

# A prospective evaluation of a change in attitude towards sexuality in medical students after their three years in medical college

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## Summary

**Aims:** Sexual health is central to holistic health care; studies indicate that health professionals are uncomfortable raising sexual issues partly because of their conservative sexual attitude. India hosts a multitude of social beliefs and cultural traditions. Everybody including Health professionals have certain beliefs hardwired into their mindsets, including attitude towards sexuality. So in this study, we aim to study the change in students' attitude towards various aspects of own (self) and others-sexuality and to explore the gender difference in same.

**Materials and Methods:** A prospective study was conducted in a medical college of Gujarat. The study was conducted in medical students in their 3<sup>rd</sup> year. Data were collected using Trueblood Sexual Attitudes Questionnaire and those were compared to the data of same students collected in their 1<sup>st</sup> year, in order to see the change in attitude toward sexuality. (Using paired & unpaired t test).

**Results:** The study showed that the students had a positive attitude towards own-sexuality for all domains, after 3 years in medical college. But in attitudes towards others-sexuality, students still had a negative attitude towards masturbation and commercial sex. This change of attitude was statistically significant for all students, except in male students' attitude towards others-sexuality.

**Discussion and Conclusions:** Sexual health related topics and frequent encounters with patients with different sexual health needs gave students a better understanding of same, but the results are still unsatisfactory. Integration of sexual health modules is critical for students to more effectively address patients' sexual problems and promote non-judgmental attitude.

**attitude, medical students, sexuality**

## INTRODUCTION

The WPA (World Psychiatric Association), has defined sexual health as “a dynamic and harmonious state involving erotic and reproductive experiences and fulfillment, within a broad-

er physical, emotional, interpersonal, social and spiritual sense of well-being, in a culturally informed, freely and responsibly chosen ethical framework; not merely the absence of sexual disorders.”[1]. Sexual health requires a positive and respectful approach towards sexuality and sexual relationships, along with the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respect-

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ed, protected and fulfilled [2]. Multiple works of literature have emphasized on sexual health as an important part of general well-being and quality of life [3-5].

Sexuality is broadly defined as the dynamic outcome of physical capacity, motivation, attitudes, opportunity for partnership, and sexual conduct. Sexuality can be considered a developmental process, as it constantly evolves over the course of one's lifespan and it is the central aspect of being human [6, 7].

Since the inception of time, numerous civilizations have found existence, and it is the social and cultural lineage that determines various beliefs and traditional practices of a community. India is one of the very few countries, which host a multitude of social beliefs, practices and cultural traditions, across its length and breadth. The multilingualism further contributes to the variation seen in cultural heritage. Parents, peers and partners, schools, religion and media, all influence the way people learn about sexuality. All experiences, right from the birth of a child, affect its personality development and interpersonal relationships, which in turn have an effect on mental and sexual health. Everybody, including doctors has certain beliefs hardwired into their mindsets, which affect their attitude towards sexuality and sexual practices [8, 9].

Sex and sexuality are still considered a taboo in many parts of India. In the recent years, the availability of sexually explicit books, magazines, and videos has also acted as a major contributory factor for male autoerotic activities. Heterosexual acts are the only socially acceptable sexual expression. Although homosexuals existed even in ancient India, they never attained social approval in any section of the Indian population. In India, progeny are raised to prepare for their future gender roles, which are quite rigidly set. All forms of sexually oriented publications are illegal in India. The government appointed Central Board has the authority to make cuts or ban the indecent or obscene scenes in films. Although pornographic books, magazines, and videos are illegal, their display and sales are casually noticed in urban areas, especially in the major cities [10, 11].

Sexual concerns of patients are frequently underestimated because of health professionals' re-

luctance to address the same. As doctors are also responsible for imparting proper sex education to patients, developing a healthy sexual attitude and behavior, the ability to show the appropriate approach to patients in terms of sex related issues are considered to be important achievements for medical students [12].

Various studies have showed that people who negatively experience their own sexuality will have difficulty in conducting a free and neutral conversation about the sexuality of others – due to, for instance, the possibility to project on them their own shame, embarrassment or insecurity [5, 13-16].

In the previous study students in their first year who had just joined medical college, were studied for their attitude towards sexuality and the previous study [17]. showed that students had a conservative attitude towards sexuality – self (own) and others. It was more conservative for self as compared to others' sexuality. The former study also showed that students had a more negative attitude towards homosexuality, variations in sexual behavior and commercial sex. On the contrary, masturbation and heterosexual behavior was marginally better accepted. This result was common for all students regardless of their gender. However, male students had a more liberal attitude towards sexual behavior than females in each domain studied.

This follow-up study aims to identify the change in the attitude of medical students towards sexuality, after three years, i.e in their final year. Very few follow-up studies have been conducted in India which has addressed the attitudes towards various aspects of sexuality among undergraduate medical students.

## AIMS

1. To study students' attitude towards various aspects of own as well as others' sexuality, and to explore the gender wise differences amongst them.
2. To study the change in students' attitude towards various aspects of sexuality – own and others.
3. To explore the gender wise difference, after a change in their attitude for the same.

## MATERIALS AND METHODS

The study was carried out in the medical college of a district. The college has an intake of 100 students every year in their undergraduate program. In August 2014, a cross-sectional study was carried out amongst the students in their first year of medical college, regarding their attitude towards sexuality [17]. A follow up study was then conducted amongst the same students, when they were in their final year, in August 2017. The students were explained about the procedure, their consent was taken, and then they were administered the 'Trueblood Sexual Attitudes Questionnaire' (TSAQ). Anonymity was ensured by asking those who consented not to reveal their identity on the filled questionnaire. The students were seated at a distance from each other, and discussion amongst them was not permitted. The study was approved by the Institutional Ethical Committee.

Trueblood Sexual Attitudes Questionnaire (TSAQ): True-blood Sexual Attitudes Questionnaire (TSAQ) (Trueblood, Hannon, & Hall, 1998) was developed for reliably measuring the change in attitude regarding the most common topics related to sexual behavior. The authors were also interested in comparing attitudes by gender, ethnicity, sexual experience, etc. TSAQ was divided into sexual attitudes acceptable for oneself versus those acceptable for others. TSAQ items were developed based on an analysis of the content of college textbooks in terms of sexuality, with a final scale containing 90 items divided into five subscales: Autoeroticism, Heterosexuality, Homosexuality, Sexual Variations, and Commercial Sex. Topics less directly related to sexual behavior were not included. The revision (Hannon, Hall, Gonzalez, & Cacciapaglia, 1999) was designed to shorten the scale, replace poor items, and to assess the test/retest reliability [18]. TSAQ contains 80 items and includes questions regarding the attitudes towards one's own sexuality (40 items) versus those towards the sexuality of others (40 items). The Scale is divided into five domains. The First domain includes masturbation/eroticism, and has questions that involve masturbation, fantasizing about someone else during the sexual activity, day dreaming about sexual activities, acceptability of using erotic magazines, videos, books, etc. The second domain is

regarding heterosexuality. It includes questions about the role of sexual activities for pleasure and/or reproduction, engaging in sexual activities before marriage, oral-genital sexual activities with a partner of the opposite sex etc. The third domain explores homosexuality and includes questions about the acceptance of same sex attraction and sexual activities, oral-genital sexual activities with a same sex partner, bisexuality etc. The fourth domain is about the variations in sexual behavior. It has questions about active or passive involvement in sexual activities, sadism, cross-gender dressing, group sex, scatologia, promiscuity, etc. The fifth and the final domain is about Commercial Sex and includes questions about pornography, censorship for sexual content, prostitution etc.

Each item is rated on a 9-point likert scale, ranging from 1, "completely disagree" to 9, "completely agree". Some questions are reverse scored. Higher scores indicate a more liberal attitude. Questions related to the five different subscales were randomly ordered within the self-scale. The same 40 questions were also randomly ordered within the others' scale. The coefficient alpha for the entire measure was 0.97, for the Self scale it was 0.93 and for the Others' scale it was 0.96. Test-retest reliability after 3 weeks was 0.94 ( $p < 0.01$ ), which was excellent [18, 19].

The data of the present study was compared to that of the previous study [17] and a cross-sectional analysis of the current data was done as well. The Change in the attitude towards sexuality – self and others, was compared. Paired and unpaired t tests were used to find statistical significance. ( $p$  value  $< 0.05$  was considered statistically significant)

## RESULTS

A total of 85 final year medical students participated in this study, out of which 40 were male and 45 were female. The previous study included 98 students, out of which 45 were male and 53 were female [17].

In our study, overall, the students had a more liberal attitude towards their own sexuality than that of others. The average score in each domain under attitude towards own – sexuality was above five, and hence it can be said that the stu-

dents had a positive attitude towards their own sexuality. Students' attitude towards others' sexual behavior was positive for 'heterosexual', 'homosexual' and 'Variations' domains, but slightly negative for 'Masturbation/Autoerotic' and 'Commercial Sex' domains. The Paired T-test

showed that the difference in attitudes towards own and others' sexuality is statistically significant. The most liberal attitude was found towards own-homosexual behavior, and the most conservative attitude was found towards others' masturbation/autoerotic behavior [Table 1, 1a,1b ].

**Table 1.** Attitudes towards sexuality in students of 3<sup>rd</sup> year of medical college

DOMAINS	Self Mean score(n=85)	Others Mean score(n=85)	Paired differences Self – Others
Masturbation/Erotic	5.65	4.46	<b>MEAN diff:</b> 1.2720 <b>ST. DEV:</b> 0.19766 <b>ST. ERR of diff:</b> 0.088 <b>95% CI:</b> 1.0266 to 1.5174 <b>t:</b> 14.390 <b>df:</b> 4 <b>2 tailed p value:</b> 0.0001
Heterosexual	6.36	5.12	
Homosexual	7.29	5.69	
Variations	6.92	5.66	
commercial	5.88	4.81	
<b>Average</b>	<b>6.42</b>	<b>5.15</b>	

**Table 1a.** ANOVA test showing difference between the domains in attitudes for self

Domains	Domains	Mean Difference	P Value
Masturbation/Erotic	Heterosexual	-0.56220	0.291
Masturbation/Erotic	Homosexual	-1.63681*	<b>0.004</b>
Masturbation/Erotic	Variations	-1.27211*	<b>0.021</b>
Masturbation/Erotic	commercial	-0.22506	0.670
Heterosexual	Homosexual	-1.07461*	<b>0.048</b>
Heterosexual	Variations	-0.70991	0.184
Heterosexual	Commercial	0.33714	0.524
Homosexual	Variations	0.36470	0.491
Homosexual	Commercial	1.41175*	<b>0.011</b>
Variations	Commercial	1.04705	<b>0.054</b>

**Note:** The mean difference is significant at the 0.05 level.

**Table 1b.** ANOVA test for showing difference between the domains in attitudes for others

Domains	Domains	Mean Difference	P Value
Masturbation/Erotic	Heterosexual	-0.66125	0.273
Masturbation/Erotic	Homosexual	-1.22875	<b>0.046</b>
Masturbation/Erotic	Variations	-1.19500	<b>0.052</b>
Masturbation/Erotic	commercial	-0.34625	0.564
Heterosexual	Homosexual	-0.56750	0.346
Heterosexual	Variations	-0.53375	0.375
Heterosexual	Commercial	.31500	0.599
Homosexual	Variations	0.03375	0.955
Homosexual	Commercial	0.88250	0.146
Variations	Commercial	.84875	0.162

**Note:** The mean difference is significant at the 0.05 level.

The study also showed that overall both male and female students had a liberal attitude towards their sexuality, but a conservative attitude for that of others. Females were found to have a more liberal attitude towards own – sexuality. The gender wise difference when it came to

others’-sexuality was found to be statistically insignificant. Independent samples tested showed a statistically significant difference between genders in their attitude towards their own sexuality, while it was not statistically significant in others’ sexuality [Table 2 ].

**Table 2.** Gender differences in attitudes towards sexuality in students of 3<sup>rd</sup> year of medical college

DOMAINS		MALE Mean score (n=40)	FEMALE Mean score (n=45)	Unpaired differences Male-Female
Attitudes towards sexuality-self	Masturbation/Erotic	5.39	5.94	<b>MEAN diff:</b> – 1.5020 <b>ST. ERR of diff:</b> 0.538 <b>95% CI:</b> – 2.7434 to 0.2606 <b>t:</b> 2.7902 <b>df:</b> 8 <b>2 tailed p value:</b> 0.0236
	Heterosexual	5.72	6.59	
	Homosexual	5.82	8.60	
	Variations	5.57	8.13	
	commercial	5.48	6.23	
	<b>Average</b>	<b>5.59</b>	<b>7.10</b>	
Attitudes towards sexuality-others	Masturbation/Erotic	5.02	3.96	<b>MEAN diff:</b> 0.2380 <b>ST. ERR of diff:</b> 0.374 <b>95% CI:</b> – 0.6252 to 1.1012 <b>t:</b> 0.636 <b>df:</b> 8 <b>2 tailed p value:</b> 0.543
	Heterosexual	5.19	5.06	
	Homosexual	5.82	5.57	
	Variations	5.38	5.90	
	commercial	4.95	4.68	
	<b>Average</b>	<b>5.27</b>	<b>5.03</b>	

The data of our study was compared to the data collected from the same students in their 1st year (from the previous study) to identify the change in their attitude towards sexuality. The previous study [17 ]. showed that students had a negative attitude towards sexuality – own and others. It was more negative for self as compared to others’ sexuality. Also in the previous study, females showed a more negative attitude than males. The former study also showed that students had a more negative attitude towards homosexuality, variations in sexual behavior and commercial sex.

The follow up study showed that the students who demonstrated a negative attitude towards sexuality – own and others, had developed a more liberal attitude towards the same, three years later, i.e. in their final year. This change in attitude was seen in all domains of own-sexuality, as compared to the previous study. However, students still had a slightly negative attitude for others’ sexuality in the masturbation/autoerotic and commercial sex domains even in their 3rd year. Test showed this change in attitude towards own and others’ sexuality to be statistical significant [Table 3 ].

**Table 3.** Change in attitudes towards sexuality

DOMAINS		In previous study Self Mean score(n=98)	In current study Self Mean score(n=85)	Unpaired differences sexuality in Previous study-Current study
Change in attitudes towards sexuality-self	Masturbation/Erotic	3.32	5.65	<b>MEAN diff:</b> – 3.3960 <b>ST. ERR of diff:</b> 0.512 <b>95% CI:</b> – 4.5771 to 2.2149 <b>t:</b> 6.6304 <b>df:</b> 8 <b>2 tailed p value:</b> 0.0002
	Heterosexual	4.14	6.36	
	Homosexual	1.65	7.29	
	Variations	2.75	6.92	
	commercial	3.26	5.88	
	<b>Average</b>	<b>3.01</b>	<b>6.42</b>	

<b>Change in attitudes towards sexuality-others</b>	Masturbation/Erotic	4.22	4.46	<b>MEAN diff: – 1.1280</b> <b>ST. ERR of diff:0.406</b> <b>95% CI: – 2.0652 to – 0.1908</b> <b>t:2.7754</b> <b>df: 8</b> <b>2 tailed p value: 0.0241</b>
	Heterosexual	5.01	5.12	
	Homosexual	3.08	5.69	
	Variations	3.56	5.66	
	commercial	4.23	4.81	
	<b>Average</b>	<b>4.02</b>	<b>5.15</b>	

The study showed that male students’ change of attitude for their own sexuality was statistically significant, but the comparison of change in attitude towards others’ sexuality in male stu-

dents was not statistically significant. However, 3rd year male students, still harbored a conservative attitude for others’ sexuality in the commercial sex domain [Table 4].

**Table 4.** Comparison of change in attitudes towards sexuality in male students after 3 years in medical college

<b>DOMAINS</b>		<b>In previous study Self Mean score (n=45)</b>	<b>In current study self Mean score (n=40)</b>	<b>Unpaired differences sexuality in males in Previous study-Current study</b>
<b>Attitudes towards self-sexuality</b>	Masturbation/Erotic	4.63	5.39	<b>MEAN diff: – 1.7280</b> <b>ST. ERR of diff:0.584</b> <b>95% CI: – 3.0744 to – 0.3816</b> <b>t:2.9595</b> <b>df: 8</b> <b>2 tailed p value: 0.0182</b>
	Heterosexual	5.06	5.72	
	Homosexual	1.74	5.82	
	Variations	3.68	5.57	
	commercial	4.23	5.48	
	<b>Average</b>	<b>3.87</b>	<b>5.59</b>	
<b>Attitudes towards – others sexuality</b>	Masturbation/Erotic	5.16	5.02	<b>MEAN diff: – 0.7440</b> <b>ST. ERR of diff:0.472</b> <b>95% CI: – 1.8317 to 0.3437</b> <b>t:1.5773</b> <b>df: 8</b> <b>2 tailed p value: 0.1534</b>
	Heterosexual	5.37	5.19	
	Homosexual	3.15	5.82	
	Variations	3.79	5.38	
	commercial	5.17	4.95	
	<b>Average</b>	<b>4.53</b>	<b>5.27</b>	

The study showed that the comparison of change in attitude towards own and others’ – sexuality in female students was statistically significant. However, 3rd year female students, still

had a conservative attitude for others’ sexuality in the masturbation and commercial sex domains [Table 5].

**Table 5.** Comparison of change in attitudes towards sexuality in female students after 3 years in medical college

<b>DOMAINS</b>		<b>In previous study Self Mean score (n=53)</b>	<b>In current study self Mean score (n=45)</b>	<b>Unpaired differences sexuality in females in Previous study-Current study</b>
<b>Attitudes towards self-sexuality</b>	Masturbation/Erotic	2.29	5.94	<b>MEAN diff: – 4.7640</b> <b>ST. ERR of diff:0.596</b> <b>95% CI: – 6.1395 to – 3.3885</b> <b>t:7.9870</b> <b>df: 8</b> <b>2 tailed p value: &lt;0.0001</b>
	Heterosexual	3.24	6.59	
	Homosexual	1.58	8.60	
	Variations	2.13	8.13	
	commercial	2.43	6.23	
	<b>Average</b>	<b>2.32</b>	<b>7.10</b>	

<b>Attitudes towards –others sexuality</b>	Masturbation/Erotic	3.35	3.96	<b>MEAN diff: – 1.5580</b> <b>ST. ERR of diff:0.399</b> <b>95% CI: – 2.4787 to – 0.6373</b> <b>t:3.9021</b> <b>df: 8</b> <b>2 tailed p value: 0.0045</b>
	Heterosexual	4.29	5.06	
	Homosexual	3.18	5.57	
	Variations	3.16	5.90	
	commercial	3.40	4.68	
	<b>Average</b>	<b>3.48</b>	<b>5.03</b>	

## DISCUSSION

The former study [17] showed that medical students in their 1st year had a negative attitude towards both aspects of sexuality – own and others. Also females had a more negative attitude towards sexuality than males, and all the students had the most negative attitude for homosexuality. Students also had a negative attitude for masturbation, those who indulged in commercial sex and those exhibiting a variation in their sexual behavior.

The follow-up study showed that the same medical students who were then in their final year, had a positive attitude towards sexuality. Both male and female students were found to have a positive attitude towards their own sexuality, under all domains. However, they still exhibited a negative attitude towards masturbation and commercial sex, under attitude towards others'-sexuality. On the whole, students had a more liberal attitude towards their sexuality than that of others. Females were found to have a more liberal attitude under own-sexuality, while the difference between genders in their attitudes towards others' – sexuality, was not significant.

The present study shows that as medical students have a more liberal attitude towards sexuality, in comparison to their attitude in the 1st year of medical college, they may be adept in dealing with sexual aspects of health, particularly of the Lesbian Gay Bisexual and Transgender Queer (LGBTQ) people, or those involved in sexual variations. However students may face problems in dealing with health issues of commercial sex workers. Sexual health of patients is frequently underestimated because of the health professionals' reluctance to address the same. So this change in attitude towards own and others' sexuality may help students to show the ap-

propriate approach to patients in terms of sexual health related issues. It can be considered to be an important achievement for medical students. Various studies have showed that people, who negatively experience their own sexuality, may adopt a negative attitude towards patients with different sexual needs and will have difficulty in conducting a free and neutral conversation about sexual health related issues [5, 13, 14, 15, 16]. So the change in attitude towards their sexuality may help students in the adoption of a supportive, non-judgmental attitude which is paramount for providing effective sexual health consultations.

Many research studies show that medical students adopt a conservative attitude towards various aspects of sexuality. A study by H Sidi et al [12], reported that medical students' attitude on sex was conservative, as the majority of them disagreed on premarital sex, masturbation, abortion, homosexuality and oral sex. Most rigid attitude was observed towards homosexual orientation [5, 20]. Health care providers have a significant role in ensuring health rights for their patients, potentially advocating for the provision of care to sex workers as a vulnerable population [21-23]. Although sexual health is central to holistic health care, studies indicate that health professionals are uncomfortable raising sexual issues because of their conservative attitude [24-26]. Among the barriers to communication about sexual health are: lack of provider comfort and knowledge; provider biases about sexual issues; fear of offending patients; and time constraints within the typical patient encounter [27-29]. One study [30]. reported that self-reported comfort and self-perceived knowledge, was surprisingly significantly lower in the first and second year students as compared to the third year students and interns. The students' sense of comfort and perceived knowledge regarding their ability to

address sexual health issues is higher among students of second year compared to those at the start of their first year. The third year and intern students reported higher self-perceived knowledge for all areas of sexual health compared to their junior classmates. This study has a limitation due to uneven distribution of sample size [30]. Some studies [5, 17] show that males have more a liberal attitude than females, while some show no gender difference in attitudes towards sexuality [18]. Another study reported that the predictors of high sexual prejudice, were male gender and excessive religiosity [31]. Study by Macphail et al [32]. showed that there was a lack of physician knowledge regarding transgender and denial to trans-specific care reported both by trans-people and by physician. Another Indian study, [33] reported that medical students and interns had inadequate knowledge about homosexuality. Also the same study reported that the knowledge emerged as the most significant predictor of attitude; those having higher knowledge and female gender had more positive attitudes towards homosexuals. These results were somewhat similar to our study.

Sexual health related topics in medical education, frequent encounters with patients with different sexual needs, gave students a better understanding of sexual health, but the results are still unsatisfactory.

In our study, students showed a significant change in attitude under some domains, particularly 'Homosexuality' and 'Variations'. This change may be due to various factors, like a better understanding of human behaviour, psychosocial factors and biological functioning during medical education, introduction of sexual health modules, legal and socio-cultural changes in the past decade, availability of information and the influence of media and social networking platforms [33-36]. Although recent social and legislative efforts have pursued equality of rights regardless of sexual orientation, sexual prejudice is still a concerning attitude present in health care providers and health care institutions around the world [37-39].

Personal values and experiences formulated through the process of socialization can influence students' attitudes towards sexual issues. Thus there is a need for health professionals to acknowledge their prejudices, in order to be able

to separate them from their professional practice [5]. Negative beliefs can also impede the adoption of a supportive, non-judgmental attitude which is important for eliciting a meaningful sexual history, and providing effective sexual health consultations. Sexual health education aimed at increasing sexual knowledge and modifying negative attitudes may increase students' ability to function more effectively as sexual history takers and sex counselors [11].

Various studies [40, 41] have shown that the effectiveness of a specific sexual training course for doctors and medical students, is instrumental in instilling positive changes in their attitudes towards sex, and thus help them deal with their patients' sexual issues more effectively. Physicians can improve the health care of Lesbian Gay Bisexual and Transgender Queer (LGBTQ) patients and their families by maintaining a non-homophobic attitude towards such patients, distinguishing sexual behavior from sexual identity, communicating with gender-neutral terms, and maintaining awareness of how their own attitude affects clinical judgment. Scant research exists with regard to the best ways to teach medical students about the special challenge that the LGBTQ patients face.

Integration of sexual medicine and health modules that address a range of topics pertaining to sexual health in the medical curriculum is critical for students to more effectively treat their patients while adopting and maintaining a non-judgmental attitude throughout.

## CONCLUSION

The study was conducted in medical students in their 3rd year. Data were compared to the data of same students collected in their 1st year to see the change in attitude towards sexuality. It can be concluded that:

- The students had a positive attitude towards own-sexuality for all domains after 3 years in medical college.
- In attitude towards others-sexuality, students still had a negative attitude towards masturbation and commercial sex.
- This change of attitude was statistically significant for all students, except in

male students' attitude towards others-sexuality.

Treating people with understanding and respect, and honoring their confidentiality are integral to their physical and emotional health; especially for those who are dealing with sexual-identity & sexual health related issues. Such issues can be dealt effectively if doctors are confident and comfortable with such topics. The delivery of sexual health education program should incorporate confidence building, and make the students feel comfortable to elicit sexual history from patients. The barrier raised by differences in culture or religion between a doctor and a patient can be overcome through cross cultural and cultural competency training, which is paramount for multi-faith and multicultural societies such as India and other similar countries.

## LIMITATIONS

1. Single center study.
2. As no particular intervention was done in the follow up study, we cannot conclude the reasons behind the change in attitude. The reasons can be multifactorial.

## FUTURE PERSPECTIVES

A comprehensive training format that not only views sexual health as an integral part of overall patient health, but also integrates LGBTQ and commercial sex workers' care, is needed in medical education. Awareness courses on sexuality should be devised and taught to medical students. Studies can be done on a widely distributed sample to extract more significant results.

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