

REPRODUCTIVE

HEALTH

TOPICS IN THIS CHAPTER

- POPULATION AND BIRTH CONTROL
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 - Population Growth
 - Birth Control
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- SEXUALLY TRANSMITTED DISEASES AND INFERTILITY
 - Infertility
 - Assisted Reproductive Technology (ART)



REPRODUCTIVE HEALTH

Reproductive health - Reproductive health means a total well being in all aspects of reproduction i.e. Physical, emotional, behavioural & social.

PROBLEMS

1. There is little knowledge of personal hygiene and hygiene of reproductive organs. This cause sexually transmitted diseases.
2. Early marriage lead to high maternal and infant mortality rates.
3. Due to lack of awareness, there has been a rapid increase in population size.
4. People encourage beliefs in myths and misconceptions about sex-related issues.

STRATEGIES

- o Family planning programmes were initiated as early as 1951.
- o Reproductive and child health care (RCH) programmes were launched in 1997. For:-
 1. Creating awareness among people about the various reproduction related aspects.



2. Providing facilities and support for building up a reproductively healthy society.
3. With the help of audio visual aids and print media, both government and non-government agencies are engaged in creating awareness among people about reproduction related aspects.
4. Proper information about the reproductive organs, adolescence and related changes, safe and hygienic sexual practices and sexually transmitted disease should be given.
5. Educating people about available birth controls option, care for pregnant mothers, post natal care of the mother and child, importance of the mother and child, importance of breast feeding, equal opportunities for male and female child.
6. Awareness of problems due to uncontrolled population growth and social evils like sex abuse and sex related crimes etc.
7. Statutory ban on amniocentesis → (A fetal sex-determination test based on the chromosomes pattern in the developing embryo).

POPULATION EXPLOSION

- o The tremendous increase in size and growth rate of population is called population explosion.



- The world population was about 2 billion in 1900 and it was 6 billion in 2000.
- Population of India at time of independence was about 350 million and it crossed 1 billion in may 2000.

REASON FOR HIGH POPULATION GROWTH

1. Rapid decline in death rate.
2. Decline in infant mortality rate (IMR)
3. Decline in maternal mortality rate (MMR)
4. Increase in number of people in reproductive age.

STEPS TO CURB POPULATION GROWTH

1. Raising marriageable age of girls to 18 years and of boys to 21 years.
2. Incentives should be given to couples with small families.

BIRTH CONTROL

The most important step to control population growth is to motivate smaller families by using various contraceptive methods.



An ideal Contraceptive should be.

1. user-friendly.
2. Easily available
3. Effective and reversible with no or least side effect.

METHODS OF BIRTH CONTROL

The Contraceptive methods are divided into following Categories.

1. Natural Categories
2. Barrier method
3. Intra uterine devices (IUDs)
4. Oral Contraceptives
5. Injectables and implants
6. Surgical method.
7. Emergency Contraceptives

- Natural Methods These are natural methods that work on the principle of avoiding the meeting of ovum and sperm

→ Periodic abstinence :- It is a method in which a couple avoids or abstains from coitus from 10-17 day of the menstrual cycle, when ovulation is expected occur. Not having sexual intercourse on the days of a woman's menstrual cycle when she could become pregnant.

→ Coitus interruptus :- It is the practice of withdrawing the penis from the vagina and away from a



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women's external genitala before ejaculation to prevent pregnancy.

→ Lactational amenorrhoea :- It is a method which is based on the principle that during the period of lactation, after ~~parturition~~, ovulation does not occur.

Producing milk is called lactating and not having a period is called amenorrhoea, hence this method of birth control is called lactational amenorrhoea (or LAM).

- Barrier Method These methods prevent the contact of sperm and ovum with the help of barriers. Such methods are available for both male and female.

→ Condoms :- They are barriers of thin rubber/latex sheath used to cover the penis in the male or vagina and cervix in females. It prevents the deposition of ejaculated semen into the vagina of female.

→ Diaphragms, Cervical Caps & Vaults :- Cervical caps and vaults are barriers made of rubber that are inserted into the female reproductive tract to cover the cervix during coitus.

Chemical method
→ Spermicidal Creams, Jellies & Foams :- Spermicides immobilize and kill the sperm before they are able to swim into the uterus.

- Intra uterine Devices (IUDs) :- These are inserted by doctors in the uterus through vagina. There are 3 types of (IUDs) available

→ Non-mediated (IUDs) :- These increase phagocytosis of sperm within the uterus.
e.g. Lippes loop.

→ Copper releasing (IUDs) :- Along with phagocytosis of sperm, the copper ions are released suppress sperm motility and fertilizing capacity of sperms.
e.g. CuT, Cu7, Multiload 375.

→ Hormone releasing (IUDs) :- These make the uterus unsuitable for implantation and the cervix hostile to sperms.

e.g. Progestasert, LNC4-20.

Advantages of IUDs

- They are a cheap and practical means of contraception once the women becomes tolerant to the device.
- They can be removed easily by a medical personnel.
- Provides long term protection against pregnancy.
- Fertility is easily restored after removal and the woman can become pregnant within a few months. Chances of infertility is not much.

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- Some studies have shown that the IUDs may be effective in preventing uterine and cervical cancer.

Disadvantages of IUDs

- They have to be introduced by medical personnel.
- They can cause some pain during the first few episodes of menstruation following the insertion.
- Injury to the cervix and/or uterus is rare but can occur.
- The IUDs provide no protection against sexually transmitted diseases.

• Oral Contraceptive :- A birth control pill taken by mouth.

- Most oral contraceptives include both estrogen and progesterone. When given in certain amount and at certain times in the menstrual cycle. These hormones prevent the ovary from releasing an egg for fertilization.
- Saheli an oral contraceptive for females containing a non-steroidal preparation was developed by scientists at Central drug research institute [CDRI] in Lucknow.



- Pills have high contraceptive value and few side effects.
- It usually makes periods shorter, lighter and more regular. Impure symptoms come with periods such as pain, mood swing & headaches.
- Contraceptive Injections :- The Contraceptive injection, is a long-acting method of ~~Contraception~~.
- It contains only one hormone, which is a synthetic form of progesterone, a hormone that is made naturally by the body.
- The C.I stops ovulation and makes the fluid at the opening to the uterus thicker, stopping sperm from getting through. It can also be used to treat women with menstrual problems.

* Implants - are the new method of contraception which is sub-cutaneous implantation of synthetic progesterone.

Advantages of Contraceptive Injection include

1. It is very effective and convenient.
2. There is no medication that stops it from working.
3. No one can know you are using it unless you tell them.

Advantages of the Contraceptive implant include

1. It is close to 100 per cent effective.
2. It lasts for three years.
3. It is safe to use when breastfeeding.
4. It usually makes periods less painful.
5. It can improve acne.
6. Women usually start ovulating again within three weeks of having the implant taken out.
7. About 20% of women who use the contraceptive implant do not have periods, which some women see as an advantage.

• Surgical Method of Contraception

- It is also known as sterilization.
- Sterilization is considered a permanent method of contraception.
- Sterilization can be reversed, but the success of this procedure is not guaranteed.
- Sterilization is meant for men and women who do not intend to have children in the future.

→ Vasectomy :- A small part of the vas deferens is removed or tied up through a small incision on the scrotum in male.

→ Tubectomy :- A small part of the Fallopian tube is removed or tied up through a small incision in the abdomen or vagina in Females.



NOTE → It is either a surgical or chemical action by which a biological male loses use of the testes. Orchiectomy specifically refers to surgical removal of one or both testes.

MEDICAL TERMINATION OF PREGNANCY

MTP is Medical Termination of pregnancy. It also called induced abortion. It is the medical way of getting rid of unwanted pregnancy. Any qualified gynecologist (MD/DGO) can perform MTP.

Nearly 45 to 50 million MTPs are performed in a year all over the world which accounts to 1/5th of the total number of conceived pregnancies in a year.

Following are the indicators for MTP

- Failure of Contraception
- Possible hazards on Physical / mental health of the mother.
- Pregnancy caused by rape.
- Possible hazard to the health of growing fetus.

MTP is legally permitted up to 20 weeks of gestation. MTP performed in first trimester is safer than in second trimester since it has fewer complications.

SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases (STDs) are infections that are passed from one person to another through sexual contact.

The causes of STDs are bacteria, parasites, yeast and viruses. There are more than 20 types of STDs.

→ Genital herpes

→ Gonorrhea (Caused by - Bacteria, Problem - infertility)

→ HIV/AIDS (Caused by - Virus)

→ Syphilis (Bacterial infection)

→ Trichomoniasis (Caused by - Parasite)

★ Most STDs affect both men and women, but in many cases the health problems they cause can be more severe for women. If a pregnant woman has an STD, it can cause serious health problems for the baby.

★ Antibiotics can treat STDs caused by bacteria, yeast or Parasites.

MODES OF TRANSMISSION

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- sexual transmission (genital-anal, genital-genital, oral-genital/anal)
- Skin to skin contact (non penetrative sex, body rubbing)
- mixture of infectious body fluids (blood, semen, vaginal secretions)
- Sharing of needles and other drug paraphernalia and needle stick injuries.
- From a pregnant woman to her unborn fetus, or to infants during vaginal delivery or through breast milk.
- Infestations (Scabies & pubic lice) can also be transmitted through shared clothing, bedding, linens etc.

PREVENTION OF STDs

- Use latex Condoms every time you have sex
- Avoid sharing towels or underclothing.
- Wash before & after intercourse.
- Get a vaccination for hepatitis B.
- Get tested for HIV



- If you have a problem with drug or alcohol abuse, get help.
- Consider that not having sex is the only sure way to prevent STDs.

INFERTILITY

A couple is considered to be experiencing infertility if conception has not occurred after 12 months of sexual activity without the use of contraception.

Infertility can have many causes and may be related to factors in the male, female, or both. Treatment can include medications and assisted reproductive technologies (ART).

Infertility is mainly of two types

- Primary infertility - It refers to those patients, who never had children.
- Secondary infertility - It refers to a situation, when a couple had children previously but are unable to conceive the next time.

Some Common Causes of Infertility in Males

- Low semen quality

- b) Oligospermia (low sperm count)
- c) Azospemia (absence of sperms)
- d) Sexual dysfunction.

Some Common Causes of Infertility in Females.

- a) Polycystic ovarian syndrome
- b) Blockage of Fallopian tube
- c) Age - related factors
- d) uterine problems
- e) Previous tubal ligation
- f) Damaged Fallopian tubes.

ASSISTED REPRODUCTIVE TECHNOLOGY

This technology includes IVF, ICSI, ZIFT etc which now provides hope for many infertile couples.

It is a general term referred to the method used to achieve pregnancy.

◦ In Vitro Fertilisation (IVF) or Test - Tube Baby Programme.

It is a technique of initiating the fertilisation outside the female body followed by the Embryo Transfer.

In IVF method, ovum from wife or female donor and the sperm from a husband or the male donor collected and are induced to form a zygote.



under simulated conditions in vitro (outside the natural body)

It is termed as test-tube baby Programme. Zygote or early embryo is then transferred for further development called Embryo Transfer.

ZIFT and IUT

- When the 8-celled blastomere stage embryo obtained by the in vitro fertilisation is transferred into the Fallopian tube. the process termed as zygote intra Fallopian Transfer (ZIFT).
- When the zygote with more than 8-celled blastomere stage is placed directly into the lining of the uterus to complete the further development, it is termed as Intra uterine Transfer (IUT).

Embryos formed by In Vivo Fertilisation

In this, fusion of the gamete takes place within the female body. This could be used for such transfer to assist those females who cannot conceive.

Gamete Intra Fallopian Transfer (GIFT)

When an ovum collected from donor is transferred to the Fallopian tube of another female, who cannot produce ova, but can provide a suitable environment for fertilisation and further development, is termed as Gamete Intra Fallopian Transfer (GIFT).

Intra Cytoplasmic Sperm Injection (ICSI)

When a single sperm is carefully injected into an egg using a micro needle, it is termed as Intra Cytoplasmic Sperm Injection (ICSI). (Male Infertility)

Artificial Insemination Technique (AI)

When the semen is collected either from the husband or a healthy donor and then artificially introduced into the vagina or into the uterus of the female.