# Original Research Paper

# Impact of Bioethics Education on Attitude and Beliefs regarding Homosexuality: A Pilot Study with Medical Graduates

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#### **ABSTRACT**

In a traditional country like India, homosexuality is still a taboo in most societies. The homophobic attitude of medical professionals is known to affect the quality of care for homosexual patients. The present study was conducted to ascertain the opinion of medical graduates on various aspects of homosexuality. A conscious attempt was made to know the opinion of medical graduates who studied bioethics through a structured module with those who did not study. The results indicated that graduates who had studied bioethics had a better judicious decision than their counterparts who had not learnt ethics in their undergraduate curriculum. The results of this study support the belief that teaching bioethics through structured teaching modules in undergraduate curriculum has benefit in inculcating the desired values.

**Key words:** homosexuality, homophobia, structured teaching, attitude.

### **INTRODUCTION**

The Universal Declaration of Human Rights has clearly specified that "every individual has the right to life, privacy, health and equality before the law, as well as the right to freedomof expression and freedom from discrimination and violence, including torture"[1-2]. Although most of the aspects are adhered to, reports suggest that when aspects pertain to sex and sexuality it is considered shameful and embarrassing [1-2]. From a terminological perspective, 'Sexuality' is termed as 'capacity for sexual feelings' in the Oxford Dictionary of English. However, the term does not stipulate that the sexual feelings are essentially between individuals of the opposite gender (heterosexuals) or that between the same genders (homosexuals) or both (bisexuals).

Innumerable reports documented from around the world have conclusively shown that when compared to the heterosexuals, the homosexuals (gay and lesbians) and bisexuals (GLB) have faced undue harassment and penalization as these sexual preferences are considered abnormal and worse as criminal in many countries and communities [1-2]. The GLBs are often subjected to various forms of stigma, discrimination, social and economic alienation, and worse may even be subjected to repeated verbal, emotional and physical and psychological abuse by the community and worse at times also by the family members [1-3].

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Discrimination of GLB individuals is common even in healthcare practice and the social pages contain writ up on doctors prescribing anti-psychotics and electrical shock therapy [4]. Several studies have clearly shown that LGBT people are subjected to discrimination and stigmatization and that this also exists in healthcare practice in some population [3]. The situation is worse in some orthodox communities were reports suggest that GLB individuals have not been provided healthcare because of their identity and are stigmatized [4]. GLB individuals face health care discrimination and are turned away by hospitals, pharmacists, and doctors [4].

Mistreatment, harassment and humiliation by healthcare providers are potentially dangerous as GLB individuals feel uncomfortable to approach the health care system for their medical needs [4]. To aggravate maters, reports that a qualified healthcare practitioner was treating homosexuality as "genetic mental disorder" and used hormonal therapy and electric shock to cure the gay and lesbian individuals, has had the medical fraternity in the shock (Times of India). This is in spite of American Psychiatric Association (APA) and the World Health Organization having removed homosexuality from the list of disease from the International Classification of Diseases (ICD-10) in 1990 [5-7].

A universally accessible and accepting health care system is important for the well being of a populace. It is therefore important to educate the medical students and professionals who serve in the field about the nuanced issues in care of GLB individuals. The present study was conducted to ascertain the opinion on homosexuality and care of GLB individuals in healthcare individuals who have had completed their undergraduate curriculum and clinical internship, and are preparing for the post graduate entrance exams. Importance was also given to ascertain the difference in the opinion between students who were taught with peers who were not taught bioethics in their undergraduate curriculum.

# **METHODOLOGY**

This study was conducted under the aegis of the national curriculum Bioethics, Indian program. The study was a part of a research proposal proposed for the Rajiv Gandhi University of Health Sciences and was carried out after obtaining the approval from the Institutional Ethics committee. The inclusion criteria included volunteers who have had completed their undergraduate medical curriculum in modern medicine, while the exclusion criteria included students of other branches of healthcare sciences (like nursing, physiotherapy). The questionnaire was designed by the investigators and was developed with the help of medical educationists, bioethicists and researchers. Emphasis was given for clarity and comprehension of the questions by the students. The questionnaire was pilot tested on 10 students. The respondents of the pilot cohort rated the initial questionnaire for clarity, degree of comprehension and content validity. Emphasis was also placed to have a small questionnaire to enhance maximal participation of the volunteers. The final questionnaire consisted of two sections, the demographic and subject specific questions and filling it took a maximum of 5 minutes.

The study was done in a private postgraduate entrance coaching centre in Mangalore in the month of April 2017 after obtaining the necessary permission from the centre in charge. One of the investigators explained to the student volunteers the objective of the study and that their participation was voluntary. They were also informed that they could abstain or withdraw anytime from the study. No prior information or announcements were done in order to minimize response bias. They were informed that their participation was completely voluntary and that they did not have to write their names or identification number on the main questionnaire. The filled questionnaires were requested to be deposit in a collection box. Written consent was obtained on separate sheet from all the willing participants before the administration of the questionnaire and their anonymity was maintained.

#### Statistical analysis

Data was entered in Microsoft excel. All quantitative variables were expressed as frequency and percentage. The data was analyzed stratifying the volunteers as those who studied bioethics verses the one who did not study. The data was analyzed using the X2 test with the help of Social Science

Statistical Program available online (https://www.socscistatistics.com/tests/). A p value of < 0.05 was considered significant.

#### **RESULTS**

The results of the study are represented in Table 1 and 2. The factor to be considered here with is that many students did not answer all the questions. The demographic details suggest that most of the volunteers were of 23 years of age, females and from city (Table 1). The subject specific results indicated that there was a significant difference in the opinion on homosexuality between the volunteers (Table 2). The results indicated that majority of the students who were taught bioethics disagreed with homosexuality being morally wrong [44.44%vs26.32%; P value 0.027] (Table 2). With regard to the question as to whether it is alright to reveal an individual's homo sexuality to their heterosexual spouse in the absence of a disease which could put the spouse at risk the majority of the students who had studied bioethics disagreed [46.91% vs 25% P value 0.008] (Table 2). However, there was no difference between the two student cohorts when the spouse's life was at risk (Table 2). For the question to whether it is acceptable for homosexuals to have romantic feelings for one another as long as they do not engage in physical intimacy, it was observed that 25.92% (21/80) of the students who had studied bioethics agreed as verses to 7.89% (6/76) of those who did not study bioethics (Table 2). However, both cohorts were almost similar in their answer to the question homosexuals should not be allowed to work with children (Table 2). With regard to the question homosexuals should not be allowed to practice medicine 28.95% of the students who were not taught bioethics agreed while in the cohort that were not taught only 4.94% consented and was statistically significant (0.0003). The most important observation of the study was that 51.32% of the students who were taught bioethics agreed that homosexuality issues should be included in medical education, while only 15.49% of the students who did not study bioethics consented (P = 0.0001).

Table 1 – Demographic data of the students

	Response Options		ot study ics (76)	Studied Bioethics (85)		
		Frequency	Percentage	Frequency	Percentage	
Gender	Male	33	43.42	35	41.18	
	Female	43	56.58	50	58.82	
Age	23	47	61.84	49	57.65	
	24	19	25	24	28.24	
	25	7	9.21	7	8.24	
	More than 25	3	3.95	5	5.88	
Domicile	Rural	10	13.16	12	14.12	
	Town	18	23.68	20	23.53	
	City	48	63.16	53	62.35	
Have you studied Bioethics during	Yes	0	0	85	100	
undergraduate course	No	76	100	0	0	

	Did not study bioethics			Studied bioethics			Significance
	Agree	Unsure	Disagree	Agree	Unsure	Disagree	
Homosexuality is morally	34	22	20	22	27	36	0.027*
wrong.	(44.74)	(28.95)	(26.32)	(25.88)	(31.76)	(42.35)	
It is alright to reveal	31	26	19	18	25	38	0.008*
homosexuality of patient to their	(40.79)	(34.21)	(25)	(22.22)	(30.86)	(46.91)	
heterosexual spouse in the							
absence of a disease which							
could put the spouse at risk.							
It is alright to reveal	40	25	11	52	22	7	0.28
homosexuality of patient to their	(52.63)	(32.89)	(14.47)	(64.2)	(27.16)	(8.64)	NS
heterosexual spouse in the							
presence of a disease which							
could put the spouse at risk.							
It is acceptable for homosexuals	6	37	33	21	41	18	0.002*
to have romantic feelings for	(7.89)	(48.68)	(43.42)	(26.25)	(51.25)	(22.5)	
one another as long as they do							
not engage in physical intimacy.							
Homosexuals should not be	37	28	11	34	26	20	0.26
allowed to work with children.	(48.68)	(36.84)	(14.47)	(42.5)	(32.5)	(25)	NS
Homosexuals should not be	22	11	43	4	15	62	0.0003*
allowed to practice medicine.	(28.95)	(14.47)	(56.58)	(4.94)	(18.52)	(76.54)	
Homosexuality issues should be	11	29	31	39	25	12	0.0001*
included in medical education.	(15.49)	(40.85)	(43.66)	(51.32)	(32.89)	(15.79)	

Table 2 – Attitudes of medical students towards homosexuality

### DISCUSSION

At a global level the stigma of homosexuality is on a wane especially in the developed countries [8]. However, in many traditional and conservative countries homosexuality is unaccepted and individuals with such preferences are ill-treated [9-10]. Since time immemorial, the Indian society has considered sex as a highly intimate topic and it is forbidden to talk about it in public [5,11]. Sexuality in India is essentially heterosexual—a sexual relationship between people of the opposite gender, while that between the same gender is considered to be unnatural and morally wrong in almost all cultures and traditions [5]. What is worse is that due to their sexual orientation homosexuals are often victims of violence and abuse from both society [12-13] and family [14], and this affects their mental and general health [11]. Additionally, reports also suggest that GLB individuals are at a higher risk of developing mental disorders like depression, substance abuse and suicidal tendencies as well as somatic disorders like sexually transmitted diseases, cancer, type II diabetes and cardiovascular ailments [15].

Healthcare profession is a highly revered job and physicians invariably will have to interact and treat homosexuals during the course of their medical education and practice [15]. Unfortunately reports suggest that the students often do not receive comprehensive education on different sexual orientations and that this can have adverse effects on their attitude in care of the homosexuals as professionals and consultants on a later date [15]. In lieu of these observations, correcting the attitudes of healthcare students and professionals are vital as this has a direct effect on the physician-patient relationship and can consequentially influence the treatment and its outcome. Professionals having a homophobic attitude are less willing to help the gay and lesbian patients and that this barrier will consequentially affect the patient care as the lack of understanding on the unique health care needs of homosexual patients tends to be minimized or neglected [15-17].

From a teaching perspective, reports suggest that the current medical curriculum and the institutions are not attempting at understanding the unique needs and health risks of homosexuals

<sup>\*</sup>significant (p < 0.05)

and that a concerted attempt is lacking in inculcating competency, understanding, awareness, moral values and empathy towards the LGBT communities [18-19]. Realizing this, some academic centers in the developed countries have made a concerted effort by promoting anti-stigma programs focused on non-homophobic attitudes towards patients and also on increasing awareness on how homophobic attitudes can cause negative social, ethical, and psychological consequences [15,17,19].

In this study, it was observed that when compared to students who were not taught bioethics, the students who had undergone a structured teaching program in bioethics had a more compliant opinion to homosexuality. The results of this study suggest that it is worth the effort to inculcate bioethics teaching as this brings out a change in the attitude and belief. As far as the authors are aware of there are no reports from India on this aspect. However recent reports have indicated that teaching program on LGBT health issues have been effective in significantly bringing about positive change in attitude, comfort level, and knowledge on LGBT health issues [20-22].

The most important observation of this pilot study was that the graduates who had studied bioethics had empathy clearly indicate the usefulness of teaching bioethics in the undergraduate curriculum and needs to be supported. The biggest drawback of this study was that this was done with a small sample of graduates and at a single centre. Multicentre studies are warranted to ascertain the usefulness of structured teaching on bioethics as this topic is of importance to both medical fraternity and general public.

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