

Adolescent sexual behaviour and its determinants: A hospital-based study

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ABSTRACT

Aim: To know the prevalence of sexual activity, their sexual behaviour and attitude towards sex among unmarried adolescent females. **Materials and Methods:** It was a hospital-based prospective observational study. The study duration was 1 year. The study participants were unmarried girls between the age group of 10–19 years who gave written informed consent. In the case of a minor, consent was obtained from parents also. Pre-designed, pre-structured and pre-tested questionnaire was used to evaluate the sexual behaviour. **Results:** Out of the 320 adolescents presented to the OPD, only 165 consented to participate in the study. Prevalence of sexual activity was 16.9% (28/165) in the study. Eight (8/165) adolescent girls have not attained menarche and all were not having any knowledge of sex. Three girls were the victims of sexual exploitation. Around 64% of these girls were sexually active with their classmates. All the sexually active females were having intercourse through the vaginal route, however non-vaginal route was also practiced by 6 girls. Home (11, 39%) was the preferred place followed by the hotel (10, 35.7%) for sexual activity. **Conclusion:** Prevalence of sexual activity is low among Indians as compared to the western world but it may be a tip of iceberg as it is a hospital-based study. This is the first study that assessed the route of intercourse, frequency of sexual activity, and place preferred by these adolescents to evaluate the sexual health behaviour.

Keywords: Adolescent, contraception, sexual activity, unmarried

Introduction

Adolescent age group extends from age of 10–19 years in which early adolescence ranges from 10 to 14 years age group and 15–19 years of age come under late adolescence.^[1] Adolescents (10–19 years of age) comprise almost 22% of India's population.^[2] This is the age group in which physical changes usually commence with the growth spurt followed by secondary sexual characteristics development. These changes can make adolescent probably the most challenging, stressful, and uncertain

phase in the life of teenagers, as well as their parents, teachers, health professionals.

Sexual debut (initiation of sexual activity) especially among adolescents is unplanned, unguided as well as unprotected. Due to the widened use of mobile, internet and social media, adolescents are exposed to knowledge of sexual activity at an early age which leads them to indulge into sexual malpractice and exposing them to unwanted pregnancies and sexually transmitted diseases (STDs). Unwanted pregnancies may end up in unsafe or illegal abortions that will affect the maternal health. Adolescent girls are more vulnerable to be engaged in unsafe sex than boys of the same age group which can be due to poverty, economic issues, cultural stigmas, or parental behavior.^[3,4]

Time to time studies in adolescent sexual health are important to know the effect of changing trends in societal norms,

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educational status, digital transformation, and changing economy. These research studies can help in formulating/modifying school and community-based programs for promoting physical, mental, and sexual health for this vulnerable population.

The current study aims to study the prevalence of sexual activity, sexual behavior, and attitude toward sex among unmarried adolescent females.

Materials and Methods

It is a prospective observational study done in the outpatient department of Obstetrics and Gynaecology, Hamdard Institute of Medical Sciences and Research, and associated HAHC hospital over a period of one year. All the unmarried adolescent females (10–19 years) who were willing to participate in the study were included after taking informed consent. The included participants were evaluated for their sexual behavior with the help of a pre- designed, pre-structured, and pre-tested questionnaire. The girls who had intercourse were considered sexually active in this study. The knowledge of intercourse was taken as knowledge of sex. The study was approved by the institutional ethical committee dated 28 Aug, 2020.

Data were entered in microsoft excel sheet and then transported to SPSS version 20.0 (Armonk, NY: IBM Corp) for statistical analysis. Values are expressed as mean and percentages. *P* value < 0.05 is taken as significant.

Results

Out of the 320 adolescents presented to the OPD, only 165 consented to participate in the study making this the sample size of our study. Out of 165 girls, 42 (25.4%) girls were having knowledge of sex. Among the girls who were having knowledge of sex, 28 (66.7%) were sexually active. Prevalence of sexual activity was 16.9% (28/165) in the present study. Menarche was not attained in 8 (4.8%) girls and all these girls were neither having any knowledge of sex nor sexually active. This implies that hormonal changes at the time of the attainment of puberty may influence the sexual desire.

Knowledge of sex according to age and education is tabulated in table 1 which shows that this knowledge is significantly higher as the age or education level increases. Sexual activity is also significantly higher with increasing age and higher among educated girls than illiterate girls. The mean age of knowledge of sex is 15.6 years. Most of the girls (N = 23, 54.7%) were having knowledge of sex at the age of 16-17 years of age.

Internet (N = 19, 45%) was the most common source of knowledge followed by a partner (N = 16, 38%) in this study. Most of the girls were involved in sexual activity with their consent with classmates as a partner most commonly, as shown in Table 2.

Most of the girls (N = 13, 46.4%) were having first intercourse at age of 17 years followed by age 16 years (N = 7, 25%), 18 years (N = 5, 17.8%). Route, frequency and place of sex is tabulated in Table 3.

Table 4 shows the practice of masturbation activity in adolescent females. Among the girls who were having knowledge of sex, 3 girls were not sexually active but they were involved in kissing and breast fondling with their partners. Two girls who were sexually active were having addiction (alcohol). Only one girl was having family conflicts. All other girls who consented were indulged in sexual practice for pleasure only.

Among the females who were having knowledge of sex, 26 (61.9%) were having knowledge of contraception. Barrier was the most common method known in our study. Main source of knowledge of contraception in our study was television (TV) (N = 15, 57.8%) and internet (N = 12, 46.1%). Among the 9 girls who were sexually active and were using the contraceptive method, the barrier method was used by 5 girls followed by emergency contraceptive (EC) pill by 4 girls. One girl was using both the methods barrier as well as the EC pill.

Table 5 shows the knowledge of STDs in our study. The only STD known to participants was human immunodeficiency virus (HIV). All the 58 (100%) girls were aware of HIV with the help of television followed by studies (N = 14, 24%) and net (N = 13, 22%).

Table 1: Knowledge of sex and their correlates

Age (years)	Number (%age)	Knowledge of sex	P value	Sexually active	P value
11-13	28 (16.9)	1	<0.001	0	<0.001
14-16	50 (30.3)	7		3	
17-19	87 (52.7)	34		25	
Educational status	Number (%age)	Knowledge of sex	P value	Sexually active	P value
Illiterate	3 (1.8)	1	<0.001	1	0.003
Primary/Secondary	89 (53.9)	10		7	
Higher Secondary	73 (44.2)	31		20	
Religion	Number (%age)	Knowledge of sex	P value	Sexually active	P value
Hindu	115	26	0.235	17	0.822
Others	50	16		11	

Table 2: Consent status for intercourse among adolescents

Consent	Yes	No	P value
Classmate	15	3	0.11
Fiancée	5	0	
Employer	2	1	
Neighbour	0	1	
Father	0	1	

Table 3: Sexual intercourse parameters among adolescents*

Route of intercourse	Number (%age)
Vaginal	28
Vaginal+Anal	6
Vaginal+Oral	1
Frequency of activity	Number (%age)
Once	7
Occasional	8
Weekly	6
Monthly	6
Daily	1
Place of activity	Number (%age)
Home	11
Hotel	10
His place	5
Hotel+Home	1
Park	1

*Multiple answers

Table 4: Masturbation practice among adolescents

Masturbation	Sexually active	Sexually not active	P value
Yes	4	7	0.76
No	24	130	

Table 5: Knowledge of STDs

Knowledge of STD	Number (%age)	Sexually active	P value
Yes	58	12	0.348
No	107	16	

Among these, three girls suffered from accidental pregnancies. Two were of age 18 years and one was of age 17 years. All three were educated up to higher secondary. Only one girl (18 years old) was having knowledge of contraception and STDs and was using barrier contraception. She was also having knowledge of the EC pill. Other two girls were not aware about any contraceptive method or STDs. Two girls underwent medical abortion and one girl continued pregnancy and planned marriage.

Discussion

Adolescent sexual behaviour is an important component of their physical and mental health. Healthy childhood and adolescent period are important for the nation like India who have majority of the population in the reproductive age group (15–45 years). It is also a pertinent issue with respect to primary care physicians

as they are the first contact in the community for any health problem for any age group in view of easy approachability. The knowledge imparted through this study will be helpful for them to give insight into the sexual problems among adolescent.

In the present study, assessment of the prevalence of sexual behaviour and factors associated with this behaviour was done among adolescents coming to a tertiary care hospital. Various observed parameters are compared pointwise with the other studies from the region as well as the western population.

Prevalance and age

In our study prevalence of sexual activity which encompasses sexual intercourse only was 16.9% (28/165). The knowledge of sex as well as sexual activity was significantly higher as the age or education level increases. Although the prevalence of sexual activity was comparable to other Indian studies^[5,6] but the prevalence of sexual intercourse is much higher in our study. Ramadugu *et al.* (2011) in a study on Indian urban school adolescents reported sexual contact history in 17.18% of girls which included touched private parts or kissing.^[7] Only 1.31% girls were exposed to sexual intercourse. Average age at first sexual contact for girls was 14.09 years, while the average age at first intercourse was 16.66 years which is comparable to our study. Jain *et al.* (2014) in their study on both sexes of adolescent groups observed 10% of sexual activity among adolescents. This was higher among boys (16.3%) than among girls (5.2%).^[8] The higher rates of intercourse among adolescent females in our study could be due to the changes in societal norms, increasing digitalisation and changing economy with time (the said studies were conducted 5–9 years back). That is why there is need to conduct frequent surveys regarding this important aspect which will help in forming the policies regarding sex education in the school and college students from an early age and building up the values among this vulnerable population for a healthy society. As per NFHS-4 data, increase (64–70%) in high risk sexual behaviour has been reported in adolescent boys as compared to NFHS-3.^[9]

Mutha *et al.* in 2014 conducted a study on 500 commerce college students in Mumbai including both boys and girls. They found that 84% boys and 72% girls disagree that virginity should be preserved till marriage. Premarital sex was reported by 48% boys and 18% girls.^[5] In another study by Sscbunya *et al.* in 2019 in Uganda, the prevalence of sexual activity was 67.6% among females. Majority of those that ever-had sex was aged between 15 and 19 years with the mean age of sexual debut is 15 years. In total 9.8% of females were involved with multiple partners.^[10] Different cultural norms of the region and low educational level may be the reason for this behaviour and increased HIV prevalence also.

Sexual partners and addiction

All of the girls were involved with single partner and mostly classmates except the girl who was raped by father at 12 years. Ramadugu *et al.* in 2011 did a study in which they encounter that the friends accounted for the main sexual intercourse partner in the study on school adolescents.^[7]

Sscbunya *et al.* in 2019 found that the risky sexual behaviour was 3 times more prevalent in illicit drugs or substance abusers as compared to those who did not use them.^[10] This is in contrast to our study where only 2 sexually active were having addiction (alcohol). Jain *et al.* in 2014 found in their study that 9% of the adolescents revealed the presence of uncongenial atmosphere at home and 12% of the adolescents have used tobacco or alcohol to destress themselves. No substance abuse was found in the girl.^[8]

Masturbation

Activity of masturbation can compel the adolescent to indulge in sexual intercourse which was seen in seven girls who were not sexually active but having knowledge of sex in our study. As this question is difficult to illicit, only 2 Indian studies have included this question in their study. Ramadugu *et al.* reported that around 12.7% of girls indulged in masturbation with the average frequency of masturbation per week was 0.56.^[7] In another study from Pune conducted in two co-education schools on class IX to XII students found that the practice of masturbation is only 21.9% among girls while it is 55.7% among boys. Sexual contact and the practice of masturbation were present together in the majority of the boys but the similar practices were not evident in the girls.^[6]

Contraception and STD's

The contraceptive knowledge was 100% among the females who were having knowledge of sex in our study but the only STD was known to participants in our study was human immunodeficiency virus (HIV). This may be due to the inclusion of chapter in coursebooks on contraception and advertisements on TV. Kumar *et al.* done a study in 2017 on adolescent students of Chandigarh, they found that the awareness of students regarding condoms was maximum, i.e., 83.4%, followed by oral contraceptive (67.1%) and emergency contraceptive (65.3%) methods. It was also found in their study that 85.6% of adolescent students aged 14–19 years were aware of STDs, and 93.8% were aware of HIV/AIDS while 11.3% of them had misconceptions regarding HIV/AIDS. In the present study, a major source of knowledge regarding STDs was teachers (44.9%), mass media (55.1%), friends (50%), and Internet (28.6%).^[11] These data are comparable to our study.

In the study from Telangana on 150 adolescent girls, about 88% of the population knew about HIV but only 53.6% knew about any other STDs.^[12] In the same study contraceptive knowledge was 50% for any method among the study population which might be due to the study contact in a state as compared to Delhi and hospital-based study.

There are a few parameters which were observed in our study could not be compared as these are first time reported parameters. These parameters were the route of intercourse, frequency of sexual activity, and place preferred by these adolescents.

Limitation of study

1. There may be underreporting of their sexual activity by participants. However, all the requisite measures were taken to minimise this by providing privacy and confidentiality to the participant.
2. Small sample size and single-center, hospital-based data can represent only the tip of the iceberg of sexual behaviour but then can be helpful in making the projects which can widen our horizon regarding sexual health behaviour among adolescents.

Conclusion

Prevalence of sexual activity is low among Indians as compare to Western world but it may be a tip of iceberg as it is a hospital-based study. Programmes intended to promote safe sexual behaviour should target both sexually active as well as those who have not started engaging in sex.

Key points

1. Sexual activity is high among adolescent females.
2. Adolescent females are aware of contraceptive methods which may be due to its inclusion in the school studies.
3. HIV is the most common STD know to these adolescent females with very less knowledge regarding others.

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Conflicts of interest

There are no conflicts of interest.

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