MODULE 11: RTI, STI AND RELATIONSHIP WITH HIV

Introduction:

In this session, we will develop an understanding about RTIs and STIs. These also been dealt with in the NCERT textbook Biology of Class XII. As we are all aware, there are germs which impact our body. There are certain germs which affect the reproductive tract as well. The impact of infection and the prevention of reproductive tract infection and sexually transmitted infection will be discussed in this session. We would also highlight the relationship between STI and HIV infection.

Activity 1: Understanding RTIs, STIs and its relationship with HIV

TO BE CONDUCTED IN CLASS XI ONLY

Learning Objectives:

By the end of this session, the learners will be able to:
- Understand the modes of transmission and prevention of RTIs and STIs.
- Recognize common symptoms of RTIs and STIs
- Appreciate the importance of seeking timely help from a qualified doctor
- Understand the long term consequences of untreated RTIs and STIs
- Understand the relationship between STIs and HIV.

Materials required: Marker/Chalk, Writing Board, power point presentation, Worksheet

Time required: 45 Minutes

Notes for the facilitator:

- Start the activity by dividing the learners into four groups.
- Then provide two groups with the material related to RTIs and other two groups related to STIs.
- Ask the learners to discuss the material in their group, choose a group reporter who will share the group’s understanding on the topic assigned to them with the larger group
- Supplement the information using power point presentation.
- End the session by summarizing and emphasizing key messages.
Please remember to provide feedback at the end of this module

Group Work Tasks

Group 1: Reproductive Tract Infections (RTIs)

Reproductive Tract Infections are being increasingly recognized as a serious global health problem which impact individual women and men, their families and communities.

RTIs are widespread. The World Health Organization estimates that each year, there are over 333 million new cases of curable STIs. In addition, UNAIDS calculates that in 2000 alone, 5.3 million people became infected with HIV.

It is noteworthy that all RTIs are not sexually transmitted. For example, poor genital hygiene can lead to RTIs. Please refer to Module 4, Activity 4 for more details on maintaining genital hygiene.

RTIs and Sexually Transmitted Infections (STIs) have similar symptoms (detailed in the task given to group 3).

RTIs and STIs lead to similar consequences that may include, infertility, ectopic pregnancy, chronic pelvic pain, miscarriage (abortion), and increased risk of HIV transmission.

Group Work 2: Sexually Transmitted Infections (STIs)

Sexually transmitted infections are infectious diseases that spread through unprotected sexual activity (without use of condom) with an infected partner. Agents of infection include bacteria, viruses and other micro-organisms that can enter a person’s urethra, vagina, mouth or anus. Some cause no symptoms at all, and some are easily treatable. Others result in severe long-term consequences and cannot be treated. As we have learnt already, sexual transmission is the most important mode of HIV transmission that leads to AIDS for which there is no cure till date.

Several different organisms can be transmitted through unprotected sexual activity. They can cause symptoms and consequences including the following: genital ulcers, inflammation, pain, infertility, spontaneous abortion, fetal wastage and premature delivery, and neonatal blindness and infection.

Group Work 3: Common symptoms of RTIs/ STIs

The symptoms of some STIs may seriously affect an individual's quality of life and eventually become fatal, while others are so mild that they may go undetected.

Some of the common signs and symptoms of RTIs and STIs are:
- Itching/ rashes in genital area
- Discolored, foul smelling discharge from genital organs;
- Pain/burning sensation when urinating;
- Pain in lower abdomen
- A small painless ulcer at the site of infection – usually the sexual organs or the mouth, followed by a red rash all over the body;
- Small, usually painful ulcers on or around the genital organs;
- Small blisters at the site of infection – the mouth or the genitals accompanied by fever and general aches and pains;
- Warts on and around sex organs.
- Swelling/ inflammation of genital organs
- Pain during intercourse in women

It is noteworthy that many RTIs/ STIs may remain asymptomatic (no symptoms seen) especially in women. As a result, they may remain undetected and untreated and the infected person can continue infecting others without realizing that s/he is suffering from a RTI/STI. A person may be infected for some time and not know it. The danger is that the person can spread the disease to others without realizing it.

It is important that sexually transmitted infections are adequately treated. If not, they can become chronic and be the cause of serious complications. For adequate and effective treatment it is necessary to go to a qualified doctor. Self-treatment or treatment by quacks is not advisable. One should not feel ashamed to go to a doctor. It is the doctor’s duty to maintain strict confidentiality.

**Group Work 4: Relationship Between STIs and HIV**

As similar risk behavior, mainly unprotected sexual contact with infected partner is responsible for transmission of both STIs and HIV. Sexually transmitted infections may cause ulcers etc that may lead to easier and more efficient transmission of HIV from one infected sexual partner to another.

Also, the presence of HIV increases vulnerability to STIs. An individual with HIV eventually suffers damage to the immune system, making him or her more susceptible to contracting other infections, including RTIs and STIs. Furthermore, in an HIV-infected person, RTIs and STIs are more difficult to treat and cure. As a result of the presence of other untreated STIs and some endogenous RTIs, an HIV-infected person is more likely to transmit HIV in subsequent unprotected sexual contact. Prevention and management of STIs, therefore, have become a critical strategy for minimizing the impact of the HIV/AIDS pandemic.

**Summing up:**

- RTIs include all infections of reproductive tract that may come from poor genital hygiene, and imbalance of normal bacteria in the reproductive tract
- Sexually transmitted infections are infectious diseases that spread through unprotected sexual activity with an infected partner
- RTIs / STIs are preventable
• Some of the common symptoms of RTIs/ STIs include discolored, foul smelling discharge from genitals, painful or painless ulcers, warts and rashes on genital organs, and pain during urination
• It is important to note that many STIs remain asymptomatic particularly in women and the infected person can continue infecting others without realizing that s/he is suffering from a RTI/STI
• Individuals suffering from RTIs/ STIs should not be stigmatized but encouraged to seek early and timely help from a qualified doctor
• Majority of RTIs / STIs can be treated adequately by consulting a qualified doctor in a timely manner
• Untreated RTIs /STIs could lead to serious complications
• Having a RTI or STI also increases the risk of acquiring HIV infection for several reasons. Unprotected sexual contact with infected partner is responsible for transmission of both STIs and HIV. RTIs/ STIs may cause ulcers etc could lead to easier and more efficient transmission of HIV from one infected sexual partner to another.
FACT SHEET

RTIs
- Reproductive Tract Infections (RTIs) are infections that occur in the reproductive tract of both men and women. These are caused by bacteria, viruses or protozoa. The infection affects the genital tract and can affect female reproductive organs or male reproductive organs. RTIs can be present without producing any symptoms.
- RTIs include all infections of the reproductive tract whether transmitted sexually or not.
- The infection may come from the use of unhygienic toilets or faulty genital hygiene.
- RTIs may even occur due to imbalance of the normal bacteria in the reproductive tract.
- Practice of proper genital hygiene in males and females and menstrual hygiene in females can prevent RTI.
- For cure of RTI, patient should seek advice and treatment of qualified doctors.

STIs
- Infections transmitted from one partner to another during unprotected sexual activity with an infected partner are called Sexually Transmitted Infections (STIs). The infections are transmitted via the mucous membranes and secretions of the genital organs, throat and rectum.
- Not only do they affect genital organs but also are harmful for the overall health.
- Common STIs are Gonorrhoea, Chlamydia, Syphilis and HIV etc.
- There is strong evidence that sexually transmitted infections (STIs) put a person at a greater risk of getting and transmitting HIV. This may occur because of sores and breaks in the skin or mucous membranes that often occur with STIs. There are various types of sexually transmitted diseases.
- Most STIs are easy to treat, if they are detected and treated early. If they are not detected and treated early, the infection may spread and cause various complications.

The symptoms of some of the more prevalent STIs include:

- **Gonorrhea**: The most common symptoms among infected adolescent girls are vaginal discharge, bleeding between menstrual cycles, and painful urination. Among adolescent boys, common symptoms are burning or painful urination and pus-like discharge from the penis.
- **Chlamydia**: Symptoms of Chlamydia are similar to those of gonorrhea and sometimes difficult to differentiate clinically. Chlamydial infections are more likely to be asymptomatic than gonorrheal infections and thus are of longer duration on average.
- **Syphilis**: In primarily syphilis, the characteristic symptom is the appearance of a chancre (painless ulcer) at the site of initial exposure (e.g. external genitalia, lips, tongue, nipples, or fingers). In some cases, the infected individual will experience swollen lymph glands. In secondary syphilis, the infection becomes systemic and the individual experiences symptoms such as fever, headache, sore throat, rash, and swollen glands. During latent syphilis, symptoms go unnoticed. During the late stage of syphilis, the infection has spread to organ...
systems and may cause blindness, signs of damage to the nervous system and heart, and skin lesions.

- **Herpes Simplex Virus**: The symptoms of genital herpes include burning and itching of the genital area, blisters or sores on the genitals, discharge from the vagina or penis, and/or flu-like symptoms such as headache and fever.

- **Human Papilloma Virus (HPV)**: The warty growths of HPV can appear on the external or internal reproductive organs of males and females but are commonly found on the labia minora and the opening to the vagina in females and the penis in males. They may be small and few or combine to form larger growths.

- **Human Immunodeficiency Virus (HIV)**: Some persons who are newly infected with HIV have rash, fever, enlarged lymph nodes, and a flu-like illness sometimes called HIV seroconversion syndrome. This initial syndrome passes without intervention, and later symptoms, when T-cells become depleted, include weight loss, chronic cough, fever, fatigue, chronic diarrhea, swollen glands, white spots on the tongue and inside of the mouth, and dark blotches on the skin or in the mouth.

As many of the RTIs and STIs particularly in women remain asymptomatic, it is possible that a person may have a RTI or STI and not know about it. The danger is that the person can spread the infection to others without realizing it.

It is important that sexually transmitted infections are adequately treated. If not, they can become chronic and be the cause of serious complications. For adequate and effective treatment it is necessary to go to a qualified doctor. Self-treatment or treatment by quacks is not advisable. One should not feel ashamed to go to a doctor. It is the doctor’s duty to maintain strict confidentiality.

**Summative Activity: Question Box on prevention of HIV and AIDS**

**Learning Objectives:**

- To clarify questions/concerns related to HIV and AIDS prevalence, HIV transmission and prevention, its implications, and HIV testing, counselling and confidentiality

**Time required**: 45 minutes

**Materials required**: Question box, paper and pen

**Notes for the facilitator:**

Please note this is a key, mandatory activity. Please collect the questions asked by the learners after the activity has been entirely completed and send these to NCERT. These questions will form important sources of information for a needs-based assessment.
Planning the Activity:

- It is important to create an enabling environment where the learners are encouraged to ask questions to resolve their concerns/queries.
- Question box should be introduced at the beginning of the section and learners should be encouraged to put questions that they are hesitant to share in the large groups into the box. The facilitator should remind the learners about the question box frequently so that it is well used.
- The question box should be placed in a safe and accessible place and should be locked.
- At least at the end of each of the three sections: process of growing up, prevention of HIV/AIDS and prevention of substance abuse, the questions in the box should be discussed. If needed, more than one session can be organized for resolving queries in each section.
- A time frame should be specified for putting in the queries and answering the questions.
- The facilitator and the selected learners should sort through the questions.
- After sorting, the facilitator should decide how to respond to queries. They may need to refer to additional resource materials for answering some of the questions.
- They can adopt a participatory approach in responding to these questions by asking the learners who think they know answers to respond to them.

In school settings:

- Teachers may use their discretion to organize the question box activity for all the students of classes 9 and 11 at the same time or separately for classes 9 and 11. If the school administration thinks it necessary to organize the activity separately for boys and girls, they may do so. However, in the interest of building a common understanding on issues related to adolescent health and well being; it is desirable to organize common sessions after the first few sessions.
- Students should be involved at all stages of this activity in terms of planning and conducting it. Concerned teachers and school principal may make a beginning by motivating a small group of students selected from different classes for this purpose. To increase student participation, a new group of students may be involved each time the question box activity is organized.
- Teachers may take the help of external experts in answering some of the questions. If parents can serve as experts, they should be given preference. These forums can serve as important opportunities for involving parents in the program.
- However, teachers are strongly encouraged to respond to as many questions as possible on their own. This will prove to be an empowering experience for them also. They should refer to additional resources/references if needed.

Conducting the Activity:

- Learners will ask a wide range of questions. It is critical that the facilitator does not judge these questions as being ‘right’ or ‘wrong’.
• Facilitators’ efforts should be directed at responding to the learning needs in as non-judgmental a manner as possible.

• It is likely that facilitators may be embarrassed by some of the questions that are being asked. This is understandable since all the facilitators may not perhaps have had sufficient training opportunities or experience of transacting such questions. In this context it would help facilitators if they remain matter of fact and information oriented in their approach.

After responding to all the questions, the facilitator may sum up the discussion emphasizing the following issues:

• Low HIV prevalence in a specific geographical area, for example, a state does not imply that the state is protected from HIV infection. There may be pockets of high prevalence within a state. Hence, consistent prevention efforts are needed to keep prevalence rates low. Furthermore, a state with high prevalence of HIV can also check new infections by using effective prevention mechanisms.

• HIV estimates are derived on the basis of HIV prevalence observed at designated sentinel surveillance sites, primary clinics and hospitals.

• Young people are at risk of the infection. Young people can learn and adopt safer behaviours which will reduce their risk to the infection.

• While young people worldwide are at higher risk, they have a right to information and must be empowered to making informed choices.

• Women are at higher risk of HIV infection. Their lower socio-economic status in the family, less autonomy and overall neglect of their health contributes towards their increased vulnerability. Women’s poor access to health services as well as to testing services also increases their risk of acquiring the infection. Furthermore, women are biologically at higher risk of acquiring STIs, HIV.

• Knowledge of HIV transmission, prevention, treatment and care is important to reduce risk of transmission and spread of the infection, and decrease the stigma and discrimination associated with HIV/AIDS, which becomes double discrimination, in the case of women.

• It should not be assumed that HIV is transmitted only in certain ‘high risk groups’ (such as sex workers or intravenous drug users). Women from average, middle class families and backgrounds are being detected with the infection as well, which further emphasizes the point, that it’s not the groups that are “risky” but rather the behaviors that people adopt that would put them at risk of infection.

• HIV does not discriminate, it can infect any one, irrespective of class, color, gender, disability and identity.

• Information is power and the key to prevention. Everyone, especially young people have the right to accurate, complete and age appropriate information and education on HIV.

• Adolescents have a right to comprehensive education on HIV to help them make more informed choices and adopt safer behaviours.

• Myths and misconceptions perpetuate fear and further lead to stigma and discrimination. Clarifying Myths helps in demystifying the virus and reduces anxiety.

• Values are integral to the understanding of issues, especially those related to topics that are sensitive and taboo.

• Every individual has certain values that are close to him/her. Hence, there is no one right or one wrong way of looking at things.
HIV/AIDS has greater multi-sectoral impact in comparison to other epidemics like diarrhea/malaria, so is a great burden on the nation as a whole.

People (including young people and children) have a right to confidentiality and privacy when they receive health care, including counselling and treatment for HIV/ AIDS, STIs and RTIs. People also have the right to keep their HIV status confidential. Fear of their status being revealed may keep many from getting tested.

Counselling is considered very helpful in the care and support of persons living with HIV and or AIDS, their families, and the communities they live in. Counselling provides social and psychological support, and has been shown to help people cope with being HIV positive and understanding what it means to live with HIV and AIDS.

Making the right referral is a skill and an important component of providing care and support services.

Oftentimes the student approaches a teacher who s/he feels most close or comfortable with. This is because the teacher is often looked upon as a person who the student can fall back on and depend on. This further increases the responsibility of the teacher to ensure that s/he is taking every action in the interest of the student and even unknowingly, not causing any hurt or harm to the student in any way.

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