

Awareness of STDs and HIV/ AIDS among the adolescent girls of classes IX-XII in Amritsar, Punjab: An interventional study

Sir,

Adolescents are defined by the World Health Organization (WHO) as persons between 10 and 19 years of age (WHO 1998). Many adolescents around the world are sexually active and because many sexual contacts among them are unprotected, they are at risk of contracting sexually transmitted diseases (STDs). Another reason for their vulnerability to STDs is the lack of sex education, including education on STD prevention.^[1] Most parents do not discuss topics related to sexual issues and hence many teens turn to peers and to the media and get inaccurate information. The risk of becoming infected with human immunodeficiency virus (HIV) during unprotected sex is two to four times greater for a woman (even higher in adolescent women) than for a man.^[2] Thus, this study was planned with the objective to study the knowledge about STDs, including HIV/Acquired Immunodeficiency Syndrome (AIDS) among school going adolescent girls (classes IX–XII) in a rural area and to assess the impact of health education on their knowledge.

The study was carried out from 2005 to 2007 among 852 adolescent girls (of a rural area) from classes IX–XII in all the seven Government Senior Secondary Schools situated in Verka Block, Amritsar, Punjab. Ethical clearance was taken from the ethical committee. The students were asked to fill a pretested self-administered questionnaire after informed consent. Then, they were educated regarding various STDs, transmission, symptoms, complications and prevention in their vernacular language, in groups of about 50 students for 20–30 min. In the end, their queries were clarified. After a gap of 3 months, they

were subjected to the same questionnaire. Data master charts were prepared. Proportions and Mc Nemar test were applied.

In the present study, a majority, 595 (69.9%), of the girls were in middle-adolescence (14–17 years). Earlier, only 358 (42.0%) were able to name a STD while later, it increased to 813 (95.4%). It was found that 358 girls (42.0%), three girls (0.4%) and two girls (0.2%) knew about HIV/AIDS, gonorrhoea and syphilis, respectively. After intervention, there was a significant increase in the corresponding figures to 808 (94.8%), 145 (17.0%) and 51 (6.0%), respectively ($P < 0.001$). Before intervention, only 165 (19.37%) girls were able to tell the symptoms of STDs while after intervention, the number increased to 752 (88.3%) ($P < 0.001$). With intervention, the number of girls who knew about the complications of STDs increased from 280 (32.9%) to 780 (91.6%) ($P < 0.001$).

When the girls were asked about the methods of prevention of STDs, it was found that 189 (22.2%), 134 (15.7%), 110 (12.9%) and 54 (6.3%) knew that STDs can be prevented by avoiding sex with a person who has STD, by early treatment of a patient with STD, by use of condom and by avoiding sex with commercial sex workers, respectively. After intervention, the corresponding figures were 570 (66.9%), 374 (43.9%), 453 (53.2%) and 216 (25.4%) ($P < 0.001$).

With intervention, the number of girls who knew that AIDS spread through infected blood increased significantly from 632 (74.2%) to 717 (84.2%), ($P < 0.001$), through sex from 505 (59.3%) to 807 (94.7%), ($P < 0.001$), through mother-to-child transmission from 360 (42.3%) to 493 (57.9%), ($P < 0.001$), and through ear piercing and tattooing from 116 (13.6%) to 421 (49.4%), ($P < 0.001$). The number of girls who said that AIDS spread by mosquitoes decreased significantly from 79 (8.3%) to 35 (4.1%) ($P < 0.001$). No significant change was noticed in the number of girls who said that AIDS spread by sharing food and handshake ($P = 0.542$). The number of non-respondents decreased significantly from 84 (9.9%) before to 22 (0.2%) after intervention ($P < 0.001$).

In the present study, many girls knew about HIV/AIDS but did not know about gonorrhoea and syphilis. Similar results were found in the studies by Haldar *et al*^[3] and Majumdar and Ganguli.^[4] According to NFHS-III, 64.3% of adolescent girls of age 15–19 years in the rural area have heard about AIDS.^[5] This difference is

because of the different age group of the sample.

Thus, it can be concluded that the knowledge of girls about various STDs, their symptoms, complications and the modes of prevention was limited, which improved significantly with the educational intervention.

ACKNOWLEDGMENT

The authors extend their gratitude to the Department of Community Medicine, Government Medical College, Amritsar, for providing them the opportunity and the basic facilities to conduct this study. They would also like to thank all the students who willingly cooperated with them for this study.

**Suminder Kaur, A. S. Padda¹, Tejbir Singh¹,
S. S. Deepthi¹**

Department of Community Medicine, Vardhman Mahavir
Medical College and Safdarjung Hospital, New Delhi,
¹Government Medical College, Amritsar, India

Address for correspondence: Dr. Suminder Kaur, 56, Gujral Nagar,
Jalandhar - 144 001, Punjab, India.
E-mail: dr_suminderkaur@yahoo.com

DOI: 10.4103/0378-6323.55408 -

REFERENCES

1. World Health Organization. Dehne KL, Riedner G. Sexually Transmitted Infections Among Adolescents: The Need For Adequate Health Services. World Health Organization And Deutsche Gesellschaft Fuer Technische Zusammenarbeit (GTZ) Gmbh. Geneva: 2005. p. xi-2.
2. John Hopkins School of Public Health. Youth and HIV/ AIDS. Can we avoid catastrophe? Population reports. Johns Hopkins University Bloomberg School of Public Health. Issues in World Health. Series L, No 12. 2001;29:6-13.
3. Haldar A, Ram R, Chatterjee T, Misra R, Joardar GK. Study of Need of Awareness Generation Regarding A Component of Reproductive and Child Health Programme. Indian J Community Med 2004;29:96-9.
4. Majumdar R, Ganguli SK. A Study of Adolescent Girls in Pune. Health and Population – Perspectives and Issues. NIHFV. New Delhi. 2000;23:95–104.
5. International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3), 2005-06: India: Vol. 1. Mumbai: 2007. IIPS; p. 316.