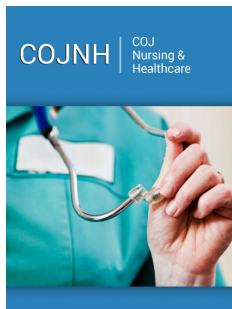


# Creation of the Healthcare Provider LGBTQ+ Knowledge and Attitudes Inventory

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## Abstract

Discrimination and harassment of LGBTQ+ healthcare professionals and patients has become increasingly well documented in the current literature. These issues can potentially lead to recruitment and retention issues related to LGBTQ+ healthcare professionals, and poorer outcomes for LGBTQ+ patients. In order to address these issues, it is important to have a better description of the environment in which LGBTQ+ individuals are administering and receiving healthcare. One method of gaining this better description is to be able to accurately capture the knowledge of and attitudes toward LGBTQ+ individuals and issues facing the LGBTQ+ community among healthcare providers. Therefore, the purpose of this study was to create an instrument designed to measure the knowledge and attitudes of healthcare professionals related to LGBTQ+ persons and the issues they face. Upon recruiting a panel of 15 healthcare professionals the Delphi technique was used in a similar manner to that which was performed in previous studies in which survey instruments and consensus statements were created. Following rating and ranking of the statements and questions presented to the panel, a total of 14 statements to measure attitudes toward LGBTQ+ individuals and eight questions to measure knowledge of LGBTQ+ individuals were included in the final instrument. While the instrument still requires further study to establish reliability and validity, the survey is presented for consideration and use in future research projects.

## Introduction

As of 2023, it is estimated that 7.2% of the United States adult population openly identifies as a sexual orientation or gender identity within the lesbian, gay, bisexual, transgender, queer non-heterosexual identity and orientation (LGBTQ+) community [1]. Additionally, previous findings have shown that there are over 8 million workers in the United States over the age of 16 that identify as LGBTQ+ [2]. Prior to the Supreme Court ruling on Bostock v Clayton County in 2020, 44% of LGBTQ+ employees in the United States did not have protections against discrimination and unjust treatment in the workplace [3]. Without these protections, LGBTQ+ persons have been subject to discrimination and harassment in the workplace, that has had negative consequences for their health and wellbeing [4,5]. As a result, these individuals are more likely to report lower job satisfaction and commitment to their place of employment [4,5]. While the experiences of LGBTQ+ persons working in the healthcare setting is understudied, it stands to reason that they are not unaffected by the previously mentioned findings. In fact, previous research has reported that LGBTQ+ athletic trainers experience

issues with discrimination and harassment in their workplace in part due to their status as minorities [6,7]. It was also found that 17% of LGBTQ+ physicians participating in a previous study were denied privileges, promotion, or employment based on their sexual identity [8]. An additional 34% reported verbal harassment by professional colleagues, 37% reported social ostracization, 52% had witness substandard care or denial of care for LGBTQ+ patients, and 88% had heard colleagues demean LGBTQ+ patients during clinical encounters [8]. Later research showed that while conditions for LGBTQ+ physicians had improved during the time that had passed since the previous study, at least one third of participants still reported experiencing harassment and social ostracization [9]. Nurses that are members of the LGBTQ+ community have also voiced the need for procedural, cultural, and infrastructural changes that would need to take place in their workplaces to feel included [10].

While the level of adversity faced by LGBTQ+ healthcare professionals warrants research to define and describe potential issues being faced, patient care is also impacted by negative views held against LGBTQ+ individuals. Previous authors have found that there are instances where LGBTQ+ patients may not feel safe or comfortable seeking care from a healthcare professional because of previous experience with discrimination and mistreatment by providers [11]. These feelings may result in patients not seeking timely healthcare for fear of further discrimination or not being accepted as a patient [11]. Furthermore, it appears that physicians and other healthcare providers are receiving little or no training on issues facing their LGBTQ+ patients as part of formal medical education and training [7,12,13]. In order to design and assess interventions to address issues facing the LGBTQ+ community, a full description of the issues being faced is necessary. One way to describe the issues being faced is to determine the attitudes and knowledge of healthcare providers related to LGBTQ+ issues. The Lesbian, Gay, and Bisexual Knowledge and Attitudes Scale (LGB-KAS) is one such validated method of measuring knowledge and attitudes of individuals toward LGBTQ+ persons [14,15]. While the LGB-KAS has been validated over multiple populations, it does not include questions specific to attitudes toward LGBTQ+ persons that are specific to healthcare. Creation of such an instrument would be valuable for describing the current knowledge and attitudes of healthcare professionals related to LGBTQ+ patients. Therefore, the purpose of this study was to create the Healthcare Provider LGBTQ+ Knowledge and Attitudes Inventory, a survey instrument designed to measure the knowledge and attitudes of healthcare professionals related to LGBTQ+ persons and the issues they face.

**Methods**

A review of the currently available literature was conducted using PubMed, Google Scholar, and the library database of a public institution of higher education to locate published materials that could contribute to an initial list of statements and questions to utilize in the Delphi process. Ultimately, 44 sources were utilized in the creation of the literature review [1-44]. Table 1 provides a breakdown of the search terms used during the review of literature related to issues facing LGBTQ+ healthcare providers and patients.

**Table 1:** Search terms used for literature review.

Search Terms
LGBTQ+ or sexual minority experiences
LGBTQ+ or sexual minority healthcare professionals
LGBTQ+ or sexual minority athletic trainers
LGBTQ+ workplace experiences
Healthcare professionals' workplace incivility
Health effects of LGBTQ+ workplace incivility
Attitudes and knowledge of LGBTQ+ individuals and experiences

**Table 2:** Panel demographic information.

Demographic Factor	Criteria	Responses
Gender	Male	5 (33.3%)
	Female	10 (66.7%)
Race/Ethnicity	White	10 (66.7%)
	Black/African American	2 (13.3%)
	Asian	2 (13.3%)
	Hispanic/Latinx	1 (6.7%)
Profession	Athletic Trainer	7 (46.7%)
	Physician	3 (20.0%)
	Occupational Therapist	2 (13.3%)
	Physical Therapist	2 (13.3%)
	Athletic Trainer/Physician Assistant	1 (6.7%)
State where practicing	Arkansas	1 (6.7%)
	Arizona	2 (13.3%)
	North Carolina	1 (6.7%)
	Tennessee	1 (6.7%)
	Texas	10 (66.7%)
Sexual Orientation	Heterosexual	11 (73.3%)
	Gay/Lesbian	2 (13.3%)
	Bisexual	1 (6.7%)
	Fluid	1 (6.7%)

Upon completion of the review of literature, a panel of 15 healthcare professionals (34±4 years of age; 10± 5 years of healthcare professional experience) were invited to participate in a series of online surveys to assist with the creation of the instrument. Demographic information for the panel can be found in Table 2. Once demographic information was collected from the panelists, the Delphi technique was used in a similar manner to that which was performed in previous studies in which survey instruments and consensus statements were created [45-47]. Panelists who were currently credentialed healthcare professionals were independently recruited to participate based on likelihood of response. Panelists were informed of the purpose of the surveys they would be completing, as well as the potential significance of the creation of the proposed instrument. Panelists were then surveyed on a series of statements regarding attitudes toward LGBTQ+ individuals and issues, and on questions regarding knowledge of LGBTQ+ individuals and issues. Panelists were asked to rate each statement and question based off whether or not they felt it

warranted inclusion in the final survey instrument (1=Definitely do NOT include to 9=Definitely include). Using the protocol outlined in Table 3, all statements were assessed by the primary investigator to determine if they warranted inclusion, exclusion, or modification.

**Table 3:** Statement inclusion key.

Statement Result	Threshold Applied
Definitely Include	1. ≥ 80% of panel rated statement = 9
	2. Median rating of ≥ 8
Maybe Include	1. ≥ 70% of panel rate statement = 9
	2. Median rating of ≥ 7
Definitely Exclude	1. ≤ 80% of panel rated statement = 1
	2. Median rating of ≤ 2
Review	1. Major revisions suggested by panelists.
	2. < 70% of panel rate statement = 9

Following exclusion and revision of statements and questions, panelists were then asked to rank the statements and questions that remained from most to least important to include in the final instrument. Statements were ranked with the intent of including 14 statements in the final instrument, and questions were ranked with the intent of including eight questions in the final instrument. These numbers were chosen to keep the final instrument to 22 questions, not counting demographic information. Emphasis was placed on statements related to attitudes toward LGBTQ+ individuals and issues, as previous research has suggested that positive attitudes toward LGBTQ+ individuals and issues may lead to an individual being willing to improve their knowledge [18,19].

**Results**

Following the literature review, 24 statements and 12 questions were developed. The statements sought to gather information about attitudes related to LGBTQ+ individuals and the issues faced by the LGBTQ+ community. The questions sought to gather information on the current level of knowledge individuals held related to LGBTQ+ individuals and the issues faced by the LGBTQ+ community. All 15 panelists participated in the initial rating of statements and questions, with six providing comments and suggested revisions. After the rating of the original 24 statements and 12 questions was completed, 21 statements and 10 questions remained unmodified, two statements and two questions were excluded, and one statements was presented to members of the panel for modification. Following modification of the statement, it was included in the second round of panelist feedback for ranking. A total of 8 panelists responded to the second round of surveying, representing a 53.3% completion rate. Once ranking was complete, the 14 highest ranked statements and eight highest ranked questions were included in the final draft of the survey instrument. The final draft of the survey instrument can be found in Appendix A.

**Discussion**

The purpose of this study was to develop a survey instrument designed to measure healthcare providers’ attitudes toward and knowledge of LGBTQ+ individuals and the issues faced by the LGBTQ+ community. The review of literature resulted in the

creation of 24 statements and 12 questions. Following a survey rating the importance of including each statement and questions, 22 statements and 10 questions were included in a ranking process to develop a final consensus on the most valuable statements and questions for the final instrument. Ultimately, the goal of this process was to reach a level of agreement based off practitioner opinion to create a survey instrument that would provide an accurate means of measuring attitudes toward, and knowledge of LGBTQ+ individuals and issues faced by the LGBTQ+ community. This method was chosen based off the success of using it in other research projects where a consensus among healthcare providers was the goal [45-47]. The Delphi technique has been utilized in other research studies to reach consensus on statements and other instruments in the past [45-47]. It has been stated that this technique is highly valuable when used for establishing a consensus on subjects or phenomena that are not well document in research-based literature [46].

The authors encourage all researchers, healthcare professionals, and healthcare administrators to review and consider the instrument carefully prior to use. While this survey instrument was created using validated techniques and a thorough review of the currently available literature, further research is required to ensure the reliability and validity of the instrument. This initial version of the survey instrument should be used for these measures of validity and reliability, with the intent of providing recommendations for future revisions. Extenuating variables such as state and federal regulations, educational accreditation standards, political and cultural beliefs, and personal experiences may affect the answers provided by individuals taking this survey instrument. The role of these variables in instrument scores should be address in future research to determine their impact. Although the panel was able to provide responses resulting in a consensus on the included statements and questions, this study did have limitations. The review of literature was designed to provide insights into structuring the initial statements and questions. However, the number of high-quality studies was lacking when searching for studies that assessed patient reported outcome measures among LGBTQ+ patients, curricula on LGBTQ+ patient needs in healthcare profession education programs, employment opportunities for LGBTQ+ healthcare professionals, and workplace incivility for LGBTQ+ healthcare professionals. Furthermore, the scope of the study did not take into account practice setting, or physician specialty, of the healthcare professionals involved as panelists. Future research should examine differences in attitudes toward and knowledge of LGBTQ+ individuals and issues facing the LGBTQ+ community among healthcare professionals from different practice settings. A final limitation is that the Delphi technique has been suggested to not meet the same standards as other scientific methods [46].

**Conclusion**

The final draft of the Healthcare Provider LGBTQ+ Knowledge and Attitudes Inventory provides an instrument for measuring the knowledge of and attitudes toward LGBTQ+ individuals and issues facing the LGBTQ+ community among healthcare providers.

This survey instrument provides an instrument for researchers, healthcare professionals, and healthcare professional educators seeking to determine the need for, and effectiveness of interventions designed to improve access to equal care for LGBTQ+ patients. This survey also provides an instrument for researchers and healthcare administrators seeking to determine the need for, and effectiveness of interventions designed to improve workplace civility, employee recruitment, and employee retention for LGBTQ+ patients. This instrument is presented with the intent of encouraging fellow researchers to perform studies to determine the validity and reliability of the survey for its proposed uses. With further research, this instrument has the potential to serve as a viable tool for multiple healthcare professions, including those that would find value in the materials published in COJ Nursing & Healthcare.

## Appendix A

### Healthcare Provider LGBTQ+ Knowledge and Attitudes Inventory

#### Attitudes

Please answer the following prompts on the following scale:

1) Strongly Disagree 2) Disagree 3) Somewhat Disagree 4) Somewhat Agree 5) Agree 6) Strongly Agree

- A. I have conflicting attitudes or beliefs about LGBTQ+ people.
- B. It is important to me to avoid interactions with LGBTQ+ individuals.
- C. I have close friends who are members of the LGBTQ+ community.
- D. I have close friends who are members of the LGBTQ+ community.
- E. I have difficulty reconciling my religious beliefs with my interest in being accepting and inclusive of LGBTQ+ people.
- F. I would be unsure what to do or say if I encountered an LGBTQ+ person.
- G. Hearing about a hate crime against an LGBTQ+ person would not bother me.
- H. I think marriage should be legal for couples in the LGBTQ+ community.
- I. I keep my religious views private in order to accept LGBTQ+ people.
- J. I conceal my negative views toward LGBTQ+ people when I am with someone who doesn't share my views.
- K. Health Benefits should be available as equally to spouses from the LGBTQ+ community as they are to any other legally married couple.
- L. I am more comfortable supporting civil rights initiatives for sexual minorities (gay, lesbian, bisexual, etc.) than supporting civil rights initiatives for gender minorities (transgender, non-binary, intersex, etc.)

M. I am able to treat a patient with the same level of dignity, care, and consideration regardless of their sexual orientation.

N. I am able to treat a patient with the same level of dignity, care, and consideration regardless of their gender identity.

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