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Original Research Article

Assessment of knowledge regarding issues related to adolescence among male students in Allahabad district, India

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ABSTRACT

Background: Providing information about changes during adolescence and sexually transmitted diseases is an important means of promoting healthy development and reducing negative outcomes of social behaviors in adolescents. For this purpose we must know their level of knowledge. So this study was designed to assess the knowledge of male students of class VIth to IXth about issues related to adolescence, their attitude for sexuality related problem and their source of information.
Methods: It is a cross-sectional study, sample size was 400. Data was collected between August 2017 and December 2017 by using structured questionnaire.
Results: Regarding physical changes 4.5% students have no knowledge, 58.75% have some knowledge and 36.75% have satisfactory knowledge. Whereas 9.75% have no knowledge, 80.75% have some knowledge and 9.50% have satisfactory knowledge regarding sexually transmitted diseases. Only 24.75% students knew legal age for marriage.
Conclusions: It was found in study that majority of students do not have satisfactory knowledge and there is a need for targeted education for providing proper knowledge.

Keywords: School students, Physical changes, Sexually transmitted disease, Marriage age, Sexuality attitude

INTRODUCTION

School students are vital asset of a country because they will become tomorrow's young men and women and will provide the human resource required for the country's development. Majority of these students are in adolescent stage of life. The World Health Organization defines adolescents as young people aged 10-19 years.[1] Adolescents face a great challenge, many critical biological, as well as psychological changes, occur during adolescence phase. During early adolescence, an individual enters the genital phase from latency phase and throughout the adolescence the genital phase is maintained. The sexuality, which remains quiescent during the latency phase, becomes active during the genital phase. Also during puberty, growth is disorganized confusing and rapid, compared to the relatively stable earlier period of childhood. Adolescents are normally interested in information about sexuality and other adolescence related health issues. When pubescent children are not informed of the changes that take place at puberty, it is traumatic to undergo these changes and may develop unfavorable attitudes towards these changes.[2] In present scenario adolescents find themselves in a complex emotional state, where it is disgraceful to discuss on matters of sexuality and also there is widespread gender inequality, which makes very difficult for adolescents to attain the knowledge they need. Moreover sociocultural influences in the delivery of this education affects the likelihood of effectiveness. Furthermore in Indian society child marriage is also in practice and is reported in national family health survey.[3] Child marriage is defined as one where the girl is below the age of 18 years and the boy below the age of 21 years.[4]

Studies have shown that there are still many misconceptions and misbelieves regarding issues related to sexuality in adolescence, which should be tackled comprehensively by imparting formal puberty and sex education at proper age.[5] Therefore, for helping adolescents in establishing a healthy lifestyle and for avoiding health risk behaviors, providing proper information is crucial and should be started before incorrect behaviors are firmly established. For this purpose it is essential to have information concerning the level of knowledge, source of knowledge and their attitude regarding adolescent health issues, so as to target appropriate interventions.

METHODS

Study design

The study design was cross-sectional.

Period of study

Study was conducted between July 2017 to December 2017.

Sampling

Random selection was done for choosing 1 Government Inter College in Urban Allahabad having only male students, and 400 students from class VI to IX of the selected school were randomly chosen for this study.

Sample size determination

Sample size: The sample size was calculated using the formula, $n= Z^2_{(1-\alpha/2)}pq/d^2$ (where $Z_{(1-\alpha/2)}=1.96$ at 95% confidence; p = prevalence of proper knowledge, q =1-p; d=absolute allowable error. Since there was no similar study from Allahabad district we presumed maximum variability, hence p=0.5; q=0.5; d=5%. Sample size thus yielded was of 384. Rounding off to 400 subjects was taken.

Inclusion criteria

Students willing to participate in the study

Exclusion criteria

Students not willing to participate in the study

Tools of data collection

Permission to conduct the study was taken from the principal of concerned school. All the students were explained about the study and also how to answer the questionnaire, questionnaire was distributed in class and 30 minutes time was given to fill their response. Teacher of concerned class cooperated in maintaining discipline.

Classification of level of knowledge

Those students who responded that they didn't knew what the term physical changes means were termed having no knowledge, those knowing changes such as increase in height, weight, growth of body hair, change in voice were termed having some knowledge and those who were having also the knowledge of changes occurring in genitals and breasts were classified as having satisfactory knowledge.

Students who responded that they did not knew anything about the term sexually transmitted diseases were termed as having no knowledge, those knowing however some knowledge but not knowing method of prevention were classified as having some knowledge, and those who knew the method of prevention of STD were termed as having satisfactory knowledge.

Data analysis

Data was tabulated on Microsoft Excel sheet and analyzed using the SPSS software, $p<0.05$ were considered significant.

RESULTS

Result shows that 50.75% of students are of age group 11 to 13 years and remaining were of 14 to 16 years age group and considering their class, majority of them (68.25%) were students of class VIII and IX, and more than half of the father of the students (57.00%) were educated more than VIIIth standard, whereas it was found that their mother had relatively lower educational status, 43.50% of their mother had education of more than VIIIth standard. Majority of the students (60.25%) belonged to IInd and IIIrd category of S.E classification.

Table 1: Socio economic profile of study subjects.

Variables	Frequency	Percentage (%)
Age (in years)		
11-13	203	50.75
14-16	197	49.25
Class		
6-7	127	31.75
8-9	273	68.25
Education of father		
≤Class 8	172	43.00
>Class 8	228	57.00
Education of mother		
≤Class 8	226	56.50
>Class 8	174	43.50
Socioeconomic classification B.G Prasad [6]		
I	87	21.75
II	129	32.25
III	112	28.00
IV	44	11.00
V	28	7.00

Table 2: Knowledge of students regarding selected variable.

Knowledge regarding		Age in years (n)		Class (n)		Education of father (n)		Education of mother (n)		Socioeconomic classification (n)				
		11-13	14-16	6-7	8-9	≤8	>8	≤8	>8	I	II	III	IV	V
Physical changes	No (4.5%)	10	8	9	9	8	10	7	11	4	4	6	2	2
	Some (58.75)	140	95	91	144	117	118	139	96	49	65	78	24	19
	Satisfactory (36.75%)	53	94	27	120	47	100	80	67	34	60	28	18	7
Chi square test		P=0.000041		P=0.000041		P=0.002844		P=0.201823		P=0.068881				
Sexually transmitted disease	No (9.75%)	28	11	28	11	25	14	19	20	6	8	10	7	8
	Some (80.75%)	163	160	91	232	130	193	191	132	72	110	92	32	17
	Satisfactory (9.50%)	12	26	8	30	17	21	16	22	9	11	10	5	3
Chi square test		P=0.001922		P≤0.00001		P=0.017155		P=0.079029		P=0.030831				
Legal age for marriage	Yes (24.75%)	53	46	23	76	42	57	49	50	31	34	22	7	5
	No (75.25%)	150	151	104	197	130	171	177	124	56	95	90	37	23
Chi square test		P=0.522801		P=0.035838		P=0.893883		P=0.105079		P=0.043211				

p<0.05 are significant.

Table 3: Attitude for issues related to sexuality.

Variables	Don't discuss	Seek help from parents	Seek help from teachers	Consult doctor	Seek help from friends and siblings
	N (%)	N (%)	N (%)	N (%)	N (%)
Age (in years)					
11-13	25 (6.25)	120 (30.00)	9 (2.25)	15 (3.75)	34 (8.50)
14-16	24 (6.00)	121 (30.25)	5 (1.25)	10 (2.5)	37 (9.25)
Chi square test	P=0.698174				
Class					
6-7	13(3.25)	84 (21.00)	3 (0.75)	6 (1.50)	21 (5.25)
8-9	36(9.00)	157 (39.25)	11 (2.75)	19 (4.75)	50 (12.50)
Chi square test	P=0.521069				
Father education					
≤8th std	25 (6.25)	89 (22.25)	5 (1.25)	10 (2.5)	43 (10.75)
>8th std	24 (6.00)	152 (38.00)	9 (2.25)	15 (3.75)	28 (7.00)
Chi square test	P=0.006566				
Mother education					
≤ 8th std	33 (8.25)	129 (32.25)	8 (2.00)	8 (2.00)	48 (12.00)
>8th std	16 (4.00)	112 (28.00)	6 (1.50)	17 (4.25)	23 (5.75)
Chi square test	P=0.01186				
S.E class					
I	10 (2.50)	63 (15.75)	4 (1.00)	6 (1.50)	4 (1.00)
II	12 (3.00)	98 (24.50)	5 (1.25)	7 (1.75)	7 (1.75)
III	17 (4.25)	63 (15.75)	2 (0.50)	7 (1.75)	23 (5.75)
IV	5 (1.25)	12 (3.00)	1 (0.25)	3 (0.75)	23 (5.75)
V	5 (1.25)	5 (1.25)	2 (0.50)	2 (0.50)	14 (3.50)
Chi square test	P≤0.00001				

P values <0.05 are significant.

Table 4: Major source of information.

Major source	Teacher (%)	Parents (%)	Friends and siblings (%)	TV and radio (%)	Newspaper & magazine (%)	Internet (%)
Percent distribution of students	15.25	11.75	41.25	19.75	8.50	3.5

Above Table 2 shows that regarding physical changes 4.5% students were found having no knowledge, 58.75% having some knowledge and 36.75% having satisfactory knowledge. A statistical significant difference was found regarding age group, class and education of father, revealing that students of age group 14-16 years, from class VIIIth-IXth and those whom father were having education of more than VIIIth standard were having significantly better knowledge. Whereas no statistical significant difference was found regarding education of mother and socioeconomic status. For knowledge regarding sexually transmitted diseases, it was found that 9.75% of them had no knowledge, 80.75% have some knowledge and only 9.50% had satisfactory knowledge. A statistical significant difference was found regarding age group of student, class, education of father and socioeconomic status. Students of age group 14-16 year, class VIIIth and IX^{th,} whom father were educated more than VIIIth class and were belonging to better socioeconomic status had significantly better knowledge about STD. However no statistical significant difference was found regarding education of mother. For knowledge of legal age of marriage, only 24.75% students knew the answer, statistical significant difference was found regarding class and socioeconomic status. Students of class VIIIth and IXth and belonging to better socioeconomic status had significantly correct knowledge, whereas regarding age group of student, education of father and education of mother no statistical significant difference was found.

Table 3 shows the attitude of students for issues related to sexuality, and it was found that 12.25% of students have the attitude of not discussing, 60.25% students revealed attitude of seeking help from parents, 3.50% showed attitude for seeking help from teachers, 6.25% showed attitude for consulting doctor, 17.75% revealed attitude for seeking help from friends and siblings. No statistical significant difference was found regarding age group and class of student, whereas regarding education of father, education of mother and socioeconomic status significant statistical significant difference was found.

As per Table 4 friends and siblings are reported as major source of information by 41.25% of students, whereas teachers and parents by 15.25% and 11.75% of students respectively. Television and radio was answered by 19.75% students as major source of information, while 8.50% stated Newspaper and magazine, and only 3.5% of them affirmed Internet as their major source of information.

DISCUSSION

Different studies conducted in different parts of the country and abroad in the past on the subject of adolescent awareness on various issues of adolescence, and source of information have shown varied results. A study conducted by Jain et al confirmed that adolescents greatly lack correct information related to their bodies physiological and sexual changes.[7] Likewise Sheoran et al also found that among the students of age group 12-14 years, from rural government schools, there is lack of knowledge, 40.5% boys were aware about concepts of puberty, 39.33% boys had knowledge about reproductive organs and their functions, 42.3% boys were aware about secondary sexual characteristics and 46.7% boys were aware about emotional changes, whereas for 27% of pre-adolescent boys, source of information regarding puberty was friends followed by 23.8% was elder siblings, 22% gain information from books and television followed by internet (19.14%).[8] Rani et al revealed that majority of pre - adolescent boys had inadequate knowledge and attitude in all the area of knowledge and attitude regarding pubertal changes. They also found that educational status of mother was statistically significant with knowledge scores, and educational status of father was found to be statistically significant with attitude scores of pre-adolescent boys.[9] Whereas Alosaimi illustrated that the knowledge level consistently increases with the increase in age of the students and it was also noted that the level of knowledge is significantly higher among the highly educated class and also revealed that regarding family income, difference in attitude of students towards biological changes of puberty was not of statistical significance.[10] Singh found similar findings and reported in a study conducted in Varanasi, that only 10% boys discuss their problems with their parents, while 51% boys discuss their problems with their friends.[5] Abajobir and Seme interviewed adolescents of 10–19 year and found that More than two-third (67%) of the adolescents had knowledge about reproductive health, whereas 68% of the rural adolescents had ever heard diseases that could be transmitted by sexual intercourse. Three quarters of the adolescents had never discussed reproductive health topics with their parents due to its worthlessness (24.9%), fear (74.3%), social and cultural taboos (20.6%). They also found that majority of the adolescents prefer to discuss reproductive health issues with friends/peers (46.4%), followed by health professionals (28%) and mothers (10.8%). According to this study, only 28% of the rural adolescents were well informed about reproductive health such as contraceptives and other issues. Schools and friends were found to be important

sources of information for rural adolescents. Among the socio-demographic and economic characteristics of the respondents sex, age, educational status, living arrangement (living with grandparents and other relatives) and family income were found to have statistically significant association with Reproductive Health knowledge.[11] Furthermore Iqbal et al found that regarding adolescent sexual and reproductive health there is a low level of perception amongst adolescents in Lahore district, it was also observed that overcoming strategies regarding perception of sexual and reproductive health is that 58.3% adolescents consult with parents/caregivers, 43.3% consult with siblings/cousins, 72.3% consult with friends, 23.7% consult with teachers, also findings showed a high level of perception in adolescents of 15 and 18 years of age, having educated parents, with 5 and above siblings and belonging to the rich wealth status.[12] Jadeja et al found that in 14 to 18 year students Majority (62%) knew the changes occurring during puberty, 67% knew about family planning methods, 77% knew about STDs and its transmission. It was also found that friends (64.34%) were most common source of information regarding reproductive health knowledge followed by teachers (58.19%), doctors (55.96%), TV, internet and other media (54.23%).[13] Agarwal et al found that only 51.2% of girls aged 15-19 years were knowing correct minimum legal age for marriage.[14] Likewise Pandya and Bhanderi also reported that only 38.6% women have correct knowledge about legal age of marriage.[15]

CONCLUSION

Our results showed that there is lack of knowledge regarding changes occurring during adolescence, sexually transmitted diseases and legal age of marriage. Moreover it was found that students get information from their surroundings, mainly from friends and the media but here the reliability of information is uncertain, particularly from friends as they belong to the same age group and are experiencing the same. Study also revealed that large number of students have attitude of concealing their problems or discuss it with their friends or siblings, which shows that topics related to sexuality are social stigma. These data highlight the need for targeted education and focused efforts providing proper knowledge and facilitating healthy life style of adolescent students.

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