



E-ISSN: 2789-1623  
P-ISSN: 2789-1631  
IJRP 2022; 2(1): 06-10  
Received: 05-11-2021  
Accepted: 09-12-2021

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## A study to assess education, knowledge and attitude towards homosexuality in Telangana

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### Abstract

**Introduction:** In recent years the legal status of homosexuality has undergone notable changes. Despite these changes public view on homosexuality remains acutely divided by country, religion, cultural and economic background. And the aim of this study is to assess the knowledge and attitude toward homosexuality in people of Telangana state.

**Materials and Methods:** The study was designed as an online survey using chain-referral sampling containing the questions from Sex Education, Knowledge about Homosexuality Questionnaire (SEKHQ), Attitudes towards Homosexuals Questionnaire (AHQ) and pertinent Socio-demographic data and the data was collected for a duration of 6 months.

**Results:** 225 people over the age of 15 years took part in the study. The mean age of the study participants was 26.77. The mean score on SEKHQ was  $11.56 \pm 5.37$  with a median score of 12. The mean score on the AHQ was  $47.93 \pm 14.94$ . On Pearson's correlation test, age of the participants is negatively correlated with SEKHQ score ( $r = -0.16$ ;  $P < 0.05$  at 95% confidence interval) and positively correlated with AHQ score ( $r = 0.188$ ;  $P < 0.05$  at 95% confidence interval). While SEKHQ score is negatively correlated with AHQ score ( $r = -0.50$ ;  $P < 0.05$  at 95% confidence interval).

**Conclusion:** The participants had better knowledge and positive attitude towards homosexuality, especially being single, belonging to urban setting and from medical background. The study also showed that higher scores on SEKHQ does not indicate more positive attitude towards homosexuals. There is need for more large-scale studies at community level to assess, educate and improve the attitudes of people towards homosexuality.

**Keywords:** Education, knowledge and attitude, Sex Education, Knowledge about Homosexuality Questionnaire (SEKHQ)

### Introduction

Homosexuality refers to an erotic desire for someone of the same gender role and identity and usually of the same natal sex [1]. Modern medicine and psychiatry, since the 1970s, have abandoned pathologizing same-sex orientation and behavior [2]. Psychiatry's new understanding is based on studies that document a high prevalence of same-sex feelings and behavior in men and women, its prevalence across cultures and among almost all non-human primate species [3,4].

Anti-LGBT attitudes once considered the norm, have changed over time in many social and institutional settings in the west. However, heterosexism is also common; it idealizes heterosexuality and considers it the standard while denigrating and stigmatizing all non-heterosexual forms of behavior, identity, relationships, and communities. Religious and social orthodoxy and patriarchy complicate the issues in many conservative and tradition-bound societies. This is particularly true in India, making it difficult for LGBT people to be accepted as equals in society [3-5].

The World Health Organization accepts same-sex orientation as a normal variant of human sexuality [6]. The United Nations Human Rights Council values LGBT rights [7]. The recent past has been turbulent for Lesbian Gay Bisexual and Transgender (LGBT) people and Gay Rights in India. The Delhi High Court's landmark judgment in July 2009, which read down Section 377 of the Indian Penal Code, was a major victory. It held that Section 377 to be violate of Articles 21, 14, and 15 of the constitution, as it criminalized consensual sexual acts of adults in private [8]. Later, in a historic judgment, the Supreme Court ruled that consensual adult gay sex is not a crime saying sexual orientation is natural, and people have no control on it, and from September 6, 2018, gay sex stands decriminalized [9].

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While media from India and across the world hail this historic judgment, still some religious movements say homosexuality is against nature though they agree it's not a crime. The legal hurdles were crossed, but whether homosexuality has society's approval remains to be seen<sup>[10]</sup>. The stance against homosexuality has been propagated by religious and spiritual organizations and it can have a significant impact on the attitudes of people in the community. This negative attitude, when present among the health-care professionals, can lead to unconscious bias in the treatment of LGBT patients despite having an adequate medical education<sup>[11]</sup>. Evidence has shown that the LGBT population has unique physical and mental health care needs. Yet the associated stigma prevents them from accessing their health care needs<sup>[11]</sup>.

Attitude is defined as the sum of feelings, prejudices, ideas, fears, or beliefs that an individual has about a specific issue. Its expression is the opinion of acceptance or rejection by an individual about a particular condition. Attitude may be also considered a set of beliefs, feelings, and tendencies that include three components: cognitive, affective, and behavioral<sup>[12]</sup>. Education and knowledge about a particular concept do influence the attitude of individuals toward it and homosexuality is not an exception.

Since knowledge, attitude, and practices of the general population decides the successful incorporation of any rights and laws pertaining to the marginalized population undertaking of this study becomes essential.

### Objectives

The objectives of this study were to (1) estimate the knowledge and attitude towards homosexuality in the Indian adult population, (2) determine any differences in socio-demographic factors on knowledge and attitudes towards homosexuality.

### Methods

#### Study design

This study was designed as an online cross-sectional survey.

#### Study participants

Participants >18 years, with access to the Internet and can read English were included in the present study.

#### Sampling technique

The snowball sampling technique was adopted as the questionnaire was circulated among different WhatsApp groups initiated by one of the authors with the request to share the link with their acquaintance.

#### Study duration

The responses were collected in as much number of participants for 6 months between January and June 2021.

#### Study instruments

##### Google forms

The authors created a Google Form for the present survey consisting of four sections. Section I provided information about the principal investigator, the objectives of the study and a statement requesting consent to participate. Section II collected information on baseline demographic information obtained included age, gender, occupation, marital status. Section III collected information on knowledge on homosexuality incorporating the questions from The Sex

Education and Knowledge about Homosexuality Questionnaire (SEKHQ), and Section IV incorporated The Attitudes toward Homosexuals Questionnaire (AHQ). The questionnaire had a total of 66 questions.

#### The sex education and knowledge about homosexuality questionnaire

Participants were required to express their opinion on the validity of 32 statements as true, false, or don't know. The score on this scale ranged from 0 to 32, where 32 represented the score with all correct answers. Wrong answers or answers with the response don't know were scored 0. The instrument was found to have a Cronbach's alpha of 0.724. The questionnaire has been used previously by Dunjić-Kostić *et al.*<sup>[13]</sup> and was created by a compilation of statements used in the three previous studies<sup>[14-16]</sup>.

#### The Attitudes toward Homosexuals Questionnaire (AHQ)

It contains 20 statements regarding homosexuals, their lifestyle, and their social position and is scored by the participants on a 5-grade Likert type scale ranging from 1 ("Strongly agree") to 5 ("Strongly disagree"). Some items require an inverse scoring. The score range on this scale was 20-100, with a higher score indicating a more negative attitude towards homosexuals. The instrument was found to have a Cronbach's alpha of 0.810. This instrument is also a compilation of items used in three previous studies,<sup>[17-19]</sup> and was used by Dunjić-Kostić *et al.*<sup>[13]</sup> for their work.

#### Procedure

The authors developed the questionnaires to a Google Form, and on obtaining ethical clearance, one of the authors shared the link for the online survey form in the WhatsApp group with an advertisement describing principal investigators' information and the objectives of the study. The survey took approximately 20-30 min to complete. The participants were requested to circulate the link of the survey to other friend groups on completion of the survey. The completed responses were recorded in the Google spreadsheet automatically and later were transferred to the excel database. Reminder to complete the questionnaire was sent once in 2 weeks.

#### Ethical considerations

Informed consent was made mandatory before answering the questionnaire from all the participants. This study was approved by the Institutional ethics committee. Participation was completely voluntary, and no incentives were provided for participation. Participants were ensured anonymity and confidentiality of data collected.

#### Statistical analysis

The data were analyzed using SPSS software version 20.0 (IBM SPSS Statistics for Windows, Version 20.0, Armonk, New York, USA). Descriptive statistics used include mean and standard deviation for continuous variables, frequency, and percentage for categorical variables. Unpaired t-test with Welch's correction was used to compare the parametric data while Mann-Whitney U-test was used for nonparametric ordinal data. Pearson's correlation was employed to find the correlation between age, knowledge, and attitude questionnaire scores. Significance was set at  $P < 0.05$  (two-tailed).

**Results**

A total of 225 participants over the age of 15 years consented and complete the Questionnaire for the study. The mean age of the study participants was 26.77 years with

females being younger than their counterparts and with higher representation. More than 70% of the participants were single and belong to urban setting. [Tab-1]

**Table 1:** Socio demographic details of the study participants.

Variable	Mean (SD)/Frequency (%)
<b>Age, Mean±SD (range)</b>	
All participants n=225	26.77±9.85 (15-75)
Male n=104	31.44±12.41 (18-72)
Female n=121	22.84±3.67 (15-39)
<b>Sex, frequency, (n%)</b>	
Male	104 (46.22)
Female	121 (53.77)
<b>Education</b>	
Medical	122 (54.22)
Others	103 (45.77)
<b>Occupation</b>	
Profession	110 (48.88)
Students	115 (51.11)
<b>Area</b>	
Urban	166 (73.77)
Rural	59 (26.2)
<b>Relationship status</b>	
Single	159 (70.66)
Married/committed relation	65 (28.88)
Separated	1 (0.4%)

SD=Standard deviation

The mean score on SEKHRQ was 11.56±5.37 with a median score of 12. More than 80% participants responded correctly to 5 questions or more and less than 10% responded correctly to 3 questions or less. The highest percentage of correct response (76.4%) was for the question ‘The experience of love is similar for all people regardless of sexual orientation’. And lowest percentage of correct response (9.3%) was for the question ‘Historically, almost every culture has evidenced widespread intolerance towards homosexuals, viewing them as “sick” or as “sinners”’.

The mean score on the Attitude towards Homosexuality (AHQ) Questionnaire was 47.93±14.94. the maximum negative attitudes in AHQ were expressed in the following statements ‘I would not be too upset if I learned that my son was homosexual’ (with 2.8±1.4), ‘If gay men want to be treated like everyone else, then they need to stop making such a fuss about their sexuality/culture’ (2.8±1.3). The most positive attitude in AHQ was for the statement ‘Homosexuals should be given social equality’ (1.8±1.2).

**Table 2:** Comparison of mean scores of sex education, knowledge about homosexuality questionnaire and Attitudes toward Homosexuality questionnaire across demographic variables using unpaired t test with Welch’s correlation. SEKHQ total score<sup>1</sup> AHQ total score<sup>2</sup>.

Variable	Mean±SD	t	df	p	Mean±SD	t	df	p
<b>Sex</b>								
Male	10.43±5.17	2.99	223	.0031	54.30±13.87	6.438	216	<0.0001
Female	12.54±5.36				42.45±13.63			
<b>Background</b>								
Urban	11.96±5.71	2.169	141	.0318	45.30±13.92	5.345	124	<0.0001
Rural	10.45±5.17				55.19±12.07			
<b>Marital status</b>								
Single	11.77±5.3	0.8128	114	.418	46.24±15.56	2.904	222	.0041
Married	11.12±5.56				52.49±11.94			
<b>Education</b>								
Medical	12.21±5.06	2.031	208	.0435	45.22±15.33	3.192	223	.0016
Other	10.7±5.59				51.55±14.19			
<b>Occupation</b>								
Professional	11.3±5.05	0.8522	221	.395	51±14.27	3.108	223	.0021
Student	11.92±5.73				44.95±14.86			

1. Higher mean score indicates better knowledge, 2. Higher mean score indicate negative attitude. AHQ=Attitudes towards Homosexuality questionnaire, SEKHQ=Sex education, knowledge about homosexuality questionnaire, SD=Standard deviation.

On comparing the mean scores of SEKHQ and AHQ among different demographic variables significant differences were noted in gender, marital status, education and belonging to urban vs. rural setting.

On Pearson’s correlation test, age of the participants is positively correlated with AHQ score suggesting higher the

score poorer the attitude ( $r=.18$ ;  $P < 0.05$ , at 95% confidence interval [CI]), Negatively correlated with SEKHQ score ( $r=-0.16$ ;  $P < 0.05$ , at 95% CI). While SEKHQ score is negatively correlated with AHQ score ( $r=-0.50$ ;  $P < 0.05$ , at 95% CI).

## Discussion

The mean scores on SEKHQ and AHQ in this study suggests that participants had a poorer knowledge but more positive attitudes than the findings from Banwari *et al.* in 2015<sup>[20]</sup> and Ilango *et al.* in 2020<sup>[21]</sup>.

Our results are in accordance with the literature that reports the strong influence of gender on attitudes towards homosexuality, with the male gender being consistently associated with more negative attitudes<sup>[22-26]</sup> both in traditional and modern forms of homophobia<sup>[27]</sup>. This gender difference in knowledge and attitudes could be explained by younger age of the female participants in the study. Being single or committed, student and from medical background had significantly more positive attitudes towards homosexuality. We believe all the above findings may possibly be explained by the lesser homophobia among the younger generation.

The individual responses recorded in SEKHQ showed that >90% of the people still believe that "In the past 25 years, there has been an increase in homosexuality" and "Historically, almost every culture has evidenced widespread intolerance towards homosexuals, viewing them as sick or as sinners." These negative knowledge statements are in contrast to what the recordings from the ancient literature documents that homosexuality was in existence thousands of years ago and even worshiped as God<sup>[28]</sup>.

Studies on attitudes usually show that increase in knowledge is often associated with positive attitudes<sup>[29]</sup>. However, our study showed that higher knowledge on SEKHQ scores did not reflect in positive attitudinal change with increasing age. This difference was consistent among the professionals and a student population of medical background. This further substantiates the author's presumption that generation plays a major role in the attitudinal change where older generations are more homophobic despite an increase in knowledge.

## Strengths and limitations

There have been very few studies done in India in the LGBT population, and even those studies were done a few years ago before Supreme Court verdict of decriminalizing homosexuality. This study has a good number of participants with more professionals than students from all walks of life. Inherent to the study design, causal association could not be established for poor knowledge and attitude toward homosexuality. Since the survey was conducted online, we could not give in-person explanations to participants, on the flip side, this would have helped them to participate without being socially pressurized to participate or guided to answer in a particular way. It is also possible social desirability, and mental fatigue could have had some impact in the participant's response. With the convenience sampling and mode of data collection, the results might not be generalizable to whole population and hence warranted replication of the study in a face-to-face community surveyor prospective study design.

## Conclusions

This study highlights that the knowledge and attitudes towards homosexuality have become better over the years, especially among the younger generation instilling hope and brighter prospects of future. Although the Supreme Court of India has decriminalized homosexuality, it would not by itself bring any change in the attitudes of the society at large

and the prejudices and stigmatization of this marginalized group persist. As Justice Dhanajaya Y Chandrachud quote, "It is difficult to right a wrong by history. However, we can set the course for future. This case involves much more than decriminalizing homosexuality. It is about people wanting to live with dignity<sup>[9]</sup>." Further large-scale studies in the community setting are needed not just to evaluate but to educate and improve the attitudes of people towards homosexuality.

**Financial support and sponsorship:** Nil.

**Conflicts of interest:** There are no conflicts of interest.

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