Research Paper

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HIV/AIDS Awareness and Knowledge in Rural Adolescent: A Cross-sectional survey in Central India

Medical Science

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ABSTRACT

This paper discusses the current level of knowledge and awareness of adolescents regarding HIV/AIDS living in rural areas. A cross-sectional study was carried out from September - October 2011 involving 560 students in the age group of 13-19 years from the schools of rural area of Nagpur district, Maharashtra A pretested proforma was used to interview the students to assess their knowledge and awareness towards HIV/AIDS. Results showed around 87% adolescents knew the mode of transmission of the disease but only 62% knew about some preventive measures. 43% adolescents had misconception that HIV/AIDS spread through sneezing/coughing. The main sources of information regarding HIV were television, teachers and friends. Basic knowledge of HIV/AIDS is still lacking and misconceptions still persisting in rural area. Media was playing an important role in creating awareness regarding HIV/AIDS.

Introduction:

HIV has been emerging as a major public health problem in India. More than 1/3rd of reported cases of HIV/AIDS in world are in India, 60% of these resides in rural area. [1, 2]

According to estimate by UNAIDS, more than 4 million children under the age of 15 years and more than 10 million young people (15-24 years) have been infected with HIV. [3, 4]

To stop the spread of HIV/AIDS in India, the Tenth Five Year Plan (2002-2007) was developed with targets set to achieve 90% coverage of schools and colleges through education program and 80% awareness among the general population in rural area.[4]

So, assessment of awareness levels in adolescents is important as it helps to determine the impact of previous awareness and prevention efforts made by the government and also to gauge the need for interventions.

With this background, this study was conducted to assess the current level of knowledge and awareness of adolescents in rural areas regarding HIV/AIDS.

Methodology:

Study design and setting

A cross-sectional study was conducted between September to October 2011 in Rural area under Rural Health Training Centre Hingna, Indira Gandhi Govt. Medical College, Nagpur, Maharashtra, India. The study population comprised of students aged 13 to19 years living in the study area. By multistage random sampling two schools in the area namely, Nehru school and Zilla Parishad school, were selected. Students from 8th -12th standard were included in the study.

Data collection

All students present in the classes at the time of interview were included in the study.

Thus 560 Students were interviewed. Every student was interviewed personally in a separate room by investigator using a pretested questionnaire consisting of socio-demographic information like age, sex, education; information regarding their parents like occupation, income, education and 24 questions, covering different aspects of knowledge, awareness and attitude regarding HIV/AIDS.

The entire interview process was conducted in local language. The written informed consent was taken from parents and participants before study. The average time of an interview was 15-20 minutes. After the data collection, any queries relating to HIV/AIDS that the participants may have had were answered. Study protocol and proforma were approved by Institutional Ethical Committee. Permission from Headmasters of both the schools was also obtained.

Data entry and analysis

Percentages were calculated to explore the level of awareness about HIV/AIDS in the study population. Chi-square test was used as a test of significance.

Results:

Demographic profile:

The age of the students was ranging from 13 to 19 years with mean age of 15.71 yrs (SD - ±1.29). 250(44.64%) were males and 310(55.36%) were females. 81.78% were Hindu, 15.72% were Boudha and 2.5% were Muslim. 82.23% students belonged to class 3 and class 4 of socio-economic status according to Prasad's Classification. 502 (89.64%) had heard of a disease called HIV/AIDS and remaining 58 (10.36%) students were totally unaware of it. So, further analysis was done on these 502 students. Among 502, about 78.49% knew that the disease was transmitted through sexual intercourse, 86.06% knew about transmission through blood transfusion, 87.25% knew about transmission through the sharing of needles/syringes, and about 84.56% knew about transmission of HIV from mother to child (Table 1).

Table 1: Knowledge of students regarding mode of transmission of HIV/AIDS

Modes of transmission	Males (%) n = 210	Females (%) n = 292	Total (%) n = 502
Sexual intercourse	154 (73.33)	240 (82.19)*	394 (78.49)
Blood transfusion	198 (94.3)*	234 (80.14)	432 (86.06)

Sharing needles/ syringes	190 (90.48)	248 (84.93)	438 (87.25)
Mother to child	180 (85.72)	244 (83.56)	424 (84.56)
Sharing of razors/ blade	168 (80.0)*	194 (66.44)	362 (72.11)

(* p < 0.05)

Regarding preventive measures against HIV/AIDS, about 43.03% knew the importance of having a monogamous sexual relationship with a non-infected partner in preventing HIV; only 39.04% knew the role of condoms in preventing HIV; only 31.08% knew the role of blood safety; and 62.55% understood the importance of safe injection practices. (Table 2) It was found that girls were more aware of preventive measures regarding HIV/AIDS than boys.

Many misconceptions regarding the transmission of HIV were noted in the participants. About 43.03% thought that HIV can be transmitted through sneezing/coughing of HIV infected person; 29.08% thought that HIV could be transmitted by a mosquito bite; 15.14% believed that HIV can be transmitted by living with an HIV-infected person and 14.74% thought that HIV can be acquired through eating food with HIV positive individual. (Table 3)

Table 2: Knowledge of students regarding preventive measures of HIV/AIDS

Preventive measures	Males (%) n = 210	Females (%) n = 292	Total (%) n = 502
Avoid unprotected sexual contact	56 (26.67)	160 (54.79)*	216 (43.03)
Use of condom	62 (29.52)	134 (45.89)*	196 (39.04)
Safety before blood transfusion	58 (27.62)	98 (33.56)	156 (31.08)
Safe injections practices	132 (62.86)	182 (62.33)	314 (62.55)
Don't know	20 (9.52)	33 (11.30)	53 (10.55)

(* p < 0.05)

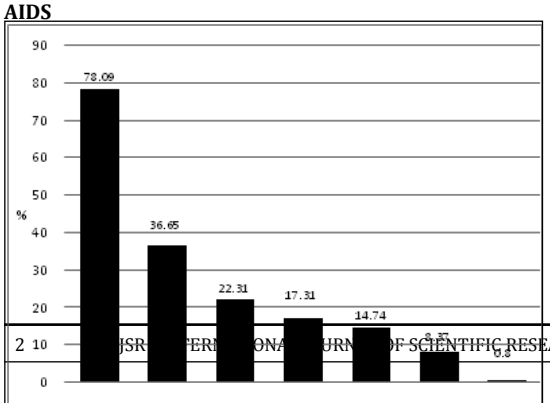
Table 3: Misconceptions regarding modes of transmission of HIV/AIDS

Misconception	Males (%) n = 210	Female (%) n = 292	Total (%) n = 502
By living with HIV-infected person	56 (26.67)*	20 (6.85)	76 (15.14)
By taking food with HIV-infected person	26 (12.38)	48 (16.43)	74 (14.74)
By mosquito bite	54 (25.71)	92 (31.51)	146 (29.08)
Through sneezing/ coughing of HIV infected person	104 (49.52)*	112 (38.36)	216 (43.03)

(* p < 0.05)

The main source of information regarding HIV/AID was television (78.09%). Other sources were information getting from teachers (36.65%), friends (22.31%), books and magazine (17.31%), newspapers (14.74%) and health workers or social workers (8.37%). (Graph 1)

Graph 1: Source of information among students about HIV/AIDS



About 74.50% of students considered that HIV/AIDS is life threatening disease but 52.98% of students said that the disease can be cured.

Discussion:

Awareness is the key to prevention of HIV/AIDS. The present study showed that almost 90% of students from rural areas of the Nagpur, Maharashtra, India had heard about HIV/AIDS. Similar findings were reported in other studies conducted in other parts of India. [5, 6,7,8,9] According to the National Family Health Survey 3 (2005-2006), 64.8% of rural youth had heard of HIV/AIDS at the country level. [10]

The study found that students had good knowledge regarding the transmission of the disease but the striking finding was they were less aware of transmission of HIV/AIDS by sexual contact and sharing of razors in comparison to other modes of transmission. The District Level Household Survey (2002-04) [11] in Gujarat State and the Behaviour Surveillance Survey (2006) [12] across the country observed that youth were less aware of transmission of infection from mother to child in comparison to other modes of transmission. In a study conducted in the state of Maharashtra, teenagers were less aware of the role of improperly sterilized syringes and needles as a mode of transmission of HIV in comparison to other modes of disease transmission. [13] Other studies show sexual transmission as most common mode of transmission. [7, 8, 9] The findings show regional variation in knowledge regarding different modes of transmission which can help in developing a strategy for an awareness program region-wise.

In our study, adolescent displayed less awareness regarding preventive methods in comparison to modes of transmission of the disease. Similar findings were observed in other studies conducted across the country without regional variation. [7, 8] The study found that young people were less aware of condom use as a prevention strategy. The observation highlights the high level of ignorance about this important preventive measure in the sexually active young population in rural areas.

It was observed in the study that a good number of youths were aware of modes of transmission of HIV/AIDS and its prevention but there were misconceptions among them as well. Studies completed by Shetty RS et al [9], Ganguli et al [14] and Meundi et al [15] also showed presences of misconceptions among youth.

The most common sources of information regarding the disease were television, schools, friends, newspapers, magazines and books. Other studies [5, 7, 8] also found same sources of information. Parents are not seen to be an important source of information which is also very disappointing.

Conclusion:

The finding of study showed that 11% of adolescents were totally unaware of HIV/AIDS. The basic knowledge of HIV/AIDS was still lacking in them. There were a lot of misconceptions regarding the HIV spread and media exposure was found to be an important factor that determines the awareness of HIV among rural adolescents.

The study was a survey at one period in time at schools so it has the limitations of a cross-sectional study. However, the findings of the study are very relevant to adolescents in rural areas. Adolescents are more vulnerable and are less covered by HIV/AIDS prevention programs in rural areas. These study results can be useful in directing future efforts at creating awareness about HIV/AIDS, particularly in rural area.

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