

ORIGINAL RESEARCH ARTICLE

Attitudes of health sciences students in Turkey towards individuals with different sexual orientations

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Abstract

Study was planned in a descriptive design to examine how the empathic tendencies of students in the Faculty of Health Sciences affect their attitudes toward individuals who have different sexual orientations and was conducted with seven hundred and six students. The data collected online using the Student Information Form, Empathic Tendency Scale (ETS) and Attitudes Toward Lesbian and Gay Men Scale (ATLGS). Participants' mean scores were 62.98±18.79 on the ESS and 29.02±10.75 on the ATLGS. When the correlation between ETS and ATLGS scores was analyzed, a positive and moderate ($p < 0.05$) correlation ($r = 0.62$) was found between ETS and ATLGS scores. These scores were moderate and the correlation between ETS and ATLGS scores was significant ($F=438.585$; $p < 0.05$). Empathic disposition explained 38.3% of the total change in ATLGS level ($R^2=0.383$) and increased ATLGS level ($\beta=0.620$). It was found that as students' empathic skills improved, their homophobic attitudes decreased. (*Afr J Reprod Health 2025; 29 [3]: 38-49*).

Keywords: Health; empathic tendency; lesbian; gay; student; homophobic attitude

Résumé

Les perceptions des professionnels de la santé à l'égard des personnes ayant des orientations sexuelles différentes sont importantes. L'étude a été planifiée selon un modèle descriptif afin d'examiner comment les tendances empathiques des étudiants de la faculté des sciences de la santé affectent leurs attitudes à l'égard des personnes ayant des orientations sexuelles différentes et a été réalisée auprès de sept cent six étudiants. Les données ont été recueillies en ligne à l'aide du formulaire d'information de l'étudiant, de l'échelle des tendances empathiques (ETS) et de l'échelle des attitudes à l'égard des lesbiennes et des gays (ATLGS). Les scores moyens des participants étaient de 62,98±18,79 sur l'ESSES et de 29,02±10,75 sur l'ATLGS. Ces scores étaient modérés et la corrélation entre les scores ESS et ATLGS était significative ($F=438,585$; $p < 0,05$). La disposition empathique a expliqué 38,3 % de la variation totale du niveau de l'ATLGS ($R^2=0,383$) et a augmenté le niveau de l'ATLGS ($\beta=0,620$). Il a été constaté qu'à mesure que les compétences empathiques des étudiants s'amélioraient, leurs attitudes homophobes diminuaient. (*Afr J Reprod Health 2025; 29 [3]: 38-49*).

Mots-clés: Santé; tendance empathique; lesbienne; gay; étudiant; attitude homophobe

Introduction

The World Health Organisation (WHO) defines sexual health as “a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as 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 respected, protected and fulfilled”.¹

Sexual orientation is an important dimension of sexual life and makes one's individual and societal existence meaningful. Sexual orientation varies between being completely orientated toward the opposite sex, being completely orientated toward the same sex, or being orientated toward both sexes.² While society often adheres to a binary view of gender, many individuals might identify with gender identities beyond these two traditional categories. Terms such

as transsexual (transgender), gender atypical, and gender non-conforming are often employed to define individuals whose gender identities or expressions differ from traditional societal expectations. Individuals might identify their sexual orientation as gay, lesbian, heterosexual, or bisexual. Historically, researchers and clinicians have been encouraged to define individuals who fall outside the socially accepted model of heterosexuality and the reasons why this might occur.³

People who have diverse sexual orientations encounter significant healthcare challenges and disparities. However, because of limitations in the collection and reporting of demographic data on sexual orientation and gender identity (SOGI), research on health inequalities affecting this population remains limited.⁴

The concepts of being Lesbian, Gay, Bisexual, Transgender (LGBT) do not pose any genetic or biological danger. However, these concepts can lead some people to display negative social reactions called homophobia, which threatens the well-being of LGBT individuals and can lead them to have negative experiences such as social exclusion, discrimination, stigma, and violence.⁵

When compared to heterosexual and non-transgender individuals, LGBT individuals are more likely to encounter barriers to accessing medical services.⁶ Beyond societal risk factors, these individuals have specific needs for a variety of health problems, such as risk of chronic diseases,⁷ adult and adolescent mental health⁸, unhealthy relationships such as intimate partner violence⁹, and sexually transmitted infections and HIV infection.¹⁰

Healthcare staff are insensitive to biases, and many LGBT patients think that healthcare is an unsafe space for them often because of the attitudes exhibited by doctors and nurses toward them.^{11,12} LGBT patients might recognize disdain of healthcare staff, which might alienate them from the healthcare system and discourage them from using screening methods, putting them an increased risk of developing severe health conditions such as infections, cancer, and heart disease. Unfavorable experiences with healthcare staff can weaken LGBT individuals' trust in the healthcare system

and consequently lead to their reluctance to seek medical services.¹³

For this reason, homosexuality involves both individual and social aspects. Negative attitudes of healthcare staff are among the problems that homosexual individuals go through in receiving healthcare services.¹⁴

It is essential that healthcare staff providing services to individuals of diverse sexual orientations approach their work without prejudice. Consequently, it is advised that future healthcare staff receive training on health rights, needs, and care of individuals who prefer different sexual orientations during their pre-graduation education.^{15,16} Prospective healthcare staff (actively using their roles as caregivers, counselors, educators, and advocates for patient rights) should evaluate individuals who prefer different sexual orientations holistically within the scope of healthcare.¹⁷

The empathic tendencies of students from the Faculty of Health Sciences are important in this sense.¹⁵ Empathy is among the basic components of the relationship between healthcare staff and patients. They should display an empathic attitude toward patients in order to understand their needs correctly and produce more positive outcomes.¹⁸ People who feel understood by others also tend to feel valued, trusted, and appreciated.¹⁹ The ability of health service providers to understand patients correctly and impartially, to determine their needs, and to achieve positive results can be associated with their empathic abilities and tendencies.²⁰ To help those we care for, it is important that we reach out to, value, try to understand, look after, and trust them⁶. However, this can be achieved by providing training to students attending the faculty of health sciences since they are the healthcare staff of the future.²⁰ Effective use of empathy is beneficial in planning health interventions appropriate for patient's conditions and needs and is also important in improving patient satisfaction and quality of care.⁵ In order for healthcare staff to provide adequate care to their patients and to help them, they should develop their empathy skills at the desired level and have an empathic tendency.^{21,22} Today, it is accepted that empathic skills and tendencies can be developed during the education process. Although empathic skills and tendencies

are personality traits of people, it is crucial to gain such traits during professional education and to reinforce them with professional practices.²¹

Studies with nursing students in Turkey have highlighted negative attitudes toward individuals who have diverse sexual orientations.^{15,16} In this context, the purpose of the present study was to explore how empathic tendencies among health sciences students affect their attitudes toward individuals who prefer different sexual orientations and identify the factors that impact these attitudes.

Hypotheses

H1: Students' empathic tendencies have a positive impact on their attitudes toward individuals who have diverse sexual orientations.

H2: The empathic tendencies of students have no effect on their attitudes toward individuals who have different sexual orientations.

Methods

Type of the study, The study had a descriptive and correlational design. The study was conducted with students of the nursing, midwifery, and nutrition and dietetics programs at the Faculty of Health Sciences at a university in Turkey, between January and May 2023. The study population comprised 1,100 students enrolled in the nursing, midwifery, and nutrition and dietetics departments at a university's Faculty of Health Sciences. The sample size was determined with the formula provided by Salant and Dillman. Applying the sampling formula, the sample size was calculated as $n = 1100 \frac{(1.96)^2 (0.5) (0.5)}{(0.5)^2 (1100-1) + (1.96)^2 (0.5) (0.5)} = 285$ with a 95% confidence interval and a $\pm 5\%$ margin of error, for this heterogeneous population.²³ However, for the safety of the study, it was completed with 706 people.

Data collection

Data collection was performed online through a Google survey form, created by the researcher following a literature review, from January 15, 2023, to May 30, 2023. The form was organized into four sections. The first section contained questions on students' demographic details (e.g.,

age, place of residence, marital status, income). The second section included questions associated with attitudes toward lesbians and gays. The third and fourth sections featured the Attitudes Toward Lesbians and Gay Men Scale (ATLGS) and the Empathic Tendency Scale, respectively. Data were analyzed with SPSS 22.0 software. The researchers initially tested the survey link's functionality and question clarity with 10 students and these test responses were not included in the study. The link was sent to classrooms by student representatives listed in the researchers' phone contacts via online platforms (e.g., email, WhatsApp) between January 15 and May 30, 2023. The link's first page provided details on the study's purpose and criteria (participants were required to have internet access and a smartphone, to be enrolled in Health Departments at Mardin Artuklu University, and to agree to participate voluntarily). Eligible participants who agreed to proceed confirmed their consent by completing the survey. Participants were required to answer every question without the option to return to previous pages. The survey included a single screen with a total of 44 questions: 14 demographic questions and 30 scale-based items. Participation was voluntary, and no compensation was provided. To prevent duplicate responses, IP and cookie controls were implemented. Data submissions were monitored consistently, and the data collection period concluded after one month without new responses. Because of the online format, no data loss occurred during the collection process.

The attitudes toward lesbians and gay men scale (ATLGS)

The scale was developed by Herek,²⁴ and Duyan and Gelbal²⁵ conducted its Turkish validity-reliability study. This five-point Likert-type scale consists of 10 items. Participants express their opinions using five options: "I strongly disagree", "I disagree", "I am undecided", "I agree", and "I strongly agree". While six of the items include negative meanings against homosexuality, four items have positive meanings about homosexuality. In the scoring of the positive items, "I strongly agree" receives "5" points, and "I strongly disagree" receives "1" points.

In scoring the negative items, “I strongly disagree” receives “5” points, and “I strongly agree” receives “1” points. The highest score on the scale is 50. A high score indicates positive attitude toward homosexuality, whereas a low score indicate negative attitudes.

The empathic tendency scale (ETS)

Dökmen developed this scale and determined Cronbach’s alpha coefficient as 0.82.²⁶ This scale consists of 20 items. Participants are asked to respond to the items using a 5-point Likert-type scale (ranging from 1 (“I strongly disagree”) to 5 (“I strongly agree”)), based on the statement that they believe best shows their opinion. Items 3, 6, 7, 8, 11, 12, 13, and 15 are reverse scored. The total score ranges between 20 and 100 points. Higher scores signify that the empathic tendency of individuals is improved.²⁶

Statistical analysis

The SPSS 22.0 software was used for data analysis. Frequency and percentage analyses were applied to describe the students’ demographic characteristics, while Mean & Standard Deviation statistics were employed to assess the scale scores. Kurtosis and skewness values were examined to determine the normality of variable distribution. It was detected that the variables were normally distributed. The correlations between the dimensions that determined the students’ scale levels were examined through Pearson’s correlation and linear regression analyses. Independent samples t-test, one-way analysis of variance (ANOVA), and post hoc (Tukey, LSD) analyses were employed to examine the differences in scale scores of the students according to their descriptive characteristics.

Ethical approval and consent to participate

For the study, an ethical approval (07.08.2023 Dated and 2023/8-22 Numbered) was obtained from the Non-Interventional Research Ethics Committee of a University, and institutional permission was obtained from the dean’s office of the Faculty of Health Sciences of the related university.

The participants were informed about the study’s objectives, procedures, potential risks, and benefits as well as their right to withdraw from the study at any time. All the participants agreed to participate in the study and provided informed consent. All steps of the study were carried out according to the Declaration of Helsinki (2013).

Results

The study's findings indicated that the mean age was 21.85±1.50 years (Min=17; Max=25) and 79.9% of them were female (Table 1).

The study's findings indicated that 44.3% of the students were studying in the Department of Nursing, 30.5% in the Department of Midwifery, and 25.2% in the Department of Nutrition and Dietetics. 15.0% of them were first-year students, 23.4% were second-year students, 37.8% were third-year students, and 23.8% were fourth-year students. While 86.4% of the students identified themselves as believers, 13.6% identified themselves as non-believers (Table 1).

Table 2 shows the distribution of the students’ opinions about lesbians and gays. A total of 52.0% of the students said they were comfortable about discussing issues associated with homosexuality, another 52.0% considered homosexuality as a disease, 55.2% said that they would be uncomfortable about coexisting with homosexuals, and 54.7% said that it was not different for them than caring for other individuals (Table 2).

The ATLGS and ETS mean scores of the students were 29.02±10.75 (Min=10; Max=50) and 62.98±18.79 (Min=20; Max=100), respectively (Table 3).

When the correlation between ETS and ATLGS scores was analyzed, a positive and moderate ($p < 0.05$) correlation ($r = 0.62$) was found between ETS and ATLGS scores (Table 4).

The regression analysis done to determine the cause-and-effect correlation between the empathic tendency and the attitude toward lesbians and gays showed that the correlation was significant ($F=438.585$; $p=0.000 < 0.05$). The empathic tendency accounted for 38.3% of the total change at the level of ATLGS ($R^2=0.383$) and elevated the level of ATLGS ($\beta=0.620$) (Table 5).

Table 1: Distribution of the students according to their descriptive characteristics

Descriptive Characteristics of the Students (n: 706)	Frequency (n)	Percentage (%)	
Gender	Female	564	79.9
	Male	142	20.1
Department	Nursery	313	44.3
	Midwifery	215	30.5
	Nutrition and Dietetics	178	25.2
University Year	1 st year	106	15.0
	2 nd year	165	23.4
	3 rd year	267	37.8
	4 th year	168	23.8
Living quarter	At dormitory	337	47.7
	Living with family/relatives	272	38.5
Place of Residence	Alone	97	13.7
	District	126	17.8
	Province	233	33.0
	Metropolitan City	203	28.8
Hometown	Village-Town	144	20.4
	Marmara Region	67	9.5
	Black Sea Region	45	6.4
	Aegean Region	46	6.5
	Mediterranean Region	51	7.2
	Central Anatolia Region	51	7.2
	Southeast Anatolia Region	320	45.3
	Eastern Anatolia Region	126	17.8
Having Religious Faith	Believer	610	86.4
	Non-Believer	96	13.6
Mother's Educational Background	Illiterate	236	33.4
	Primary School	236	33.4
	Secondary School	137	19.4
	Bachelor's Degree	97	13.7
Father's Education Background	Illiterate	122	17.3
	Primary School	226	32.0
	Secondary School	231	32.7
Mother's Employment	Bachelor's Degree	127	18.0
	Employed	178	25.2
Father's Employment	Unemployed	528	74.8
	Employed	502	71.1
Family's Income Level	Unemployed	204	28.9
	Low	139	19.7
	Moderate	463	65.6
	High	74	10.5
Number of Siblings	Very High	30	4.2
	None	73	10.3
	1	111	15.7
	2-3	215	30.5
	4 and above	307	43.5

Table 2: Distribution of the students' opinions about lesbians and gays

Distribution of the Students' Opinions about Lesbians and Gays (n:706)		n	%
Knowing a Lesbian/Gay	Yes	209	29.6
	No	497	70.4
Being Able to Openly Discuss Issues Associated with Homosexuality	Yes	367	52.0
	No	339	48.0
Discussing Lesbian/Gay Issues within the Family	Yes	175	24.8
	No	531	75.2
Parental Attitudes toward Lesbian/Gay Individuals	Favorable	106	15.0
	Unfavorable	402	56.9
	Neither Favorable nor Unfavorable	198	28.0
Considering Homosexuality as A Disease	Yes	367	52.0
	No	339	48.0
Having an Opinion On the Development of Homosexuality Through Patterning	Yes	391	55.4
	No	315	44.6
Being Uncomfortable About Coexisting with Homosexuals	Yes	390	55.2
	No	316	44.8
Considering Caring for A Lesbian/Gay Person	Yes	470	66.6
	No	236	33.4
	No difference for me than caring for other individuals.	386	54.7
	I feel uncomfortable caring for such individuals.	83	11.8
	If I had the right to prefer not to care for these individuals, I would prefer to do so.	108	15.3
Considering The Idea of Caring for A Lesbian/Gay Person	Despite my reluctance to care for these individuals, I care for them as it is required by my job.	129	18.3

Table 3: ETS and ATLGS mean scores

	N	Mean	SD	Min.	Max.	Kurtosis	Skewness	Alpha
ATLGS	706	29.026	10.755	10	50	-0.502	0.046	0.900
ETS	706	62.980	18.792	20	100	0.327	-0.231	0.954

Table 4: Analysis of correlation between ETS and ATLGS scores

		ATLGS
ETS	r	0.620**
	p	0.000

Students' ETS scores varied significantly based on their university year and place of residence. Students who knew a lesbian or gay person scored higher on the ETS than those who did not. Those who viewed homosexuality as a disease also had higher ETS scores compared to those who did not. Similarly, students who believed homosexuality developed through modeling scored higher than those who disagreed. Higher ETS scores were also

found among students who felt uncomfortable coexisting with homosexual individuals, compared to those who were comfortable.

Additionally, those who were open to caring for a lesbian or gay individual had higher ETS scores than those who were not. Students' ATLGS scores showed significant differences based on their university year and living environment. Higher ATLGS scores were found among students who identified as believers, were open to friendships with lesbian or gay individuals, viewed homosexuality as a disease, or believed it developed through modeling. Students who felt uncomfortable coexisting with homosexual individuals had higher ATLGS scores compared to

Table 5: The effect of empathic tendency on attitudes toward lesbians or gay men

Independent Variable	Unstandardised Coefficients		Standardized Coefficients B	T	p	95% Confidence Interval	
	B	SE				Lower	Upper
Fixed	6.695	1.113		6.017	0.000	4.510	8.879
Empathic Tendency	0.355	0.017	0.620	20.942	0.000	0.321	0.388

*Dependent Variable=Attitude Toward Lesbians and Gay Men, $R=0.620$; $R^2=0.383$; $F=438.585$; $p=0.000$; Durbin Watson Value=1.774

Table 6: Differentiation of ETS and ATLSGS scores of the students based on their demographic characteristics

ET	N	ATLSGS	ETS
University Year		Mean± SD	Mean± SD
1 st year	106	31.170±12.064	66.330±21.496
2 nd year	165	27.030±10.808	59.933±17.963
3 rd year	267	29.659±9.681	65.240±17.463
4 th year	168	28.625±11.186	60.268±19.128
F=		3.727	5.110
p=		0.011	0.002
Post-Hoc=		1>2, 3>2 (p<0.05)	1>2, 3>2, 1>4, 3>4 (p<0.05)
Living quarter		Mean± SD	Mean± SD
At dormitory	337	30.071±10.384	65.110±18.216
Living with family/relatives	272	28.298±10.324	60.526±18.099
Alone	97	27.433±12.777	62.464±21.773
F=		3.301	4.566
p=		0.037	0.011
Post-Hoc=		1>2, 1>3 (p<0.05)	1>2 (p<0.05)
Place of Residence		Mean± SD	Mean± SD
Village- Town	126	31.421±13.220	67.921±22.245
District	233	26.545±9.483	57.785±16.987
Province	203	29.276±9.661	64.537±17.336
Metropolitan City	144	30.590±11.049	64.868±18.529
F=		7.467	10.168
p=		0.000	0.000
Post-Hoc=		1>2, 3>2, 4>2 (p<0.05)	1>2, 3>2, 4>2 (p<0.05)
Having Religious Faith		Mean± SD	Mean± SD
Believer	610	29.621±9.813	64.069±16.824
Non-Believer	96	25.240±14.976	56.063±27.392
t=		3.745	3.919
p=		0.007	0.006
Family's Income Level		Mean± SD	Mean± SD
Low	139	30.194±14.061	65.295±24.315
Moderate	463	29.378±9.276	63.240±15.563
High	74	26.122±9.851	59.716±20.389
Very High	30	25.333±14.556	56.300±27.686
F=		3.733	2.761
p=		0.011	0.041

Post-Hoc=		1>3, 2>3, 1>4, 2>4 (p<0.05)	1>3, 1>4, 2>4 (p<0.05)
Making Friendship with a Lesbian or Gay Person		Mean± SD	Mean± SD
Yes	295	27.895±11.806	64.654±20.721
No	411	29.837±9.867	61.779±17.202
t=		-2.374	2.010
p=		0.021	0.052
Considering Caring for A Lesbian/Gay Person		Mean± SD	Mean± SD
Yes	470	29.970±10.483	65.077±17.991
No	236	27.144±11.061	58.805±19.678
t=		3.317	4.233
p=		0.001	0.000
Considering The Idea of Caring for A Lesbian/Gay Person		Mean± SD	Mean± SD
No Difference for Me Than Caring for Other Individuals	386	29.448±9.876	65.992±17.597
I Feel Uncomfortable with Caring for Such Individuals	83	25.337±12.282	54.060±21.009
If I Had the Right to Prefer Not to Care for These Individuals, I Would Prefer to Do So	108	27.435±11.813	57.815±20.087
Despite My Reluctance to Care for These Individuals, I Care for Them as required by My Job	129	31.465±10.627	64.031±17.061
F=		6.606	13.027
p=		0.000	0.000
Post-Hoc=		1>2, 4>2, 4>3 (p<0.05)	1>2, 4>2, 1>3, 4>3 (p<0.05)

those who were comfortable. Additionally, students who were willing to care for a lesbian or gay person scored higher on the ATLGs than those who were not (Table 6)

Discussion

The study aimed to investigate the correlation between empathic tendency, which has an important place in interpersonal relationships, and attitudes toward lesbian/gay individuals, one of the most important factors in healthcare.

In the present study, the students stated that they had homosexual acquaintances and they could be friends with them. Some previous studies reported similar findings. A study conducted by Sadiç and Beydağ,¹⁶ reported that 35.8% of nursing students knew a lesbian/gay individual and 66.0% said that they could be friends with a lesbian/gay

individual. A similar study conducted by Çiçekoğlu Öztürk and Duran,²⁷ indicated that while 11.9% students said they had a homosexual acquaintance, 8.3% said that they had a bisexual acquaintance. These results suggested that students were less biased toward lesbian/gay individuals. It is important to meet lesbian/gay individuals, share social circles with them, and communicate with them to reduce biases against these individuals. Furthermore, many the students said their families did not discuss issues associated with homosexuality. Özyurt and Duyan,²⁸ conducted a study with 112 young individuals, 169 parents, and 125 grandfathers to compare the attitudes of three generations toward lesbian and gay people in Türkiye and they found that there were differences in attitudes toward gay and lesbian people across generations, parents held more negative attitudes than their children, and grandfathers held the most

negative attitudes. Likewise, a study conducted by Steffens and Wagner,²⁹ with 2006 men and women who identified themselves as heterosexual reported that the elderly held more negative attitudes toward homosexual individuals compared to the young ones. Sadiç and Beydağ,¹⁶ reported this rate as 79.0%. These results are compatible with the findings of the present study. Furthermore, it is considered that parents generally have negative attitudes toward homosexual individuals, often resulting in homophobic behaviors because of the influence of traditional Turkish family structure, myths concerning sexuality, and the perception of homosexuality as a taboo subject.

Over half of the students said they could care for a lesbian/gay person. In their study, Sadiç and Beydağ¹⁶ reported that 16.0% of the students said they cared for lesbian/gay individuals as nurses, and 87.7% of them said that caring for lesbian/gay individuals was not different from caring for others. A study conducted by Jones *et al.*³⁰ with the students of postgraduate programs in healthcare in Austria reported that while 30% of the students said they would feel uncomfortable about working with a lesbian patient, 27% said that they would feel uncomfortable about working with a gay patient. This finding showing that the students were not biased toward caring for homosexual individuals is compatible with the literature.

The mean ATLGS and ETS scores were at moderate levels. In their study, Bahadır and Yücel³¹ revealed that the mean ATLGS scores of the students were 28.61 ± 10.34 . The study of Sadiç and Beydağ (2018)¹⁶ on the attitudes of nursing students toward lesbians and gays and the influencing factors demonstrated that the mean ATLGS scores of the students were 27.88 ± 9.28 . The study conducted by Bakır Ayğar *et al.*³² with the students of the education faculty reported that while the mean ATLGS scores of female students were 31.71 ± 9.84 , the mean ATLGS score of male students was 29.01 ± 10.06 . A study conducted by Wahlen *et al.*³³ with 157 medical students revealed that most medical students already exhibited positive attitudes toward LGBT individuals. A study conducted by Özdemir and Erenoğlu,³⁴ with nursing students reported that the attitudes of students toward LGBT individuals were at a moderate level. Based on the results of the study, it

can be asserted that the attitudes of students attending the faculty of health sciences toward lesbian/gay individuals were at a moderate level. The results of the present study are consistent with the literature. Another study that was conducted with heterosexual university students in the USA reported that individuals who exhibited higher levels of empathy had lower levels of sexual bias.³⁵ A similar study by Öztürk and Demirden³⁶ reported that participants who had less homophobia had higher levels of empathy. A positive moderate ($p=0.000 < 0.05$) correlation ($r=0.62$) was found between the empathic tendency and the attitude toward lesbians and gays in the present study. The fact that the empathic tendency level of the students is improved is effective in reducing their homophobic attitudes toward LGBT individuals.

In the literature, empathy is negatively correlated with homophobia.³⁷ Although empathic tendencies and skills seem to be personality traits, these traits can be improved through education, and acquiring these skills in professional life is important for reducing homophobic attitudes.

The believers had higher ATLGS and ETS scores than non-believers. The literature contains related studies reporting different results. There are studies reporting that homophobic attitudes have decreased with an increasing level of belief^{38,39} and these attitudes increase.^{36,40-42} Religiosity is one of the factors affecting attitudes toward homosexual individuals. The literature suggests that religiosity and religious customs influence attitudes toward homosexual individuals, their rights, and their status within religious communities.⁴³ A study using data from thirty-three countries indicated that non-religious individuals and those who adopted Catholicism and Judaism exhibited more tolerant attitudes toward homosexuality than those who adopted Muslim and Protestant beliefs.⁴⁴ Although the finding of the present study seems inconsistent since the majority of Turkish society is a member of the Islamic religion⁴⁵ and homosexuality is deviant and unacceptable according to the faith of Islam,⁴⁶ this result might be explained by the evolving social structure. Moreover, since religiosity was assessed with a single item in the present study, it was not possible to reveal which dimensions of religiosity predict attitudes toward homosexuality. In this respect, it is advised for

future studies examining attitudes toward homosexuality to assess religiosity more comprehensively. Moreover, since students who attend health-related departments will come across different patient profiles both at school and in their professional lives after graduation, it is important

for them to act fairly for every member of society. Those who considered caring for a lesbian/gay person had higher ATLGS scores than those who did not. Those who considered caring for a lesbian/gay person had higher ETS scores than those who did not (Table 6). Sadıç and Beydağ (2018)¹⁶ reported in their study that 87.7% of the students considered that caring for a lesbian/gay person was not different from caring for other individuals. Gönenç and Erenel⁴⁷ reported in their study that 98.6% of nursing students did not care for a homosexual patient so far and 74.6% said that if patients told them that they were homosexual, their attitude toward those patients would not change. The above-mentioned studies are compatible with the findings of the present study. However, the literature also includes studies that are contrary to this finding. Çiçekoğlu Öztürk and Özyurt Duran²⁷ stated in their study that only 30.8% of the students could discuss the sexual orientation of an LGBT patient while caring for that patient and maintained egalitarian care and the nursing students were biased toward caring for LGBT individuals. The attitudes of students raised in a culture where even heterosexual relationships cannot be discussed openly vary positively or negatively. Again, the empathic skills of students attending the faculty of health sciences affect the healthcare service (treatment and care) they will provide in the future. The students who said that they could make friends with a lesbian/gay person had lower ATLGS scores compared to those who said that they could not. The ETS scores of the students showed no significant difference in terms of making friends with a lesbian/gay person. Some studies in the literature have reported results that are similar to the present study.^{16,47} These results suggest that making friends, communicating, sharing social circles, and knowing individuals who prefer different sexual orientations improve positive attitudes.

Conclusion

The results indicate that students enrolled in health-related departments held moderate attitudes toward lesbian/gay individuals, and that as their empathy skills increased, their attitudes toward these individuals became more positive. This research is significant because it is among the few studies exploring the predictive impact of empathic tendencies on attitudes toward LGBT individuals. Furthermore, the lack of LGBT-focused healthcare content in health sciences curricula in Turkey might lead to difficulties for students in providing care to LGBT individuals, potentially fostering stigmatizing attitudes. In this regard, this study is important as it reveals the significance of including course contents in the existing curricula. The fact that students attending the faculty of health sciences have only theoretical knowledge is not sufficient for the development of their empathic tendencies. The use of interactive learning methods in the curricula is also important. Courses for developing empathic tendency skills can be included in the curricula and increased with case studies, therapeutic communication techniques, clinical applications, role-play studies, and drama studies.

It is necessary to equip students of health departments with the delivery of competent care to LGBT patients in order to figure out how social exclusion, stigma, and discrimination affect the health of LGBT individuals, to become non-judgemental healthcare providers, and to include topics associated with LGBT health into the existing curricula.

These results indicate that there are deficiencies in the non-prejudicial approach to health care services for individuals who have different sexual orientations. To prevent discrimination and homophobia in the education and health care of future health care providers, students studying in healthcare field should receive training on unprejudiced empathic communication with homosexual individuals, equal rights to health, ethical rules, and patient-centered care. For educators who have conducted studies on the approach and care of these individuals, it is advised that students should be sensitive about establishing

empathy by using body language and words correctly in communicating with the individual, gaining trust, planning care initiatives by making an accurate evaluation, and assessing the training provided in clinical practice areas.

Limitations of the study

This study is limited to students studying in the health department of a university and generalizations cannot be made. In addition, since online data was collected, results were obtained based on students' self-reports.

Conflict of interests

No conflict of interest has been declared. The article was read and approved by all authors. The authors meet the authorship requirements and confirm that the article was worked honestly

Authors' contributions

V.B.D. led the statistical analyses, wrote the article and tables, and edited and reviewed the final draft. V.B.D. and H.K. led the writing of the early draft of this study and edited and reviewed the final draft. H.K. assisted with statistical analyses and edited and reviewed the final draft. All authors reviewed multiple drafts of the article, provided formative feedback, and reviewed and approved the final article before submission.

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