressure change?	1.55	0.81	Agreed
Grand Mean		1.64	0.71	Agreed

Mean greater than 1.50 'Agreed' otherwise 'Disagreed'

Source: Field Study, 2024

The result of analysis presented in table 2 revealed that effect of combined pills on health of literate mothers. The mean values in the table ranges from 1.55 to 1.76 and they are greater than 1.50 which indicated that majority of the respondents agreed with the statement in item 5-9 of table two. This implies that combined pills used as contraceptive devices give persistent pain in the stomach (1.63), mood swing occur as a result of aftermath of using combine pills (1.69), breast tenderness an effect of combined pills (1.59), the use of combined pills cause nausea (1.76) and the use of combined pills leads to blood pressure change (1.64). The grand mean (1.64) in the table is greater than 1.50 which confirmed that combined pills have effect on health of literate mothers.

Research Question 3: What is the effect of contraceptive implant on health of literate mothers?

Table 3: Effect of contraceptive implant on health of literate mothers

S/N	Items	Mean	Standard Deviation	Decision
10.	Can poor implant of contraceptive devices lead to abdominal pain	1.88	0.39	Agreed
11.	Does the use of contraceptive implant lead to back pain?	1.63	0.57	Agreed
12.	Can the use of contraceptive implant lead to irregular periods?	1.83	0.41	Agreed
13.	Can the use of contraceptive implant cause decrease in sex drive?	1.80	0.49	Agreed
14.	Does the use of contraceptive implant causes dizziness?	1.76	0.56	Agreed
Grand Mean		1.78	0.47	Agreed

Mean greater than or equal to 1.50 'Agreed' otherwise 'Disagreed'

Source: Field Study, 2024

The result of analysis presented in table 3 revealed the effect of contraceptive implant on health of literate mothers. The mean values in the table ranges from 1.63 to 1.88 and they are greater than 1.50 which indicated that majority of the respondents agreed with the statement in item 10-14 of table three. This implies that poor implant of contraceptive devices lead to abdominal pain (1.88), the use of contraceptive implant lead to back pain (1.63), the use of contraceptive implant lead to irregular periods (1.83), the use of contraceptive implant cause decrease in sex drive (1.80) and the use of contraceptive implant causes dizziness (1.76). The grand mean value (1.78) in the table is greater than 1.50 which indicated that many of the respondents agreed that there is effect of contraceptive implant on health of literate mothers

Question 4: Does intrauterine device (IUD) have effect on health of literate mothers.

Table 4: Effect of IUD intrauterine devices on health of literate mothers

S/N	Items	Mean	Standard Deviation	Decision
15	Can the use of IUD cause spotting between periods?	1.91	0.64	Agreed
16	Does the use of IUD leads to less cramping during period?	1.09	0.99	Disagreed
17	Can the use of IUD lead to more cramping during period?	1.80	0.47	Agreed
18	Can the use of IUD lead to longer period?	1.90	0.65	Agreed

19	Can the use of IUD lead to irregular period?	1.96	0.69	Agreed
Grand Mean		1.87	0.62	Agreed

Mean greater than or equal to 1.50 'Agreed' otherwise 'Disagreed'

Source: Field Study, 2024

The result of analysis presented in table 4 revealed the effect of intrauterine devices (IUD) on health of literate mothers. The mean values in the table ranges from 1.79 to 1.96 and they are greater than 1.50 which indicated that majority of the respondents agreed with the statement in item 15 & 17-19 of table four. This implies that the use of IUD cause spotting between periods (1.91), the use of IUD leads to less cramping during period (1.79), the use of IUD lead to more cramping during period (1.80), the use of IUD lead to longer period (1.90) and the use of IUD lead to irregular period (1.90). The grand mean value (1.87) in the table is greater than 1.50 which indicated that IUD intrauterine device have effect on health of literate mothers.

Test of Hypotheses

Hypothesis 1: There is no significant effect of condom on health of literate mothers in Ekiti State.

Table 5: ANOVA for effect of condom on health of literate mothers in Ekiti State

	Sum of Squares	Df	Mean Square	F	Sig. (P)
Between Groups	1.500	1	1.500	17.400	.000
Within Groups	30.000	198	.086		
Total	31.500	199			

P < 0.05 (Significant)

Source: Field Study, 2024

The result of statistical analysis for testing the significant effect of condom on health of literate mothers in table 5 revealed a positive and significant effect of condom on health of literate mothers in Ekiti State as F-value (17.400) was high, df = (1, 198) and P < 0.05 at 0.05 level of significance. This led to the rejection of null hypothesis one. Hence, there is significant effect of condom on health of literate mothers in Ekiti State.

Hypothesis 2: There is no significant effect of combined pills on health of literate mothers in Ekiti State.

Table 6: ANOVA for effect of combined pills on health of literate mothers in Ekiti State

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.722	1	9.722	43.500	.000
Within Groups	77.778	198	.223		
Total	87.500	199			

P < 0.05 (Significant)

Source: Field Study, 2024

The result of statistical analysis for testing the significant effect of combined pills on health of literate mothers in Ekiti State in table 6 revealed that the effect of combined pills on health of literate mothers was statistically significant as F-value (43.500) was high, df = (1, 198) and P < 0.05 at 0.05 level of significance. This led to the rejection of null hypothesis two. Hence, there is significant effect of combined pills on health of literate mothers in Ekiti State.

Hypothesis 3: There is no significant effect of contraceptive implant on health of literate mothers in Ekiti State.

Table 7: ANOVA for effect of contraceptive implant on health of literate mothers

	Sum of Squares	Df	Mean Square	F	Sig. (P)
Between Groups	22.167	1	5.167	21.588	.000
Within Groups	23.333	198	.153		
Total	26.500	199			

P < 0.05 (Significant)

Source: Field Study, 2024

The result of statistical analysis for testing the effect of contraceptive implant on health of literate mothers in table 7 revealed that F-value (21.588) was high, df = (1, 198) and P < 0.05 at 0.05 level of significance. This led to the rejection of null hypothesis three. Hence, there is significant effect of contraceptive implant on health of literate mothers in Ekiti State.

Hypothesis 4: There is no significant effect of intrauterine device (IUD) on health of literate mothers in Ekiti State

Table 8: ANOVA for effect of intrauterine device (IUD) on health of literate mothers

	Sum of Squares	Df	Mean Square	F	Sig. (P)
Between Groups	11.700	1	5.700	21.950	.000
Within Groups	26.200	198	.016		
Total	37.900	199			

P < 0.05 (Significant)

Source: Field Study, 2024

The result of statistical analysis for testing the significant effect of intrauterine device (IUD) on health of literate mothers in table 8 revealed a positive and significant effect of intrauterine device on health of literate mothers in Ekiti State as F-value (21.950) was high, $df = (1, 198)$ and $P < 0.05$ at 0.05 level of significance. This led to the rejection of null hypothesis four. Hence, there is significant effect of IUD intrauterine device on health of literate mothers in Ekiti State.

Discussion

The finding of the study in research hypothesis one sought to determine the effect of condom on health of literate mothers. It was revealed in the study that the use of condom cause decrease in sex drive, the use of condom help prevent unwanted pregnancy, the use of condom help prevent sexually transmitted diseases and the use of condom cause allergic reaction. This implies that the use of condom has effect on health of literate mothers. The test of hypothesis also confirmed that there is significant effect of condom on health of literate mothers in Ekiti. This finding is in line with Visagie, (2019) that condom is a latex sheath that fits over the erect penis. It acts as a barrier to prevent pre-cum or seminal fluid from escaping while the penis is still inside the vagina or rectum. Only nylon and latex condoms should be used. The consistent and proper use of latex condoms during sexual intercourse can drastically reduce the risk of acquiring or transmitting sexually transmitted diseases including HIV. It is also effective as a contraceptive device, however, it must be carefully used. Unused condom is the only reliable protection against an STO or HIV and unwanted pregnancy. Aliyu (2017) also revealed that condoms are barrier methods of contraception, and they work by preventing spermatozoa from coming into contact with the ovum; they also protect against sexually transmissible infections (STIs).

The finding of the study in research hypothesis two sought to determine the effect of combined pills on health of literate mothers. The finding revealed that combined pills used as contraceptive devices give persistent pain in the stomach, mood swing occur as a result of aftermath of using combine pills, breast tenderness an effect of combined pills, the use of combined pills cause nausea and the use of combined pills leads to blood pressure change. This implies that combined pills have effect on health of literate mothers. The test of hypothesis two in the study also confirmed that there is significant effect of combined pills on health of literate mothers in Ekiti state. The finding of this study correlates with Sonnenberg, (2021) that the use of combined pills as contraceptive methods both have important health effects that include risks and benefits. The net impact of combine pills contraception on women's health has been reported to be negatively affecting women health. Every method of contraception dominates nonuse in most clinical settings. Increasing the use of more effective methods even modestly at the expense of less effective methods will improve health and reduce costs. Method that require action by the user less frequently than daily are both less costly and more effective than methods requiring action on a daily basis.

The finding of the study in research hypothesis three sought to determine the effect of contraceptive implant on health of literate mothers. It was revealed that poor implant of contraceptive devices lead to abdominal pain, the use of contraceptive implant lead to back pain, the use of contraceptive implant lead to irregular periods, the use of contraceptive implant cause decrease in sex drive and the use of contraceptive implant causes dizziness. This implies that there is effect of contraceptive implant on health of literate mothers. The test of hypothesis three established that fact that the effect of contraceptive implant is statistically significant. This finding of this study is similar with Merck & Co. Inc., (2020) that the use of contraceptive implant provides effective contraception with a very low level of progestin and follicular phase estrogen that has been well tolerated, has lower rates of weight change side effects and is a safer alternative to oral contraceptive pills (OCP) in women with certain medical conditions. The hormones prevent the ovaries from releasing an egg and it also prevents fertilization by affecting the lining of uterus and thickening the cervical mucus. The effectiveness of the implant to prevent pregnancy is greater than 99%.

The finding of the study in research hypothesis four sought to determine the effect of intrauterine devices (IUD) on health of literate mothers. It was revealed that the use of IUD cause spotting between periods, the use of IUD leads to less cramping during period, the use of IUD lead to more cramping during period, the use of IUD lead to longer period and the use of IUD lead to irregular period. This implies that IUD intrauterine device have effect on health of literate mothers. The finding is supported by the finding of American College of Obstetricians and Gynecologists (2021) that LARCs, such as IUDs and the contraceptive implant are safe and

effective forms of birth control, that should be the first line of contraception for women, when appropriate. Failure rates are very low as there is no daily, weekly, or monthly maintenance by the user. Women also report a great deal of interest in LARCs and report high satisfaction with this contraceptive method. The study is also in line with WHO (2016) that intrauterine contraceptive device (IUD) is one of the most frequently used methods for birth control around the world. Globally, IUD has been recognized as a modern long-acting reversible contraceptive method suitable for all reproductive aged women.

V. Conclusion

Based on the findings of this study, it was concluded that there is significant effect of contraceptive devices such as the use of condom, combined pills, contraceptive implant and IUD on the health of literate mothers in Ekiti State Local Government Area of Ekiti State.

Recommendations

Based on the findings of this study, it was recommended that:

1. Couples should be guided on the proper use of both male and female condom as a contraceptive device. This will enable them avoid leakage and bust of condom during intercourse.
2. Mothers should go for test before the use of combined pills to avoid any side effect.
3. There is need for mothers to go for medical check before doing contraceptive implant. This method is very effective however, there is need for test before implantation to know the right method to apply.
4. Intrauterine device (IUD) should be encouraged but carefully inserted to avoid pain and withdrawal during sexual intercourse.

References

- [1] Afriyie, P., & Tarkang, E. E. (2022). Factors Influencing Use Of Modern Contraception Among Married Women In Ho West District, Ghana: Descriptive Cross-Sectional Study. *The Pan African Medical Journal*, 33(15).
- [2] Ajong, A. B. (2023). Knowledge Of Women In Family Planning And Future Desire To Use Contraception: A Cross-Sectional Survey In Urban Cameroon. *BMC Research Notes*, 9(347). <https://doi.org/10.1186/s13104-016-2155-7>
- [3] Apanga, P. A., Adam, M. A. (2021). Factors Influencing The Uptake Of Family Planning Services In The Talensi District, Ghana. *The Pan African Medical Journal*, 20(10).
- [4] Bansode, P. (2022). Modern Contraceptive Use Among Reproductive-Aged Women In Ghana: Prevalence, Predictors, And Policy Implications. *BMC Women's Health*, 18(157).
- [5] Clottery, A. (2022). Behavioral Barriers To The Use Of Modern Methods Of Contraception Among Unmarried Youth And Adolescents In Eastern Senegal: A Qualitative Study. *BMC Public Health*, 20, 1025. 4
- [6] Colquitt, C. W., & Martin, T. S. (2023). Contraceptive Methods: A Review Of Nonbarrier And Barrier Products. *Journal Of Pharmacy Practice*, 30(1), 130-135.
- [7] Fraser, J. & Weisberg, L. (2020). Young Adults' Contraceptive Norms And Attitudes: Associations With Risk Of Unintended Pregnancy. *Perspectives On Sexual And Reproductive Health*, 44(2), 107-116.
- [8] Gbagbo, F. Y., & Kayi, E. A. (2018). Use And Discontinuation Of Intrauterine Contraceptive Device In The Greater Accra Region Of Ghana. *Contraceptive Reproductive Med*, 3,8.
- [9] Merck, S. B. & Co. In (2013). *Qualitative Research: A Guide To Design And Implementation*. San Francisco, CA: Jossey-Bass.
- [10] Sonnenberg, G. R. (2021). Intended And Unintended Pregnancies Worldwide In 2012 And Recent Trends. *Studies In Family Planning*, 45(3), 301–314.
- [11] Shenton, A. K. (2004). Strategies For Ensuring Trustworthiness In Qualitative Research Projects. *Education For Information*, 22(2), 63-75.
- [12] Solanke, B. L. (2017). Factors Influencing Contraceptive Use Among Women Of Advanced Reproductive Age In Nigeria. *Journal Of Health, Population, And Nutrition*, 36(1).
- [13] Staveteig, S. (2017). Fear, Opposition, Ambivalence, And Omission: Results From A Follow-Up Study On Unmet Need For Family Planning In Ghana. *PLOS ONE*, 12(7).
- [14] World Health Organization. (2016). *Family Planning And Contraception*. Retrieved From <http://www.who.int/mediacentre/factsheets>
- [15] World Health Organization. (2022). *Family Planning And Contraception*. Retrieved From <http://www.who.int/mediacentre/factsheets>