

Evaluation of Knowledge and Attitude toward LGBT Community, and the Effect of Education on Knowledge and Attitude in Medical Undergraduates

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ABSTRACT

Background: The people of the LGBT (lesbian, gay, bisexual, and transgender) community are underprivileged in healthcare settings. Knowledge and awareness about LGBT among the medical undergraduates would eventually fulfill the gap of healthcare services.

Aim: It is to evaluate the knowledge and attitude toward the LGBT community and the effect of education on knowledge and attitude.

Methods: This was a cross-sectional, interventional study of first-year medical students over a period of three days. The "Survey on California State University, Northridge (CSUN) attitude towards LGBT" was used as a survey tool.

Statistical test: Descriptive statistics and the Chi-square test were used for the analysis of data.

Results: Out of 51 students, 32 (62.74%) were raised in a religious household. The results also showed that as compared to males, females were more religious in terms of frequency of visiting religious places and practicing religious preaching. The majority percentage of students disagrees with the traditional gender roles without any significant gender differences. It was also found that as compared to females, more percentage of males are uncomfortable in interacting with LGBT people. The results show that the students have better knowledge about LGBT people; however, the change from "neutral" and "agreement" to "disagreement" is not much significant. The students have a positive attitude toward the LGBT people, but there is no significant change in the attitude postintervention.

Conclusion: This study concludes that though there is positive knowledge and attitude toward LGBT people among medical undergraduates, they are not comfortable in interacting with them.

Keywords: Attitude, Doctors, Knowledge, LGBT community, Religion, Undergraduates.

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INTRODUCTION

Lesbian, bisexual, gay, and transgender people are collectively referred to as LGBT group. This group is defined on the basis of gender, sexual orientation, race, and socioeconomic status of the individual. The percentage of this population is estimated to be less than five percent in the Western world as well as the rest of the world.¹ Before 1960s, homosexuality was considered a mental disorder. There has been a shift in understanding of homosexuality from a pathological model to a normal variant model of sexuality. Homosexuality is no longer considered a mental disorder.² On September 6, 2018, the Supreme Court of India ended the Section 377 from Indian Penal Code (IPC) and decriminalized homosexuality.³ In spite of this move, there remains a significant amount of homophobia among the Indian population.

Hudson and Ricketts defined "Homonegativism" as a multidimensional construct that includes judgment regarding the morality of homosexuality, the decision concerning personal and social relationship, and any response concerning belief, preferences, legality, social desirability, or similar cognitive responses.⁴ In this world where heterosexuality is the norm, this group faces few challenges due to its minority status, which include the experience of prejudiced events, expectations of rejection, hiding and concealment, and internalized homophobia.⁵ These stressors lead to mood disorders, anxiety disorders, increased suicidal risk, body dissatisfaction, and eating disorders in LGBT people.⁶⁻⁸

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Healthcare setting is one of the places where the LGBTI community is faced with minority stressors. Studies have found that half of these people do not have access to basic primary healthcare and have faced discrimination due to their gender identity.⁹ Such attitude is seen due to little formal education given during medical studies about LGBT, rights of these people, and their special healthcare needs.¹⁰ In India, physicians discriminate against them by not treating them like other patients, addressing them in disrespectful manner, and frequently using male pronouns that they find very offensive.¹¹

Table 1: Religiosity among participants

<i>Religiosity</i>		<i>Male</i> N = 33(64.70%)	<i>Female</i> N = 18(35.30%)	<i>p-value</i>
Frequency of attending the place of worship/religious ceremony	Rarely	26 (78.87%)	9 (50.00%)	0.034*
	Most of time	7 (21.21%)	9 (50.00%)	
How often do you follow religious preachings and practices?	Rarely	21 (63.63%)	15 (83.33%)	0.026*
	Most of time	12 (36.36%)	3 (16.66%)	
	Disagree	7 (21.21%)	7 (38.88%)	
Were you raised in a very religious household?	Don't know	4 (12.12%)	1 (5.55%)	0.356
	Agree	22(66.66%)	10 (55.55%)	

*Statistically significant

Table 1 shows that majority of the students reported they were raised in the very religious household. It is seen that as compared to males, the frequency of attending the place of worship or any religion was more in females. However, most of the students did not follow religious preachings more often, but as compared to females, males were more adherent in following religious preachings.

Table 2: Agreement regarding traditional gender role beliefs

<i>Traditional gender role belief</i>		<i>Male</i> N = 33(64.70%)	<i>Female</i> N = 18(35.30%)	<i>p-value</i>
I believe men and women have separate gender roles	Disagree	13 (39.39%)	6 (33.33%)	0.453
	Don't know	2 (6.06%)	0 (00.00%)	
	Agree	18 (54.54%)	12 (66.66%)	
Task of childbearing, nurturing, and emotional support for women	Disagree	19 (57.57%)	10 (55.55%)	0.449
	Don't know	2 (6.06%)	3 (16.66%)	
	Agree	12 (36.36%)	5 (27.77%)	
Task of breadwinning, strict discipline, and decision-making for men.	Disagree	19 (57.57%)	13 (72.22%)	0.109
	Don't know	2 (6.06%)	3 (16.66%)	
	Agree	12 (36.36%)	2 (11.11%)	
Roles of men and women are to procreate for the continuation of species.	Disagree	8 (24.24%)	5 (27.27%)	0.133
	Don't know	4 (12.12%)	6 (33.33%)	
	Agree	21 (63.63%)	7 (38.88%)	
To NOT conform to traditional gender roles is to go against nature and biology	Disagree	19 (57.57%)	8 (44.44%)	0.214
	Don't know	3 (9.09%)	5 (27.77%)	
	Agree	11 (33.33%)	5 (27.77%)	

Table 2 shows how many students agree with the traditional gender roles. The majority of students disagrees with the traditional gender roles without any significant gender differences.

Studies have shown that Indian medical students have a negative attitude toward LGBT people as they have little knowledge about these people.¹² The aim of this study is to evaluate the attitude and knowledge about the LGBT community in medical undergraduates and to see the impact of education on their knowledge and attitude.

METHODOLOGY

Study Design

This was a cross-sectional, interventional study of fifty-one first-year undergraduate medical students. Participants were selected through convenient sampling during September 2019. A batch of 51 students from 250 students of the first year allotted to the psychiatry department during the foundation course was selected for this study. Students were explained about the study objectives, and written informed consent was obtained. Ethical approval for this study was taken from the Institutional Ethics Committee.

Tools

Semistructured Pro Forma

It included details like age, racial background, gender assigned at birth, current gender, sexual orientation, the highest level of education, present education status, religion, and political ideology.

CSUN Attitudes toward LGBT Issues¹³

This questionnaire was used in a pilot study at California State University, Northridge (CSUN), to gather as much information as they can about the attitudes of their CSUN community members toward lesbian, gay, bisexual, transgender or transsexual, and intersexual matters. It is 13 domains questionnaire about beliefs, attitudes, and practices. The domains have further sub-questions. The domains include questions about the religiosity of the participant; religiosity of household; belief in traditional gender roles; level of comfortableness while interacting in person with

people belonging to LGBTIQ community; knowledge about LGBT people; about the origin of sexuality and gender; attitudes toward issues pertaining on LGBT people; changes our institute should do for LGBT people; acceptability of public display of affection by LGBT people; their religion and its view on LGBT community; their families' and friends' view on LGBT; frequency of usage of derogatory words; and the number of LGBT people among their family, friends, and workplace. Their responses were accepted in the form of a Likert scale ranging from strongly agree, agree, disagree, strongly disagree to I don't know. For convenience, the responses were then categorized into only agree, disagree, and I don't know.

Procedure

On the first day, students were explained about the study, and they were requested to fill the semistructured proforma containing sociodemographic details and CSUN attitudes toward LGBT issues' questionnaire. Then, a brief lecture of about 45 minutes on sexual orientation, sexual identity, stigma faced by LGBT people (internal and external), discrimination toward them, and health issues faced by them was given. The next day, a roleplay by resident doctors was performed in front of the study participants. The students were again asked to fill the

questionnaire to see the change in their attitude and knowledge for the LGBT community.

Statistical Analysis

All the collected data were tabulated in Microsoft Excel and analyzed using statistical software "Statistical Package for Social Science Version 20.0." Frequencies and percentages were computed for the sociodemographic details. Chi-square test was used for qualitative data. *P* < 0.05 was considered statistically significant.

RESULTS

Out of 51 students, 64.70% (*n* = 33) reported their gender at birth and current gender to be male and 35.30% (*n* = 18) reported their gender at birth and current gender to be female. In terms of sexual orientation, 98.03% (*n* = 50) students reported that they are straight and 1.60% (*n* = 1) student reported having a pansexual sexual orientation. Among a total of 51 students, 88.23% (*n* = 45) belonged to the Hindu religion and 3.92% (*n* = 2) belonged to Islam, Jainism, and Christianity each. While 54.90% (*n* = 28) students had a moderate political ideology, 37.25 (*n* = 19) had liberal ideology and 7.84 (*n* = 4) had a conservative political ideology.

Table 3: Degree of comfort while interacting with LGBT people

Variables		Male N = 33(64.70%)	Female N = 18(35.30%)	p-value
Gay men	Uncomfortable	18 (54.54%)	6 (33.33%)	0.337
	Neutral	7 (21.21%)	5 (27.27%)	
	Comfortable	8 (24.24%)	7 (38.88%)	
Lesbian	Uncomfortable	19 (57.57%)	5 (27.77%)	0.124
	Neutral	10 (30.30%)	9 (50.00%)	
	Comfortable	4 (12.12%)	4 (22.22%)	
Bisexual men	Uncomfortable	21 (63.63%)	6 (33.33%)	0.081
	Neutral	7 (21.21%)	5 (27.77%)	
	Comfortable	5 (15.15%)	7 (38.88%)	
Bisexual women	Uncomfortable	16 (48.48%)	9 (50.00%)	0.64
	Neutral	12 (36.36%)	2 (11.11%)	
	Comfortable	5 (15.15%)	7 (38.88%)	
Female-to-male transgender	Uncomfortable	21 (63.63%)	9 (50.00%)	0.091
	Neutral	9 (27.27%)	3 (16.66%)	
	Comfortable	3 (9.09%)	6 (33.33%)	
Male-to-female transgender	Uncomfortable	24 (72.72%)	7 (38.88%)	0.055
	Neutral	5 (15.15%)	5 (27.77%)	
	Comfortable	4 (12.12%)	6 (33.33%)	
Intersexual people	Uncomfortable	23 (69.69%)	6 (33.33%)	0.042*
	Neutral	7 (21.21%)	9 (50.00%)	
	Comfortable	3 (09.09%)	3 (16.66%)	
Androgynous people	Uncomfortable	18 (54.54%)	8 (44.44%)	0.788
	Neutral	9 (27.27%)	6 (33.33%)	
	Comfortable	6 (18.18%)	4 (22.22%)	

*Statistically significant

Table 3 shows that majority of the students would be uncomfortable in interacting with these people. It can also be seen that compared to females, more percentage of the male are uncomfortable in interacting with LGBT people

Table 4: Change in knowledge about LGBT people after education

Variables		Pre	Post	p-value
LGBT people's sexual acts are against what god intended	Disagree	28 (54.90%)	28 (54.90%)	0.833
	Neutral	10 (19.60%)	8 (15.68%)	
	Agree	13 (25.49%)	15 (29.41%)	
LGBT people are unnatural	Disagree	38 (74.50%)	38 (74.50%)	0.924
	Neutral	6 (11.76%)	5 (9.80%)	
	Agree	7 (13.72%)	8 (15.68%)	
LGBT people are mentally sick or immature	Disagree	34 (66.66%)	32 (62.74%)	0.821
	Neutral	12 (23.52%)	12 (23.52%)	
	Agree	5 (9.80%)	7 (13.72%)	
LGBT people are sexual perverts	Disagree	17 (33.33%)	20 (39.21%)	0.801
	Neutral	24 (47.05%)	21 (41.17%)	
	Agree	10 (19.60%)	10 (19.60%)	
LGBT people are nature's mistake	Disagree	28 (54.90%)	31 (60.78%)	0.330
	Neutral	14 (27.45%)	8 (15.68%)	
	Agree	9 (17.64%)	12 (23.52%)	
Homosexuality, bisexuality, and transgenderism are the result of too much freedom in the country	Disagree	31 (60.78%)	34 (66.66%)	0.750
	Neutral	6 (11.76%)	4 (7.84%)	
	Agree	14 (27.45%)	13 (25.49%)	

Table 4 shows that the students have better knowledge about LGBT people; however, the change in knowledge after a single session of education is not much significant

DISCUSSION

Our study is one of the first in India, which evaluates the knowledge and attitude of the medical students and assesses the change in their knowledge and attitude after a brief education regarding LGBT. This study finds that there is higher knowledge in medical students toward the LGBT community as they have an understanding that the sexuality of LGBT community people is natural and is not nature's mistake, which is similar to the results seen in a study done among the second-year medical students in Kolkata in 2018¹² (Table 4). The attitude of the students was also found to be positive as most of them disagreed on questions like marriages must be between man and woman, LGBT people should be avoided at places of occupation, and others asked in (Table 5). This is contradictory to what was predicted and was found in one of the studies in China¹⁴ on university students having negative attitude toward LGBT people. We assume that the positive attitude is due to Hijra community (transgender) acceptance in society since precolonial era, increasing level of education, awareness, and tolerance regarding LGBT right from the increasing use of social media. However, there is no significant change in the knowledge and attitude of few students after the brief education intervention owing to the firmly entrenched attitudes in few students, and also as we have immediately measured the outcomes. Similar results were found in the study among second-year medical students in the University of California by Kelly et al after brief critical intervention given to them regarding LGBT health.¹⁵

Although there is positive knowledge among the medical students, they are still uncomfortable in interacting with LGBT people (Table 3). This would lead them to not properly communicate about the healthcare needs of the LGBT people. It is assumed that this discomfort may be due to lack of exposure to LGBT community as proposed by Kelly et al.¹⁵ or can also be due to local religious and

social orthodoxy in the modern doctors in India.¹⁶ It is to be noted that we also found that gender differences exist in the degree of discomfort felt by respondents. As compared to females, males are more uncomfortable to interact with the LGBT people. This result may be due to the rigid attitude of men to maintain the male and female conformity and being threatened by the nonconformity as seen in the study by Winter in 2008 among Hong Kong undergraduate students.¹⁷

About 76.47% of our respondents agreed that the students should be exposed to age-appropriate lessons about the LGBT community. One of the studies in USA has found that the mean number of hours of the medical curriculum in medical undergraduate teaching was 2.5 hours only throughout 4 years of teaching.¹⁸ In India, there are no publications or formal reports regarding the amount of teaching hours of medical undergraduates about the LGBT community. General physicians (GPs) believed that the education regarding the health of nonheterosexual people is the need for better communication and treatment of LGBT people found out in a qualitative interview study with 22 GPs practicing in Sheffield, United Kingdom.¹⁹ The Association of American Medical Colleges recommends medical curricula to ensure students learn skills and attitudes necessary to provide comprehensive care for LGBT like training in communication skills with patients regarding sexual orientation and gender identity. In India, the inclusion of such training program is necessary for an increasing standard of healthcare of LGBT people.

CONCLUSION

This study concludes that though there is positive knowledge and attitude among medical undergraduates, discomfort among them is still a major issue that might lead to poor communication with and improper treatment of LGBT community people. The way of history taking and asking about their health problems has to be taught

Table 5: Change in attitude toward LGBT after education

Variables		Pre	Post	p-value
Marriage should only b/w a man and woman	Disagree	27 (52.94%)	26 (50.98%)	0.979
	Neutral	4 (7.84%)	4 (7.84%)	
	Agree	20 (39.21%)	21 (41.17%)	
There are public/occupations where homosexual and bisexual should be avoided (e.g., not allowed to teach)	Disagree	39 (76.47%)	44 (86.27%)	0.383
	Neutral	5 (9.80%)	2 (3.92%)	
	Agree	7 (13.72%)	5 (9.80%)	
There are public/occupations where transgender should be avoided (e.g., not be allowed to serve in the military)	Disagree	40 (78.43%)	43 (84.31%)	0.734
	Neutral	6 (11.76%)	4 (7.84%)	
	Agree	5 (9.80%)	4 (7.84%)	
LGBT couples should have the right to adopt children	Disagree	13 (25.49%)	11 (21.56%)	0.896
	Neutral	1 (1.96%)	1 (1.96%)	
	Agree	37 (72.54%)	39 (76.47%)	
Students should be exposed to age-appropriate lessons about LGBT	Disagree	7 (13.72%)	00 (0.00%)	0.004*
	Neutral	4 (7.84%)	12 (23.52%)	
	Agree	40 (78.43%)	39 (76.47%)	
Parents of students taking sex education should have the options to allow them to learn about LGBT	Disagree	10 (19.60%)	6 (11.76%)	0.482
	Neutral	4 (7.84%)	3 (5.88%)	
	Agree	37 (72.54%)	42 (82.35%)	
Students should be taught about tolerance/acceptance of LGBT	Disagree	4 (7.84%)	6 (11.76%)	0.799
	Neutral	4 (7.84%)	4 (7.84%)	
	Agree	43 (84.31%)	41 (80.39%)	

*Statistically significant

Table 5 shows there is no effect of a single session of education on the attitude of medical undergraduates toward the LGBT people

to the students so that they can inculcate these practices in their profession. The medical curriculum of India should include proper lectures and practical assignments regarding LGBT community health problems and discrimination faced by them.

LIMITATIONS

Our study has few limitations. Firstly, it includes a very small number of participants, so the results cannot be extrapolated to the knowledge of all medical students. Secondly, the study was only conducted on the first-year medical students who have just taken admission. The understanding of senior students is more positive than them due to more knowledge regarding the LGBT community. Thirdly, the change in knowledge and attitude was assessed immediately after the intervention that would have not brought significant change.

RECOMMENDATION

Our recommendations are to develop a proper curriculum regarding LGBT community health needs and to develop proper communication skills in medical students to be effective all over India. Secondly, to carry out future research on this topic as a long-term follow-up study to know the efficacy of such intervention.

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