

Student Radiographers' Knowledge and Attitudes towards LGBT Patients in the Philippines

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ABSTRACT

This study assessed the knowledge and attitudes of Filipino student radiographers towards LGBT patients. A cross-sectional online survey was conducted among 200 undergraduate radiography students in three higher education institutions in Region X, Philippines, using a data collection tool composed of adapted questionnaires and a demographic form. Results revealed that students show favorable attitudes towards LGBT patients and a certain degree of knowledge of LGBT health needs. Biological sex, geographical area classification, sexual orientation, religious affiliation, and regular attendance at religious activities did not affect knowledge or attitude scores of the respondents. However, students from schools with established sex education policies or programs exhibited higher knowledge scores. In addition, students who reported regular instruction on LGBT-inclusive care in radiography classes exhibited significantly higher knowledge and attitudes scores. These results carry important implications for undergraduate radiography program education, the preparation of future radiographers, and ultimately, the quality of care provided to LGBT patients.

KEYWORDS: attitudes; knowledge; LGBT patients; Philippines; student radiographers

ARTICLE INFO: Received: 19 February 2023; Accepted: 14 October 2023; Volume: 03; Issue: 2; Type: Original Article

1. Introduction

In the Philippines, where a majority of people considered religion an important aspect in life, the lesbian, gay, bisexual, and transgender (LGBT) individuals often experienced bullying, marginalization, stigma, and in some cases, physical or sexual assault [1]. Despite the creation of policies against bullying and discrimination by the Philippine government, the LGBT individuals are still subjected to stereotyped attitudes and normative pressure in education, employment, and healthcare. In a recent report, approximately 23% of them refused basic medical care owing to their gender identity and up to 28% postponed medical care, even when injured or sick, due to discrimination faced in healthcare [2-5]. Thus, they are more vulnerable to health issues, including depression, social isolation, obesity, eating disorders, tobacco use, cancer, and sexually transmitted infections [2-4].

When LGBT patients visit the hospital for a medical service, the radiology department is a common area where diagnostic examinations are conducted. The radiology department is manned by radiographers who produce high-quality images of the body to aid the radiologists in screening for any pathology. Despite the diagnostic value of radiology, this department can be a source of anxiety for many LGBT patients, who must grapple with the fear and vulnerability they experience, particularly during radiographic procedures that may expose sensitive anatomy [5].

Education of healthcare professionals has been a significant barrier in providing care to LGBT patients [6]. In order to receive the necessary care, approximately half of the LGBT patients need to teach the attending healthcare professionals about LGBT persons [7]. This is highly indicative of the insufficient knowledge of healthcare professionals on LGBT care and issues. Meanwhile, previous studies have demonstrated that there is limited LGBT education in medical schools despite the incorporation of gender studies in various curricula [6-8]. A survey of medical students across the United States and Canada found that students who felt they had received inadequate training in patient sexuality, students with sexual problems, and those with limited sexual experience were most likely to indicate being uncomfortable addressing patient sexuality [8].

Though education is important, healthcare professionals' attitudes toward patient sexuality are also key factors to consider in the provision of care to LGBT individuals [9]. For instance, professionals who practice non-judgmental and respectful communication towards LGBT individuals can help improve LGBT patients' experiences and allow a more effective healthcare delivery [10]. In addition, anxiety levels of these patients may be reduced because they feel validated and accepted [11].

A vital approach to enhance the knowledge and attitudes of healthcare professionals towards LGBT patients is to incorporate LGBT-related training into the curriculum of students in the healthcare professions during their education to boost their confidence in providing care to these patients and ensure the delivery of more appropriate and gender-sensitive healthcare [12]. Previous research documented the knowledge and attitudes of healthcare professionals towards LGBT patients and reported mixed results [10,11,13]. However, only few documented the perception of medical students towards this population. For instance, studies conducted in North America and Western Europe indicate that medical students often lack knowledge about the healthcare needs of LGBT individuals, feel unprepared to provide care to this group, and report discomfort in discussing sexual history and practices [10-13]. These findings have been consistent across various healthcare fields, including medicine, nursing, dentistry, and psychology. Notably, no studies have specifically examined the perception of student radiographers, and there is a lack of research on this topic in the Philippines. This led us to initiate a study to inquire about the knowledge and attitudes of student radiographers towards LGBT patients in the Philippines.

2. Methodology

This cross-sectional online survey was conducted during the Academic Year 2021-2022 in three higher education institutions offering undergraduate radiography

programs in Region X, Philippines. The study included 200 participants who met the inclusion criteria of being over 18 years old and currently enrolled in an undergraduate radiography program.

Demographic characteristics collected included biological sex, area classification (urban or rural), sexual orientation, religious affiliation, regular attendance at religious activities, the presence of a written sex education policy or program at the school, and whether LGBT-inclusive care was taught in radiography classes which was assessed on a Likert scale from "always" to "never". A Religiosity Scale was employed, adapted from the modified 20-item dimensions of religiosity scale by Stephen Joseph [14]. Participants rated their religiosity on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Knowledge and attitudes towards LGBT were assessed using a questionnaire adapted from Shetty et al. [15]. The knowledge section comprised five statements covering various aspects of LGBT healthcare. The attitudes section consisted of five statements gauging comfort in treating LGBT patients, beliefs about unique health risks, support for more medical education, willingness to be listed as LGBT-friendly, and the perception of the LGBT population as more challenging to treat. Higher scores indicated more favorable attitudes towards LGBT individuals.

The Institutional Ethics Review Committee of Iligan Medical Center College approved the study. Participants were contacted via email and/or Facebook Messenger and directed to a Google Form survey. Informed consent was obtained before participants completed the survey.

Descriptive statistics, including means, frequencies, and percentages, were employed to characterize demographic variables, religiosity, knowledge, and attitudes towards LGBT patients. Inferential statistics, such as independent t-tests and ANOVA, were used to determine differences in knowledge and attitudes towards LGBT patients. Pearson-r correlation was conducted to explore the relationships among religiosity and knowledge, and attitudes towards LGBT patients.

3. Results

Table 1 shows the demographic characteristics of the respondents. Male and female students constituted 65% and 35% of the respondents, respectively. The mean age of the respondents is 23 years. Majority of the respondents were living in urban areas (58%). Among the respondents, 110 (55%) students defined themselves as heterosexual. Only 68 (34%) students did not define themselves as heterosexual. Majority of the respondents were Christians (60%) and regularly attending activities related to their religion (73%). When asked whether a written sex education policy or program at the school is present or not, majority confirmed (52%); however, students responded that LGBT-inclusive care was taught only sometimes in radiography classes (41%). Religiosity was high among the respondents (85.82 ± 16.65).

Table 2 shows the knowledge and attitudes scores by background among the respondents, with higher scores being more favorable to LGBT patients. Overall, high scores representing favorable attitudes toward LGBT patients were observed. No significant difference was noted between male or female students in either knowledge or attitude scores. Similar trend was also observed in several variables, namely geographical area classification, sexual orientation, religious affiliation and regular

Table 1. Demographic characteristics and religiosity of the respondents.

Variable	Level	Statistic
Biological sex, n (%)	Male	130 (65)
	Female	70 (35)
Age, mean (SD)		22.61 (4.39)
Geographical area classification, n (%)	Urban	116 (58)
	Rural	84 (42)
	Heterosexual	110 (55)
Sexual orientation, n (%)	Not heterosexual	68 (34)
	Prefer not to say	22 (11)
	Christian	120 (60)
Religious affiliation, n (%)	Muslim	64 (32)
	Prefer not to say	16 (8)
	Yes	146 (73)
Regular attendance at religious activities, n (%)	No	54 (27)
Presence of a written sex education policy or program at the school, n (%)	Yes	104 (52)
	No	96 (48)
LGBT-inclusive care was taught in radiography classes, n (%)	Always	26 (13)
	Frequently	20 (10)
	Sometimes	82 (41)
	Seldom	28 (14)
	Never	44 (22)
Religiosity, mean (SD)		85.82 (16.65)

attendance at religious activities. A statistically significant difference was reported in knowledge scores of the respondents in schools where there is a written sex education policy or program compared to those in schools where the program is not established ($p = .012$). However, students in either school type have similar attitudes. Students who reported that LGBT-inclusive care was regularly taught in radiography classes had statistically higher knowledge and attitudes compared to others.

Correlation analysis revealed that religiosity is not related to the knowledge and attitudes of the respondents (Table 3). However, knowledge and attitudes were directly related with each other, suggesting that higher knowledge levels could result to higher attitude scores.

4. Discussion

This study revealed that undergraduate radiography students demonstrate positive attitudes towards LGBT patients. No sex-based differences were observed in either knowledge or attitude scores, suggesting that sex may not be a significant determinant of attitudes. Similarly, geographical area classification, sexual orientation, religious affiliation, and regular attendance at religious activities did not affect knowledge or attitude scores, indicating that a diverse range of students within these categories exhibited favorable attitudes toward LGBT patients. However, the finding that students from schools with established sex education policies or programs exhibited higher knowledge scores suggests that formalized educational interventions can positively impact radiography students' understanding of LGBT healthcare needs.

Table 2. Knowledge and attitudes of the respondents towards LGBT patients by demographic variable.

Variable	Level	Knowledge	p	Attitudes	p
		Mean (SD)		Mean (SD)	
Biological sex	Male	15.03 (4.10)	.801	17.43 (4.27)	.514
	Female	15.21 (3.18)		17.94 (3.39)	
Geographical area classification	Urban	14.93 (3.29)	.466	17.26 (3.21)	.112
	Rural	15.45 (3.82)		18.45 (4.23)	
Sexual orientation	Heterosexual	15.07 (3.84)	.521	18.07 (3.34)	.542
	Not heterosexual	15.02 (3.31)		17.32 (4.24)	
	Prefer not to say	15.91 (2.30)		17.54 (3.86)	
Religious affiliation	Christian	15.27 (3.25)	.733	17.62 (3.01)	.423
	Muslim	14.97 (3.72)		17.09 (4.40)	
	Prefer not to say	15.00 (4.87)		21.50 (3.70)	
Regular attendance at religious activities	Yes	15.05 (3.63)	.658	17.34 (3.73)	.063
	No	15.41 (3.22)		18.89 (3.45)	
Presence of a written sex education policy or program at the school	Yes	17.23 (2.59)	.012	17.96 (3.61)	.574
	No	15.06 (3.46)		17.54 (3.83)	
LGBT-inclusive care was taught in radiography classes	Always	17.46 (3.36)	.031	19.92 (4.48)	.046
	Frequently	16.70 (2.00)		18.40 (2.95)	
	Sometimes	14.823 (3.04)		17.83 (2.63)	
	Seldom	15.14 (3.86)		17.14 (2.18)	
	Never	13.68 (4.03)		16.46 (5.32)	
Overall		15.15 (3.51)		17.76 (3.70)	

Table 3. Relationship between religiosity and knowledge and attitudes towards LGBT patients.

Variables	1	2	3
1. Religiosity	-	-.088	.026
2. Knowledge		-	.473**
3. Attitudes			-

Note: **p<0.01

These findings underscore the importance of curricular changes and inclusive education practices in undergraduate radiography programs to better prepare future practitioners.

The positive attitudes towards LGBT patients observed among the undergraduate radiography students in this study align with the previous research conducted in healthcare education institutions. Several studies have reported that educational interventions and exposure to LGBT-related content can lead to more positive attitudes and increased knowledge among healthcare students and professionals [6,12]. For example, a study found that medical students who received LGBT-specific training exhibited improved knowledge and more positive attitudes towards LGBT patients [12]. This supports the notion that formal education and training programs can effectively shape attitudes and perceptions.

However, it is essential to note that the absence of significant sex-based differences in knowledge and attitudes scores may differ from some previous research. Some studies have reported variations in attitudes towards LGBT individuals based on sex, with male healthcare professionals occasionally exhibiting less favorable attitudes [16,17].

The findings related to knowledge and attitudes have several implications for undergraduate radiography education and practice. Institutions offering radiography programs may consider the integration of LGBT-inclusive content into the curricula. Incorporating LGBT-related topics prepares future radiographers to provide culturally competent and inclusive care. Educators in radiography programs may receive training to effectively teach and discuss LGBT healthcare content. Radiography programs may also encourage clinical placements in internship affiliation centers that prioritize LGBT-inclusive care. This hands-on experience reinforces positive attitudes and provide students with practical skills for providing respectful and effective care to LGBT patients.

Contrary to expectations, religiosity did not correlate with knowledge or attitudes scores. This finding suggests that while religion may play a significant role in the lives of these students, it may not necessarily be a barrier to fostering positive attitudes and knowledge about LGBT patients. The positive correlation between knowledge and attitudes scores is a promising finding, indicating that increasing students' knowledge about LGBT healthcare needs could lead to more favorable attitudes.

The results of the correlation analysis offer significant implications. Educators and institutions offering an undergraduate radiography program may acknowledge the diversity of religious beliefs among students. The lack of a significant correlation between religiosity and attitudes suggests that radiography students can hold strong religious beliefs while maintaining positive attitudes towards LGBT patients. This highlights the importance of respecting and accommodating diverse belief systems within healthcare practice. Inclusive educational environments may be fostered that allow students to explore and understand the intersections of religion and healthcare. Open and respectful dialogue promotes empathy and understanding, helping students navigate potential conflicts between religious beliefs and the ethical duty to provide equitable care to all patients.

Several limitations should be considered in the study. The study was conducted in only one region of the Philippines, which may limit its generalizability to other regions or countries with different cultural and social contexts. Additionally, the study relies on self-reported data, which can introduce response bias. Future research may

explore the long-term effects of educational interventions on undergraduate radiography students' attitudes and behaviors when caring for LGBT patients. Qualitative research methods, such as interviews or focus groups, could provide deeper insights into the factors affecting students' attitudes and the nuances of their experiences.

In conclusion, this study contributes valuable insights into the knowledge and attitudes of undergraduate radiography students in the Philippines regarding LGBT patients. It underscores the potential for educational interventions and curriculum changes to positively influence students' perceptions and readiness to provide inclusive care to LGBT individuals. Moreover, it highlights the need for ongoing research to further understand the complex interplay of factors that shape undergraduate students' attitudes and behaviors towards LGBT patients in diverse cultural and educational settings.

Acknowledgment

Heartfelt thanks are extended to the College of Radiologic Technology of Iligan Medical Center College for their invaluable support throughout this endeavor. Gratitude is directed to the two anonymous reviewers for the suggestions that greatly improved this paper.

Conflict of Interest Statement

The authors declare no conflict of interest.

Author Contributions: All authors have contributed equally. They have approved the final version of this manuscript.

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