



**A REVIEW ON CONTRACEPTIVE METHODS REQUIREMENTS, OPTIONS,
AND USE**

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Abstract

Objectives Context-Contraception refers to the process of preventing a pregnancy from occurring on purpose by the use of numerous methods, including sexual behaviors, chemical agents, pharmaceuticals, and surgical treatments. A reliable method of birth control not only makes it safe to have sexual relations without the risk of unintended pregnancy, but it also makes it possible to have kids whenever one so chooses. The goal is to accomplish contraception with the least amount of discomfort and intrusion into one's privacy as well as the fewest possible negative side effects. Certain approaches, such as the use of male and female condoms, have the additional benefit of protecting users against illnesses that are transmitted sexually. Developing nations are mostly responsible for bearing the burden of unsafe abortion practises. The prevalence of contraceptive use among presently married women of reproductive age is assessed in this region, and the results indicate that the levels have not yet approached those that are seen in industrialised nations. Conclusion In places like India, there is an urgent need for contraceptive techniques that are more user-friendly for women, that are easier to get, and that guarantee sufficient levels of privacy. Providers also have a responsibility to be attentive to the particular requirements of teenagers, since this age group is at a particularly vulnerable stage.

Keywords: Contraception Condoms Vasectomy Tubectomy STDs

Introduction

The term "contraception" refers to the technique of preventing a pregnancy from occurring on purpose by the use of different sterilisation methods, sexual behaviours, chemical agents, pharmaceuticals, or surgical interventions. Therefore, a contraceptive may be thought of as any method or practise that serves the objective of preventing a woman from carrying a pregnancy to term. Effective contraception makes it possible for a couple to have a sexual connection without the risk of having an unintended child and guarantees that they have the flexibility to have children whenever they so want in any given social setting. The goal is to do this while minimising both the financial investment required and the adverse impact it may have on the patient. Condoms, which are available for both men and women, are one example of a barrier approach that also has the added benefit of preventing the spread of sexually transmitted illnesses (STDs).

Need For Contraception

Protection Against Unwanted Pregnancy

It is becoming more common for women and men of reproductive age to express a desire to limit their family size and control their fertility. Even if she breastfeeds each child for the full

year, a fertile, sexually active woman has the ability to give birth around 12 times between the ages of 20 and 44. This is the case even if she only has one child at a time. She must be able to effectively practise birth control for 16–20 of her approximately 25 reproductive years [1] in order to avoid the need of having an abortion.

Couples must balance the competing priorities of having a fulfilling sexual life and maintaining a limited family size; failure to do so might result in undesired pregnancies and the decision to have abortions. It is possible for there to be reproductive morbidity as well as maternal death as a result of seeking abortion in circumstances that are dangerous, late, or in the hands of unsafe practitioners or in unclean facilities. It is estimated that between a quarter and a third of all maternal fatalities might be prevented throughout the world if women had easy access to contraception and utilised it in a reliable and effective manner to space their pregnancies. [2, 3] According to the studies conducted in India, abortions are likely to blame for 10–20 percent of the fatalities that occur to mothers [4]. It is important to raise knowledge about methods of birth control that are effective, as well as the importance of using such methods correctly and consistently.

Need for Protection Against Sexually Transmitted Diseases

The transmission of a number of sexually transmitted infections (STIs) including HIV/AIDS from an infected male to an uninfected woman is much higher [5]. Because the vagina provides a large mucosal surface that is exposed to the sexual secretions of the partner and an environment that is more conducive to the growth of microorganisms than the penile surface does in men, women are biologically more susceptible to sexually transmitted infections (STIs) than men are. It is easier for a guy to infect a woman when the contaminated sperm is allowed to remain in the vagina for a longer period of time. Additionally, the concentration of virus in sperm is far greater than that seen in a woman's sexual fluids. Therefore, males are two times more likely to spread sexually transmitted infections than women are.

Vulnerability of Adolescents

Even in nations with a high contraceptive prevalence rate (CPR), younger women, whether they are married or unmarried, are less likely to be using contraception than older women [6]. This is true regardless of whether or not the younger woman is pregnant. In terms of the sorts of contraceptives that are allowed for distribution or prescription, laws, rules, and social policies that define access to contraception have an effect on adult and teenage women equally at the macro level. On the other hand, at the micro level, there are differences between adolescents and adult women in terms of their fertility level, maturity, knowledge, ability to negotiate sexual relations, and experience. These factors, along with the social expectations that affect their behavioural patterns in relation to the acceptance and use of contraceptives, contribute to the fact that adolescents are more likely to use contraceptives. This makes them far more susceptible to unprotected sexual activity and the myriad of negative outcomes associated with it.

If teenage females initiate sexual activity before they have finished the process of physiological maturity, this increases their risk of contracting an illness at an earlier stage in their lives. Even if the systems have started to operate, the defensive mechanisms, notably those of the cervix, are still in the process of developing. In mature women, the mucus that forms in the cervix serves as a barrier that is not unique to any particular ascending organism. The mucosal protective mechanism is not available to adolescents until many years following menarche [7–9]. Until then, they are unable to profit from it. This makes them up to six times more likely to get

infected than their adult counterparts, notably with gonorrhoea, chlamydia, and HIV [10].

Contraceptive Methods**Traditional Methods****Coitus Interruptus or Withdrawal**

It involves removing the penis from the vaginal opening immediately before ejaculating, which stops the flow of sperm into the female reproductive system. This is perhaps the oldest form of birth control that man has discovered, but it requires the participation of both the female and male partners. This is not a dependable approach, and it may be unsuccessful if the sperm are able to escape before ejaculation or if they are left on the exterior sex organs. For this strategy to be successful, it is necessary for man to possess a high level of mental and physical self-control.

Lactational Amenorrhoea Method

Hormones that are secreted by nursing mothers that hinder pregnancy for around six months. It is successful if there is no menstruation and the woman continues to breastfeed exclusively throughout the day and night. This is more of a myth than anything else since breast-feeding is unpredictable and sixty percent of women begin menstruation by the third month. In cases when the infant sleeps through the night, as well as those with painful, cracked, or inverted nipples, and breast abscesses, this method is not reliable. During this time, just before they start their periods again, a lot of women who aren't trying end up becoming pregnant.

Rhythm Method

This approach needs the woman to record her menstrual pattern, body temperature, changes in cervical mucus, or any combination of these things in order to make an accurate prediction of ovulation, which occurs during the time of the month when the woman is at her most fertile (symptom-thermal method). On days when both partners are fertile, sexual activity is avoided. Even though a great number of individuals claim to be familiar with this procedure, only a tiny percentage of them are able to accurately determine when the most fertile part of the month is. Women who have periods that are not regular, women who have just given birth, or women who are menopausal are not able to use this product. Only certain days of the month are reserved for intimate encounters. In order to calculate the safe time using this approach, meticulous record keeping is required.

Modern Methods**Male Condom**

Before engaging in sexual activity, a thin sheath made of rubber or latex called a condom is rolled

on the penis that is held in an upright position. It stops the sperm from entering the female reproductive system. When carried out appropriately, the procedure has a success rate of 95%. It is completely risk-free for anyone of any age to utilise. There is no need for a previous medical checkup, and one may get it without a prescription at any time. It is the most efficient approach there is for offering dual protection against sexually transmitted infections and diseases related to contraception. The most significant drawbacks of using this strategy are associated with compliance, inconsistency, and improper application. In India, the total usage rate among males ranges from 2 to 14 percent in Punjab but is closer to 18 percent in Delhi [11]. This approach inherently has certain drawbacks, such as the possibility that it may rip or slide if it is not utilised correctly. It is not safe to use condoms that have expired or been damaged in any way. The availability of additional supplies must to be ensured at all times, just in case.

Female Condom

This is a vaginal pouch constructed out of a latex sheath, and there is a ring located at either end. As the internal anchor, the closed end ring is the component that is placed inside within the vagina. The external genitalia are concealed and safeguarded by the outer part. It is hypoallergenic, dependable, and received a high level of approval from the test groups; nonetheless, the price may be a significant barrier to its adoption. It is a procedure that is regulated by the woman and protects not only against unintended pregnancy but also from STDs. Some users may find the size and the level of hardness of the inner ring to be unpleasant. To achieve widespread acceptance among female users, intensive marketing and advocacy efforts are necessary.

Oral Contraceptive Pills

The combo tablet contains both oestrogen and progesterone as its active hormone ingredients. This is something that the lady should take orally on a daily basis. The pill is effective because it prevents the release of the egg, thickens the cervical mucus, and changes the motility of the tubes in the uterus. Following a thorough examination by a physician, a prescription for it will be issued. If used as directed, the effectiveness is over one hundred percent. It is a technique that is controlled by the woman, is simple and straightforward to use, and does not interfere with the act of making love. It is possible to have a normal monthly cycle, often with less discomfort and bleeding. When pregnancy is wanted, it is possible to stop using

the medication. The tablets must be taken on a consistent basis, and they lose their effectiveness if they are taken after 12 hours have passed. The tablets should not be used by women who are over the age of 35 or who have a family history of cardiovascular disease, liver illness, hypertension, diabetes, or abnormal vaginal bleeding. Women who are younger and have less education have a greater risk of failing. It is less probable that adolescents will take their medication appropriately and regularly.

Injectables

These not only prevent ovulation but also make the cervical secretions more viscous, which acts as a barrier between the sperm and the egg. It is a treatment that is successful 99 percent of the time, is simple to give, and may even be used while nursing. It offers benefits other from its ability to prevent pregnancy, such as the reduction of ovarian cysts and breast tumours. As long as the injectables are administered, the menstrual cycle may become erratic, resulting in spotting or completely stopping altogether. There is a possibility of putting on weight, and it can take some time before fertility returns. It is not recommended to wait more than two weeks between subsequent injections after the date on the prescription. When women choose this option, they need to have access to counselling and support services.

Surgical Methods

Intrauterine Devices (IUDs)

Following menstruation, an abortion, or four to six weeks after birth, a skilled medical practitioner will implant a tiny, flexible, plastic device, often containing copper, into the womb of the patient. This procedure may take place. It stops the fertilised egg from implanting itself in the uterus and having a baby. Copper ions are known to have spermicidal properties. It has an effectiveness rate of between 95 and 98 percent, does not interfere with sexual activity, and may be removed if a pregnancy is not wanted. It's possible that some women may have excessive bleeding as a result. It's possible for women, particularly those who have been exposed to STDs, to develop pelvic irritation. It is important to check the IUD on a regular basis since it might get loose and fall out on occasion. It is possible that it will raise the chance of having an ectopic pregnancy. It is not appropriate for women who have an infection in the cervical or pelvic region, fibroids in the uterus, heavy menstruation, or abnormal vaginal bleeding.

Female Sterilization (Tubectomy)

This is a permanent surgical procedure that prevents sperm and eggs from coming into

contact with one another by cutting the fallopian tubes and tying the ends together. It is a fairly reliable technique that only requires one day of hospitalisation and may be conducted at any time, however it is recommended that it be done after the birth of the final child. Sometimes the tubes may link back together, and fertility will resume. After using this approach, there is a possibility that some women would have heavier periods. Despite the fact that this is a procedure that cannot be undone, the operation may be undone; however, the consequences may not always be successful. Because of this, the couple have to be adamant about their choice before deciding to go with this approach.

Male Sterilization (Vasectomy)

An irreversible surgical procedure in which the vasa deferentia, the tubes that transport sperm from the testes to the penis, are sealed off during the procedure. This inhibits the sperm from being discharged into the sperm at the moment of ejaculation, which is necessary for fertilisation. It is a straightforward approach that does not need hospitalisation and is reliable. In contrast to the widespread perception, it does not have any negative effects on one's health or sexual vitality, and it does not prevent one from engaging in sexual activity.

Global Trends In Contraceptive

Use Although the use of contraception among currently married women of reproductive age has been rapidly expanding in a lot of poor countries,

it hasn't quite reached the proportions that you see in rich countries yet. The highest rates of abortions carried out in dangerous conditions are found in Africa, Latin America, and the Caribbean, with South and South-East Asia following closely behind. In contrast, the percentages of women obtaining abortions using hazardous means are almost nonexistent in North America and Europe.

Contraception In India

Terminal surgical techniques, which may be performed on women who have completed their child-bearing years, are now receiving a lot of attention in India as a means of meeting demographic goals. The majority of contemporary techniques, especially those involving females, include sterilisation [11–14]. Teenagers, on the other hand, have their whole reproductive lives ahead of them; thus, their priorities should be to delay or spacing pregnancies, which calls for procedures that are reversible and do not need invasive surgery. There is a movement away from approaches that are terminal and toward ways that are reversible. Because of the emphasis placed on sterilisation, the average number of years that young Indian women are able to have children has been artificially shortened. The reasons for postponing, underutilizing, or not using contraception altogether seem to be diverse and complicated (Fig. 1).

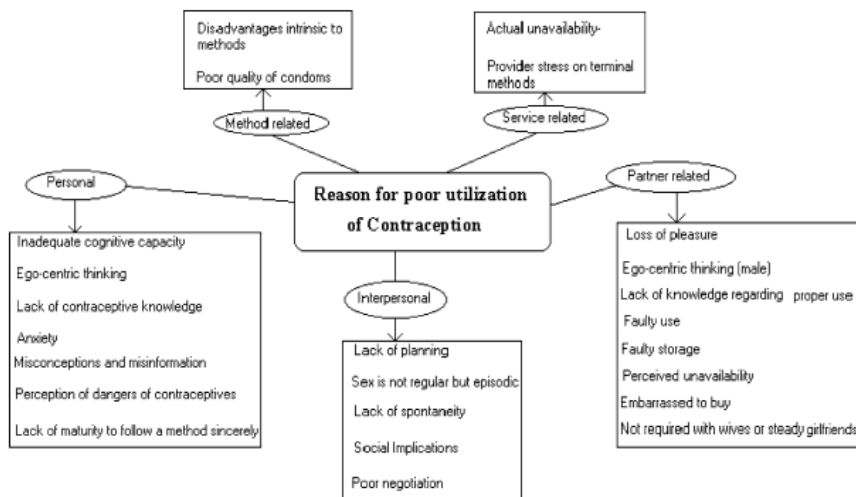


Fig. 1: Reasons for poor utilization of contraception and skewed method mix

Conclusion

The description that was just presented sheds light on the fact that the use of contraceptives often favours the sterilisation of women. Women are coerced into hastening childbearing in order to reach the desired gender parity, after which they are encouraged to seek out methods of permanent birth control. It is possible to learn

from Africa's experience and advocate for injectable drugs or educate women on the use of oral tablets, as is done in industrialised countries. It is imperative that people make better use of the tablets and condoms that are pushed by the government. The amenities need to be designed in a way that is more welcoming to women, more easily accessible, and allow sufficient

personal space. In addition, service providers have a responsibility to be attentive to the particular requirements of teenagers, since this age group is at an especially vulnerable stage.

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