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Original Research Article

Sex education, awareness and perception among adolescents: a cross sectional study from Central Kerala

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ABSTRACT

Background: Teenagers exhibit little awareness of, or interest in, the normal processes of puberty, sexual health, pregnancy, or reproduction. They also have limited knowledge of sexual and reproductive fitness. Because sexual education is a lifelong process, it should be a fundamental component of development and understanding beginning in adolescence and continuing into adulthood.
Methods: A cross-sectional study was undertaken among Central Kerala school students in the adolescent age group (13-18 years) with both genders. The students were provided with a pre-tested questionnaire on their knowledge, attitudes, and perceptions of sex education as well as a proforma on the socio demographic details.
Results: The majority of research participants 30.1% were 17 years old, although the average age was 16 (±1.43 years). 67.9% of the participants were girls, and 32.1% were boys. Sex of the participant has association with knowledge, attitude and perception on sex education. Socio demographic factors tend to affect the knowledge. In the present study, attitude towards sex education has association with the sex of the participant and the syllabus they are studying.
Conclusions: Just over half of the pupils have adequate understanding about sexual education. This demonstrates the importance of delivering sex education classes for adolescent kids on a regular basis. School based educational classes can be promoted wherein, a more familiar and comfortable person like the teachers, who are trained by medical professionals, can impart the adequate knowledge to the students.

Keywords: Sex education, Adolescents, Knowledge, Awareness, Perception

INTRODUCTION

Adolescence is a highly energetic and vigorous period marked by rapid growth and development of both mental and physical spectrum. Teenagers exhibit little sensitivity toward the normal processes of puberty, sexual health, pregnancy, or reproduction and have limited knowledge of sexual and reproductive fitness. Sexual training should be a quintessential part of growth and understanding starting in adolescence and continuing into grownup life because it is a lifelong process.[1] By definition, sexual education is a comprehensive programme that aims to develop knowledge, attitudes, beliefs, and values about one's identity, relationships, and intimacy in order to lay a solid foundation for lifelong sexual health.[2] According to the WHO, sexual health is not just the absence of disease or infirmity, but also a state of physical, emotional, mental, and social well-being in relation to sexuality.[3] The goal of sexual education is to increase and improve young people's capacity to make thoughtful decisions about their relationships, sexuality, and overall emotional and physical well-being.[4] However, it does not promote

sexual activity among children and teenagers.[5] For the sexual health and wellbeing of young people, sex education in schools is crucial. The effectiveness of initiatives other than those aimed at preventing pregnancy and STDs, however, is poorly understood.[6] Adolescents must receive knowledge, skills, and values from sex education programmes in order to establish respectful and healthy social and sexual relationships, be aware of how their actions may affect others, understand their rights, and take responsibility for them in order to achieve adequate sexual health.[7] This is possible with the help of comprehensive sex education (CSE), which encourages healthy sexuality by covering a range of subjects like puberty, sexual identity, sexual orientation, healthy relationships, STDs, and contraception.[8,9]

The goal of sexual education is to lower the risks of potentially harmful effects from sexual behaviour, such as fear and stigma surrounding menstruation, unintended pregnancies, and STDs like HIV.[10] To a great extent, the attitude and knowledge of an adolescent toward sex education decide how much he or she will understand the concept. Therefore, the question of whether adolescents are getting proper sexual education becomes relevant. The study's findings may aid in determining whether adolescents are receiving proper sex education and awareness.[11] Although, many attempts have been made to study the attitudes of adolescents towards sex education, no such studies have been conducted in Central Kerala.

This study was carried out to identify the knowledge, attitudes and perception among school-going adolescents regarding sex education in Central Kerala, India.

METHODS

A cross-sectional study was undertaken among Central Kerala school students in the adolescent age group (13-18 years). Institutional ethics committee clearance was obtained from authorities and then the study was conducted for a period of 3 months from July 2022 to September 2022. To obtain the responses, a convenient method of sampling was used. A minimal sample size of 178 was estimated, however 196 people responded. Four higher secondary schools (2 private schools and 2 government aided schools) were selected based on previous acquaintance of the investigators and the questionnaire was distributed to the students of the said age group. The study's goal was described, and informed consent was acquired. Students who were not available at the time of study were excluded. Those who did not consent to the study were also excluded. A pre-tested questionnaire on knowledge, attitude, and perception regarding sex education, as well as a proforma on socio demographic information, were delivered to students via online media (WhatsApp, e-mail). Student's responses that were entered incompletely were not taken into consideration. The data was collected and tabulated. The data was scored, coded, and entered into Microsoft Excel before being analysed with the statistical programme SPSS version 23. Confidentiality of the data collected was maintained at every stage of study. Continuous variables like age are expressed as means, and the frequency is given in percentages. The median knowledge, attitude and perception score was calculated. Anything above these values was regarded positive, while anything below this value was considered negative. Chi-square test was used to find the association between categorical variables and expressed with 95% CI.

RESULTS

Majority of the participants of the study were 17 years (30.1%) old, but the mean age for the was 16 (±1.43) years. Out of the total participants, 67.9% were females and 32.1% were males. Among the participants (35.2%) were from 10th standard, followed by 9th standard (29.1%), then 8th standard (19.4%), 12th standard (10.2%) and 11th standard (6.1%). More than half (52.7%) students were studying the Kerala state syllabus. Following which was CBSE (23.5%). Considering the socio-economic situation of the family 74.5% were from above poverty line (blue and white ration cards). The 41.3% of the participants have their residence in rural settings of the state whereas majority (58.6%) come from urban areas. Among the total participants, 122 (62.2%) is having good knowledge about sex education and 74 (37.85%) is having poor knowledge. Among the total participants, the attitude of 110 (56.1%) was favourable and the attitude of remaining 86 was unfavourable. Among the total participants, 134 (68.9%) had good perception and remaining 61 (31.1%) had poor perception on sex education.

From Table 1 we can see that, of the total 196 participants, 122 had good knowledge. Among the 122, 69 (51.9%) were males and 53(84.1%) were females. So, there is significant association ($p<0.05$) between gender and knowledge about sex education i.e., females have good knowledge when compared to males. Of the 196 participants, 83 belonged to national syllabus, of whom 80.7% had good knowledge,19.35 % had poor knowledge. From the total participants, 113 belonged to state syllabus, of whom 48.7% had good knowledge and 51.3% had poor knowledge. There is significant association ($p<0.05$) between syllabus and knowledge about sex education i.e., students following national syllabus had good knowledge when compared to students following state syllabus. Among the total participants, 147 belonged to APL (white and blue ration card) category, of whom 68.7% had good knowledge and 31.3% had poor knowledge. 49 of the participants belonged to BPL (yellow and pink coloured ration card), of whom 42.9% had good knowledge and 57.1% had poor knowledge. There is significant association (P value <0.05) between socioeconomic status and knowledge about sex education i.e., APL students had good knowledge when compared to BPL students. Of the total participants, 81 belonged to rural area, of whom 70.4% had good knowledge and 29.6% had poor knowledge.115

belonged to urban area, of whom 56.5% good knowledge and 43.5% had poor knowledge. So, there is significant association ($p<0.05$) between residence and knowledge about sex education i.e., students in rural area had good knowledge when compared to those in urban area.

Table 2 shows that, among the total participants, 63 were females, of whom 71.04% is having favourable attitude towards sex education and 28.60% had unfavourable attitude. The remaining 133 were males, of whom 48.90% had favourable attitude and 51.10% had unfavourable attitude. So, there is significant association ($p<0.05$) between gender and attitude towards sex education i.e., males had favourable attitude when compared to females. Of the 196, 83 belonged to national syllabus, of whom 68.7% is having favourable attitude, 31.3 % is having unfavourable attitude. The 113 belonged to state syllabus, of whom 46.9% is having favourable attitude and 51.3% is having favourable attitude. So, there is significant association between syllabus they are studying and attitude towards sex education i.e., students following national syllabus is having favourable attitude when compared to students following state syllabus.

We can understand that, among the total participants, 63 were females, of whom 84.1% had good perception on sex education and 15.9% had poor perception, from Table 3. The remaining 133 were males, of whom 61.7% had good perception and 38.3%. So, there is significant association between gender and perception on sex education i.e., females have good perception on sex education when compared to males.

Table 1: Relationship between knowledge and various socio demographic variables.

Variables		Knowledge, n (%)		P value
		Good	Poor	
Age (Years)	≤15	35 (54.70)	29 (45.30)	0.129
	>15	87 (5.90)	45 (34.10)	
Gender	F	53 (84.1)	10 (15.9)	<0.001
	M	69 (51.9)	64 (48.1)	
Class	High school section	39 (55.7)	31 (44.3)	0.16
	Higher secondary section	83 (65.9)	43 (34.1)	
Syllabus	National (CBSE, ICSE, ISC)	67 (80.7)	16 (19.3)	<0.001
	State	55 (48.7)	58 (51.3)	
Colour of ration card	APL	101 (68.7)	46 (31.3)	0.001
	BPL	21 (42.9)	28 (57.1)	
Residence	Rural	57 (70.4)	24 (29.6)	0.049
	Urban	65 (56.5)	50 (43.5)	

Table 1: Relationship between attitude and various socio demographic variables.

Variables		Attitude, n (%)		P value
		Favourable	Unfavourable	
Age (Years)	≤15	33 (51.6)	31 (48.4)	0.37
	>15	77 (58.3)	55 (41.7)	
Gender	Female	45 (71.4)	18 (28.6)	0.003
	Male	65 (48.9)	68 (51.10)	
Class	High school section	36 (51.4)	34 (48.6)	0.324
	Higher secondary section	74 (58.7)	52 (41.3)	
Syllabus	National	57 (68.7)	26 (31.3)	0.002
	State	53 (46.9)	60 (53.1)	
Colour of ration card	APL	88 (59.9)	59 (40.1)	0.068
	BPL	22 (44.9)	27 (55.1)	
Residence	Rural	51 (63)	30 (37)	0.105
	Urban	59 (51.3)	56 (48.7)	

Table 3: Relationship between perception and various socio demographic variables.

Variables		Perception, n (%)		P value
		Good	Poor	
Age (Years)	≤15	47 (73.4)	17 (26.6)	0.337
	>15	88 (66.7)	44 (33.3)	
Gender	Female	53 (84.1)	10 (15.9)	0.002
	Male	82 (61.7)	51 (38.3)	

Continued.

Variables		Perception, n (%)		P value
		Good	Poor	
Class	High school section	51 (72.9)	19 (27.1)	0.37
	Higher secondary section	84 (66.7)	42 (33.3)	
Syllabus	National	56 (67.5)	27 (32.5)	0.715
	State	79 (69.9)	34 (30.1)	
Colour of ration card	APL	100 (68)	47 (32)	0.656
	BPL	35 (71.4)	14 (28.6)	
Residence	Rural	60 (74.1)	21 (25.9)	0.187
	Urban	75 (65.2)	40 (34.8)	

DISCUSSION

This study has tried to assess the knowledge, attitude and perception about sex education among adolescents in schools of Central Kerala to identify the need of imparting sex education among them. We also assessed the association between them and the various socio-demographic factors.

The results of our study show that, 55.6% has received sex education in the high school. The majority of the students, 24.5% received from school but 31.1% said that they have not received any. Just over 50% of students have adequate knowledge about sexual education but teens need more than information on anatomy, physiology, and contraception.[15] Almost 90% knew the difference between good touch and bad touch. Around 75% were aware of menstruation and menstrual hygiene. It has been demonstrated that sexuality education interventions can prevent or reduce the risk of adolescent pregnancy HIV, and STIs for children and adolescents with and without chronic health conditions and disabilities in the United States.[12] Around 85.2% of the participants suggested that sex education should be taught in school level but 6.6% was not concerned about it. Just above 50% of the participants say that the best age for sex education is between 11and 15 years whereas 3.6% say that is should not be taught at all. Almost half of the participants in our study say that sex education need to be discussed every 6 months. Other studies show that preschool class, highlight that young children are, in fact, quite capable of understanding and discussing issues related. They, also underscore that the development of such understanding requires instructional scaffolding over a period, and not just one session.[7] Frequency of the sex education classes received were, in 29 (14.8%) it was yearly, in 28(14.3%) taught only once, 12 (6%) every 6months and 127 (64.8%) not received at all. In their opinion, 93 (47.4%) thought it should be refreshed every 6 months, 61 (31.1%) thought it should be taught yearly, 30(15.3%) thought it should be done only once and 12 (6.1%) thought it should not be taught at all.[6] One third of the participants responded that they are not comfortable with talk about sex education with their parents. Around 60% said that teachers are the best persons to discuss about sexual and reproductive health. In 'sex education amongst the university students a pilot Study' conducted in Chandigarh the preference for getting sex education, was found that majority 680 (91.5%) of the adolescents prefers doctors followed by 617 (83.0%) school/teacher and least preference was parents 277 (37.3%) respectively.[13] Similar results were seen in study conducted in Chandigarh found that 76.74% students and in China.[5,14] Two third of the students opined that sex education will reduce sexual harassment in the society. The 60.7% say that sex education is about STDs, sexual practices, reproductive health and relationships and also regarding contraception and pregnancy. However, 349 (49.4%) urban adolescents thought menstrual and its hygiene topic and about 280 (39.5%) rural adolescents sex education and STDs related topic should discuss in class.[5] About 74% were aware of sexually transmitted diseases. But only 39.6% among the participants were aware about LGBTQ community whereas 7.1% were not concerned about them. The reason of sex education, 86.3% participants said that sex education can prevent the occurrence of AIDS, whereas 57.0% remove myth, 53.7% knowledge of sex makes future life easy, 39.5% protect from other disease and 102 (13.7%) don't give any reason for sex education.[1]

Limitations

We were limited by the fact was this study collected data only from a few schools in Central Kerala with only few students participating in it, thus the findings cannot be considered as universal. The answers given by the participants are susceptible to response, recall and interpretation bias due to self-reporting of responses.

CONCLUSION

In a place like Kerala, where the government supports the schools (both private run and government run) to organise adolescent health classes which comprehensively includes majority aspects of sexual health and hygiene, just over 50% of students have adequate knowledge about sexual education. This shows the necessity of implementing sex education class by those with adequate knowledge, on a regular basis to the students of the adolescent age group. Due to the pre-existing socio-cultural norms in the region, a drastic change should not be considered, rather, a slow and progressive way of implementation of such programmes need to be undertaken. This can be achieved through the teachers, whom the students are more comfortable with. Capacity building given to the teachers who in turn can regularly pass on the information to the

students can bring about a significant change in the situation.

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