



Awareness and Perception about Sexual and Reproductive Health Problems among School Going Male Adolescents in Urban Area of Rohtak

Authors

Dr Gaurav Rajawat*, Dr R.B. Jain**, Dr Vikram A*, Dr Neeraj Pawar*, Dr Shiba*,
Dr Aereosonova Kongsit*

**Senior Professor, Department of Community Medicine, PGIMS, Rohtak

*Resident, Department of Community Medicine, PGIMS, Rohtak

Corresponding Author

Dr R B Jain

Senior Professor, Community Medicine, Pt BD Sharma PGIMS, Rohtak, India

Email: rbjainpgims@gmail.com, Mobile: 9717134259

Abstract

Background: The Government of India Reproductive and Child Health programme declares 10-19-year old as adolescents. As per Census 2011, India is home to 253 million adolescents (10-19 years) who constitute 22% of the country's population. NFHS-3 data indicates that among adolescents aged 15-24, 51% of young women and 27% of young men have ever had sexual intercourse.

Aim and Objectives: To study perception and awareness of sexual and reproductive health problems among school going male adolescents.

Methods: A cross sectional study was carried out in urban area Rohtak, Haryana, to assess the awareness and perception about sexual and reproductive health problems among school going male adolescents. Total 600 male adolescents were interviewed in Government, Government aided and Private Senior Secondary Schools by using predesigned and pretested interview schedule.

Results: The majority (85%) of adolescents were aware of pubertal changes. 36% study subjects mentioned friends followed by 26% TV/Films, 16% internet and 10.5% study subjects mentioned Books/magazines as a source of information. 56.7% study subjects talked about their sexual health related issues with someone while 43.3% didn't. 82.3% reported to have morning erection, whereas out of total 600 study subjects, 53.3% had experienced nocturnal emission.

Conclusion: The awareness and perception about reproductive and sexual health problems were found better among adolescents of Private Senior Secondary Schools as compared to Govt. & Govt. aided schools.

Keywords: Adolescents, School-going, Urban, Sexual Health.

Introduction

Adolescence word was first used in the 15th century and was derived from Latin word "adolescere" which meant "to grow into maturity or to grow up." [1]

Adolescence, the second decade of life, is increasingly recognized as a critical phase in the life course, especially from the health and social perspectives. The most challenging aspect of

adolescence is sexual and reproductive health, as it is the area that poses the greatest difficulty in maintaining adolescents' health and implementing appropriate and effective interventions. Sexual and reproductive changes are also accompanied by significant stress on adolescent and those around them, while influencing and affecting their relationships with their peers and adults.

Adolescent age is also an age of impulsivity

accompanied by vulnerability, influenced by peer groups and media that result in changes in perception and practice, and characterized by decision making skills/abilities along with acquisition of new emotional, cognitive and social skills.^[2]

The Government of India Reproductive and Child Health programme declares 10-19-year old as adolescents.^{[3],[4]} WHO defines adolescence both in terms of age (spanning the ages between 10-19 years) and in terms of phase of life marked by special attributes. These attributes include - Rapid physical growth and development, Physical, social and psychological maturity, Sexual maturity and the onset of sexual activity, Experimentation, Development of adult mental processes and adult identity and Transition from total socioeconomic dependence to relative independence.

As per the Census 2011, India is home to 253 million adolescents (10-19 years) who constitute 22% of the country's population.^{[5],[6]} In Haryana, Population of adolescents (10-19 years) constitutes 21.08% of the total population. Out of total adolescent population, adolescent boys constitute 55.4% and adolescent girls constitute 44.6%. In Haryana as per census 2011, sex ratio of adolescent age group is 879 females per 1000 males.^[3]

NFHS-3 data indicates that among adolescents aged 15–24, 51% of young women and 27% of young men have ever had sexual intercourse. Sexual initiation by 15 years of age was reported by 10% of young women and 2% of young men. This could be attributed to age at marriage – with more girls than boys getting married before age 18. Among the never married, 12% of young men and 1% of young women reported having had sexual intercourse. Higher-risk sexual behavior is of concern in this age group as it is associated with the risk of sexually transmitted infections, including HIV. The Youth Study findings indicate that among young men and women aged 15–19 years who reported experiencing premarital sex, 21% and 25% respectively, reported engaging in sex with more than one partner (IIPS and Population Council 2010).^[4]

The present study was conducted with the aim to study the perception and awareness of sexual and reproductive health problems among school going male adolescents.

Material and Methods

Study Area

The present study was carried out in senior secondary schools of Rohtak city, Haryana. In the study area there were four GSSS, 19 Govt. aided SSS and 61 private Senior Secondary schools present.

Study Design: Descriptive study of cross-sectional type.

Study Period: July 2016 to June 2017

Study Population: The present study included school going male middle and late adolescents (aged 14-19) studying in class 9th to 12th of the senior secondary schools in the study area.

Sample Size: In a study by Paudel et al. (2014)^[5] on Perceived behavior and practices of adolescents on sexual and reproductive health and associated factors the prevalence ranging from 24.1%.to 93.2%. To increase the precision of present study the lowest prevalence (24.1%) was considered to calculate the sample size with allowable error of 15%

$$n = 4pq/L^2$$

Where n = sample size

p = prevalence

q = (1- p)

L = allowable error (15% of prevalence)

By using this equation sample size is calculated as 560. The present study was done on 600.

Exclusion Criteria

- Subjects, who were absent from the school on the days of the visits till the investigator works in the school.
- Subjects, who were not willing to participate.

Data Collection

All the senior secondary schools in the Rohtak city were stratified into 3 groups viz government senior secondary schools, government aided senior secondary schools & private senior secondary schools. Then from each strata 2 were

selected randomly by lottery method. Prior permission was obtained from the concerned principals after briefing them about the study objectives. From the sample size of 600, 100 students were selected from each school, and 25 male students were selected from each class (9th, 10th, 11th& 12th) by simple random sampling. A predesigned pre-tested semi structured schedule was administered after obtaining informed written consent from the study subjects.

Data Analysis

The data was entered in the MS EXCEL spread sheet, coded appropriately and cleansed for any possible typing error and then the data was analysed by chi-square statistical test using SPSS

20 (Statistical package for social sciences) software as per study objective. If the *P* value in Chi- square test was found <0.05 then the result was considered as significant.

Results

The present study was carried out among school going male adolescents of 14-19 years of age group studying in 9th to 12th classes. Out of 84 Senior Secondary Schools, Six Senior Secondary Schools were selected randomly for the present study. Total 600 students were interviewed. Detailed observations of present study were as follows: -

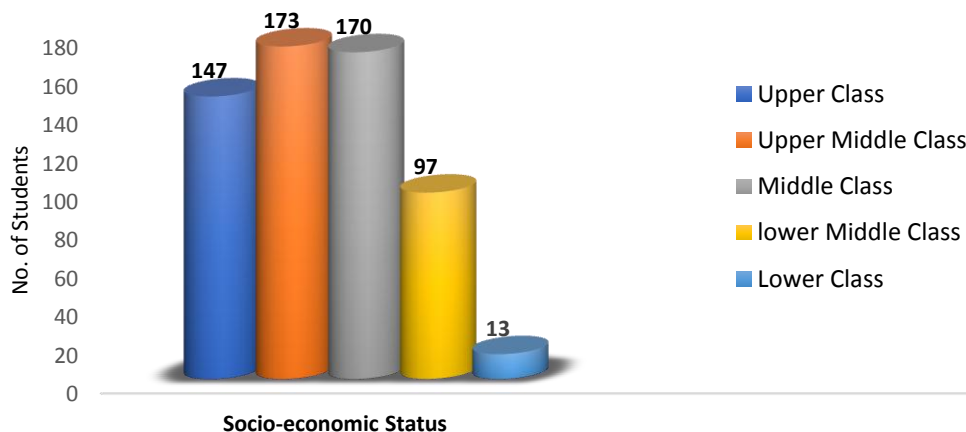
Table no. 1 Socio- demographic profile of study subjects (n=600)

	PARAMETERS	NUMBER	PERCENTAGE	Mean Age- 15.85±1.29
AGE (YEARS)	14-15	223	37.2%	
	16-17	322	53.7%	
	18-19	55	9.1%	
CASTE	General	358	59.7%	
	OBC	105	17.5%	
	SC/ST	137	22.8%	
FAMILY TYPE	Nuclear	389	64.8%	
	Joint	181	30.2%	
	Three Generation	30	5.0%	

In the present study, a large segment of students 53.6% (322) was in age group 16-17 years, followed by 37.1% (223) in 14-15 years and 9.1% (55) in 18-19 years reflecting a significant drop out rates of students reaching in 11th and 12th classes. Furthermore, study subjects belonging to General category were 59.7% (358), OBC

category were 17.5% (105) and SC/ST category were 22.8% (137). Majority 64.8% (389) of adolescents were from Nuclear family followed by 30.2% (181) Joint family and only 5% (30) were from Three generation family, indicating that nuclear families are becoming more common as compare to other type of families.

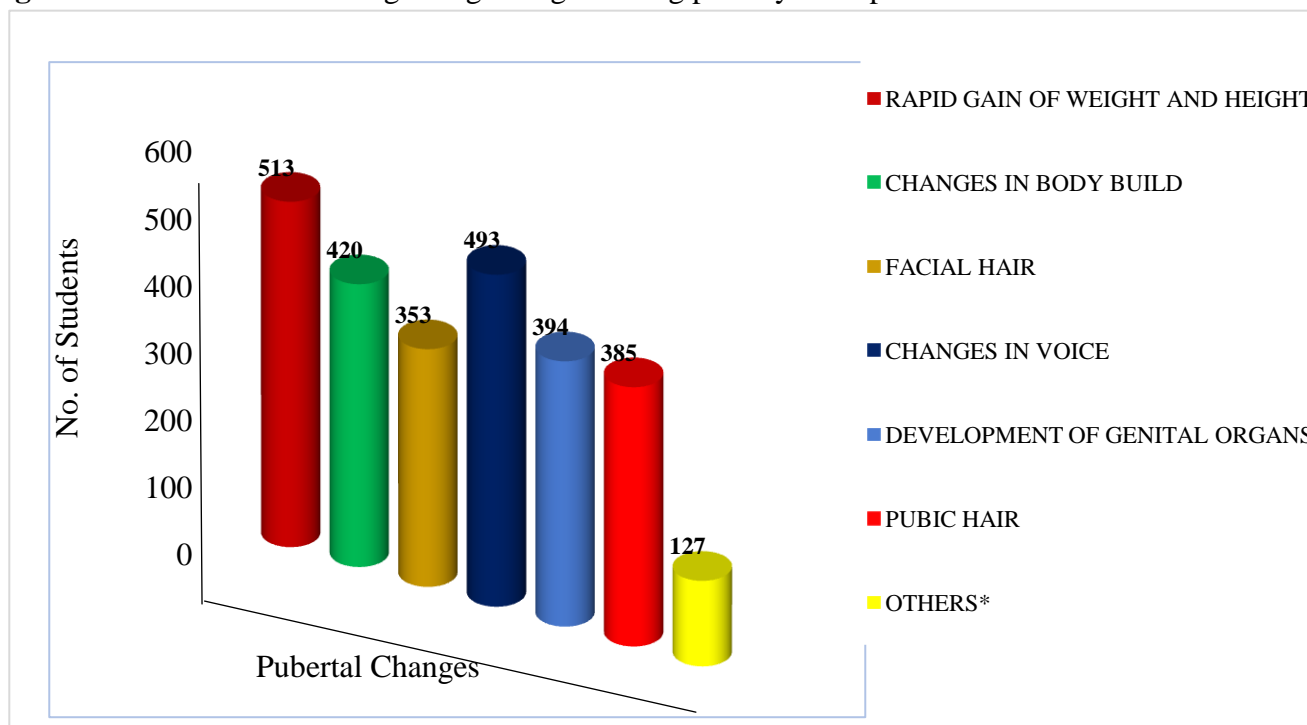
Fig. 1 Distribution of students according to socio-economic status



Students were distributed as per their socio-economic status calculated by Modified B G Prasad classification.⁽³⁹⁾ The highest proportion of the students belonged to upper middle class 28.8% (173) followed by middle class 28.3% (170) and upper class 24.5% (147). Ninety-seven (16.2%) study subjects belonged to lower middle class and only 2.2% (13) study subjects belonged to lower

class. This represented that proportion of people with upper middle and middle socio-economic classes are more than 50% in urban areas whose wards are sent to schools. Lower and lower middle socio-economic class students were only 2.2% & 16.2% respectively meaning thereby either their population is less in urban areas or they did not send their wards to schools.

Fig.2 Awareness of students regarding changes during puberty Multiple answers



*others include hair on chest, hair growth on hands, upper arms & legs, muscular growth.

Out of 600 study subjects, 85.5% (513) responded that rapid gain in weight & height was the most common change occurring at the time of puberty followed by change in voice 82.1% (493), 70%

(420) change in body build, 65.6% (394) genital organ development, 64.1% (385) growth of pubic hair and 58.9% (353) answered growth of facial hair were changes occurring during puberty.

Table 2: Distribution of students who discussed with someone regarding sexual health problems

	Government School	Government Aided	Private School	Total	Level of significance
YES	80 (40%)	94 (47%)	166 (83%)	340(56.7%)	$\chi^2= 86.715$ df= 2 p-value= 0.000 (Sig.)
NO	120 (60%)	106 (53%)	34 (17%)	260(43.3%)	
TOTAL	200 (100%)	200 (100%)	200 (100%)	600 (100%)	

Out of total 600 study subjects, 56.7% (340) talked about their sexual health related issues with someone while 43.3% (260) didn't. While describing separately the larger proportion 83%

(166) of study subjects from private schools talked with someone about their sexual health problems and the difference was found to be statistically significant.

Table no. 3 Distribution of students who discussed with someone regarding sexual health problems

	Government School	Government Aided	Private School	Total	Level of significance
PARENTS	1 (1.2%)	2 (2.1%)	9 (5.4%)	12 (3.5%)	$\chi^2 = 96.702$ df – 6 p –value 0.000 Significant
TEACHERS	4 (5%)	5 (5.3%)	4 (2.4%)	13 (3.8%)	
FRIENDS	73 (91.2%)	85 (90.4%)	153 (92.2%)	311 (91.5%)	
DOCTORS	2 (2.6%)	2 (2.2%)	0 (0.0%)	4 (1.2%)	
TOTAL	80 (100%)	94 (100%)	166 (100%)	340 (100%)	

It was found in the present study that out of total 340 study subjects, majority 91.5% (311) of them discussed their sexual health related issues with Friends while 3.8% (13) with Teachers, 3.5% (12) with Parents and very few 1.2% (4) study subjects discussed with doctors, indicating that a very large proportion of the study subjects felt embarrassment to discuss their sexual health related problem with elderly. Similar proportion (91.2%, 90.4% & 92.2%) of study subjects were observed among all school categories who discuss their sexual health related problem with friends.

As shown in fig.3, out of total 600 study subjects, 36% (216) mentioned friends followed by 26% (156) TV/Films, 16% (96) internet and 10.5% (63) study subjects mentioned Books/magazines as a source of information while very few 3% (18), 1.3% (8) & 1% (6) study subjects answered Doctors/Teachers, Relatives & Parents as a source of information respectively.

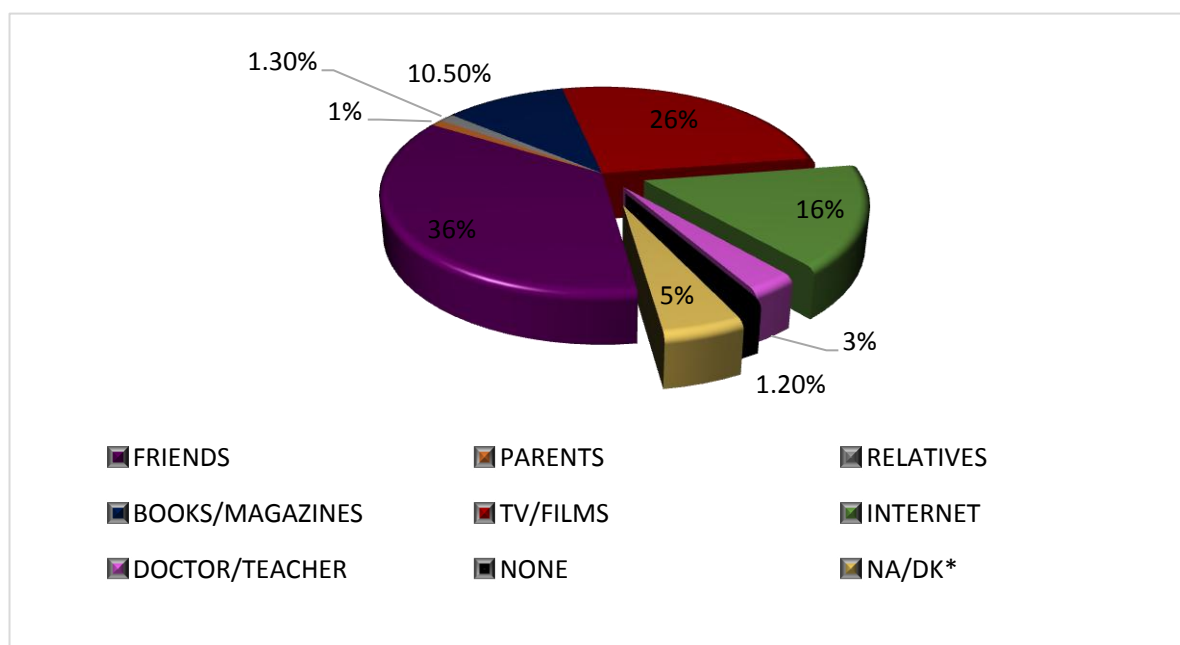


Fig- 3 Source of information on sexual activity among study subjects

Table no. 4 Distribution of study subjects reporting nocturnal emission

	Government School	Government Aided	Private School	Total	Level of significance
YES	73 (36.5%)	103 (51.5%)	144 (72%)	320 (53.3%)	$\chi^2 = 51.04$ df= 2 p-value= 0.000 (Sig.)
NO	127 (63.5%)	97 (48.5%)	56 (28%)	280 (46.6%)	
TOTAL	200 (100%)	200 (100%)	200 (100%)	600 (100%)	

Out of total 600 study subjects, 53.3% (320) had experienced nocturnal emission, while 46.6%

(280) study subjects did not experience nocturnal emission. Describing separately, in Private Sr.

Sec. Schools out of 200 study subjects 144 (72%) study subjects reported night emission. In Govt. & Govt. aided schools, out of 200 study subjects 75 (36.5%) & 103 (51.5%) reported night emission

respectively which reflected a significant low number of Govt. SSS's study subjects who experienced night emission.

Table no. 5 Perception of students regarding nocturnal emission

	Government School	Government Aided	Private School	Total	Level of significance
FEAR	29 (39.7%)	37 (35.9%)	33 (22.9%)	99 (30.9%)	$\chi^2 - 80.009$ Df - 8 p-value - 0.000 Significant
ENJOY	10 (13.6%)	19 (18.4%)	46 (31.9%)	75 (23.4%)	
BAD	7 (24.1%)	12 (11.6%)	27 (18.7%)	46 (14.3%)	
NORMAL	18 (24.6%)	21 (20.3%)	33 (22.9%)	72 (22.5%)	
ABNORMAL	9 (12.3%)	14 (13.5%)	5 (3.4%)	28 (8.7%)	
TOTAL	73 (100%)	103 (100%)	144 (100%)	320 (100%)	

In the present study it was found that, 30.9% (99) study subjects felt frightened after night emission as it could affect their health whereas 23.4% (75) & 22.5% (72) enjoyed it and considered it as a normal phenomenon respectively and only 14.3%

(46) study subjects felt bad about it. These results indicated that only small proportion of study subjects perceived it as a normal phenomenon and the result was found to be statistically significant.

Table 6 Perception of students regarding morning erection of penis

	Government School	Government Aided	Private School	Total	Level of significance
YES	144 (72%)	164 (82%)	186 (93%)	494 (82.3%)	$\chi^2 - 30.341$ DF- 2 P-value- 0.000 Significant
NO	56 (28%)	36 (18%)	14 (7%)	106 (17.6%)	
TOTAL	200 (100%)	200 (100%)	200 (100%)	600 (100%)	

In the present study as shown by table- 6, it was observed that out of total 600 study subjects, 82.3% (494) reported to have morning erection, whereas 17.6% (106) did not admit of having

morning erection. Among all school categories the lower proportion 72% (144) of students from Govt. schools, reported morning erection.

Table 7 Distribution of students reporting morning erection of penis

	Government School	Government Aided	Private School	Total	Level of significance
NORMAL	129 (89.5%)	140 (85.3%)	158 (84.9%)	427 (86.4%)	$\chi^2 - 31.963$ DF- 2 P-value- 0.000 Significant
ABNORMAL	15(10.5%)	24 (14.7%)	28 (15.1%)	67(13.6%)	
TOTAL	144 (100%)	164 (100%)	186 (100%)	494(100%)	

In the present study as shown by table 7, it was found that out of 494 study subjects, 86.4% (427) considered morning erection as a normal phenomenon while 13.5% (67) considered it as an abnormal phenomenon. Similar proportion of study subjects (89.5%, 85.3% and 84.9% study subjects)among all schools, reported morning erection as a normal phenomenon.

Discussion

Awareness about Pubertal Changes

In the present study as shown by fig. 2, out of 600 study subjects, 85.5% believed that rapid gain in weight & height was considered the most common pubertal change followed by 82.1% who expressed as change in voice. While 70% responded change in body built, 65.6% genital

organ development, 64.1% growth of pubic hair and 58.9% believed that the growth of facial hair (beard and moustache), are changes occurring during puberty. These findings were comparable to a study carried out by Jadeja et al (2016),^[6] in Gujrat, in which it was observed that most of the students (84.96%) responded, increase in height was the most common change occurring at the time of puberty which was similar to the present study. Similarly, in Haryana Chayal et al (2016),^[7] reported that 81.6% & 80.2% students of 9th - 10th & 11th-12th classes respectively, believed that rapid gain of weight & height was the most common characteristic of pubertal change. In another study conducted by Jain et al (2009),^[8] in Haryana, where 66.3% adolescents were aware of atleast one change during adolescent which was lower than the present study, however their study was carried out eight years back and that time the awareness among adolescents might be less on this issue.

Source of Information about Sexual & Reproductive Health

As shown by figure 3 'Friends and mass media' played a major role (78%) in providing information on sex-related matters because they were easily available and accessible to young people. Out of 600 study subjects, 36% study subjects mentioned 'Friends' followed by 26% TV/Films, 16% internet, 10.5% books/magazines, 3% doctors/teachers and very few 1% study subjects mentioned 'Parents' as a source of information. Similar findings were observed in a study carried out in Faridkot, Punjab, by Rupali (2016),^[9] where 27.2% respondents mentioned friends, 25.6% TV/Films, 2% 'Doctors/Teachers' and only 0.1% respondents mentioned 'Parents' as a source of information on sex, this reflected that peer group remained the main source of information on matters related to sex and reproductive health irrespective of the fact the information might be right or wrong.

Additionally, Sathe et al (2013),^[10] reported 54.4% boys in Pune, Shivkumar et al (2013),^[11] reported, 64% boys in Karnataka, Subbarao et al (2017),^[12] reported 40% respondents in Bengaluru and Jadeja

et al,^[6] reported 64.3% respondents in Gujrat, mentioned "Friends", as a source of information. Jadeja et al,^[6] also reported 54.23% respondents mentioned 'TV & Mass media' as a source of information. Furthermore, Paudel et al (2014),^[5] reported 47.9% respondents in Kathmandu, Nepal, mentioned 'Friends' and surprisingly 43.8% received the sexual health-related information from 'Parents & Family'. It is noted that all compared studies considered multiple choices for the best answer while the present study considered single choice, so this might be a reason for the different results observed in their studies.

Above findings indicated that majority of students hesitate to ask their parents or teachers about sex-related issues, so they turn to their friends for information, who themselves did not have knowledge about it and this lead to gathering of myths/misconceptions which travel through generations

Discussion about Sexual Health Related Issues

In the present study, it was observed that majority (91.5%) of students discussed their sexual health-related issues with friends/peer group followed by 3.5% with parents, 3.8% with teachers, and only 1.2 % boys discussed their issues with doctors. All these findings indicated that students, in general, had poor dialogue with parents, teachers and doctors. These findings were comparable to a study carried out by Kumar (2011),^[13] in a community block of Haryana, reported 88% boys discussed their sexual problems with friends. Sathe et al,^[10] reported that 69.4% boys discussed their issues with friends, while 35%, 20% & 7.4 % boys discussed their sexual health-related issues with parents, doctors, & teachers respectively which were higher than the present study, possibly because of more conservative city like Rohtak representing typical culture of Haryana, where discussing the sexual matter was considered as taboo and rarely such issues are discussed, apart from traditional/cultural factors other elements like religion, occupation, and different gender of the child, acted as a barrier to communicate with adolescents in terms of their sexual health-related issues.

Nocturnal Emission & Morning Erection

In the present study, it was observed that out of total 600 students, more than half of the students (53.3%) admitted experiencing nocturnal emission, which was similar to a study conducted by Sathe et al,^[10](48.8 % boys). Whereas lower proportions were found in a study carried out by Ramadugu et al,^[14] (32.5% boys), Sharmila et al^[15] (18.3% boys) and higher proportion (80% boys) was observed in a study of Kumar.^[13]

Furthermore, it was observed in the present study that higher proportion (72%) of private school's study subjects experienced nocturnal emission, as compared to Govt. and aided schools (36.5% and 51.5% respectively) even after probed, by using various colloquial terms (i.e *Swapan dosh*) the response from the students of Govt. and aided schools was not satisfactory taking this information as very secretive and were very shy to talk on this issue. The difference was found to be statistically significant.

As per table-5 that out of 320 students who experienced nocturnal emission, 30.9% students were frightened after nocturnal emission, 23.4% & 22.5% enjoyed it and considered it as a normal phenomenon respectively. Similar findings were observed in a study of Chayal et al,^[7] (39% boys), Sathe et al,^[10] (48.8% boys) and Khushwah,^[16]found 67%boys perceived it as a normal phenomenon. Whereas Das et al,^[17] observed that 47.2% boys perceived this event as a sexual problem.

In the present study, it was observed that out of 600 study subjects, 82.3% reported to have morning erection while 17.6% study subjects didn't narrate such thing. Furthermore, 93% students in Private Sr. Sec. Schools reported morning erection whereas in Govt. & Govt. aided Sr, Sec, Schools 72% & 82% reported morning erection respectively. Out of 494 study subjects, who experienced morning erection, the majority (86.4%) of study subjects perceived it as a normal phenomenon which was found statistically significant.

Limitation

The topic of the study was sensitive in nature and still there was a stigma and taboo attached to sex-related issues in the society, so reluctance was found among respondents to answer the questions honestly because of the societal and cultural roadblocks.

Conclusion and Recommendation

It might be concluded from the present study that Indian society was conservative about sex and people felt uncomfortable discussing these issues openly with near and dear ones. Nearly half (43.5%) of adolescents didn't discuss their issues with anyone and there was no forum where they could discuss sexuality and reproductive health issues. The findings of this study highlighted the urgent need for introducing sex education in schools as adolescents lacked correct and scientific knowledge on sexuality. This study also concluded that awareness and perception about reproductive and sexual health problems were found better among adolescents of Private Senior Secondary Schools as compared to Govt. & aided schools in the present study due to the students attending the schools belonging to better socioeconomic background and less conservative society.

Conflicts of Interest: None declared

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