

Review Article

To assess the effectiveness of structured teaching programme on knowledge and attitude regarding prevention of HIV/AIDS among the adolescents: A review study

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ABSTRACT:

The term HIV/AIDS has dominated the media day in and day out, with reports on how the epidemic is devouring the whole globe, with children and young people being especially vulnerable. One cannot afford to turn a blind eye to this important issue at this time of uncertainty and discontent. Because there is no cure for HIV/AIDS, the only hope is "awareness" so that people may protect themselves sufficiently. Adolescence is a pivotal period in human development. Most adolescents start sexually active throughout their adolescence, and they are more likely to engage in multipartner and unprotected sex, as well as high-risk behaviour that predisposes them to sexually transmitted illnesses such as the human immunodeficiency virus (HIV). To decrease the spread of HIV infection, we urge that organised training programmes on HIV/AIDS transmission and prevention be supported among adolescents and youths.

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INTRODUCTION

Although adolescents are disproportionately afflicted by HIV across the globe, they are seldom expressly addressed in national HIV programmes and programmatic activities. In 2016, 260 000 adolescents aged 15 to 24 were infected with HIV, with young women infected at a rate 44 percent higher than their male counterparts.^{1,2}

There are unique concentrated groups of teenagers who are especially susceptible within the wider at-risk population of adolescents. Outside of the school system, young women are isolated and unsupported by networks and organisations that may help to their development and lessen their susceptibility. Their vulnerabilities are often the result of family economic imperatives, adolescent pregnancy, or a lesser societal emphasis to retain young women in education.^{3,4} Furthermore, young important groups across the globe have a high burden of HIV and are at heightened risk. Young MSM, transgender youth, young people who inject drugs, young sex workers, and young people who find themselves on the wrong

side of the law are among the main demographics. Although large-scale treatments are essential to battle a widespread epidemic, a tailored and focused strategy that targets these important groups is required to effectively and successfully prevent new infections.⁵

Adolescent HIV prevention is especially important in a society where the youth population is continuously growing. Over half of the world's population is now under the age of 30, with the bulk of these young people residing in developing nations; this percentage of youth is expected to grow significantly over the next 20-30 years. Aside from HIV, adolescents is responsible for over 35% of the worldwide illness burden.⁶ Adolescence is a vital transition phase for teenagers as well as a critical investment era, during which the benefits of preventative initiatives may be greatly increased across health and sociostructural dimensions. As the triple dividend, significant investment in prevention in this age group is anticipated to have an influence on both the near and long-term perspectives.⁶

Adolescence is the period between puberty and independence and self-sufficiency.

6 There are major biological, psychological, and behavioural transformations throughout adolescence, which occur with hectic schedules and explorative learning. Adolescent brain growth focuses on meeting urgent requirements and avoiding short-term hazards.⁷ As a consequence, health choices are more reactive than preventative, as shown by the prevalence of sexually transmitted illnesses (including HIV), which is greatest among teenagers aged 15-24 years. Furthermore, teenagers have high rates of unwanted pregnancy, contraceptive need, and failure, with childbirth being the second largest cause of mortality among 15 to 19-year-old females in underdeveloped countries.

STUDY AREA

This study was done in the Department of nursing, Malwanchal university, Indore, Madhya Pradesh.

SEXUAL RISK BEHAVIORS CAN LEAD TO HIV

Data from the Centers for Disease Control and Prevention (CDC) reveal a decrease in sexual risk behaviours among high school students from 2009 to 2019, including fewer who are presently sexually active. The proportion of high school students who have ever had sex has declined from 46% in 2009 to 38% in 2019. However, many young people participate in health-risk activities and experiences that might have unexpected consequences.

- **Condom usage declines:** Condom use among sexually active students fell from 61% in 2009 to 54% in 2019, posing a severe health risk for HIV and STDs.
- **Substance use and high-risk behaviours:** When under the influence of drugs or alcohol, youth may engage in high-risk behaviours such as intercourse without a condom or failing to take HIV prevention or treatment medication. Nationwide, 27% of all students are now sexually active (had sexual intercourse in the past 3 months), and 21% of those students drank or took drugs before to their most recent sexual intercourse.
- **Some young people are more vulnerable than others:** Some kids, particularly lesbian, gay, and bisexual (LGB) youth, are predisposed to poor health outcomes. For example, 11% of LGB students have had sex with four or more partners at some point in their lives, compared to 8% of heterosexual students. LGB students (4%) were also more likely than heterosexual students to have ever injected illicit substances (1 percent).^{8,9}

HIV RISK AND PREVENTION

In the United States, HIV is mostly transmitted via intercourse or the sharing of needles and other

injection equipment with someone who is HIV-positive. Substance abuse might indirectly add to these risks since alcohol and other substances weaken inhibitions and make individuals less inclined to use condoms. This section discusses the many risk behaviours and preventative techniques that may be used to lower the risk of HIV transmission.

- HIV Risk and Prevention Estimates
- Pre-Exposure Prophylaxis (PrEP)
- Post-Exposure Prophylaxis (PEP)
- HIV Treatment as Prevention
- Condoms
- Male Circumcision.¹⁰

HIV PREVENTION AMONG ADOLESCENTS

Numerous risk and protective variables work at several levels, including the individual, dyad (peer/partner/parent), community (e.g., school environment), and society. Identifying risk and protective behaviour variables is crucial to ensure that treatments are suitable for the population and environment in which they are provided. The need of combining HIV preventive techniques that target biological, behavioural, and structural issues has been underlined as critical to influencing the pandemic.¹¹

INTERVENTIONS FOR HIV PREVENTION IN BIOMEDICINE

Biomedical HIV interventions are defined by the Centers for Disease Control and Prevention (CDC) as medical, clinical, and public health techniques that control biological and physiological parameters to prevent HIV infection, reduce susceptibility to HIV, and/or lower HIV infectiousness. Over the last five years, tremendous scientific and technical improvements in biological HIV prevention have happened.¹²

INTERVENTIONS FOR BEHAVIORAL HIV PREVENTION

In the HIV Risk Reduction chapter of the 2018 CDC Compendium of Evidence-Based Therapies and Best Practices for HIV Prevention, 61 behavioural interventions are recognised. Only eight were classed as "best evidence" (i.e., carefully assessed and demonstrated to have considerable evidence of effectiveness to eliminate or decrease the incidence of new HIV/STD infections, or enhance HIV-protective behaviours) among those especially intended for and tested among teenagers (n=15). Several recent systematic literature reviews have also highlighted the scarcity of properly assessed behavioural therapies for youth, as well as the scarcity of interventions specifically developed for adolescents.¹³

INTERVENTIONS FOR HIV PREVENTION IN STRUCTURE

It is becoming more obvious that structural HIV infection factors have a significant role in raising

HIV risk in adolescents. Poverty, a lack of education, unemployment, food insecurity, violence, stigma, and prejudice all raise the risk of HIV infection while also limiting access to preventive and treatment programmes. While there is still a significant need for a broader evidence base of effective structural HIV prevention interventions, considerable progress has been achieved in the areas of social protection and gender-based violence.

DIAGNOSIS

HIV may be detected by blood or saliva tests:

Antigen/antibody testing are among the assays available. Typically, blood is drawn from a vein for these tests. Antigens are components on the HIV virus that are generally detected in the blood — a positive test — after a few weeks of HIV contact. When your immune system is exposed to HIV, it produces antibodies. Antibodies might take weeks to months to become detectable. The combined antigen/antibody tests might be positive 2 to 6 weeks after exposure.

- **Antibody testing:** These tests check for HIV antibodies in the blood or saliva. The majority of quick HIV tests, including at-home self-tests, are antibody tests. Antibody testing might be positive 3 to 12 weeks after being exposed.
- **Nucleic acid analysis (NATs):** These tests check for the virus itself in your blood (viral load). They also include the drawing of blood from a vein. If you have been exposed to HIV in the last several weeks, your doctor may advise you to take NAT. NAT will be the first test to be positive after HIV exposure.^{14,15}

HIV SCREENING

HIV testing is the first step in gaining access to biological prevention. While access to quick and low-cost HIV testing has improved in recent years, teenagers continue to be one of the demographics with the lowest testing rates, with several vulnerable adolescent key populations having even lower rates. It is evident that testing modalities must reach individuals at greatest risk outside of the usual clinic environment, including mobile testing, home testing, and venue-based testing. Given that the majority of teenagers are not sexually active, mass testing of all adolescents may not be the most cost-effective way to reach more kids; instead, tailored and novel testing tactics to reach adolescents in need of testing are required. Another method that has been proven to be extremely acceptable in a variety of situations is HIV self-testing, which provides teenagers with a private and convenient approach to receive HIV testing.^{16,17}

HIV TREATMENT

There is currently no treatment for HIV/AIDS. Once infected, your body is unable to rid itself of it. There are, however, several drugs that may manage HIV and avoid problems. These drugs are known as

antiretroviral treatment (ART). Everyone diagnosed with HIV, regardless of stage of infection or consequences, should begin ART.

ART is often a mix of two or more drugs from several pharmacological classes. This method provides the highest probability of decreasing HIV levels in the blood. Many ART methods combine numerous HIV drugs into a single tablet that is taken once daily.

Each medicine class inhibits the virus in a distinct manner. Combinations of medicines from various classes are used in treatment to: • account for individual drug resistance (viral genotype) • avoid producing new drug-resistant strains of HIV • maximise virus suppression in the blood Typically, two medications from one class are combined with a third drug from a different class.¹⁸

CONCLUSION

The study is now underway, and the empirical assessment of knowledge and practise about knowledge and attitude of HIV/AIDS prevention among teenagers in chosen schools in Bharatpur, Rajasthan, would be beneficial to adolescents. Adolescents must be made more aware of the need of HIV/AIDS prevention. As a result, there is a need to perform a research to assess teenagers' knowledge and attitudes about HIV/AIDS prevention. To decrease the spread of HIV infection, we urge that organised training programmes on HIV/AIDS transmission and prevention be supported among adolescents and youths.

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