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Reproductive Health

Definition and Scope

Reproductive health refers to the well-being of the reproductive system and its normal functioning. According to the World Health Organization (WHO), it encompasses physical, emotional, behavioral, and social well-being in all aspects of reproduction.

Problems Associated with Reproductive Health

Several issues affect reproductive health, including:

- Population explosion due to rapid increase in human population.
- Lack of awareness and sex education.
- Spread of myths and misconceptions about sexual health.
- Prevalence of sexually transmitted diseases (STDs) due to poor hygiene and knowledge.
- Illegal abortions and female foeticide.

- Sexual abuse and related crimes.

Reproductive Health Programmes

To address these problems, reproductive health and family planning programmes were initiated in 1951. Currently, the Reproductive and Child Health Care (RCH) Programmes cover a wide range of reproductive health issues.

Objectives of Reproductive and Child Health Care Programmes

- Create awareness about reproductive health among males and females through media and education.
- Provide sex education in schools to dispel myths and misconceptions.
- Prevent and control sexually transmitted diseases by promoting safe and hygienic practices.
- Educate couples about birth control, prenatal and postnatal care, and breastfeeding.
- Raise awareness about the negative effects of population explosion, sexual abuse, and sex discrimination.
- Provide medical facilities to reduce maternal and infant mortality rates.
- Promote Assisted Reproductive Technologies (ART) to address infertility.

Steps to Maintain a Reproductively Healthy Society

- Ban on amniocentesis for fetal sex determination.
- Implementation of immunization programs.
- Establishment of specialized health centers for infertility diagnosis and treatment.
- Improved awareness about sexual health and related problems.
- Increase in medically assisted deliveries and postnatal care.
- Development of female contraceptives like Saheli.
- Early detection and treatment of sexually transmitted diseases.

Population Explosion

Population explosion refers to the rapid increase in human population size and growth rate. Causes include:

- Decline in death rate, infant mortality rate (IMR), and maternal mortality rate (MMR).
- Increased longevity and better medical facilities.
- Prevention of diseases and improved agriculture.
- Better transportation and protection from natural factors.
- Increase in reproductive age population.

Consequences include poverty, unemployment, food shortage, unhygienic conditions, education and housing problems, pollution, crime, and depletion of natural resources.

Immunisation

Immunisation is the process of making an individual immune to infection by using vaccines to protect against diseases.

Birth Control

Importance of Birth Control

Birth control methods help prevent unwanted pregnancies and control population growth. An ideal contraceptive should be user-friendly, effective, reversible, have minimal side effects, and not interfere with sexual desire or activity.

Natural or Traditional Methods

- **Coitus Interruptus (Withdrawal):** The male withdraws the penis before ejaculation to prevent sperm deposition. Limitations include possible sperm presence in pre-ejaculate and psychological effects.
- **Periodic Abstinence:** Avoiding sex during the fertile period (10th to 17th day of menstrual cycle) reduces pregnancy chances by about 80% in women with regular

cycles.

- **Lactational Amenorrhoea:** Frequent breastfeeding suppresses ovulation for up to six months after childbirth.

Artificial Methods

- **Condoms:** Rubber or latex sheaths worn on the penis to prevent sperm entry and protect against STDs. Female condoms (femidoms) are also available.
- **Diaphragms, Cervical Caps, and Vaults:** Reusable rubber barriers fitted in the vagina to block sperm entry.
- **Intrauterine Devices (IUDs):** Inserted by medical professionals into the uterus. Types include non-medicated (Lippes loop), copper-releasing (Copper T), and hormone-releasing IUDs. They prevent implantation and increase sperm phagocytosis.

Chemical Methods

- **Spermicidal Tablets, Jellies, and Creams:** Chemicals like lactic acid and citric acid kill sperms when applied in the vagina before intercourse.
- **Oral Contraceptive Pills:** Hormonal tablets containing progestogens or combined progestogen-oestrogen taken daily for 21 days, followed by a 7-day break. They inhibit ovulation, implantation, and alter cervical mucus.
- **Saheli:** A non-steroidal oral contraceptive developed in India, taken once a week with few side effects.
- **Injectables and Implants:** Hormonal injections or implants provide longer-term contraception and can be effective as emergency contraceptives.

Surgical Methods

- **Male Sterilisation (Vasectomy):** Cutting or blocking the vas deferens to prevent sperm transport.
- **Female Sterilisation:** Includes ovariectomy (removal of ovaries), tubectomy (tying or cutting fallopian tubes), and tubal ligation (blocking tubes using laparoscope).

Medical Termination of Pregnancy

Definition and Importance

Medical Termination of Pregnancy (MTP) is the intentional termination of pregnancy before full term. It helps reduce unwanted pregnancies and is safe during the first trimester (up to 12 weeks).

Legal and Ethical Aspects

MTP is legal in India under strict conditions to prevent misuse and female foeticide. It is essential in cases where pregnancy endangers the mother or fetus.

Problems Related to MTP

- Many MTPs are performed illegally.
- Misuse of amniocentesis for fetal sex determination.
- Sex ratio imbalance due to female foeticide.

Amniocentesis

A prenatal diagnostic technique to detect genetic disorders and fetal sex by analyzing amniotic fluid. It is legally banned in India for sex determination due to misuse.

Sexually Transmitted Diseases

Overview

Sexually transmitted diseases (STDs), also called venereal diseases or reproductive tract infections, are infections transmitted through sexual contact. Examples include gonorrhea, syphilis, genital herpes, chlamydiasis, genital warts, trichomoniasis, hepatitis B, and HIV/AIDS.

Transmission and Symptoms

STDs can also spread through sharing needles, blood transfusions, and from mother to fetus. Early symptoms include itching, discharge, pain, and swelling in the genital area. Many infections are curable if detected early.

Prevention

- Avoid sexual contact with unknown or multiple partners.
- Use condoms consistently during intercourse.
- Seek early medical diagnosis and treatment if symptoms appear.

Infertility

Definition and Causes

Infertility is the inability of a male or female to produce offspring. Causes include physical, congenital, disease-related, drug-induced, immunological, or psychological factors.

Assisted Reproductive Technologies

In Vitro Fertilisation (IVF)

Ova and sperms are collected and fertilized in a laboratory to form a zygote, which is then transferred to the female reproductive tract. Types include:

- **Zygote Intra Fallopian Transfer (ZIFT):** Transfer of early embryos into the fallopian tube.
- **Intrauterine Transfer (IUT):** Transfer of embryos into the uterus.

Gamete Intra Fallopian Transfer (GIFT)

Transfer of an ovum from a donor into the fallopian tube of a recipient female who cannot produce ova but can support fertilization and development.

Intra Cytoplasmic Sperm Injection (ICSI)

A single sperm is injected directly into an egg in the laboratory, and the fertilized egg is implanted into the uterus.

Artificial Insemination (AI)

Semen from a husband or donor is artificially introduced into the female reproductive tract to assist fertilization, useful in cases of male infertility.

Surrogacy

A surrogate mother carries a child for a couple unable to conceive or carry a pregnancy. The surrogate is impregnated via artificial insemination or embryo implantation.

Challenges of ART

ART requires specialized professionals and expensive equipment, limiting availability and affordability.

Solved Examples

Practice Set

- **Level 1 (Easy):** Define reproductive health and list two problems associated with it.
- **Level 2 (Moderate):** Explain the difference between natural and artificial contraceptive methods with examples.
- **Level 3 (Challenging):** Describe the process and significance of In Vitro Fertilisation (IVF) in treating infertility.

Answer Key

- **Level 1:** Reproductive health is the well-being of the reproductive system in all aspects. Problems include population explosion and spread of sexually transmitted diseases.
- **Level 2:** Natural methods rely on avoiding intercourse during fertile periods (e.g., withdrawal, periodic abstinence), while artificial methods use devices or chemicals (e.g., condoms, oral pills) to prevent pregnancy.
- **Level 3:** IVF involves fertilizing eggs and sperms outside the body in a lab, then transferring the embryo to the uterus. It helps couples with infertility conceive.

Quick Reference Table

Common Mistakes and Misconceptions

Glossary
