



Original Research Article

A STUDY TO ASSESS ADOLESCENTS' KNOWLEDGE, ATTITUDE, PERCEPTION OF SEX EDUCATION AND STIs/HIV.

Suchita Singh¹, Deepika Badkur², Sumeet Dhruve³

¹Assistant Professor and Epidemiologist, Department of Community Medicine, Chhattisgarh Institute of Medical Sciences, Bilaspur, Chhattisgarh, India.

²Professor, Department of Community Medicine, L N Medical College and Research Centre, Bhopal, Madhya Pradesh India.

³Associate Professor, Department of Community Medicine, SBDMSCM Korba, Chhattisgarh, India.

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Corresponding Author:

Dr. Deepika Badkur,
Professor, Department of Community Medicine, L N Medical College and Research Centre, Bhopal, Madhya Pradesh India.
Email: deepikabadkur@gmail.com

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ABSTRACT

Background: Equipping youth with age-appropriate knowledge about puberty, sexuality, sexually transmitted infections (STIs), and HIV is essential for their overall health and well-being. Proper sex education enables adolescents to prevent unwanted pregnancies, protect themselves from HIV/AIDS, and reduce vulnerability to sexual abuse. This study aimed to explore the knowledge, attitude, and perception of sex education, safe sex, and HIV/STIs among school-going adolescents.

Materials and Methods: A school-based cross-sectional study was conducted from July to November 2019 among 11th and 12th-grade students in two co-educational schools in Bilaspur, Chhattisgarh. Using an inclusive sampling technique, 250 adolescents were surveyed using a semi-structured, pretested questionnaire. The data were analyzed using Microsoft Excel.

Results: The results showed that 72.8% of participants had heard about sex education, but 74.4% had never attended a class on the topic. Despite this, 82% believed sex education helps in becoming responsible adults, and 70.4% agreed it fosters healthy relationships. Furthermore, 81.2% felt it aids in making important decisions related to sexual behaviour, and 62.8% noted that its absence could lead to sexual violence. Awareness of STIs was high (74%), with 78.8% knowing about HIV and 75.2% aware of contraception. The internet emerged as the primary source of information.

Conclusion: Overall, the study discovered that teenagers had a favourable attitude, comprehension, and perspective of STIs/HIV, sex education, and contraception use.

Keywords: Sex education, Adolescent, STI, HIV.

INTRODUCTION

The term adolescence comes from Latin meaning "to grow to maturity".^[1] Adolescence, spanning the ages of 10 to 19, is a distinct phase of human development bridging childhood and adulthood. This period is crucial for establishing the basis of good health as it encompasses significant physical, cognitive, and psychosocial growth. These changes influence adolescents' emotions, thoughts, decision-making processes, and interactions with their environment.^[2] Although most adolescents up to the age of 18 are protected under the Convention on the Rights of the Child, their unique vulnerabilities and needs often go unaddressed. These needs differ

significantly from those of younger children.^[3] Equipping youth and adolescents with age-appropriate knowledge about puberty, sexuality, the transmission and prevention of sexually transmitted infections (STIs) and HIV, and how to maintain a healthy and safe sexual life is essential. This education plays a critical role in their overall health and well-being, enabling them to prevent unwanted pregnancies and protect themselves from HIV/AIDS.^[4] Sex education should be an integral part of the learning process from childhood through adulthood, encompassing lifelong learning. It must include all children, young people, and adults, including those with physical, learning or emotional

difficulties. This education should promote exploring values and moral principles, considering sexuality and personal relationships, and the development of communication and decision-making skills. It should also foster self-esteem, self-awareness, a sense of moral responsibility, and the skills to avoid and resist unwanted sexual experiences.^[5] Failing to provide sex education for children can increase their vulnerability to sexual abuse.^[6] Sexual abuse has detrimental effects, leading to age-inappropriate sexual behaviour and various behavioural issues in the victim. It can also result in significant psychological dysfunctions, such as anxiety and depression.^[7]

The most common sources of sex education among the respondents are school, family, social media, and others like television and books or magazines.^[13]

Studies conducted in India have revealed that while most students are ignorant about STIs, HIV/AIDS, and other elements of sexuality,^[8,9] teenagers are more interested in sex education and prefer to get their information from friends, parents, teachers, and doctors than from other sources.^[10,11]

Research from other countries has concluded, that talking to parents and receiving sex education,^[12] and more in age and education level,^[13] increased the likelihood of having adequate knowledge towards safe sexual behaviour.^[13] While it was found to be positively associated with the use of protection such as condoms.^[14] Women who had no form of sexual and reproductive health education had lower odds of ever using contraception.^[16] Safe sexual behaviour was low among drug addicts, increasing the potential towards infection with STDs including HIV.^[13]

As parents are the first caregivers of a child, primary sex education should be the responsibility of the parents.^[15] Due to the absence of clear protocols for sex education—such as content, approaches, rules, and regulations—there is ambiguity regarding how these educational services should be delivered across different socioeconomic and cultural contexts. Therefore, this study aimed to identify the knowledge, attitudes, and perceptions of sex education, safe sex and HIV/STIs among school-going adolescents.

MATERIAL AND METHODS

A school-based cross-sectional study was conducted from July to November 2019 among the school-going adolescent students of class 11th -12th grade in the two co-educational schools (SEC Railway Mixed Higher Secondary School, English Medium School and Govt. higher secondary school, Sarkanda, Hindi medium School) situated in the urban field practice area of tertiary care Medical College & Hospital in Bilaspur, Chhattisgarh.

Adolescents studying in classes 11th & 12th present on the day of data collection, were willing to

participate and had given consent for the study were included and those who had not given consent, and who had not completed questionnaires were excluded from the study. Using an inclusive sampling technique 250 adolescents (134 students were of English medium school and 116 students were of Hindi medium school) were included as the study population.

A self-designed, semi-structured, self-report pretested questionnaire was used to collect the data. The questionnaire was divided into 4 sections: The first section dealt with socio-demographic data which included name, age, sex, socio-economic class, and religion etc, the second section dealt with student's knowledge, attitude and perception towards sex education, the third section consisted of questions about student's knowledge about sexually transmitted infections (STIs) and HIV/AIDS and fourth section had questions about the assessment of knowledge and awareness about contraception. The questionnaire was translated into Hindi and both Hindi and English questionnaires were used as per the choice of the respondents. The identity of students was kept confidential.

The study was conducted after obtaining written permission from district education officer, Bilaspur. Permission was also obtained from the principals of the selected schools. Ethical approval was obtained from the institutional ethical committee. The data was collected, analysed and presented in tabulated form with percentages and numbers using Microsoft Excel software.

RESULTS

Table-1 Shows socio-demographic profile of the participants. 82.4% of the students belonged to the age group of 14-17 year. Out of the total (250) study population, 42.4% were female and 59.6% were male and 56% were of students belonged to class 12th . 53.4% students belonged to English medium and more than half (96.4%) were Hindu. More than half stayed in a nuclear family (76%) and had siblings (67.2%). Maximum mothers (62.8%) were 12th pass and housewives (84%). 38.4% of the participants belonged to the upper class. [Table 1]

Table 2: Related to knowledge, the maximum number of participants had heard about sex education (72.8%) while never attended class (74.4%). 89.2% of students considered sex education a waste of time while 82% thought it helps in becoming responsible adults.

Regarding attitude, adolescents are shy talking about sex (70.4%) while a maximum number of participants (70.4%) agreed that sex education helps in having healthy relationships with the opposite gender. 36% of students believed that schools should impart this education

Related to perception, 81.2% of participants agreed that sex education helps in important decisions related to sexual behaviour and its lack leads to

sexual violence (62.8%). Participants disagreed that sex education encourages premarital sex (44.8%). [Table 2]

Table 3 shows students' knowledge related to sexually transmitted diseases and HIV/AIDS 74% of students are aware of STIs while 44% of students know about Hepatitis-B and 78.8% about HIV. Maximum participants knew about the spread of STDs while 92% of participants agreed with the importance of genital area hygiene. STIs are

preventable (81.2%) by using condoms (84.8%). [Table 3]

Table 4 Shows knowledge and awareness related to contraception. 75.2% of participants had heard about contraception. 72% of participants were aware of condoms and 63.6% of participants were aware of oral contraception. 58.0% of participants said that contraception use is for both males and females. 51.2% of students agreed that condoms and oral pills are easy to buy and 70.4% of participants were not aware of emergency contraceptives. [Table 4]

Table 1: Shows the socio-demographic profile of the study population

VARIABLE	FREQUENCY (%) n=250	VARIABLE	FREQUENCY (%) n=250
Age		Father's education	
14-17	205 (82.4)	Uneducated	11 (4.4)
>17	45 (17.6)	Class 1-12	159 (63.6)
Gender		Graduate	55 (22)
Male	149 (59.6)	Postgraduate	25 (10)
Female	101 (40.4)	Mother's occupation	
Class		Primary sector	27 (10.8)
11th	110 (44)	Secondary sector	7 (2.8)
12th	140 (56)	Tertiary sector	6 (2.4)
School		House wife	210 (84)
S.E.C Railway mixed higher secondary School	134 (53.6)	Father's occupation	
Hindi medium School,Sarkanda	116 (46.4)	Primary sector	71 (28.4)
Religion		Secondary sector	49 (19.6)
Hindu	241 (96.4)	Tertiary sector	130 (52)
Others	9 (10.8)	Total monthly house hold income	
Type of family		<10000 Rs	71 (28.4)
Nuclear family	190 (76)	11000-50000	138 (55.2)
Joint family	60 (24)	>50000-100000	39 (15.6)
Siblings		>1 lakh-5lakhs	2 (0.8)
Yes	168 (67.2)	Socio-economic class	
No	82 (32.8)	Upper class	96 (38.4)
Mother's education		Upper middle class	54 (21.6)
Uneducated	43 (17.2)	Middle class	20 (08)
Class 1-12	157 (62.8)	Lower middle class	59 (23.6)
Graduate	32 (12.8)	Lower	21 (8.4)
Postgraduate	18 (7.2)		

Table 2: Shows student's knowledge, attitude and perception towards sex education

KNOWLEDGE	YES			NO	TOTAL
	AGREE	UNCERTAIN	DISAGREE		
Do you have Internet access	199(79.6%)			51(20.4%)	250(100%)
Heard about sex education	183(72.8%)			68(27.2%)	250(100%)
Do you Attended class on sex education	64(25.6%)			186(74.4%)	250(100%)
Sex education is a waste of time	27(10.8%)			223(89.2%)	250(100%)
Sex education helps students to grow to become responsible adults	205(82.0%)			45(18%)	9(3.6%)
ATTITUDE	AGREE	UNCERTAIN	DISAGREE	TOTAL	
Do you think Adolescents are shy while talking about sex	176(70.4%)	37(14.8%)	37(14.8%)	250(100%)	
Do you think sex education helps in having healthy relationships with the opposite sex	161(64.4%)	61(24.4%)	28(11.2%)	250(100%)	
Is it the responsibility of schools to impart sex education	80(36%)	95(38%)	65(26%)	250(100%)	
PERCEPTION	AGREE	UNCERTAIN	DISAGREE	TOTAL	
Does Sex education helps to make important decisions about sexual behaviour	203(81.2%)	30(12%)	17(6.8%)	250(100%)	
Does Lack of sex education lead to sexual violence	157(62.8%)	54(21.5%)	39(15.6%)	250(100%)	
Will Class on sex education encourage students to have premarital sex	59(23.6%)	79(31.5%)	112(44.8%)	250(100%)	

Figures in parentheses indicate the percentage of the row total

Table 3: Shows students' knowledge related to sexually transmitted infections and HIV/AIDS

KNOWLEDGE	YES	NO	Total
Are you aware of sexually transmitted infections?	185(73.4%)	65(26%)	250

Are you aware of hepatitis B?	110(44%)	140 (56%)	250
Are you aware of HIV?	197(78.8%)	53(21.2%)	250
Route of spread of STIs# --			
1. Sexual intercourse without a condom	163	86	
2. Sharing needle/razor	152	98	
3. Mother to child	188	62	
4. Shaking hand with infected person	100	150	
5. Sharing food with an infected person	112	138	
6. Through saliva	171	79	
7. All of the above	69	181	
What do you think are the symptoms of STIs? #			
1. Vaginal discharge	147	103	
2. Itching in the genital region	148	102	
3. Rash in genital	145	105	
4. Foul Odour	133	117	
5. All of the above	114	136	
6. No symptoms	51	199	
Do you think Maintaining the hygiene of the genital area is important?	230(92%)	20(8%)	250

Answers are given in multiple choice. Figures in parentheses indicate the percentage of the row total

Table 4: Shows students' knowledge and awareness of contraceptives

KNOWLEDGE	Yes	No	Total	
Have you heard about contraception	188 (75.2%)	61(24.4%)	249(99.6%)	
Are you aware of the use of contraceptives like condoms & pills?	180(72.0%)	70(28.0%)	250(100%)	
Do you know about emergency contraceptive pills?	74(29.6%)	176(70.4%)	250(100%)	
AWARENESS	Female	Male	Both	Total
Who do you think should use contraception?	67(26.8%)	38 (15.2%)	145(58.0%)	250(100%)
	Yes	No	Total	
Do you think condoms and oral pills are easy to buy?	128(51.2%)	122(48.8%)	250(100%)	

Figures in parentheses indicate the percentage of the row total.

DISCUSSION

This study has tried to assess knowledge, attitude and practice regarding sex education, knowledge and perception of sexually transmitted diseases and knowledge and awareness of contraceptive methods among school-going adolescents from the urban area of Bilaspur, Chhattisgarh. There is also a higher rate of teenage pregnancies and rape cases across the country. To prevent all of these, sex education is the best way.

Regarding the knowledge of sex education among adolescents, the study found that the majority of adolescents (60.4%) favour sex education which is lower (93.5%),^[10] (90%),^[17] than the different studies from India which can be due to socio-culture difference. More than half (70.4%) of students had heard about sex education which is similar to the findings of a study from Nigeria.^[18]

The results showed that even in a close-knit society like our Country, the majority of students (79.6%) used the internet rather than family members as the most common source to acquire knowledge regarding sex and sex problems. This information is consistent with the study from Tamil Nadu,^[11] reported that 50% of joint-family students felt watching videos is better, while a study from Pakistan found that friends are the source of information related to sex and sex problems.^[19]

The study reported that 82% of students thought sex education helps them become responsible adults. The results are similar to the study from India.^[10]

Regarding attitude, adolescents are shy talking about sex (70.4%) while the maximum number of participants (70.4%) agreed that sex education helps in having healthy relationships with the opposite gender. Thirty-six percent of students believed that schools should impart this education. A study from Ambala^[10] and Chandigarh^[20] found that students prefer school for imparting education related to sex. A similar observation was found by Wong WC et al., in Hong Kong^[21] and Zhang L et al., in China.^[22] The study found positive perception of students regarding sex education which will help in important decisions related to sexual behaviour (81.2%) and its lack leads to sexual violence (62.8%) while disagreement (44.8%) was reported relating to sex education encouraging premarital sex. Similar findings that the knowledge (58.2%) of sex education helps them not to involve themselves in unwholesome sexual practices were documented by the study from Nigeria.^[18]

Our study found that students are aware of STIs, Hepatitis-B and HIV. Studies from Nigeria,^[13] and Egypt^[18] documented similar findings. Maximum participants in our study knew the route of the spread of STIs, is preventable using condoms (84.8%) and the importance of genital hygiene. A study from Nigeria^[18] reported that 28.5% of participants strongly agree that sexually transmitted diseases can be prevented with the use of condoms which is less than the findings of the present study. This difference in findings can be due to differences in sample size, study population and socio-culture disparities.

Maximum participants (75.2%) knew about contraceptive methods and were aware of condoms

and oral pills which can be easily bought. A study from Nigeria documented (66.5%) similar results.^[18] More than half (58%) said that contraception use is for both males and females. Awareness related to emergency contraception was poor (29%). A study by Saachdev,^[23] concluded that students were not aware of contraceptive methods and similar results were reported by a study from Pakistan.^[19] The reason for difference in findings can be due to rigorous media campaigns in the present day by social sector organizations.

CONCLUSION

The study found that adolescents had a good understanding, attitude, and perception of sex education, with the internet being their primary source of information. They believed that sex education helps in becoming responsible adults, fosters healthy relationships, guides sexual behaviour decisions, and prevents sexual violence. Students were aware of STIs, Hepatitis B, and HIV, and knew they could be prevented with condoms. They agreed that sex education is necessary and should be included in the school curriculum.

Limitation

This study has the common limitations of a cross-sectional design. It only includes co-educational schools and the size is small, so the results can't be generalized to all adolescents. Due to the sensitive nature of sex education, responses may be affected by recall bias, acquiescence bias, and social desirability bias.

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