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Research Article

A study on knowledge, attitude and practice of sexually transmitted diseases and HIV in adolescent population in Wardha, Maharashtra, India

Manish A. Jain[1]*, Shuchi M. Jain[2], Shubhangi Patil[1], Akash Bang[1]

[1]Department of Pediatrics, MGIMS, Sevagram, Wardha, Maharashtra 442102, India
[2]Department of Obstetrics & Gynaecology, MGIMS, Sevagram, Wardha, Maharashtra 442102, India

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***Correspondence:**
Dr. Manish A. Jain,
E-mail: manish@mgims.ac.in

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ABSTRACT

Background: Adolescent sexuality leads to adolescent pregnancy, unsafe abortion, Reproductive Tract Infections, Sexually transmitted infections and HIV. Over 35% of all reported HIV/AIDS infections in India occur amongst young people 15-24 years age. To study knowledge, attitude and practice regarding this sensitive problem among adolescents, which can help young people, overcome from sexual related problems.
Methods: Systematic random sampling was used to select participants from the schools. 375 students were selected for the study. A predesigned, pre-tested, self-administered multiple response questionnaires was provided to the students.
Results: Regarding knowledge about STDs, 73.9% had heard about HIV and 11.5% about syphilis Genital discharge as a symptom of STD was known to 171 (45.6%) students, genital ulcer was known to 67 (17.9%) students while dysuria was known to 23.2% of students. Nearly 50% of students had knowledge about routes of transmission of HIV. However majority of student had misconceptions regarding transmission of HIV. Males had better knowledge as compared to females regarding vertical and transfusion related transmission.15% accepted that they have used condom in which the proportion of males was higher. The attitude of students about having multiple sexual partners was very casual. Significant proportions (39%) of students also feel that sexual intercourse make them popular.
Conclusions: There was an evident gap between knowledge and practices especially with respect to the sexual practices of youth which needs to be bridged.

Keywords: Adolescent, HIV/AIDS, Sexually transmitted infections

INTRODUCTION

Adolescent age group is often called as the 'generation of hope'. It plays a vital role for the present as well as future health status of a nation. This is because the behaviours, attitudes and beliefs of these youth are shaping the societies of the future and their health is an important determinant of the nation's productivity.

Young adulthood is an age at which decisions are taken on whims and unless provided with appropriate knowledge, their chances of engaging in risky sexual behaviour become high. With the rapid economic development, socio cultural changes, and globalization, adolescents and youths are becoming more and more sexually active leading to sexuality associated problems such as unplanned adolescent pregnancy, out of wedlock childbearing, sexually transmitted disease. The potential

negative emotional consequences of premarital sexual behaviours are considered unhealthy for teenagers.[1] Studies on adolescent as per WHO report 2003, sexual behaviour in different parts of the world show that young people's premarital sexual encounters are unplanned, infrequent and sporadic.[2] As a result, they are less likely to be able to protect themselves from infection, or seek appropriate diagnosis and treatment. A variety of medical and social factors put adolescents at particular risk for RTIs.

HIV infection/AIDS are a global pandemic, with cases reported from virtually every country. At the end of 2007, 33.2 million individuals were living with HIV infection according to the Joint United Nations Programme on HIV/AIDS (UNAIDS). More than 95% of people living with HIV/AIDS reside in low and middle-income countries. According to the United Nations, there are about 4 million HIV infected people in India, and India is considered a high-risk country.[3] Adolescent constitute for approximately 1/5 of population with more than 4/5 population in developing countries.[4] In India this age group form 21.4% of total population.[5] Despite the high prevalence of HIV/AIDS, it has been reported that many adolescents do not know the modes of transmission of this disease.

In a study conducted by P Lal, Anita about HIV/AIDS among secondary schools of Delhi, though all students had heard about HIV/AIDS only 51.4% was knowing the full form of AIDS, and only 48.2% of students could name the sexual route while 44.4% named sharing of syringes and needles as a mode of transmission.[6]14.9 % of students had knowledge about condoms as a mode of prevention.

Over 35% of all reported HIV/AIDS infections in India occur amongst young people 15-24 years age.[7] In India according to National Family Health Survey (NFHS) 3, 2006 47% of women aged 20-24 yrs were married before they 18 yrs, thus exposing the girls to early sexual activity, pregnancy and sexually transmitted infections. Thirteen percent of young women have their sexual debut before 15 yrs.[7]

Therefore, studying regarding this sensitive problem among adolescents is an issue, which can support to overcome young people from sexual related problems. It would be thus be reasonable to access the knowledge, attitude and practices of adolescents regarding RTIs, and STDs and then to design programme based on findings filling the gaps and spending less time on what teens already know.

This study intended to explore the perceived reproductive health problems and barriers to access such services among adolescents in Wardha. The level of knowledge found in this study would show the level of risk that adolescents are exposed to. Thus subsequently necessary counselling could be arranged for this population. This would then help to develop and improve the delivery of existing adolescent services in a more efficient manner.

Adolescent counselling

Considering the risks adolescents are exposed to, appropriate interventional programs need to be started along with appropriate behavioural modification In terms of adolescent counselling, the risk reduction approach to HIV counselling can be divided into various phases such as, exploring clients feelings about sexual activity, using their existing HIV knowledge as an engaging tool, addressing the barriers they have for safer sex, focusing on perceptions that might affect risky behaviours, focus on safe sex planning and, referral making.[8]

In India, Telephonic Counselling has been successful experiment as young people feel comfortable asking questions relating to sexuality, sexual behaviour, and HIV/AIDS because of confidentiality. UNFPA is supporting University Grants Commission for telephonic Counselling in selected universities through the Population Education Resource Centre. Several NGOs are operating telephonic hotlines. UNFPA, convened a meeting to discuss issues related to telephone Counselling, service delivery, improving access to Tele counselling, and using database for planning interventions.[9]

METHODS

Study design

This is cross sectional study design (Quantitative method).

Sampling

Four schools from Wardha city were chosen with the help of random sampling method. Systematic random sampling was used to select participants from the schools. Accordingly 375 students were selected for the study.

Data collection method

Students from higher secondary schools were included in the study. The necessary permission from school authority was obtained after explaining the objectives of the study. Written informed consent of the parents as well as students was also taken before enrolling the students in the study. The students were informed about the purpose of the study and were assured that their responses would be treated confidentially and will used only for research purposes. Respondents were also informed that their participation was entirely voluntary and that they were free to decline to answer any question that made them feel uncomfortable. The study had ethical clearance from Institutional review board of Mahatma Gandhi Institute of Medical Sciences, Sewagram.

A predesigned, pre-tested, self-administered multiple response questionnaires was provided to the students. Students were well spaced out to avoid communication among them during the exercise. They were also asked to request for clarification if any item in the questionnaire was not clear. Students were not required to identify themselves by writing their names on the questionnaire and confidentiality was emphasized.

Questionnaire included question regarding sociodemographic characteristics including age, sex, education and occupation of parents, their knowledge, attitudes and practices about sexually transmitted diseases, HIV/AIDS and high risk behaviour.

Data entry and analysis

Data collected was analysed with the help of SPSS statistical software. Data is represented in the form of frequency tables.

RESULTS

Knowledge regarding Sexually Transmitted Diseases (STDs/RTIs)

Regarding sexually transmitted diseases, 296 students (78.9%) had heard about STDs. Amongst, 73.9% had heard about HIV, 11.5% had heard about syphilis while gonorrhoea was heard by only 5 % of students.

Table 1: Difference in knowledge of girls and boys regarding STDs and their symptoms.

STDs	Male(n=183)	Female (n=192)	Total (n=375)
HIV	76.5% (140)	71.3% (137)	73.8% (277)
Syphilis	10% (18)	13.2% (25)	11.6% (43)
Gonorrhoea	5.6% (10)	5.8% (11)	5.7% (21)
Symptoms of STDs			
Genital discharge	48.9% (89)	43.2% (83)	45.8% (171)
Ulcer	14.3% (26)	21% (40)	18% (67)
Burning micturition	22.5% (41)	24.2% (46)	23.3% (87)
Don't know	14% (27)	11.9% (23)	13.3% (50)

In this study the percentage of males who had heard about HIV was higher as compared to females. However higher percentage of females had heard about syphilis. While the percentage of students knowing about gonorrhoea was very less and there was no significant difference regarding knowledge was noted amongst girls and boys. Table 1 depicts the same. Regarding signs and symptoms of STDs, Genital discharge as a symptom of STD was known to 171 (45.6%) students, genital ulcer was known to 67 (17.9%) students while dysuria was known to 23.2% of students. About 13% of students did not know any signs and symptoms of STDs.

Knowledge about HIV/AIDS

Regarding the knowledge of HIV/AIDS, 73.9 % of students had heard about HIV. The main sources of information for the students were teachers (37.6%), friends (41.9%) and parents (16.3%). It was observed that students were having many misconceptions regarding transmission of HIV. 45.6% were under the wrong belief that it could be transmitted through mosquito bite, 46.9 % believed hugging AIDS patient can also spread AIDS. Table 2 gives the detail information about the percentage of students having various misconceptions about transmission of HIV.

Table 2: Information about HIV & AIDS.

Source of information about the HIV AIDS	N=375
Parents	61 (16.3%)
Friends	157 (41.9%)
Teachers	141 (37.6%)
Not responded	16 (4.2%)
Misconceptions	
Mosquito bite	45.6 (171)
Sharing food	40.5 (151)
Touching/ hugging	53.1 (199)
HIV can't be transmitted from boy to girl	56.3 (211)
Only sick people can transmit HIV	46.1 (172)

When sex wise knowledge of students was assessed, females were having higher knowledge regarding sexual route of transmission (53.5%) as compared to males (50.5%), whereas knowledge regarding other routes likes vertical transmission, blood transfusion, infected needles was higher in boys. The following Table 3 gives the detailed description of the same.

Table 3: Sex-wise variation in knowledge about routes of transmission of HIV/AIDS.

Routes of transmission of HIV	Male (183)	Female (192)	Total (375)
Sexual intercourse	50.5% (92)	53.5% (103)	47.7% (195)
Mother to child	54.4% (99)	47.9% (92)	50.9 % (191)
Sharing needles	52.7% (96)	48.4% (93)	50.7% (190)
Blood transfusion	51.6% (94)	47.4% (91)	49.3% (185)

Attitudes

Regarding the attitude of students about having multiple sexual partners, 55.7 % strongly opposed the tendency of having multiple sexual partners while 44 % believed that

it is ok for them to have multiple sexual partners. About 22.7% believed that sexual intercourse is cool thing while 39.72% of students believed that girl or boy becomes popular if he has sexual intercourse. More than half of students (55.7%) still are reluctant to discuss the matters regarding sexual issues with their parents or counsellors. Following Table 4 gives us detailed information about attitudes of students regarding sexual behaviour.

Table 4: Attitude regarding sexual behavior.

Attitude	Strongly disagree	disagree	Agree	Strongly agree
It's OK to have sex with several different people	95 (25.3)	114 (30.4)	107 (28.5)	59 (15.8)
Sexual relationship make boy/girl popular	96 (25.60)	130 (34.66)	103 (27.46)	46 (12.26)
It's important to talk to parents/counsellors for sexual doubts	103 (27.5)	105 (28.0)	135 (36.0)	32 (8.5)

Practices

About attitude of students for contraception to be used during intercourse, 58% have positive attitudes towards usage of Condoms during intercourse while 15% are strongly disagreed for the same.

Table 5: Condom should be used while intercourse.

Condom should be used at my age while intercourse	N=375
Strongly disagree	57 (15.2)
Disagree	98 (26.1)
Agree	123 (32.8)
Strongly agree	97 (25.9)

DISCUSSION

Adolescence (10-19 yrs) is a vital stage of growth and development. It is period of transition from childhood to adulthood and is marked by rapid physical, physiological and psychological changes. Adolescent health is intimately connected with issues like RCH, population control and HIV/AIDS prevention.

Background characteristics

The present study being carried out among the students in the age group (10-19 yrs) in the four randomly selected schools of Wardha. A total of 375 students were included in study. In age group distribution, 62.9% were in the age group 13-15 yrs, and 36.4% were between 15-19 yrs. 48.8% were males while 51.2% are females. The students mostly belonged to low socioeconomic status. Average literacy rate of parents was low. These factors account for relatively low of knowledge of students regarding their reproductive health as well as sexually transmitted diseases and contraception.

Majority of students, 73.9% had heard about HIV, 11.5 % about syphilis while very few (5%) were aware about gonorrhoea. Similar results were obtained by Kotecha et al about two third of adolescents had heard about HIV/AIDS.[10] While in study by Ruikar H among adolescents in urban slum of Mumbai almost everyone had heard about HIV however very of them knew about Gonorrhea and syphilis.[11] Gonorrhoea was identified as an STD from a given list by 84% of adolescents in the survey by Tyden et al by 98% in the survey by Andersson-Ellström et al and by 53% in the survey by Garside, et al Knowledge and awareness was quite high in all studies reporting on HIV/AIDS, with more than 90% of adolescents being able to identify the disease as an STD from a given list or in response to the direct question "Have you ever heard of HIV/AIDS?"[12-15] In one study where the open question "Which STDs do you know or have you heard of?" was used, 88% of respondents mentioned HIV/AIDS.[16]

In the present study, overall 45.8% of adolescents identified genital discharge, 18% genital ulcer while 23.3% identified burning micturition as a symptom of STD. Among total males, 48.9% correctly identified genital discharge, 14.3% ulcer and 22.5 % dysuria as symptoms with which STD may present. However in a study by Mohammadi MR et al among adolescent males 28% identified genital discharge as symptom of STD in males while 21% in females.[17] Dysuria in male was identified by 34% and 19.4% in females. Whereas genital ulcer or sores was known to 28% of adolescent as sign of STD in males and 21% in females. The differences in finding may be due to difference in study setting. In our study, boys were having better knowledge of genital discharge as symptom of STD while knowledge of girls regarding genital ulcer and dysuria was more as compared to boys.

Regarding modes of transmission of HIV, our study revealed that nearly 50 % of students knew correctly about the transmission of HIV i.e. sexual intercourse, mother to child, infected needles and blood transfusion. This may be attributed to inadequate knowledge regarding STDs, low socioeconomic status and average low literacy rate. This problem was also addressed by Kaur S et al who conducted study among the adolescent girls in Amritsar, Tavoosi A et al among Iranian students, Sallar AM among adolescents in Ghana.[18-20]

Similar results were obtained by study conducted by Benera et al in Delhi, Majumdar R and Ganguly S among the adolescents girls in Pune.[21,22] In their study, students were having adequate knowledge (higher than present

study) about HIV/AIDS, however misconceptions regarding the routes of transmission were found in significant proportion of students.

Although 73.9% of students had heard about HIV, more than half of students are not aware about its routes of transmission. The study revealed a variable lack of knowledge about HIV/AIDS among the students. Male students demonstrated a slightly higher level of knowledge than females. Agrawal et al also found similar results.[23] The reason for this may be boys feel more comfortable than girls to talk about matters related to sex and HIV/AIDS. However females were having bit higher knowledge in comparison to males in studies done by Tavoosi A et al however this difference is small and insignificant.[16,19] Although the knowledge level seems to be moderately high, misconceptions about the routes of transmission were common. Mosquito bites (33%) public swimming pools (21%) and public toilets (20%) were incorrectly identified as routes of transmission.[19]

In the present study the source of information about HIV for majority of students were teachers and friends. This finding is consistent with study conducted by Hansson M et al in Semey, Kazakhstan.[24] In a study in Delhi by Benera et al, to access the knowledge of undergraduates on AIDS, 60.8% and 72.5% knew AIDS could be prevented by condoms and having faithful partner. However 58% wrongly stated that AIDS could be transmitted by shaking hands, using toilets, mosquito bites, sharing utensils etc.[21]

Attitudes

Regarding the attitudes of students about having multiple sexual partners was very casual. Alarmingly 44 % of students were of opinion that it's ok to have multiple sexual partners. According to study conducted by Shenghui Hi et al among the school going adolescents in China, about 7% of adolescents had sexual intercourse. Amongst 39.6% reported two or more sexual partners; 42.4% reported ever had unprotected sexual intercourse Significant proportion (39%) of students also feel that sexual intercourse make them popular. Similar results were obtained in the study conducted by Hansson M et al among the students in Semey, Kazakhstan.[23] This implies the proportion of risk our adolescents are exposed to due to their inadequate knowledge and casual attitude.

Nearly half of the students of the students are not comfortable with matters of sexual issues to be discussed with the parents. This is because of social taboo our society possesses regarding sexual issues.

Poor knowledge and risky practices related to STIs are a universal phenomenon in the young adulthood. In Indian society, it is seen that STIs are widely associated with social stigma, embarrassment and denial. Sexuality, and associated health risks are still a major taboo. While their rights and needs may be acknowledged in theory, in practice they are still confronted with many barriers when it comes to obtaining practical support.

Practices

Regarding usage of condoms during intercourse, 15 % of students in the present study accepted that they are using condoms. The percentage was higher in boys as compared to girls. Similar results were obtained by Bobate PS in urban slum of Mumbai where 24.5 % of adolescents were using condom as method of contraception.[24] This figure is less as compared to usage of condoms in sexually active adolescents of Lao province which was 70%. This is because adolescents engage in sexual activity at relatively young age in developed countries. Also they have higher level of awareness regarding contraception.

CONCLUSION

The adolescents are in need to be provided with correct knowledge for behaviour change, to stop their undesirable practices and lead them to the road to healthy life. There was an evident gap between knowledge and practices especially with respect to the sexual practices of youth which needs to be bridged. The vicious cycle of problems needs to be broken or else we will lose our prized possession.

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