

Sexual attitude and behavior among medical students: A single institution survey

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ABSTRACT

Background: Human behavior including sexual activity is mostly culturally bound; particularly individuals at a younger age do build their sexual knowledge through various sources like by forming intimacy with similar age group individuals and use of media or literature available for the information. Values and beliefs about sexuality are manifested in a person's individual sexual behaviors based on family, religion and socio-cultural influence on knowledge about sexuality and sexual experiences. However, modernization may have inadvertently changed people's attitudes and permissiveness among sexually active youths in our society. **Methodology:** This study adapted a cross-sectional descriptive-cum-exploratory research design conducted in an in-group of a single educational institute. A structured, pre-tested, self-administered questionnaire was used to collect the relevant information from the subjects. This study aims to receive information about the knowledge, practices and attitudes regarding sexual behavior among 340 undergraduate medical students in a medical college at Patna, Bihar. **Results:** This study showed significant findings regarding changing attitudes of the new generation toward sex and sexual practices as 78.5% of respondents were found between the age group of 20-25 years among which 58.5% were males and 41.5% were females. The average age of sexual debut was found to be 21 years among which 97.3% of the participants were heterosexual. Gender and religion were significantly associated with few components of sexual attitudes. **Conclusion:** Sex is one of the most sensitive aspects of a human life which is not usually talked about in open space and requires a lot of privacy in thoughts and practices. There is a strong need to introduce age-appropriate sexual knowledge at school and college level to establish healthy sexual attitudes among the young generation. As medical health practitioners, it is necessary to disseminate appropriate guidance and non-biased services to the welfare of the beneficiaries shaping their sexual attitudes for responsible and safe sexual practices.

Keywords: Sexual attitude, sexual knowledge, sexual practice, sexuality, social construct

Introduction

Sexuality is one of the most basic human experiences where every individual has their own views, thoughts, beliefs and attitudes about sex. Human behavior, including sexual activity, is culturally bound.^[1] Our sexual attitudes are shaped by our parents, peer groups, media, and teachers. Values and beliefs about sexuality

are manifested in a person's individual sexual behavior; these attitudes are based on family and cultural views about sexuality, on sex education (both formal and informal), and on prior sexual experiences.^[2] Some people think that sex is something to be ashamed of while others are very open and comfortable about their sexuality. Our culture, religion, education, and social circumstances all have a profound influence on sexual attitudes of individuals.^[1,3]

However, in India, there are many myths and misconceptions about sexuality. A liberal attitude without adequate knowledge can be harmful. Friends and peer groups play influential roles

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in shaping ideas about sex.^[3] Information may or may not be accurate but there is often great excitement and a sense of exploration among teenagers. There can also be pressure to have sex or to engage in risky sexual behavior, which many young people are not ready for. Any form of taunting or bullying with regard to sex can leave lasting negative sexual attitudes that can be difficult to reverse.^[4]

In Indian society, talking about sex is taboo.^[5] This study was carried out with the purpose of examining the knowledge of medical students about sex, and the sexual behavior and practices of young adults including the risk factors. Social media and cinema play a huge role in shaping sexual attitudes and these days, young people have easy access to sexual information from all over the globe, some of it very explicit.^[6,7] This makes it very challenging for young individuals to find their comfort level in forming a sexual life. Social media also add to the risk factors of young adults as they become vulnerable to exploitation by strangers and thereby requires cautious use.^[5,8]

As potential health care professionals of the future, medical students or interns ought to possess updated knowledge and attitudes, but due to cultural and social taboos very few students can communicate about sexuality. Consequently, friends and pornographic materials remain as common sources of sex knowledge, which are unreliable.^[1,3,9] Gender and sociocultural differences exist in the sexual attitudes and behaviors of medical students, enhancing the effect of the traditional structure on gender discrimination which is still continuing as students are not provided with sufficient scientific approaches or training prior to university education and beyond biomedical training. Hence, they need to receive more support in those fields during their medical education.^[8,10]

Youth, especially from developing countries are practicing unsafe sexual activities such as having sex with multiple partners and sex without contraception.^[11] Hence, the unsafe sexual activities predispose them to detrimental complications that include sexually transmitted diseases including human immunodeficiency virus (HIV) infection, unplanned pregnancy, illegal abortions, etc.^[11,12] However, modernization may have inadvertently changed people's attitudes and a permissive attitude is now common among sexually active youth in our society.^[10,13]

Aim and objectives of the study

This study aims to receive information about the knowledge, practices, and attitudes toward sex among the undergraduate medical students of a super-specialized tertiary care center (IGIMS) in Patna, Bihar to understand if their current knowledge can translate into non-discriminatory and inclusive advice to the beneficiaries as future medical health practitioners without being biased about the gender and sexuality spectrum. The objective of the study is to find out the correlation of sexual attitudes and sexual practices of medical students with their gender, religion, and sociocultural factors.

Methodology

This study adapted a cross-sectional descriptive-cum-exploratory research design. It was conducted in an in-group of a single medical educational institute. Simple random sampling technique was used. Sample size was 340 and the total time period of this study was one year, from June 2019 to July 2020. Ethical permission was received from the institute ethics committee of Indira Gandhi Institute of Medical Sciences, Patna.

Data collection was done by taking consent to be a part of the study by the respondents. Demographic details were recorded in order to receive the information regarding age, gender, religion, and marital status of the respondents. Data was collected using a self-constructed, structured, pre-tested, self-administered questionnaire by the researcher including the undergraduate students, aged more than 18 years, of both genders. Those who did not give their consent to be a part of this study and students other than those enrolled in the medical curriculum of the institute were excluded.

Results

Sex is one of the most sensitive aspects of human life which is not usually talked about in open space and requires a lot of privacy in thought, expression, and practice. Individuals of younger age build their sexual knowledge through many sources and continue to explore its various aspects by forming intimacy with similar age group peers, and also get influenced by the use of available media and literature for information. The results show significant findings which indicate the changing mindsets and attitudes of the new generation of medicos toward sex, sexuality, and its practices.

Table 1 indicates the sociodemographic features of the subjects under study. Majority of the respondents (78.5%) were found between the age group of 21 and 25 years, among which 58.5% were males and 41.5% were females. Around 90.8% were Hindus and 63.8% were respondents with single relationship status.

Table 2 shows the assessment of sexual attitudes of the respondents where 70.9% of the subjects agreed that pre-marital sex is not related to morality of an individual and is acceptable while 54.4% agreed that masturbation is a healthy practice. Homosexuality was reported as a natural sexual orientation according to 61.5% of the subjects. Attitudes toward oral and anal sex was found to be acceptable by 43.8% of the subjects with mutual consent while 26.2% of the subjects responded that paid sex should be avoided and is unacceptable. One of the major findings of this study was related to attitudes toward the sociocultural construct about virginity and premarital sex in which 82.4% respondents disagreed that virginity is an indicator of good character in females while 65% of the subjects disagreed that premarital sex is a compulsion for getting married among couples. Attitudes toward abortion in case of unprotected sex was accepted by 67.9% of the respondents under medical

Table 1: Sociodemographic features of the respondents

Sociodemographic Variables	Category	Total (%) (n=340)
Age	19-20 yrs	62 (18.3)
	21-25 yrs	267 (78.5)
	26-30 yrs	11 (03.2)
Sex	Male	199 (58.5)
	Female	141 (41.5)
Religion	Hindu	309 (90.88)
	Muslim	28 (08.24)
	Others	03 (0.8)
Relationship Status	Single	217 (63.8)
	Committed	118 (34.7)
	Married	01 (0.3)
	Divorced	04 (1.2)

Table 2: Assessment of sexual attitude of the respondents

Components for Assessing Sexual Attitude	Response	Total (%) (n=340)
Premarital sex	Moral	21 (06.2)
	Immoral	37 (10.9)
	Not related to morality	241 (70.9)
	Can't say	41 (12.1)
Masturbation	Healthy	185 (54.4)
	Immoral	17 (05.0)
	Leads to weakness/impotence	30 (08.8)
	Can't say	108 (31.8)
Homosexuality	Natural	209 (61.5)
	Unnatural	50 (14.7)
	Mental disorder	15 (04.4)
	Can't say	66 (19.4)
Oral/Anal sex with mutual Consent	Acceptable	149 (43.8)
	Unacceptable	40 (11.8)
	Neutral	105 (30.9)
Paid sex	Can't say	46 (13.5)
	Acceptable	91 (26.8)
	Unacceptable	89 (26.2)
	Avoidable	89 (26.2)
Virginity is indicator of good character	Can't say	71 (20.9)
	Agree	30 (08.8)
	Disagree	280 (82.4)
	Can't say	30 (08.8)
Sex is a marital compulsion	Can't say	40 (11.8)
	Agree	79 (23.2)
	Disagree	221 (65.0)
Abortion	Can't say	40 (11.8)
	Acceptable	86 (25.3)
	Unacceptable	09 (02.6)
	Acceptance with medical reasons	231 (67.9)
Sex during menstruation	Can't say	14 (04.1)
	Forbidden	27 (07.9)
	Permissible	140 (41.2)
	Avoidable	138 (40.6)
	Can't say	35 (10.3)

circumstances and having sex during menstruation is permissible according to 41.2% subjects.

Table 3 assesses the sexual practices among the respondents in the study; it indicates that 65.6% of the total respondents were

sexually active having a single partner where the average age of sexual debut was 21 years among which 97.3% of the respondents were heterosexual. In addition, 97.4% of the respondents were aware of safe sex practices where 55.6% used protection during sex while 56.8% were aware of the adverse effects of emergency contraceptives, and 30.9% avoided emergency contraceptives. Coercive marital sex was found unjustified by 69.1% of the respondents while 67.1% were aware of the prevention of STDs and safe sex practices as 39.3% of the respondents agreed to use any method of contraception to avoid unsafe sex.

Table 4 illustrates the association between gender and sexual attitudes among the study subjects. It was found that gender was significantly associated with being sexually active, the age of sexual debut, paid sex, and sex as a marital compulsion, while there was insignificant association between gender and premarital sex.

Table 5 illustrates the association between religion and sexual attitudes of the respondents. Religion was insignificantly associated with abortion, masturbation, and use of contraceptives while it showed significant association with homosexuality and views about virginity as an indicator of good character.

Discussion

In a study conducted at Faculty of Medicine, Dokuz Eylul University, Turkey, students were assessed to determine, compare, and evaluate their sexual attitudes and behaviors through an anonymous questionnaire which was filled in by first- and sixth-year students. The opinion of males about having sexual intercourse before marriage was positive and females were more tolerant about males having this sexual experience before marriage. Rates of expression of having sexual intercourse and masturbation were found to be higher for male students. The first sexual experience with a sex worker or sentimentally insignificant partner was high among males while the rate of condom use was lower in general. Students declared “my own will and values” as the most frequent factor affecting their sexual attitudes and behaviors, and high rates for “social factors”, “religious requirements”, “the expectations of families”, and “protection from sexually transmitted diseases” were also observed.^[10]

Similarly, in a study carried out among the undergraduate students of a medical college in Delhi, a pre-tested, semi-closed-type questionnaire was voluntarily filled out by the students where 73% participated in the study out of 500 medical students. Knowledge regarding sexual intercourse, masturbation, contraception, and sexually transmitted diseases was satisfactory; a common source of knowledge about sex were friends (74.5%), pornographic films (56.2%), and books and magazines (55.1%). About 417 students viewed homosexuality as normal behavior. The mean age of first sexual intercourse was 17.5 years and 11.8% of the respondents had experienced sexual intercourse. Eighty-five percent of students strongly favored introduction of sex education at the school level as there is need to improve knowledge.^[11]

Table 3: Assessment of sexual practices among the respondents

Components for Assessing Sexual Practices	Response	Total in% (n=340)
Sexually active	Yes	223 (65.6)
	No	117 (34.4)
Aware about safe sex	Yes	331 (97.4)
	No	09 (02.6)
Sexual orientation	Heterosexual	331 (97.3)
	Homosexual	03 (0.9)
	Bisexual	06 (1.8)
Use of protection during sex	Always	65 (55.6)
	Sometimes	48 (41.0)
	Never	04 (03.4)
	Can't say	223 (65.6)
Use of emergency contraception	Can be used frequently	23 (06.8)
	Can have adverse health effects	193 (56.8)
	Best avoidable	23 (30.9)
	Can't say	19 (05.6)
Coercive marital sex is justified	Agree	20 (05.9)
	Disagree	235 (69.1)
	Can't say	85 (25.0)
Safe sex means*	Any method of contraception	130 (39.3)
	Sex to prevent STDs	222 (67.1)
	Sex with physical/chemical barriers	105 (31.7)
	Sex during safe period	75 (22.7)
	Sex at safe place	36 (10.9)
	Can't say	02 (0.6)

*Multiple response question

Table 4: Association between gender and sexual attitude

Components of Sexual Attitude	Male (n=199)	Female (n=141)	Chi-squared Test (P)
Sexually active			
Yes	81 (23.8)	36 (10.6)	0.004
No	118 (34.7)	105 (30.9)	
Sexual debut			
15-20 yrs	50 (42.7)	15 (04.4)	0.044
21-25 yrs	31 (09.2)	21 (06.1)	
Premarital sex			
Moral	15 (04.4)	06 (01.8)	0.654
Immoral	22 (06.5)	15 (04.4)	
Not related to morality	139 (40.9)	102 (30.0)	
Can't say	23 (06.8)	18 (05.3)	
Paid sex			
Acceptable	67 (19.7)	24 (07.1)	0.002
Unacceptable	44 (12.9)	45 (13.2)	
Avoidable	54 (15.9)	35 (10.3)	
Can't say	34 (10.0)	37 (10.9)	
Sex as marital compulsion			
Agree	63 (18.5)	16 (04.7)	0.001
Disagree	110 (32.4)	111 (32.6)	
Can't say	26 (07.6)	14 (04.1)	

(The result is significant if $P < 0.05$)

A cross-sectional study was conducted among 60 medical interns in a tertiary care hospital in Ahmedabad, using a Sex Knowledge and Attitude Questionnaire II (SKAQ II) to assess

sex knowledge and attitude among medical interns, and to find its correlation with sociodemographic factors.^[3] Findings indicated that mean age of interns was 22 ± 0.89 years. Mean score of sex knowledge was 25.47 ± 4.44 and 24.88 ± 4.77 for males and females respectively. Females had more knowledge of the menstrual cycle and conception while males had better knowledge regarding sexual acts in adolescence and its effects on marriage life. Males had a liberal attitude, especially about abortion and masturbation. The result revealed a need to improve sex knowledge and attitude among medical interns through sex education and adding sex education sessions in the teaching curriculum.^[1,3]

A study published in BMC Public Health where a questionnaire was developed to measure sexual intention among the youth in Malaysia reported that a non-permissive attitude towards premarital sex was common among conservative cultures. Nevertheless, there were Malaysian youths who were sexually active and practiced premarital sex despite the social restriction. In order to understand the complex issues related to youth sexual activity, improving the understanding of youth sexual intention is necessary.^[11]

In a study on knowledge, attitudes, and practices of medical students concerning sexual matters at Tunisia, it was revealed that sexual practices were significantly more frequent among male students ($P < 0.001$). The existing gaps in knowledge about sexuality among medical students need to be bridged through a complete and uniform educational program about human sexuality, especially its physiological aspects, which can significantly improve the ability of future physicians to provide optimal patient care.^[14]

Conclusion

This study concludes that the conventional thought process related to sex and its practices has changed over the decades and the current generation have a more liberal attitude toward sex and sexual practices. The perceptions of social order are viewed differently; additionally, the scientific knowledge and awareness of safe sex also makes students have a positive outlook towards sex. This study strongly recommends to identify gaps and provide clarity of ideas in light of appropriate scientific knowledge without any prejudice and bias about sexual attitudes and preferences, and its practices in our society.

A recent advisory was issued by the National Medical Council of India following a judgement of the Madras High Court for non-discriminatory and inclusive approach on gender and sexuality education in the medical curriculum to enable students to understand the nuances of the gender and sexuality spectrums in a scientific light, so that as practitioners, they may disseminate positive advice to patients and clients, with clarity and without being judgmental towards the self and others.^[15] There is a strong need to add age-appropriate gender and sex education programs in school and the college curriculum for

Table 5: Association between religion and sexual attitude

Components of Sexual Attitude	Hindu (n=309)	Muslim (n=28)	Others (n=03)	Chi-squared Test (P)
Abortion				
Acceptable	79 (23.2)	05 (01.5)	02 (0.6)	0.478
Unacceptable	08 (02.4)	01 (0.3)	0	
Acceptable for medical reasons	210 (61.8)	28 (5.9)	01 (0.3)	
Can't say	12 (3.5)	02 (0.6)	0	
Homosexuality				
Natural	196 (57.6)	11 (03.2)	02 (0.6)	0.035
Unnatural	09 (02.6)	09 (02.6)	0	
Mental disorder	14 (04.1)	01 (0.3)	0	
Can't say	58 (17.1)	07 (02.1)	01 (0.3)	
Masturbation				
Healthy practice	175 (51.5)	07 (02.1)	03 (0.9)	0.077
Immoral	09 (02.6)	02 (02.4)	0	
Leads to weakness	28 (08.2)	02 (0.6)	0	
Can't say	97 (28.5)	11 (03.2)	0	
Use of contraception				
Can be used	20 (5.9)	03 (0.9)	0	0.730
Adverse effects	175 (51.5)	17 (05.0)	01 (0.3)	
Best avoidable	96 (28.2)	07 (02.1)	02 (0.6)	
Can't say	18 (05.3)	01 (0.3)	0	
Virginity indicates good character				
Agree	24 (07.1)	06 (01.8)	0	0.015
Disagree	309 (75.3)	21 (06.2)	03 (0.9)	
Can't say	29 (08.5)	01 (0.3)	0	

(The result is significant if $P < 0.05$)

better understanding about sexuality as well as positive attitudes toward responsible and safe sexual practices of individuals for a healthy life.^[4,16]

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Conflicts of interest

There are no conflicts of interest.

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