



## A Study on Knowledge and Awareness about Sexually Transmitted Infections (STIs) and Aids among Adolescents of Urban Areas of Jabalpur District

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### ABSTRACT

**BACKGROUND** -Adolescence is defined by United Nations as the period of life from age 10 to 19 years Adolescents are more at risk for STIs than older adults. The World Health Organization estimates that 20% of persons living with HIV/AIDS are in their 20s and one out of twenty adolescents contract an STI each year.<sup>[1]</sup>

**OBJECTIVE-** To assess the knowledge of adolescents about STIs and AIDS in urban areas of Jabalpur district.

**MATERIALS AND METHODS-** A cross sectional study was conducted in schools and anganwadis of urban areas of Jabalpur district. 400 adolescents (200 boys and 200 girls) were randomly selected as study subjects. A pre- designed questionnaire was used.

**RESULTS-** In our study less than 50% of adolescents were aware of the signs and symptoms of STI in urban areas. 37.75% adolescents knew that sexually transmitted infections are curable and 23.25% knew that many persons with STI don't show symptoms. 29.25% adolescents knew that using condom prevents STI. 77.5% boys and 55% girls had heard about AIDS.

**CONCLUSION-**This study has reflected poor level of knowledge regarding STI and AIDS in urban areas.

**KEYWORDS-** Adolescents, STI (Sexually transmitted infections), AIDS (Acquired Immuno Deficiency Syndrome).

### INTRODUCTION

Sexually transmitted infections (STIs) are those diseases that are contracted mainly through sexual intercourse. Adolescents (10-19 years) and young adults, aged 15–24 years, are more at risk for STIs than older adults. The World Health Organization estimates that 20% of persons living with HIV/AIDS are in their 20s and one out of twenty adolescents contract an STI each year.<sup>[1]</sup>

Youth are more likely to practice unprotected sex. In addition, they may have problems getting the required information, services, and supplies they need to avoid STIs. They may also experience difficulties in accessing STI prevention services. Even if they can obtain STI prevention services, they may not feel comfortable in places that are not youth friendly.<sup>[2]</sup>

Untreated or poorly treated STIs are associated with a lot of complications in females, pelvic

inflammatory disease, dyspareunia, infertility, chronic pelvic pain, increased risk of ectopic pregnancies, abortions, stillbirths, and perinatal and neonatal morbidities can occur, jeopardizing their future reproductive competences.<sup>[3]</sup>

Youth are vulnerable to sexually transmitted infections, including Human Immunodeficiency Virus, and account for 31% of AIDS burden in the country.<sup>[4]</sup> Comprehensive knowledge about HIV/AIDS is very low. Only 20% young women and 36% young men had knowledge about AIDS. One in three young women and one in eight young men have not heard of AIDS at all.<sup>[5]</sup>

Knowledge of STI and their complications is important for adequate prevention and treatment, as people who do not know the symptoms may fail to recognize their need and so may not seek help. Knowledge of other STIs apart from HIV/AIDS is low in the developing world.<sup>[6-8]</sup>

This study was conducted to determine the level of knowledge and awareness of adolescents in urban areas of Jabalpur district, about sexually transmitted infections and AIDS.

## RESULTS

**TABLE-1** DISTRIBUTION OF ADOLESCENTS ACCORDING TO THEIR KNOWLEDGE ABOUT SIGNS AND SYMPTOMS OF STIs

KNOWLEDGE ABOUT SIGNS AND SYMPTOMS ABOUT STIs	BOYS		GIRLS		TOTAL	
	No.	%	No	%	No	%
Discharge	30	15%	29	14.5%	59	14.75%
Burning during micturition	42	21%	55	27.5%	97	24.25%
Itching in private parts	72	36%	53	26.5%	125	31.25%
Ulcer in pubic region	37	18.5%	43	21.5%	80	20%
Swelling in groin region	38	19%	52	26%	90	22.5%
Pain in lower back region	30	15%	78	39%	108	27%
Menstruation related problems	14	7%	74	37%	88	22%

(chi square value- 48.588, df- 6, p value- 0.000)

The table shows that most common symptom known was itching in private parts (31.25%), pain in lower back region (27%), followed by burning during micturition (24.55%). There was statistically highly significant difference in knowledge of boys and girls. ( $\chi^2=48.588$ ,  $p=0.000$ )

## MATERIALS AND METHODS

The study was a Cross Sectional study. Ethical clearance was taken from college ethical clearance committee.

**Study period:** From 1<sup>st</sup> June 2014 to 31<sup>st</sup> October 2014.

**Sampling technique** - Multi stage random sampling technique was used.

**Study subjects** - 400 adolescents age 15-19 years were selected as study subjects. 200 boys & 200 girls were selected from urban areas of Jabalpur district. Adolescents were selected randomly from schools and anganwadis from randomly selected wards of Jabalpur district. Informed consent was taken from all respondents who volunteered for study.

### Statistical analysis-

A pretested, self-administered questionnaire was used for data collection. The questionnaire elicited information regarding their knowledge of STIs and AIDS.

The questionnaire was pretested among students whose schools were not chosen as part of the study.

Frequency distribution tables were prepared and statistical analysis was done using SPSS for windows version 20.0. Chi square tests were applied.

**TABLE-2** DISTRIBUTION OF ADOLESCENTS ACCORDING TO THEIR KNOWLEDGE ABOUT STIs

KNOWLEDGE ABOUT STIs	BOYS		GIRLS		TOTAL	
	No.	%	No.	%	No.	%
STI is curable	66	33%	85	42.5%	151	37.75%
STI may cause sterility	37	18.5%	39	19.5%	76	19%
Using condom prevents STI	82	41%	35	17.5%	117	29.25%
Treatment of both partners is essential	64	32%	78	39%	142	35.5%
Many persons with STI don't show symptoms	40	20%	53	26.5%	93	23.25%

(chi square value- 24.520, df- 4, p value- 0.000)

The above table shows that 37.75% adolescents knew that sexually transmitted infections are curable and 23.25% knew that many persons with STI don't show symptoms.

29.25% adolescents knew that using condom prevents STI. There was statistically highly significant difference in knowledge about STIs among boys and girls. ( $\chi^2=24.520$ ,  $p=0.000$ )

**TABLE-3** DISTRIBUTION OF ADOLESCENTS ACCORDING TO KNOWLEDGE ABOUT AIDS

KNOWLEDGE ABOUT AIDS	BOYS		GIRLS		TOTAL	
	No.	%	No.	%	No.	%
Heard of AIDS	155	77.5%	110	55%	265	66.5%
Not heard of AIDS	45	22.5%	90	45%	135	33.75%
Total	200	100%	200	100%	400	100%

(chi square value- 22.642, df- 1, p value- 0.000)

The table shows that in urban areas only 77.5% boys and 55% girls had heard about AIDS. Overall 66.5% adolescents have heard about AIDS. There was statistically highly significant difference in knowledge about AIDS among boys and girls. ( $\chi^2=22.642$ ,  $p=0.000$ )

**TABLE-4** DISTRIBUTION OF ADOLESCENTS ACCORDING TO KNOWLEDGE ABOUT MODES OF TRANSMISSION OF AIDS

KNOWLEDGE ABOUT MODES OF TRANSMISSION OF HIV	RURAL				TOTAL	
	BOYS		GIRLS			
	No.	%	No.	%	No.	%
By Infected Syringes, Sharps	119	59.5%	89	44.5%	208	52%
By Unprotected Sexual Interourse	120	60%	97	48.5%	217	54.25%
By Infected Blood Products	108	54%	88	44%	188	47%
From Mother To Child	99	49.5%	81	40.5%	180	45%

(chi square value- 0.271, df- 3, p value- 0.965)

The above table shows that few adolescents knew more than one mode of transmission of AIDS. 54.25% adolescents knew that AIDS is transmitted by unprotected sexual intercourse followed by infected syringes, sharps (52%). About 47% adolescents knew that infected blood products and mother to child transmission (45%) are the other modes of transmission of AIDS.

## DISCUSSION

In our study, only about 25% adolescent boys and girls were aware of signs and symptoms of RTI/STI. The difference in awareness was statistically significant among both boys and girls. Most common symptom known was itching in private parts (31.25%), pain in lower back region (27%), followed by burning during micturition (24.55%). Research on Women at CMC Hospital Vellore in South India with 616 young married women on RTIs found that 87% identified at least one symptom that could indicate the presence of RTI. Nearly 40% correctly identified three or more RTI symptoms. The most commonly identified symptom was vaginal discharge followed by painful urination and genital itch.<sup>[9]</sup>

<sup>1</sup>In a study of 500 adolescent boys and girls in rural Maharashtra state in Western India, the results showed that only 15% of married male adolescents and 8% of unmarried male adolescents had information about sexually transmitted diseases.<sup>[10]</sup> The variations in the findings are mainly due to difference in the age groups of the study subjects and areas of research. 37.75% adolescents knew that sexually transmitted infections are curable and 23.25% knew that many persons with STI don't show symptoms. 29.25% adolescents knew that using condom prevents STI. There was statistically highly significant difference in knowledge about STIs among boys and girls. Similar findings were observed in a study conducted by Anjum Shahid et al where it was observed that more than half of the respondents had no knowledge on STD's and HIV/AIDS and its spread, and about 25% were of the opinion that AIDS can be cured. About 40% females made no rejoinder and difference in gender opinion was significant (0.001).<sup>[11]</sup> As per a study by Kotecha et al only 50% knew that HIV can be present in apparently healthy looking persons.<sup>[12]</sup> A study of 500 adolescent boys and girls in rural Maharashtra state in Western India, the results showed that 44% of married males thought HIV/AIDS was a curable condition.<sup>[10]</sup>

In our study, 77.5% boys and 55% girls had heard about AIDS. P. V. Kotecha et al found that only 40 percent of the boys and 30 percent of the girls aged 11-13 years had heard about HIV/AIDS as compared to more than two-thirds boys and girls belonging to the age groups of 14-16 years and 17-20 years.<sup>[12]</sup>

Few adolescents knew more than one mode of transmission of AIDS. 54.25% adolescents knew that AIDS is transmitted by unprotected sexual intercourse followed by infected syringes, sharps (52%). About 47% adolescents knew that infected blood products and mother to child transmission (45%) are the other modes of transmission of AIDS. The findings were slightly different from other studies due to difference in age groups of the subjects as the previous studies were conducted among older adolescents like in the study by Kotecha et al in 17-20 years age group, about three-fourths of the boys and girls knew that AIDS could be transmitted by receiving blood from an infected person; about two-thirds knew that it could be transmitted by having sexual relations with an infected person.<sup>[13]</sup> Mittal et al found that 73.9% girls knew the fact that sexual intercourse with an infected person and sharing needles for intravenous drug usage are the most common modes of transmission of STD/AIDS.<sup>[14]</sup>

## CONCLUSION

The study concluded that adolescents in urban areas are less aware of sexually transmitted infections and AIDS. They lack in-depth knowledge about these diseases, their symptoms, and modes of transmission. Comprehensive health education about sexually transmitted infections should be inculcated into the secondary school curriculum.

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