



Knowledge, Attitude and Practices Study for Sexuality in Adolescent Age Group in Various Schools of a Metropolitan City of Central India

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Financial Support: None declared
Conflict of Interest: None declared
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How to cite this article:

Goswami VP, Rai S Knowledge, Attitude and Practices Study for Sexuality in Adolescent Age Group in Various Schools of Metropolitan City of Central India. Natl J Community Medicine 2018; 9(3):225:230.

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Date of Submission: 07-02-18

Date of Acceptance: 30-03-18

Date of Publication: 28-02-18

ABSTRACT

Background: Adolescent even though constituted a sizeable population, their health needs are not properly met with their life style and behavior in a way affects the health of future adults. The research was conducted to study the knowledge attitude and practice for menstruation and sexuality in Adolescents.

Methodology: A cross-sectional study was conducted with the help of **Pre-designed, Pre-tested, Semi-structured questionnaire** for Adolescent boys and girls during the period between 01 Jan 2016 to 31 Dec 2016. Simple random sampling for selection of school and Adolescent boys and girls was adopted for study. A total of 1492 (970 boys and 522 girls) is study population.

Results: In study 40.41% boys and 35.36% girls have Major concerns about their body image. Majority boy's do not know correct duration of menses ($p < 0.001$). About the social restrictions majority of girls 65% says it is wrong whereas 36.3% boys say so ($p < 0.001$). Girls are more aware about the concept of relation of menstruation with fertility than the boys ($p < 0.001$). In The study mean age of menarche is 13.01 years.

Conclusions: Majority have concern about body image. In comparison to boys, girls' knowledge about menses and fertility is more and they also say that social restrictions are wrong.

Keywords: Adolescent, Sexuality, Knowledge, Attitude, Practices

INTRODUCTION

Adolescence Age (10-19) as per WHO definition signifies difficult transition period captured in Phrase "No longer children, No yet adult"¹. This period is characterized by physical, emotional and social changes that require understanding and abilities to deal with them formally. Most of the adolescent pass through these stages smoothly but some needs special help.

This adolescent period is further divided by WHO in to early (10 -13 years), mid (14 - 15 years) and late adolescence (16 - 19 years) based on different health needs and health status of these three groups. Concept of phases is important, as the psy-

chological and social competencies and needs of early adolescence are different from those of mid and late adolescent.^{2,3}

Adolescent even though constituted a sizeable population, their health needs are not properly met with their life style and behavior in a way affects the health of future adults. In contrast to morbidity and mortality in children and adult adolescent mortality arises not from disease but from preventable social, environmental and behavioral factors. Provision of health care to Woman and young children has been given high priority in India and during the first five decades' considerable improvement has been attained in terms of reduction in mortality of young children. Various health pro-

grams and schemes aimed at reducing morbidity and mortality among young children like universal immunization program, acute respiratory tract infection control program, nutrition program, disease control program etc, are being implemented in India and yielded remarkable successful result. However, in the continuum of development many, who escape deals in younger age, emerged as adolescents and youth bearing the problems resulting from the physical, mental, psychological or social trauma received during their early childhood. Even though adolescents are healthier than young children because of their importance as future adult in society recently they have emerged as an important group drawing considerable attention from health and welfare policy makers in most of the developing countries¹

Apart from social issues adolescent shows their concern on different aspects of growing up and maturing from an innocent child to a responsible adult. Their health needs are poorly understood and ill served. Adolescent girls who have not yet experienced menstruation (usually age 10-12 years) are in need of information on menstruation. It would help them prepare them to cope with menarche physically and mentally.⁴

With this background this research was conducted to study knowledge, attitude and practice for menstruation and sexuality in adolescent boys and girls.

MATERIAL AND METHODS

A school based study cross sectional observational study was carried out in higher secondary students of government and private schools of Indore city. Adolescent boys and girls of class IXth to XIIth were taken from 6 schools of Indore city in order to study the sex, sexuality of adolescents. To get representative sample co-educational, exclusive boys and girls schools from government and private schools were chosen. All the students of class IXth to XIIth were included in study. As per WHO

age grouping 1492 students were selected in which 970 boys and 522 girls were taken for further study, analysis and discussion. Permission for study was obtained from school principal as prime guardian & informed consent was obtained from the study participants. Data was collected with the help of Pre-designed, Pre-tested, Semi-structured questionnaire during the period between 01 July 2015 – 30 June 2016. The data collected were analyzed and presented in table formats & graphs which were obtained using Excel and some using SPSS-22 (Statistical Package for Social Science). Chi square Test was applied and p value was considered significant when it is < 0.05.

RESULTS

In our study group out of total 1492 students 970 are boys out of which 95 (9.81%) belongs to early adolescent (10-13 years of age), 519 (53.5%) belongs to mid adolescent (14-15 years of age) and 356 (36.7%) belongs to late adolescent boys (16 to 19 years age group). Whereas out 522 girls 36(6.9%) early adolescent, 285 (54.6%) mid adolescent and 301 (38.5%) girls are late adolescent.

Out of total 1492 students 1152 (77.20%) Students are Hindus, 138 (9.20 %) are Jains, 87 (5.80 %) are Muslims, 69 (4.60 %) are Christians 30 (2 %) are Sikhs, and 16 (1.10%) are others.

Responses of the Students about Sexual Attraction: On comparing Boys with Girls it is observed that in Girls, number of not attracted is more 393 (75.3%) as compare to male 541 (55.82%). Reason probably is that they do not want to reveal this highly personal and sensitive aspect $\chi^2 = 94.63$, P value < 0.001 which is highly significant.

Responses of the Students about Homosexuality: On comparing girls with boys, percentage of boys 6.3% is more than girls which are 1.1% who had opinion that homosexuality is good. $\chi^2 = 43.45$, p-value < 0.001 which is found to be highly significant.

Table 1: Responses of the Students about concern about body image

Gender & group	Concern about body image				Total
	Too heavy (%)	Too thin(%)	Average(%)	Don't know(%)	
Boys					
Early Adolescent*	1 (1.1)	23 (24.2)	67 (70.5)	4 (4.2)	95
Mid Adolescent#	2 (0.4)	145 (27.9)	342 (65.9)	30 (5.8)	519
Late Adolescent@	0 (0)	121 (34)	215 (60.4)	20 (5.6)	356
Total	3 (0.3)	289 (29.8)	624 (64.3)	54 (5.6)	970
Girls					
Early Adolescent*	3 (8.3)	6 (16.7)	27 (75)	0 (0)	36
Mid Adolescent#	16 (5.6)	51 (17.9)	218 (76.5)	0 (0)	285
Late Adolescent@	1 (0.5)	39 (19.4)	146 (72.6)	15 (7.5)	201
Total	20 (3.8)	96 (18.4)	391 (74.9)	15 (2.9)	522

*10-13 years; #14-15 years; @16-19 years; $\chi^2 = 55.31$, P value < 0.001

Table 2: Responses of the Students regarding Secondary Sexual Characteristics

Gender & group	Concern about changes in the body									Total
	Body size & appearance(%)	Breast (%)	Beauty (%)	Figure (%)	Voice (%)	Hairs (%)	Others (%)	None (%)	Don't know(%)	
Boys										
Early Adolescent*	45 (42.75)	0 (0)	1 (0.95)	0 (0)	3 (2.85)	11 (10.45)	1 (0.95)	36 (34.2)	10 (9.5)	95
Mid Adolescent#	218 (42)	4 (0.77)	17 (3.27)	3 (0.5)	19 (3.66)	28 (5.39)	4 (0.77)	265 (51)	13 (2.5)	519
Late Adolescent@	128 (35.95)	3 (0.84)	5 (1.4)	1 (0.28)	6 (1.68)	21 (5.89)	1 (0.28)	176 (49.43)	37 (10.39)	356
Total	392 (40.41)	7 (0.72)	23 (2.37)	4 (0.41)	28 (2.88)	60 (6.18)	6 (0.61)	477 (49.17)	60 (6.18)	970
Girls										
Early Adolescent*	13 (36.11)	1 (2.7)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	23 (63.88)	0 (0)	36
Mid Adolescent#	92 (32.28)	1 (0.25)	9 (3.15)	10 (3.5)	2 (0.7)	3 (1.05)	0 (0)	173 (60.7)	0 (0)	285
Late Adolescent@	84 (41.79)	3 (1.49)	11 (5.47)	18 (8.95)	0 (0)	5 (2.48)	0 (0)	126 (62.68)	1 (0.49)	201
Total	189 (35.68)	5 (0.95)	20 (3.83)	28 (5.47)	2 (0.38)	8 (1.53)	0 (0)	322 (61.68)	1 (0.19)	522

*10-13 years; #14-15 years; @16-19 years

Table 3: Responses of the Students about habits of relieving sexual tension

Gender and group	Sexual habits about relieving sexual tension			Total
	By engaging in creative activities (%)	Masturbation (%)	Any other (%)	
Boys				
Early Adolescent*	87 (91.6)	7 (7.4)	1 (2.2)	95
Mid Adolescent#	443 (85.4)	74 (14.3)	2 (0.4)	519
Late Adolescent@	262 (73.6)	92 (25.8)	3 (0.9)	356
Total	792 (81.6)	173 (17.8)	7 (0.7)	970
Girls				
Early Adolescent*	28 (77.8)	8 (22.2)	(0)	36
Mid Adolescent#	263 (92.3)	18 (6.3)	4 (1.5)	285
Late Adolescent@	185 (92)	13 (6.5)	3 (1.5)	201
Total	476 (91.2)	39 (7.5)	7 (1.4)	522

*10-13 years; #14-15 years; @16-19 years

Table 4: Responses of the Students about Duration of Menstrual Period

Gender & group	How long a normal period lasts				Total
	2-3 days(%)	3-7 days(%)	>7 days(%)	Don't know(%)	
Boys					
Early Adolescent*	42 (44.2)	9 (9.5)	10 (10.5)	34 (35.8)	95
Mid Adolescent#	229 (44.1)	28 (5.4)	84 (16.2)	178 (34.3)	519
Late Adolescent@	158 (44.4)	19 (5.3)	44 (12.4)	135 (37.9)	356
Total	429 (44.2)	56 (5.8)	138 (14.2)	347 (35.8)	970
Girls					
Early Adolescent*	9 (25)	12 (33.3)	1 (2.8)	14 (38.9)	36
Mid Adolescent#	49 (17.2)	190 (66.7)	19 (6.7)	27 (9.5)	285
Late Adolescent@	34 (16.9)	151 (75.1)	5 (2.5)	11 (5.5)	201
Total	92 (17.6)	353 (67.6)	25 (4.8)	52 (10)	522

*10-13 years; #14-15 years; @16-19 years; $\chi^2 = 654.59, p < 0.001$

Table 5: Responses of the Students about Restrictions during Menstrual Period

Gender & group	Is it right to have Restrictions during Menstrual Period			Total
	Yes (%)	No (%)	don't know (%)	
Boys				
Early Adolescent*	36 (37.9)	31 (32.6)	28 (29.5)	95
Mid Adolescent#	143 (27.6)	193 (37.2)	183 (35.3)	519
Late Adolescent@	118 (33.1)	128 (36)	110 (30.9)	356
Total	297 (30.6)	352 (36.3)	321 (33.1)	970
Girls				
Early Adolescent*	17 (47.2)	15 (41.7)	4 (11.1)	36
Mid Adolescent#	67 (23.5)	191 (67)	27 (9.5)	285
Late Adolescent@	49 (24.4)	134 (66.7)	18 (9)	201
Total	133 (25.5)	340 (65.1)	49 (9.4)	522

*10-13 years; #14-15 years; @16-19 years; $\chi^2 = 140.89, p < 0.001$

Table 6: Responses of the Girls Student about hygienic practices during menses

	What type of pads or hygienic precautions during menses			Total
	Any cloth/paper/pad	Clean cloth/pad/sanitary pad	Don't know	
Early Adolescent*	5 (13.9)	17 (47.2)	14 (38.9)	36
Mid Adolescent#	7 (2.5)	248 (87)	30 (10.5)	285
Late Adolescent@	5 (2.5)	190 (94.5)	6 (3)	201
Total	17 (3.3)	455 (87.2)	50 (9.6)	522

*10-13 years; #14-15 years; @16-19 years

Table 7: Responses of the Girls Student about problems during menses

Groups	Total Girls	Have her first period	Problem of pains or cramps during periods	Excessive bleeding during menses	Experienced fullness, tenderness of breast, irritability & other symptoms during menses
Early Adolescent*	36	16 (44.4)	9 (25.0)	2 (5.6)	8 (22.2)
Mid Adolescent#	285	258 (90.5)	164 (57.5)	68 (23.9)	59 (20.7)
Late Adolescent@	201	196 (97.5)	134 (66.7)	46 (22.9)	63 (31.3)
Total	522	470 (90.)	307 (58.8)	116 (22.2)	130 (24.9)

*10-13 years; #14-15 years; @16-19 years

Responses of Students about sex before marriage:

On comparing boys with girl’s percentage of boys (12.8%) having opinion as premarital sex, good is more as compare to girls (4.0%). $\chi^2 = 39.83$, p-value < 0.001 which is found to be highly significant.

It is encouraging to note that girls have also come up with their opinion of masturbation as a means of relieving their sexual tension. $\chi^2 = 30.69$, p-value < 0.001 which is found to be highly significant.

Responses of the Students about concept regarding Menstruation indicates Fertility: In response to the question which had asked the concept regarding whether menstruation indicate that one is capable of having pregnancy out of 970 Boys, 457 (47.1%) don’t know about it, 387 (39.9%) responded as no, whereas only 126 (13%) has said yes. On further analysis, 14.7%, 11.6% and 14.6% boys of early mid and late adolescent had right concept about menstruation indicating fertility. This shows lack of knowledge / awareness in boys.

In girls out of Total 522, 320 (61.3%) said menstruation is the indicator of capability to conceive, 113 (21.6%) don’t know and 89 (17%) says no. According to age group the percentage of girls responding yes (menstruation indicates fertility), Increases with the age i.e. 11.1%, 53.7% and 81.1% in early, mid and late adolescent girls respectively.

On comparison between boys and girls, it is observed that girls are more aware about the concept of relation of menstruation with fertility than the boys i.e. 13.0% in boys and 61.3% in girls. $\chi^2 = 378.2$, p-value < 0.001 which is found to be highly significant statistically

Out of 522 girls, 470 (90%) started and 52 (10%) not yet started menstruation, those who started menses experienced problems of pains and cramp are

307 (58.80%), problems of excessive bleeding during menses 116(22.20%) and 24.9% had experienced fullness, tenderness of breast, irritability and other symptoms (premenstrual symptoms) during Menses.

Age at menarche of Girls Student: Out of 522 girls 470 had started menarche, out of which 8 (1.7%) had their menarche at 10 years of age, 28 (6%) had at 11 years 111 (23.6%) had their menarche at 12 years of age, 167 (35.5%) at 13 years, 120 (25.5%) at 14 years, 32 (6.8%) at 15 years and 4 (0.9%) at 16 years of age. The mean age of the total sample that had menarche is 13.01 years.

DISCUSSION

In present study on comparing boys and girls both has Major concern about their body size and appearance 40.41% in boys and 35.36% in girls. Most of the girls (61.68%) are not concerned about their secondary sexual character as compare to boys (49.17%). $\chi^2 = 54.19$ and p-value < 0.001 which is highly significant. Similarly in the study by Gupta, S.D., et al. ⁵ showed that knowledge and awareness about puberty, menstruation, physical changes in the body, older adolescent girls were more aware than younger adolescent girls of the physical and physiological changes that take place in the Body. A study by Qumran Nahar et al⁶ indicated that Girls have a higher knowledge about key physical changes during puberty than boys.

On comparing girls with boys, percentage of boys 6.3% is more than girls which are 1.1% who had opinion that homosexuality are good. $\chi^2 = 43.45$, p-value < 0.001 which is found to be highly significant A study conducted in Rajasthan Gupta, S.D., et al.⁵ on adolescent boys’ and girls’ knowledge and awareness of sexual behavior revealed that 15

percent of the adolescents had experienced sexual intercourse and 21 percent of those reported having had a homosexual relationship.

In this study boys (12.8%) having opinion as pre-marital sex, good is more as compare to girls (4.0%). $\chi^2 = 39.83$, p-value < 0.001 which is found to be highly significant. While in the study by Leena Abraham 2001⁷ found that 13 percent of male school-going adolescents and 10 percent of female school-going adolescents clearly approved of pre-marital sex. A study in Tehran by Mohammad Reza Mohammad et al⁸ revealed that 56% of adolescent males completely agreed that young women should not have sex before marriage, but only 41% held the same view about members of their own sex. Indi Parweij S, Kumar et al⁹ in their study revealed that 5% of the respondents reported that someone in their class is having sexual relations, and 13% of the girls approved of pre-marital sexual relations. This is similar to our finding.

Study shows more numbers of female are engaged in other activities 1.04% as compare to boys .7% and more boys are engaged in masturbation 17.80% as compare to girls 7.50%. $\chi^2 = 30.69$, p-value < 0.001 which is found to be highly significant. Aggrawal O et al, Delhi¹⁰, in 2004 India in their study found that Knowledge regarding sexual intercourse, masturbation, contraception, and sexually transmitted diseases was satisfactory among 70%, 74.8%, 83.5%, and 92.6% of the respondents, respectively. A study conducted in Rajasthan on adolescent boys' and girls' knowledge and awareness of sexual behavior revealed that more than half of the adolescent boys (ages 15-21 years) reported that they masturbated, and the practice was reported more often among rural and older boys.⁵

As per Bhavay's text book¹¹ surveys reveal that 75% of adolescent boys and 20% of Girls adolescent admit in indulging in masturbation. Percentage varies from region to region. A study conducted in Rajasthan Gupta, S.D., et al.⁵ on adolescent boys' and girls' more than one-third of the adolescents said they touched their body in some sexual manner, and about 20 percent had touched their genitals. Basnayake Striani et al¹² in survey revealed that 95 percent of the boys interviewed were aware of what masturbation meant, even though only 77 percent reported having masturbated at some time in past. Concept of masturbation affecting health has changed as the age advances in case of girls but for boy's concept fluctuated and in late adolescent boy it is increased from 44.31%, 43.7% and 51.4% in early, mid and late adolescent boys respectively. $\chi^2 = 158.20$, p-value < 0.001 which is found to be highly significant A study conducted in Tehran, Iran, By Mohammad Reza Mohammad⁸

among Adolescent Males in Tehran, revealed that 53% of respondents declared that masturbation is harmful to human well-being; only 14% disagreed

In girls out of total 522, 353 (76.6%) has responded correctly i.e. 3-7days, 92 (17.6%) have given response of 2-3 days 25 (4.8%) says it is >7 days, 107 don't know the duration. The knowledge of correct duration (i.e. 3-7days) of menstrual cycle had increased in girls with the age 33.3% in early, 66.7% in mid to 75.1% late adolescent girls respectively. Most of the boy's who had given duration thinks that it is 2-3 days where as most of the girls knows the correct duration. $\chi^2 = 654.59$, p<0.001, which is significant.

As girls have to face the social restrictions majority of girls i.e. 65% says it is wrong to have restriction whereas only 36.3% boys say so boys. $\chi^2 = 140.89$, p<0.001, which is highly significant. Similarly Payal Mahajan and Neeru Sharma¹³ in their study found that 46.5% of the urban girls believe in avoiding worship during these days (periods) where as 9% of them said that they should resist from household chores. In case of rural girls, 50.5% had the same perception of not going to religious places while 8% believed in resisting from any routine work. It also shows that 40.5% of the urban girls are not allowed to worship during these days (periods) where as 9% of them said that they do their routine household work. In case of rural girls, 42.5% of them are not going to religious places while 8% of them do their routine Work.

On comparison between boys and girls, it is observed that girls are more aware about the concept of relation of menstruation with fertility than the boys i.e. 13.0% in boys and 61.3% in girls. $\chi^2 = 378.2$, p-value < 0.001 which is found to be highly significant statistically. Rajgopal S, sandhya Barge et al¹⁶ assessed the awareness of school-going adolescents in secondary and higher secondary classes about reproductive beliefs, very few (9 percent) knew that a girl can conceive as soon as she attains menarche (at an age less than 14).

In present study 90% girls started and 10% not yet started menstruation, those who started menses experienced problems of pains and cramp are 307 (58.80%), problems of excessive bleeding during menses 116 (22.20%) and 24.9% had experienced fullness, tenderness of breast, irritability and other symptoms (premenstrual symptoms) during Menses. Similarly in the study by Singh M.M. et al¹⁵ conducted A study on 130 girls students aged 13-17 years Commonest reported menstrual problem was dysmenorrhoea (40.7%) followed by irregular menses (2.3%)

In this study the mean age of the total sample that had menarche is 13.01 years. Study by Singh M.M.

et al¹⁵ found that Mean age at menarche of the girls was 13.6 +/- 0.83 years.

CONCLUSION

In present study majority (boys & girls) have concern about body image. In comparison to boys, girls' knowledge about menses and fertility is more and they also say that social restrictions are wrong related with menstruation. Female Students engaging in creative activities as compare to boys for relieving sexual tension Although the adolescents have knowledge, awareness & practice various issues of sex & sexuality but there are certain areas where more attention should be paid like so that all have correct knowledge for that particular topic.

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