

Chapter 3

Reproductive Health

EXERCISE-3.1

1 marks

1. What do you think is the significance of reproductive health in society?

Solution:

Reproductive health can be termed as total well-being in possibly all the aspects of reproduction, including emotional, physical, behavioural and social. Some diseases can be transferred from one individual to another through sexual contact, for example, gonorrhoea, AIDS, etc. They are referred to as sexually transmitted diseases. Sexual contact can also lead to unwanted pregnancies and further complications in case sexually transmitted diseases are contracted. Therefore, it is important to create awareness amongst people, the youth in particular, in the context of different topics related to reproduction. The youth is the future of the country. They are most susceptible to contracting sexually transmitted diseases. Hence, some preventive measures that can be adapted are creating awareness about different birth control methods available, sexually transmitted diseases and their preventive measures, and the importance of gender equality. These steps will greatly impact bringing up a socially conscious, healthy family. Also, creating awareness about the uncontrolled population growth and social evils that still exist in society will promote the concept of bringing up a reproductively healthy society.

2. Suggest the aspects of reproductive health which need to be given special attention in the present scenario.

Solution:

Reproductive health can be termed as total well-being, possibly in all aspects of reproduction, including emotional, physical, behavioural and social well-being. The different aspects that require special attention are as follows:

- Awareness needs to be created in reproductive and child healthcare.
- Creating awareness amongst people by counselling about reproductive organs, adolescence, hygienic and safe sexual practices, different sexually transmitted diseases, such as AIDS, etc.
- Sex education needs to be introduced in schools. This helps eradicate misconceptions and myths in the context of sex-related topics.

- People should be educated about the different birth control options that are available, the care of pregnant mothers, the post-natal care of the mother and the newborn, and the significance of breastfeeding.
- Professional expertise, strong infrastructural facilities, material support to provide medical assistance and care for the patients facing reproductive issues, issues because of uncontrolled population growth, awareness about family planning, and social evils, such as sex abuse and sex-related crimes.

3. Is sex education necessary in schools? Why?

Solution:

Yes, sex education is necessary in schools. It is because of the following reasons:

- Imparts apt and necessary information to students in order to save them from misconceptions and myths about sex-related topics.
- Provides appropriate knowledge about adolescence, reproductive organs and related concepts.
- Creates awareness amongst students about the need for hygienic and safe sexual practices and sexually transmitted diseases. This helps students, specifically those in adolescence, to lead a healthy reproductive life.

EXERCISE-3.2

2 marks

1. Do you think that reproductive health in our country has improved in the past 50 years? If yes, mention some such areas of improvement.

Solution:

Yes, there has certainly been an enormous improvement in reproductive health in the past 50 years. Listed below are the areas of improvement:

- The decrease in the infant mortality rate can be attributed to the massive child immunisation programme.
- Drastic decrease due to better post-natal care can be attributed to the maternal and infant mortality rate.
- The awareness created through the family planning programmes has seen people opting for smaller families.
- Decrease in the rate of sexually transmitted diseases and unwanted pregnancies due to the use of contraceptives.

2. What are the suggested reasons for the population explosion?

Solution:

Population explosion can be used to refer to the sudden, large increase in the size of a population. There is an increase in the population every day, leading to a population explosion. Two of the major reasons are as follows:

- Increase in the birth rate and longevity.
- Decrease in the death rate.

In the last 50 years, the death rate has decreased evidently. The decrease in the death rate and increase in the birth rate can be attributed to the various measures that have been adopted, such as diseases-control, measures taken to create awareness and spreading knowledge of the importance of reproductive health, measures taken to introduce sex-education topics at school level, better medical facilities, ensuring food supply and medical assistance during emergency times and so on. These reasons have also led to an increase in the longevity of people.

3. Is the use of contraceptives justified? Give reasons.

Solution:

Yes, the use of contraceptives is completely justified.

The human population is increasing exponentially. In order to regulate this population growth, keeping a check on the process of reproduction has become the need of the hour. For this purpose, different contraceptive devices have been circulated for use so as to reduce unwanted pregnancies, which have helped to lessen the recorded count of birth rate, thereby regulating the process of population explosion.

4. Removal of gonads cannot be considered a contraceptive option. Why?

Solution:

Contraceptives are used in order to prevent unforeseen, unwanted pregnancies and to prevent the spreading of sexually transmitted diseases. Some other alternatives to prevent unwanted pregnancies are the oral, barrier, natural and surgical methods. But, the complete removal of gonads cannot be a contraceptive option, as it will lead to infertility and make several hormones unavailable, which are crucial for the normal functioning of accessory reproductive parts. Contraception is used to prevent any chance of fertilisation and not make a person infertile for life, as removal of gonads would do.

5. Amniocentesis for sex determination is banned in our country. Is this ban necessary? Comment.

Solution:

Amniocentesis is a pre-natal diagnostic technique which is used to determine the sex and the metabolic ailments of the developing foetus in the uterus of the mother, which is carried out by observing chromosomal patterns. The method was deployed to determine the presence of any genetic disorder in the foetus. But unfortunately, this procedure has been misused for sex detection before the birth of the child, leading to female foeticide. Hence, to prevent this practice, a ban on the usage of amniocentesis for sex determination is necessary.

EXERCISE-3.2

4 marks

1. Suggest some methods to assist infertile couples in having children.

Solution:

The inability of a couple to produce a baby in spite of unprotected sexual intercourse is termed infertility. This can arise due to congenital diseases and physical, psychological and immunological factors. The diagnostic and corrective measures for a few of these disorders can be carried out in specialised healthcare units and infertility clinics. Assisted reproductive technologies (ART) are the special techniques that can assist infertile couples in bearing children.

Listed below are some methods assisting infertile couples in having children:

- In vitro fertilisation – Embryo transfer (IVF – ET)
In this method, the donor's egg is removed and fertilised in vitro by the sperm of the donor under a sterile environment in a culture medium. This fertilised embryo is then transferred to the body of the donor for complete development. Deployment of this method has induced a success rate of less than 20%. IVF – ET is of two types: IUT & ZIFT
 - IUT (intra uterine transfer)
The fertilised egg arrives at the 8-celled stage (blastomere). It is then transferred to the fallopian tube for further stages of development.
 - ZIFT (zygote intrafallopian transfer) In this method, the fertilised egg arrives at the 32-celled stage (advanced stages to the 8 blastomere stage) and is then transferred to the uterus for further stages.
- In vitro fertilisation – surrogacy

In this method, the embryo is formed in a fertile female, which is then transferred to the body of an infertile female who is not able to conceive. The success rate of this procedure is nearly 65%.

- Gamete intrafallopian transfer (GIFT)

In this method, the unfertilised oocytes and the sperm are collected and transferred to the fallopian tube of another female who is unable to produce eggs but is able to offer a suitable ambience for fertilisation and development. The success rate of this procedure is around 30%.

- Intracytoplasmic sperm injection (ICSI)

This method is carried out in a laboratory. Direct injection of sperms into the ovum for the formation of an embryo is done through ICSI. The success rate of this procedure is nearly 60-70%.

- Artificial insemination (AI)

In this method, semen that is collected either from a healthy donor or husband is introduced either into the uterus of the female or her vagina. The success rate of this procedure is about 20-40%.

2. What are the measures one has to take to prevent contracting STDs?

Solution:

Listed below are the measures to be taken to avoid the contraction of STDs.

- Blood transfusion from an infected person or drug abuser must be avoided.
- Sharing surgical instruments and injection needles must be totally avoided.
- Having sexual intercourse with an unknown or multiple partners must be avoided.
- Always use precautions (condoms) during intercourse.
- In case of any doubt, early detection and cure must be taken through medical assistance from a qualified doctor.

3. State True/False with an explanation.

(a) Abortions could happen spontaneously too. (True/False)

(b) Infertility is defined as the inability to produce viable offspring and is always due to abnormalities/defects in the female partner. (True/False)

(c) Complete lactation could help as a natural method of contraception. (True/False)

(d) Creating awareness about sex-related aspects is an effective method to improve the reproductive health of people. (True/False)

Solution:

- True
- False
Infertility is defined as the inability to produce viable offspring and can be due to abnormalities in either the male or the female partner.
- False
Lactational amenorrhea or complete lactation can help as a natural method of contraception. But it is limited until the completion of the lactational period only, which is until six months after parturition.
- True

4. Correct the following statements.

(a) Surgical methods of contraception prevent gamete formation.

(b) All sexually transmitted diseases are completely curable.

(c) Oral pills are very popular contraceptives among rural women.

(d) In E. T. techniques, embryos are always transferred into the uterus.

Solution:

1. Surgical methods of contraception prevent gamete flow during the act of intercourse.
2. Some STDs can be cured if detected early and treated appropriately. But AIDS still remains to be incurable.
3. Oral pills are very popular contraceptives among urban women.
4. In embryo transfer (E.T.) techniques, the 8-celled embryos are transferred into the fallopian tube. Whereas more than 8-celled embryos are directly transferred to the uterus.