



**A HOSPITAL BASED RESEARCH ANALYSIS ON KNOWLEDGE, ATTITUDE AND
STATUS OF CONTRACEPTION IN INDIA**

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ABSTRACT

The purpose of this study is to investigate the knowledge, attitude and opinion regarding contraception among sexually active married female subjects at 'Shadan Hospital, Teaching & Research Centre', Hyderabad. WHO defines contraception as the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs and surgical procedures. There are various methods of contraception such as Intra Uterine Devices (IUD) – Copper – T, Oral Contraceptive Pills (OCPs), Condoms, and permanent methods such as Vasectomy and Tubectomy. Further, there are traditional methods such as Withdrawal method and Calendar based methods. Our study reported Copper-T followed by OCPs to be the widely used methods of contraception in our study population. However, our study as well as other studies reported a lack of awareness about contraception in a significant number of populations. Hence there a great urge to conduct community awareness programs especially in the rural regions.

KEYWORDS: Contraception, Methods of Contraception, Sexually Transmitted Diseases (STDs), IUD (Intra Uterine Devices), Oral Contraceptive Pills (OCPs)

INTRODUCTION

Contraception is defined as the intentional prevention of conception through the use of various devices, sexual practices, chemicals, drugs or surgical procedures. Contraceptive usage has a lot of benefits such as prevention of Sexually transmitted diseases, unwanted pregnancies, ensuring birth spacing, reducing child and maternal mortality and morbidity, improving the reproductive health outcome.^[1,2]

Methods of Contraception^[1,3,4]

Long Acting Reversible Contraception: Long acting reversible contraception (LARC) is a contraceptive method that last for a long time. They are sometimes called "fit and forget" contraception because you don't need to remember it every day or every month. LARCs are the most effective types of contraception. They are more than 99% effective a preventing pregnancy. There are 2 types of LARC: (i) The intra uterine device (IUD) that lasts for five to ten years, (ii) The implant that lasts for three to five years.^[1,4]

➤ **Copper T intrauterine device (IUD):** The IUD is a small device that is shaped in the form of a "T". A

doctor places it inside the uterus to prevent the pregnancy. It can stay in the uterus up to 10 years. Typical use failure rate: 0.8%.

➤ **Levonorgestrel intra uterine system (LNG IUD):** The LNG IUD is a small T-shaped device like the copper T IUD. It is placed inside the uterus by a doctor. It releases a small amount of progestin each day to prevent pregnancy. The LNG IUD stays in the uterus for up to 5 years. Typical failure rate: 0.1-0.4%.

Hormonal Contraception: Some birth control methods use hormones. They will have either both an estrogen and a progestin, or a progestin alone. One needs a prescription for most hormonal birth control methods. Both of these hormones prevent a woman's ovary from releasing an egg during her cycle. They do this by affecting the levels of other hormones in the body. Progestins help prevent sperm from making their way to the egg by making mucus around a woman's cervix thick and sticky.^[1,4]

Types of hormonal control methods include

- **Birth control pills:** These may contain both estrogen and progestin, or only progestin. There are two types of pills. Combined oral contraceptive pill and progestogen only contraceptive pill. One pill to be taken each day. The pill is more than 99% effective at preventing pregnancy if one takes it correctly.
- **Progestin injections** such as ‘Depo Provera’ that are given into the muscles of the upper arm or buttocks once every 3 months.
- **Skin patch** such as ‘Ortho Evra’ is placed on shoulder, buttocks or other place on the body. It releases a continuous dose of hormones.
- **The Vaginal Ring** such as ‘Nuva Ring’ is a flexible ring about 2 inches (5cm) wide. It is placed into the vagina. It releases the hormones progestin and estrogen.
- **Emergency or (Morning After) contraception:** This medicine can be bought without a prescription at a drug store.^[1,4]

Barrier Methods of Birth Control^[1,4]

- **Condoms:** A condom is a thin latex or polyurethane sheath. The male condom is placed around the erect penis. The female condom is placed inside the vagina before intercourse. It must be worn at all times during intercourse to prevent pregnancy. Condoms can be bought in most drug and grocery stores. No prescription is needed to get condoms.
- **Diaphragm and cervical cap:** A diaphragm is a flexible rubber cap that is filled with spermicidal cream or jelly. It is placed into the vagina over the cervix before intercourse, to prevent sperm from reaching the uterus. It should be left in place for 6-8 hours after intercourse. Diaphragms must be prescribed by a woman’s health provider. The provider will determine the correct type and size of diaphragm for the woman. About 5 to 20 pregnancies occur over 1 year in 100 women using this method, depending on proper use. A similar, smaller device is called a Cervical cap. Risks include irritation and allergic reactions to the diaphragm or spermicide and increased frequency of urinary tract infection and vaginal yeast infection. In rare cases, toxic shock syndrome may develop in women who leave the diaphragm in too long.^[1,4]
- **Vaginal sponge:** vaginal contraceptive sponges are soft, and contain a chemical that kills or disables sperms. The sponge is moistened and inserted into the vagina to cover over the cervix before intercourse. The vaginal sponge can be bought at a pharmacy store without a prescription.
- **Spermicides:** These work by killing the sperm and they come in several forms like – foam, gel, cream, film, suppository or tablet. They are placed in the vagina no more than one hour before intercourse. One has to leave them in place at least 6-8 hours after intercourse. They can be purchased at drug stores. Typical use failure rate: 21%.

- **Intra uterine device (IUD):** A small plastic or copper device placed inside the woman’s uterus by her healthcare provider. Some IUDs release small amounts of progestin. IUDs may be left in place for 5-10 years, depending on the device used. IUDs that release progestin may be used for treating heavy menstrual bleeding and reducing cramps. They may also cause periods to stop completely.^[1,4]

Emergency Contraception^[1,4]

There are two options for emergency contraception:

- **The emergency contraceptive pill (ECP):** It is approved to be taken up to three days after unprotected sex. ECPs are 98% effective
- **A copper IUD:** Women can have copper T IUD inserted within 5 days of unprotected sex.

Permanent Methods of Birth Control^[1,4]

These methods are best for men, women and couples who feel certain that they do not want to have children in the future. These procedures can sometimes be reversed if a pregnancy is desired at a later time. However, the success rate for reversal is not high. Permanent contraception, sometimes called sterilization, prevents all future pregnancies. For males it is vasectomy and for females it is tubal ligation.

- **Female sterilization – Tubal ligation or tying tubes**

A woman can have her fallopian tubes tied or closed so that the sperm and eggs cannot meet for fertilization. The procedure can be done in a hospital or in an outpatient surgical centre. This method is effective immediately. Typical use failure rate: 0.5%.^[1,3]

- **Male sterilization – Vasectomy**

This operation is done to keep a man’s sperm from going to his penis, so his ejaculate never has any sperm in it that can fertilize an egg. The procedure is typically done at outpatient surgical centres. The man can go home the same day. Recovery time is less than one week. After the operation, the man visits his doctor for tests to count his sperm and to make sure that the sperm count has dropped to zero; this takes about 12 weeks. Another form of birth control should be used until the man’s sperm count has dropped to zero. Typical use failure rate: 0.15%.^[1,3]

Traditional Methods of Contraception^[1,3,4]

- **Withdrawal method:** It is also known as coitus interruptus method or Pulling out method. It is just pulling the penis out of the vagina before ejaculation.
- **Calendar based methods:** Because of variability in the day of ovulation between cycles, calendar methods of contraception are inherently less effective. In the Calendar or Rhythm method, at least three consecutive menstrual cycles must be used to calculate an acceptable range of fertile days. A woman’s fertile days are calculated by selecting the shortest and longest cycle lengths, subtracting 21

from the shortest cycle and subtracting 10 from the longest cycle. The calculation should be renewed each month if there is variation in cycle length.

- **Standard days' method:** It is a variant of calendar method. Women who record 2 cycles that are outside the range of 26 to 32 days in any year should not use this method. Taking day 1 as the first day of bleeding, the first fertile day is considered to be day 8 and the last fertile day is considered to be day 19. Intercourse is avoided on days 8 to 19 of the cycle.^[4]

Benefits of Contraception^[1,5]

- Reduce infant mortality
- Prevention of unwanted pregnancies
- Reduce adolescent pregnancy
- Prevention from HIV and sexually transmitted infections.
- Empowering people and enhancing education
- Prevent rapid growth of population
- Barrier methods provide some degree of protection from sexually transmitted diseases.^[1,5]

MATERIALS AND METHODS

The Aim and objective of this study is to investigate the knowledge, attitude and opinion regarding contraception among sexually active married female subjects.

This study was conducted in 100 in-patient and out-patient subjects in the Department of Obstetrics and

Gynaecology at Shadan Hospital, Teaching & Research Centre for a period of six months from July, 2018 to January, 2019. Prior to conduction of this study an approval from Institutional Ethics Committee is sorted.

RESULTS

Table 1: Study group characteristics (Age)

Age	Percentage
<18 years	0.8%
Between 18-25	21.8%
More than 25	77.4%

Table-1 shows that; a majority of study population (77.4%) were in the age group of >25 years, while only 0.8% subjects were less than 18 years of age.

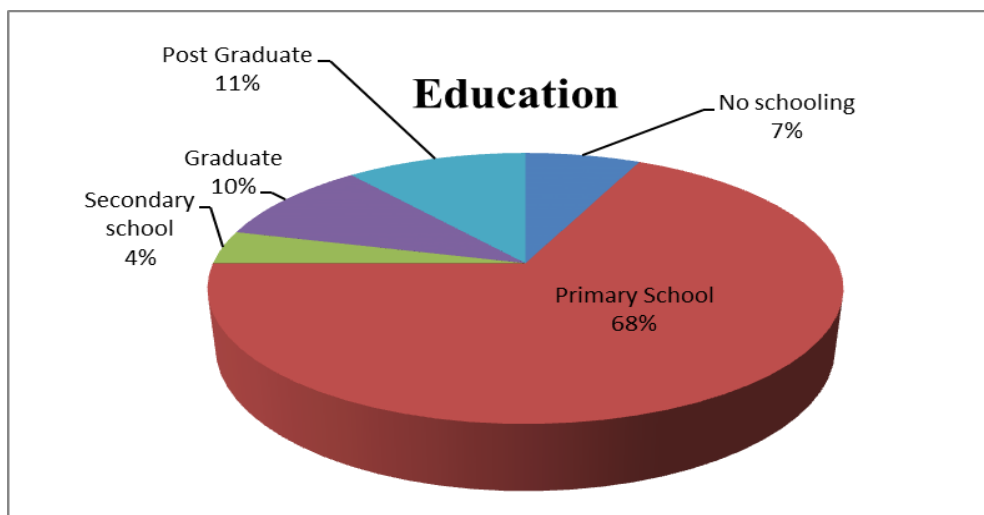


Figure 1: Study group characteristics (Education)

Figure - 1 shows that, majority of population in our study has completed primary schooling (68%), while only 10% reached up to Graduation and Post-Graduation.

Table 2: Means of birth spacing.

Means of birth Spacing	Percentage
Copper T	55.2%
Pills	49.4%
Condoms	21.4%
Tubectomy	3%
Withdrawal	29.4%
No Idea	13.6%

Table - 2 shows that; 55.2% used Copper T as a means of birth spacing, 49.4% used pills and 21.4% used condoms, 3% underwent Tubectomy, 29.4% used withdrawal method and 13.6% had no idea regarding the contraception methods.

DISCUSSION

Our study found Copper-T as most the commonly known means of birth spacing with awareness amongst 55.2% of subjects, followed by OCP (49.4%) and Condoms (21.4%), similarly a study conducted by Srivastava *et al*⁷ reported Copper-T as the most commonly known (61%) means of contraception followed by OCP and condoms. While another study conducted by Tejaswini D *et al*^[8] reported female sterilization to be the most common method known followed by IUCD (Copper-T). 13.6% of subjects in our study had no idea about contraception, while Tejaswini D *et al*'s^[8] study reported lack of awareness amongst 28%.

CONCLUSION

As defined by the WHO, Contraception is the intentional prevention of conception by using various methods, chemicals, drugs or surgical procedures. The uses of Contraception are numerous ranging from simple prevention of unwanted pregnancies to prevention of sexually transmitted diseases (STDs) and they extend way beyond to ensuring birth spacing, reducing child and maternal mortality and morbidity, improving the reproductive health outcome etc. As per our study Copper-T, Oral contraceptives (OCPs) and use of condoms are the common methods of contraception employed. We also found that even in today's modern world there are people who still have no awareness about contraception; we encountered 13.6% of such subjects in our study. This lack of awareness could lead to many unwanted situations as discussed above; hence there is a strong need to conduct community awareness programs such as public lectures, distribution of educating leaflets, creation of advertisements and many more especially in rural areas.

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