



## KMC Journal

[A Peer-Reviewed, Open-Access Multidisciplinary Journal]

ISSN 2961-1709 (Print)

Published by the Research Management Cell

Kailali Multiple Campus, Dhangadhi

Far Western University, Nepal

### Nepali Medical Students' Knowledge and Attitude towards LGBT Population

**Radha Acharya Pandey<sup>1</sup>**

**Anupa Shrestha<sup>1</sup>**

<sup>1</sup>Kathmandu University School of Medical Sciences

Kathmandu University Hospital, Dhulikhel Hospital, Kavre, Nepal

**Hom Nath Chalise (PhD)**

Central Department of Population Studies

Tribhuvan University, Kathmandu, Nepal

---

**Corresponding Author:** Hom Nath Chalise, Email: [chalisehkpp@gmail.com](mailto:chalisehkpp@gmail.com)

**DOI:** <https://doi.org/10.3126/kmcj.v4i2.47744>

---

#### Abstract

The umbrella term “lesbian, gay, bisexual, and transgender (LGBT)” is widely used to denote sexual and gender minority individuals. But the discrimination still exists in the medical community regarding the sexual identity because the knowledge about those rights is insufficient. Further, the skills and techniques to provide social and psychological support are not scientific in the medical community. The aim of the study was to assess the medical students' knowledge and attitude towards LGBT population. This cross-sectional study was carried out in 2017 at Kathmandu University with a sample size of 180 undergraduate and medical intern students. Data was collected using a self-administered questionnaire. Data was analyzed using descriptive and inferential statistics (Mann-Whitney test, Kruskal-Wallis test, t-test and ANOVA). Finding shows the mean score of knowledge was 12.32 ( $\pm 3.7$ ), and attitude was 73.04 ( $\pm 9.82$ ). The mean coefficient attitude score was 13.44. Being female students and those who were very frank to teacher had a higher knowledge of LGBT. Similarly, internship medical students had a better attitude towards LGBT than other students. This study found higher knowledge and attitude were highly correlated. Being female students had higher knowledge of LGBT and Internship medical students had better attitude towards LGBT population.

**Keywords:** lesbian, bisexual, higher risk, Nepal

---

Copyright 2022 © Author(s) This open access article is distributed under a *Creative Commons*



*Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.*

## **Introduction**

The umbrella term “lesbian, gay, bisexual, and transgender (LGBT)” is widely used to denote sexual and gender minority individuals. This globalized world has gained freedom from all discriminations, oppressions, and prejudices. However, despite societal changes and even changing legislation for the rights of women and members of the LGBT community, both of these minorities still face overwhelming discrimination and prejudice in Nepalese society (UNDP, 2014).

Physical, social, and medical health care needs are unique to the LGBT population. The health care providers (doctors, nurses) and health technicians have discriminatory overlooks towards those minority groups (Sears & Mallory, 2011). Thus they tend to avoid medical counseling. Homosexual or LGBT individuals are suffering from unique health disparities. They tend to hide their health disorders especially sexual diseases because they are conscious about their sexual identity (UNDP, 2014). Also, the medical curriculum doesn't have homosexuality related issues to study. Therefore they lack knowledge about sexual orientations (Winter, 2012). Hence the health needs of sexual minorities are not well identified.

Health care providers or medical communities need to be trained and educated about sexual orientations and they need to be trained about their health needs and facilities (UNDP, 2014). This is to address the actual oppression they are facing while accessing health care facilities and to promote non-discriminatory approach in every field (UNDP, 2014). In the study done in India, about 56.53 percent of people have a negative attitude towards LGBT people (Winter, 2012).

The possible obstacles in the patient-physician relationships considered the discrimination against Lesbian and gay men. Discrimination results an increased incidence of mental health problems, depression, suicide, higher risk of cardiovascular risk and lower immunity (Banwari et al., 2015). There are very little studies carried out focusing the medical student's knowledge and attitude towards LGBT in Nepal. The study aimed to assess medical students' knowledge and attitude towards LGBT people.

## **Methods and Procedures**

This cross-sectional study was carried out in 2017 among undergraduate Medical Students of Kathmandu University School of Medical Sciences (KUSMS), Dhulikhel, Nepal. KUSMS has been running Bachelor's in Medicine and Bachelor's in Surgery since 2001. There are a total of 8 semesters at Bachelor's in Medicine and Bachelor's in Surgery (MBBS programme, where they are clinically exposed from the second half semesters only. This study included undergraduate (7th

and 9th semester) and interns (MBBS) of KUSMS (i.e. who had been clinically exposed). There were a total of 230 eligible students for this study. But, only 180 students completed the questionnaire. Data was collected using a self-administered questionnaire like in other studies (Acharya & Chalise, 2016; Mishra & Chalise, 2019; Khanal & Chalise, 2020; Acharya et al., 2021).

The questionnaire consisted of three parts: socio-demographic, knowledge and attitude. The socio-demographic questionnaire consisted of age, gender, year of medical schooling, religion, previous exposure with LGBT, sexual orientation.

**Knowledge about LGBT:** It is a questionnaire developed using the compilation of 25 true/false statements (Banwari et al., 2015). The instrument had Cronbach's alpha of 0.724 in the Indian study. In the present study internal consistency Cronbach's alpha was 0.768.

**Attitude towards LGBT:** It is a questionnaire developed using the compilation of 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) (Banwari et al., 2015). It had internal consistency Cronbach's alpha of 0.810. In the present study, its Cronbach's alpha was 0.867.

Permission for this study was obtained from the Kathmandu University School of Medical Sciences. Data was analyzed using SPSS 21 software. Descriptive statistics, mean, standard deviation and percentage t- test, one way ANOVA was used to analyze data.

## **Results**

More than half of the respondents (60%) were male students, the majority of the respondents (98.9%) were heterosexual where few of them (1.1%) did not prefer to answer. The majority of the participants were Hindus (91.7) follows by Buddhists (5.6%) and only a few (1.1) were Islam. Nearly 3/4th of the respondents (71.6%) were Brahmin/Chhetri whereas, 1/4th of them were Janajati, and only a few (3.3%) were Madhesi. The highest percentage of participants were from the ninth semester (37.8%) followed by the 7th semester (36.1%) and interns were (26.1%). The majority of the respondents (78.35%) were not exposed to no one, those who had exposed with friends were (15%) and only a few were exposed with the teacher (6.7%) (Table 1).

**Table 1***Socio-demographic Information of the Respondents (n = 180)*

Characteristics	Frequency	Percentage
Gender		
Male	108	60.0
Female	72	40.0
Sexual orientation		
Heterosexual	178	98.9
Prefer not to answer	2	1.1
Religion		
Hindu	165	91.7
Buddhist	10	5.6
Others	5	2.8
Ethnic group		
Brahmin/Chhetri	129	71.6
Janajati	45	25.0
Madhesi	6	3.3
Year of medical schooling		
Seventh Semester	65	36.1
Ninth Semester	68	37.8
Internship	47	26.1
Exposure with LGBT		
Teacher	12	6.7
Friend	27	15.0
No One	141	78.3

The details of each of the questionnaire included to assess the knowledge level and percentage of correct answers of each question. The Mean and Standard deviation of the respondents on the Knowledge regarding LGBT was  $12.32 \pm 3.70$ . As the knowledge level ranged from 0 to 25 (Table 2).

**Table 2***Knowledge Regarding LGBT (n=180)*

S.N.	Statement	Frequency	Percentage
1.	Sex and gender have the same meaning	128	71.1
2.	Sexual orientation is usually well-established by adolescence	110	61.1
3.	The homosexuals usually disclose their sexual identity to a friend before they tell a parent	108	60

4.	The homosexual person's gender identity does not agree with his/her biological parents	47	26.1
5.	Testosterone is the hormone responsible for the growth of pubic hair on girls	113	62.8
6.	Boys breast typically grow during puberty	62	34.4
7.	In the world the most common mode of transmission of HIV is through gay male sex.	69	38.3
8.	Gay men and lesbian women have increased incidence of anxiety and depression	114	63.3
9.	Heterosexual men and women commonly report homosexual fantasies	41	22.8
10.	Most homosexuals want to encourage or entice others into a homosexual or gay life style	73	40.6
11.	If children are raised by homosexual, the likelihood that they themselves will develop homosexual orientation is greater	78	43.3
12.	Homosexuals are usually identifiable by their appearance or mannerisms	88	48.9
13.	About one-half of the population of men and more than one-third of women have had a homosexual experience at a time in their lives	34	18.9
14.	Homosexuality does not occur among animals	83	46.1
15.	Bisexuals will eventually "come out" as homosexuals	26	14.4
16.	Bisexual behaviour is just a cry for attention	111	61.7
17.	In order to be considered transgender , a person must have undergone a reassignment surgery	81	45.0
18.	Transgender women are usually attracted to male genitals	49	27.2
19.	LGBT patients do not seek medical treatment because of fear of discrimination	125	69.4
20.	Homosexual women always dress and act in masculine way.	90	50
21.	Most health care providers automatically make the assumption that their patient is heterosexual	125	69.4
22.	LGBT patient may present with signs of depression due to lack of social acceptance	141	78.3

23.	Lesbian patient do not need Pap smears as frequently as heterosexual women	102	56.7
24.	LGBT people do not make good role models for children and could do Psychological harm.	131	72.8
25.	LGBT people are less likely than heterosexual people to be in long-term monogamous relationship	90	50

The highest correct response was for the statement, “LGBT patient may present with signs of depression due to lack of social acceptance which is 78.3%. Also, the statement, “LGBT people do not make good role models for children and could do psychological harm to children with whom they interact as well as interfere with normal sexual development of children has the percentage correctness of 72.85%. The positive statement, “Sex and gender have the same meaning.” has the percentage correctness of 71.1%. Also, less than 3/4<sup>th</sup> of the respondents gave correct response to the statement, “LGBT patients do not seek medical treatment because of fear of discrimination.”

However, the lowest correct response (14.4%) was for the statement, “Bisexuals will eventually ‘come out’ as homosexuals”. Similarly, only 18.9% of the respondents gave correct response for the statement, “About one-half of the population of men and more than one-third of women have had a homosexual experience to the point of orgasm at some time in their lives.” The statement, “Heterosexual men and women commonly report a homosexual fantasy has the percentage correctness of only 22.8. Similarly, the Statement, “Transgender women are usually attracted to male genitals” is responded correctly by only 27.2 percentages of respondents (Table 2).

### Table 3

*Attitude towards Homosexuals Questionnaire with Respective Mean Values and Standard Deviation (n=180)*

S.N.	Statement	Mean±SD
1.	Many gay men use their sexual orientation so that they can obtain special privileges.	2.98±1.32
2.	LGBT people still need to protest for equal rights.	4.41±0.79
3.	Homosexuals should be allowed to marry.	4.19±1.09
4.	Homosexual couples should be allowed to adopt children just like heterosexual couples.	4.13±1.08
5.	If a man has homosexual feelings , he should do everything he can do to overcome them	3.31±1.27

6.	In today's tough economic times, tax money shouldn't be used to support LGBT organizations.	3.47±1.24
7.	I think male homosexuals are disgusting.	3.85±1.13
8.	I would not be too upset, if I learned that my child was homosexual.	3.02±1.20
9.	LGBT should have equal opportunity of employment.	4.46±0.89
10.	Homosexuality is merely a different kind of lifestyle that should not be condemned or made guilty of.	4.14±1.08
11.	Bisexuality is a natural expression of sexuality in males and females.	3.75±1.12
12.	Bisexual people are not capable of monogamy.	3.38±1.02
13.	A person who feels that their sex (male or female) does not match their gender identity (masculine or feminine) is just a plain wrong.	3.40±1.15
14.	I would get angry if a bisexual person made sexual advances towards me.	2.62±1.21
15.	Having sex with both male and females is just a plain wrong.	3.19±1.10
16.	I would be upset, if someone I'd known for a long time revealed that they used to be another gender.	3.06±1.18
17.	I would be comfortable working for a company that welcomes transgender individuals.	3.86±1.09
18.	A person who is not sure of about being male or female is mentally ill.	3.84±1.19
19.	If a transgender person identifies as female, she should have right to marry a man.	3.51±1.04
20.	Transgender individuals are valuable human beings regardless of how I feel about transgender.	4.46±0.97

Mean±SD=(73.04±9.82), Mean variance = 13.44

The details of each of the questionnaire included to assess the attitude level of each questions. Its total score ranges from 20 to 100. Mean score of attitude score was 73.04±9.82. Negative attitudes towards homosexuals were most reflected on statements like “I would get angry if a bisexual person made sexual advances towards me” with a mean score of 2.62 and with the statement like “Many gay men use their sexual orientation so that they can obtain special privileges” with the mean score of 2.98. The negative statement like “I think male homosexuals are disgusting” and the statement, “A person who is not sure of being male or female is mentally ill” have the mean score of 3.85 and 3.84 respectively (Table 3).

**Table 4***Relation between Socio-demographic Variables and Mean Knowledge Score LGBT*

Characteristics	Median knowledge score(IQR)	p-value
1. Gender		
Male	10.9	0.010
Female	13.2	
2. Sexual orientation		
Heterosexual	12.2	0.389
Do not prefer to answer	12.4	
3. Religion		
Hindu	11.5	0.063
Buddhist	13.1	
Others	13.0	
4. Ethnic group		
Brahmin/chhetri	12.1	0.257
Janajati	12.3	
Madhesi	12.4	
5. Year of medical schooling		
7 <sup>th</sup> Semester	11.0	0.052
9 <sup>th</sup> Semester	14.0	
Internship	12.3	
6. Exposure with LGBT		
Teacher	15.0	0.020
Friend	13.5	
No one	10.5	

**Table 5***Association between Socio-demographic Variables and Attitude Regarding LGBT*

S.N.	Characteristics	Mean Attitude score	f-value	p-value
1.	Religion			
	Hindu	73.4	0.984	0.402
	Buddhist	70.7		
	Christian	65		
	Muslim	70		



2.	Ethnic group			
	Bhramin/Chhetri	72.3		
	Janajati	75.3	0.937	0.458
	Madhesi	72.2		
3.	Year of medical schooling			
	7 <sup>th</sup> semester	71.8		
	9 <sup>th</sup> Semester	72.0	3.497	0.032
	Internship	76.1		
4.	Exposure with LGBT			
	Teacher	73.1		
	Friend	73.4	0.616	0.541
	No one	73.2		

Also, the statement, “I would not be too upset if I learned that my child was homosexual had more negative attitude with mean score of 3.02 followed by another statement “If the transgender person identifies as female, she should have right to marry a man” had the mean score of 3.84. The positive statement “LGBT should have equal opportunity of employment” and the statement “Transgender individuals are valuable human beings regardless of how I feel about transgender” has same mean attitude score of 4.46 respectively. Also, the mean attitude score of the statement “LGBT people still need to protest for equal rights” has the more positive mean attitude score of 4.41 (Table 3).

The relationship between knowledge and socio-demographic variables was shown in the table. Regarding gender, the mean knowledge score of female was higher 13.2 than the mean knowledge score of male i.e. 10.9. This difference was statistically significant ( $p= 0.010$ ).

Likewise, the mean knowledge score of those who were heterosexual was 12.4 which were higher than those who didn’t prefer to answer with the mean knowledge score of 12.2. Their difference was not statistically significant ( $p=0.389$ ).

With regard to religion, Buddhist had higher mean knowledge (13.1) than Hindu (11.5) The difference was not statistically significant ( $p=0.063$ ). Regarding ethnic group, Madhesi had higher mean knowledge score than Janajati and Bhramin/Chhetri . Their difference was not statistically significant ( $p=0.257$ ). Similarly, the mean knowledge score of 9<sup>th</sup> semester was 14.0 which was higher than (12.3) followed by the 7<sup>th</sup> semester (11.0). And, their difference was not statistically significant ( $p=0.052$ )

Likewise, those who were exposed with teachers had mean score of 15.0 which is higher than the mean score of those who were exposed to friend 13.5 followed by those who had not been exposed to any LGBT people (10.2). This difference was statistically significant  $p=(0.020)$  (Table 4).

The association between socio-demographic variables and attitude score was shown where, Females were found to have a more positive attitude than males. The mean attitude of female ( $76.76 \pm 9.57$ ) was significantly higher than mean attitude of male ( $70.56 \pm 9.23$ ) and their difference was statistically significant ( $p=0.001$ ). The mean attitude score of heterosexual ( $73.04 \pm 9.9$ ) was slightly high than those who didn't prefer to answer ( $73 \pm 2.4$ ), ( $p=0.995$ ). So their difference didn't reflect significantly with each other. The mean attitude of Hindu ( $73.4 \pm 9.7$ ) was significantly higher than mean attitude of Christian ( $65 \pm 3.5$ ), ( $p < 0.402$ ). Hindu religion was found to have more positive attitude whereas Christian had more negative attitude towards LGBT and the mean attitude score was not statistically significant.

The mean attitude score of Interns was ( $76.1 \pm 10.2$ ) which was higher than 9th semester with mean score of ( $72.0 \pm 8.9$ ) and mean score of 7th Semester ( $71.8 \pm 9.9$ ). The difference was statistically significant ( $p < 0.032$ ).

Further the relation between knowledge and attitude among medical students shows there was strong relation between knowledge and attitude towards LGBT ( $p < 0.001$ ) with Correlation Coefficient 0.658 (Table 5).

## Discussion

Lesbian, gay, bisexual and transgender (LGBT) population is considered sexual minority group. There is limited studies focused on these issues in Nepal. So far in our knowledge, this is a first study carried out focusing the medical students' knowledge and attitude towards LGBT in Nepal.

### Knowledge towards LGBT

This study found the mean knowledge score of knowledge of LGBT was 12.32 this knowledge was slightly lower than median knowledge of 12.5. So, this knowledge score is considered low among Nepalese medical students when compared with the study carried out in india (Banwari et al., 2015). In the present study, More than half of the respondents (60%) had given correct response to the statement that, "homosexuals usually disclose their sexual identity to a friend before they tell a parent," which was less than the study done in Belgrade, Serbia which revealed 84.20% (Dunjić-Kostić et al., 2012) and the research that was done in India, Ahmadabad with the percentage correctness of 72.5% for the same statement (Banwari et al., 2015).

In the present study, almost ( $3/4^{\text{th}}$ ) 71.1% had correctly responded to the

statement sex and gender had the same meaning which as slightly lower than to the study done in Illinois Wesleyan University where the majority of the respondents (79.3%) had given correct response for the same statement. This could be because of lack of good sexual education system in our country. In this study, 18% gave the correct answer to the statement about one-half of the population of men and more than one-third of women have had a homosexual experience to the point of orgasm at some time in their lives which was higher than the study done Hungary where the percentage correctness is only 10.70% (Szél et al., 2020).

Concerning the statement, “transgender women were usually attracted to male genitals,” About 27.2% of the respondents gave the correct answer in the present study, which was lower than the study done in Illinois Wesleyan University (2013), where the majority of the respondents (94.8%) gave correct answer on the same statement. This could be because of lack of knowledge related to transgender (Deese & Dawson, 2013). With regard to the statement bisexuals will eventually come out as homosexuals, only 14.4% of the respondents gave correct answers in present study, which was lower than the respondents of Illinois Wesleyan university, where majority of the respondents (98.3%) had given correct response to the same statement. This could be due to lack of education related with bisexuality% (Dunjić-Kostić et al., 2012).

Likewise, regarding the Statement, “LGBT people do not make good role models for children and could do Psychological harm to children with whom they interact as well as interfere with the normal sexual development of children,” about 3/4<sup>th</sup> (72.8%) of the respondents have given a correct answer which is higher than the outcome of the study done in Serbia, Belgrade where the correct response to the statement was less than half of the respondents i.e. (41.2%) (Grabovac et al., 2014).

### **Attitude towards LGBT**

The mean coefficient attitude score of the present study was 13.44. This score is low when compared with other studies (Acharya & Chalise, 2016; Kanamori, 2016). It shows Nepalese students’ attitude score towards LGBT is poor. In the present study, the mean attitude score for the statement, “I would get angry if a bisexual person made sexual advances towards me” was  $2.62 \pm 1.21$  which was similar to the study done in Eastern Michigan University with the mean score of  $2.68 \pm 1.25$  (Dahan et al., 2016). Response to the attitudinal statement, “Many gay men use their sexual orientation so that they can obtain special privileges” had a mean score of  $2.98 \pm 1.32$  which was lower than the study conducted in Belgrade, Serbia, with the mean score of  $3.29 \pm 1.27$  (Strong & Folse, 2015). Likewise, the mean score for the Statement, “I think male homosexuals are disgusting” is  $3.85 \pm 1.13$ , which was higher than the study done in Ahmadabad India, with a mean

score of  $2.72 \pm 0.99$  (Banwari et al, 2015), and the study done in Belgrade India, with the mean score of  $2.59 \pm 1.36$  (Grabovac et al., 2014).

In the present study, the statement, “A person who is not sure of about being male or female is mentally ill has mean score of  $3.84 \pm 1.19$ , which was similar to the a mean score of the study done in California State University i.e.  $3.81 \pm 1.16$  (Kanamori, 2016). In the study done in Los Angeles, USA, the attitude score for the statement, “Transgender individuals are valuable human beings regardless of how I feel about transgender is  $2.24 \pm 1.2$  (Grabovac et al., 2014). Whereas the mean attitude score for the same statement was  $4.46 \pm 0.97$  in the present study (Dahan et al., 2016). In present study the mean attitude score for the statement, “The homosexuals should have equal opportunity of employment” is  $4.46 \pm 0.89$ , which is higher the mean score for the same statement which is done in Belgrade Serbia, i.e.  $1.99 \pm 1.19$  (Kanamori, 2016).

### ***Relation of socio-demographic variables and knowledge of LGBT***

This study found women had a higher mean score of knowledge than men. The finding was similar to the cross-sectional study done in Ahmadabad, India (Banwari et al., 2015). This finding was also supported by the research done in Belgrade Serbia (Acharya & Chalise, 2016). There was no significant relationship between Knowledge and sexual orientation, which is similar to the study done in Zagreb Croatia (Khanal & Chalise, 2020). The finding was consistent with the study done at Illinois Wesleyan University, USA. There was no association between religion and knowledge level in this study. This finding was in contrast to the study done in Ahmadabad, India (Banwari et al., 2015). However, the difference was supported by the study done in Belgrade Serbia (Strong & Folse, 2015). In the present study, there was a significant association between Knowledge and year of Medical schooling. This result was in contrast to the study carried out in Ahmadabad India (Banwari et al., 2015). In the present study, there was a significant relation between Knowledge with exposure of LGBT. This outcome supported by the study done in Zagreb, Croatia. This relation was consistent with the study done at Ohio State University (Strong & Folse, 2015).

### ***Relation of socio-demographic variables and Attitude of LGBT***

This study found there was a significant difference between gender and attitude towards LGBT. This finding supported by the research conducted in India and Serbia (Strong & Folse, 2015). Further, year of medical schooling and positive attitude towards LGBT is also supported by India's study (Banwari et al., 2015). But it is not supported by Serbian study (Strong & Folse, 2015). Nepal is a culturally and sexually conservative country, where respondents may feel less comfortable in expressing their views on sexuality related issues. So, they might not have been open

with all the questionnaires. As it was self administered questionnaire, there may be the students bias how did they perceived the questionnaire while responding.

### **Conclusion**

The result found that nearly half of the respondents have knowledge score less than mean value. The result shows that more than half of the respondents have attitude score less than mean value. There is a significant relation between Knowledge and Socio-demographic variables (gender and exposure with LGBT. There is significant association between attitude and socio-demographic variables (gender and year of medical schooling). In clusion of sexuality, gender issues and LGBT patients' health needs in the medical curriculum to spread awareness regarding LGBT issues is the positive first step to combat negative attitude and reduce prejudice faced by LGBT patients.

### **Ethical approval and consent to participate**

The study was approved by Kathmandu University School of Medical Sciences, and verbal as well as written informed consent was taken from all participants.

### **Availability of data and materials**

The data sets of the current study are available from the corresponding author on reasonable request

### **Competing interests**

The authors declare that they have no competing interests. There are no financial and/or personal relationships between the authors and others that might bias the work.

### **Funding**

No funding was obtained for this study.

### **Authors' contributions**

RA participated in concept of paper, drafted the manuscript, HNC worked to finalise the paper and submission, AS developed the research plan and design, initiated and completed ethical clearance, collecting data, performed the statistical analysis. HNC finally went through all manuscript and helped to give a final shape. All authors read and approved the final manuscript.

### **Consent for publication**

The authors declare that we all agree for the publication.

### **References**

Acharya Pandey, R., Chalise, H. N., Shrestha, A., & Ranjit, A. (2021). Quality of life of patients with chronic obstructive pulmonary disease attending a Tertiary Care Hospital, Kavre, Nepal. *Kathmandu Univ Med J*, 74(2), 180-5.

- Banwari, G., Mistry, K., Soni, A., Parikh, N., & Gandhi, H. (2015). Medical students and interns' knowledge about and attitude towards homosexuality. *Journal of Postgraduate Medicine*, 61(2), 95.
- Dahan, R., Feldman, R., & Hermoni, D. (2007). The importance of sexual orientation in the medical consultation. *Harefuah*, 146(8), 626-30.
- Deese, M. A., & Dawson, B. L. (2013). Changing attitudes toward LGBT students: An analysis of an awareness training paradigm aimed at increasing pro-LGBT attitudes. *Papers & Publications: Interdisciplinary Journal of Undergraduate Research*, 2(1), 7.
- Dunjić-Kostić, B., Pantović, M., Vuković, V., Randjelović, D., Totić-Poznanović, S., Damjanović, A., ... & Ivković, M. (2012). Knowledge: A possible tool in shaping medical professionals' attitudes towards homosexuality. *Psychiatria Danubina*, 24(2.), 143-151.
- Kanamori, Y. (2016). *Development of the transgender attitudes and knowledge scale (trans) and evangelical Christians' attitudes toward transgender*.
- Khanal, B., & Chalise, H. N. (2020). Caregiver burden among informal caregivers of rural older persons in Nepal. *Journal of Health Care and Research*, 1(3), 149.
- Komlenović, G., Abramović, M., Grabovac, I., Mustajbegović, J., & Milošević, M. (2014). Attitudes towards and knowledge about homosexuality among medical students in Zagreb. *Collegium Antropologicum*, 38(1), 39-45.
- Mishra, S., & Chalise, H. N. (2019). Health status of elderly living in Briddaashram (old age home). *International Journal of Public Health and Safety*, 4(1), 172.
- Pandey, R. A., & Chalise, H. N. (2015). Self-esteem and academic stress among nursing students. *Kathmandu University Medical Journal*, 13(4), 298-302
- Sears, B., & Mallory, C. (2011). *Documented evidence of employment discrimination & its effects on LGBT people*. The Williams Institute.2011, Retrieved 30 August 2019 from <http://williamsinstitute.law.ucla.edu/wp-content/uploads/Sears-Mallory-Discrimination-July-20111.pdf>
- Strong, K. L., & Folse, V. N. (2015). Assessing undergraduate nursing students' knowledge, attitudes, and cultural competence in caring for lesbian, gay, bisexual, and transgender patients. *Journal of Nursing Education*, 54(1), 45-49.
- UNDP, U. (2014). *Being LGBT in Asia: Thailand country report*. UNDP Asia-Pacific Regional Centre: Bangkok, Thailand.
- Winter, C. (2012). *Responding to LGBT health disparities*. MFH, Missouri Foudation for Health.
- Szél, Z., Kiss, D., Török, Z., & Gyarmathy, V. A. (2020). Hungarian medical students' knowledge about and attitude toward homosexual, bisexual, and transsexual individuals. *Journal of Homosexuality*, 67(10), 1429-1446.