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Improving Healthcare Provider Knowledge and Confidence with Treating the LGBTQ
Population through a Web-based Education Module

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing
Practice at the University of Kentucky

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Lexington, KY

2024

Abstract

Background: There is a need for improved healthcare staff and provider knowledge and confidence when treating the LGBTQ population, as many healthcare providers are insufficiently prepared to treat LGBTQ patients (Rowe et al., 2017). This population is at greater risk for mental illness, substance use, and physical illness than the general population due to societal factors such as minority stress and stigma (Cochran et al., 2004; Cochran & Mays 2007; Cochran et al., 2003; Meyer, 2003).

Purpose: The purpose of this project is to educate healthcare staff and providers about the LGBTQ population to improve their knowledge and confidence when treating the LGBTQ patient population, and improve the care LGBTQ patients receive as a result.

Methods: A quasi-experimental design with two groups was utilized. At an outpatient ambulatory department of the University of Kentucky Medical Center, patients were surveyed prior to implementation of the project to evaluate baseline data on patient experience, then staff were surveyed about their confidence and knowledge regarding the LGBTQ population. Staff received a web-based education after completing the survey. After the conclusion of the intervention period which lasted one month, staff and a new group of patients were surveyed.

Results: The pre-intervention patient group had 30 participants and post-intervention patient group had 30 participants with fewer straight or heterosexual patients in the post-intervention group. The staff group had 31 participants in the pre-intervention group and 30 participants in the post-intervention group. There were statistically significant improvements among staff knowledge and confidence in treating the LGBTQ population among 5 of 6 measures, and statistically significant improvements in assessment of preferred name, gender identity, and pronouns from 3.53 (SD = 1.68) pre-intervention to 4.53 (SD = 0.73) post-intervention ($p=.005$),

and sexual orientation from a mean of 1.37 (SD = 1.03) pre-intervention and 4.50 (SD = 1.08) post-intervention ($p < .001$).

Discussion: The implementation of this project was of no financial cost to the research site but took approximately 15 to 20 minutes of staff time and resulted in statistically significant improvements among most measures of knowledge and confidence.

Conclusion: The benefits of this project were various, and the results suggest that an easy educational intervention can result in significantly improved patient care for LGBTQ patients, along with improved staff knowledge and confidence.

Acknowledgements

I would like to acknowledge the exceptional and supportive faculty from the University of Kentucky's College of Nursing. Throughout my journey working towards my Doctor of Nursing Practice degree, every member of the faculty has been kind, understanding, and sympathetic, and they have always encouraged me to succeed. I would like to personally thank my faculty advisor, Dr. Holly Stith for all her encouragement and assistance throughout the program. She has been a great listener, given me plenty of encouraging feedback over the years, and she always left me feeling optimistic about the future. I would also like to thank my cohort of students completing this journey with me, like Olivia Sasdi, who always kept me on track on supported me, and Kristi Richmond, who always had faith and pride in me, and gave me so much encouragement. A special thanks to my mom, who has always believed I could do anything.

I could never have made it through this program without all my amazing and supportive friends that kept me laughing, smiling, and sane. Thank you to Kori, Brooke, William, Alex, Colin, Haley, and Puspa. Last but not least, I need to thank my dogs over the past few years that have filled my life with endless love and joy. Thank you Didi, Ruka, Misha, and Hercules for keeping me going when things got tough.

Table of Contents

Abstract.....	1
Acknowledgements.....	3
List of Tables	7
List of Appendices	8
Background and Significance	9
Problem Statement	9
Context, Scope, and Consequences of the Problem	10
Current Evidence-Based Interventions.....	11
Purpose and Objectives.....	11
Review of Literature	12
Search Strategies, Keywords, and Inclusion and Exclusion Criteria	12
Synthesis of Evidence	12
Summary.....	12
Overall Strength of Evidence	14
The Need and the Gaps.....	14
Theoretical Framework.....	15
Methods.....	16
Study Design	16
Setting.....	16
Agency Description	16
Congruence of Project to Selected Agency’s Mission and Goals	16

Description of Stakeholders.....	17
Site-specific Facilitators and Barriers to Implementation	18
Sample.....	18
Procedure.....	19
IRB Approval	20
Description of Evidence-based Intervention	20
Measurements and Instruments	20
Data Collection.....	21
Data Analysis.....	21
Results.....	22
Staff Sample	22
Demographics.....	22
Findings	22
Patient Sample.....	24
Demographics.....	24
Findings.....	24
Discussion.....	25
Staff Data Discussion	26
Patient Data Discussion.....	27
How Project Impacted Site and Plans for Sustainability or Next Steps.....	29
Implications for Practice, Education, Policy, and Research	29
Translation of Findings	29

Research.....	29
Education, Practice, and Policy	31
Cost Implications and Benefit Analysis	32
Limitations	32
Conclusion	34
Summary	34
Value to Healthcare and Practice	35
References.....	36

List of Tables

Table 1 – Staff Participant Demographics40

Table 2 – Staff Pre-Intervention and Post-Intervention Data42

Table 3 – Patient Participant Demographics.....43

Table 4 – Patient Pre-Intervention and Post-Intervention Data44

List of Appendices

Appendix A – Staff Questionnaire Item List and Description	45
Appendix B – Staff Questionnaire	46
Appendix C – Patient Questionnaire.....	47
Appendix D – Demographic Information Questionnaire	48
Appendix E – Form to Enter Raffle Drawing.....	49
Appendix F – Drawing Winner Notification Email.....	50

Background and Significance

Problem Statement

Individuals identifying as lesbian, gay, bisexual, transgender, queer, and other sexual minorities (LGBTQ) face significant health disparities in both physical and mental health issues and are more likely to suffer from mental illness, experience substance abuse, and have worse physical health for a multitude of reasons (Cochran et al., 2004; Cochran & Mays 2007; Cochran et al., 2003). A significant stressor for LGBTQ people is “minority stress,” a term that encompasses stress originating from the experience of discrimination, prejudice, stigma, or pressure to hide their identity (Meyer, 2003).

Some healthcare providers may be insufficiently educated on LGBTQ care and thus they may not have the adequate skills and knowledge to best treat the LGBTQ population, which can be very difficult for LGBTQ patients (Rowe et al., 2017). Healthcare providers can knowingly or unknowingly discriminate against LGBTQ individuals which can harm the therapeutic relationship and decrease trust (Centers for Disease Control and Prevention [CDC], 2021). Even well-intentioned healthcare providers can contribute to minority stress through microaggressions and risk alienating this vulnerable population (National Institutes of Health [NIH], 2016). It is possible that patients may not feel comfortable discussing aspects of their lifestyle and health concerns with providers because they may perceive the providers as uneducated on LGBTQ health concerns or they may have to consider if they feel safe to “come out” because they do not know how the provider will react to their sexual orientation or gender identity (National Alliance on Mental Illness, [NAMI], n.d.).

Context, Scope, and Consequences of the Problem

One study examined providers' knowledge and attitudes on LGBTQ health and found 85% of the 45 surveyed healthcare providers had never received any training on LGBT patient care (Rowe et al., 2017). Minority stress can impact all LGBTQ people worldwide to varying degrees based on experiencing stigma and discrimination. This population is significantly more likely to suffer from mental illness, experience difficulty with substance use, and have worse physical health than their cisgender and heterosexual counterparts (Cochran et al., 2004; Cochran & Mays 2007; Cochran et al., 2003). Lesbian, gay, and bisexual (LGB) adults are more than twice as likely to experience a mental illness than heterosexual adults, while transgender adults are roughly four times more likely to experience mental illness than cisgender adults (NAMI, n.d.).

In 2020, approximately \$280 billion were spent on mental health services (United States Government, 2022). In 2020, more than half of surveyed LGBTQ youth between ages 13 to 24 reported that they wanted mental health care but did not receive it with 54% of respondents reporting that (Green et al., 2020). Additionally, LGBTQ youth in the South reported 58% of respondents had unmet mental health needs (Green et al., 2020). Some sampled LGBTQ individuals reported concerns about being able to find an LGBTQ-affirming provider, while others reported that, after disclosing their LGBTQ status, they were pushed towards conversion therapy by therapists and counselors (Green et al., 2020). Other LGBTQ youth reported that they feared being expelled from their private schools due to being LGBTQ (Green et al., 2020). After finding an affordable LGBTQ-affirming provider, some respondents reported that they had to wait several months or up to a year to see them (Green et al., 2020).

Current Evidence-Based Interventions

Currently, there is minimal evidence regarding education of healthcare staff and providers on LGBTQ care. One recommendation for addressing this problem is to provide LGBTQ-focused courses to healthcare staff (Rowe et al., 2017). One such project in 2019, an educational training that focused on improving healthcare provider knowledge in a university hospital setting, succeeded, and found significant improvements in provider attitudes and self-efficacy (Carney, 2019). There is a lack of literature on interventions to address this problem; this project aims to address that gap.

Purpose and Objectives

The purpose of this project is to educate healthcare staff and providers on LGBTQ health concerns, health disparities, microaggressions, inclusive communication, and culturally competent care to improve their knowledge and confidence when treating the LGBTQ patient population. The LGBTQ patient population faces many health disparities and minority stress, which can be especially harmful if it comes from healthcare staff and providers because they are not adequately culturally competent with treating LGBTQ individuals. This project aims to improve the care that LGBTQ patients receive and lessen the likelihood that they will experience minority stress or its sequelae by taking an upstream approach and improving healthcare staff and providers' ability to care for LGBTQ patients by meeting the following objectives:

1. Develop a web-based educational module designed to improve healthcare staff and provider knowledge and confidence with the LGBTQ population.
2. Evaluate baseline and post-intervention healthcare staff and provider knowledge and confidence.
3. Evaluate the patient experience before and after the intervention.

Review of Literature

Search Strategies, Keywords, and Inclusion and Exclusion Criteria

The literature search was prompted by a PICOT question: Among healthcare staff, can a web-based education module improve knowledge and confidence in treating LGBTQ patients, and improve the LGBTQ patient experience? To find relevant sources and information, relevant resources about the LGBTQ population, stress, and mental health were reviewed from the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), and National Alliance on Mental Illness, (NAMI). Examining some of the references used by these organizations also led to more relevant literature. Additionally, a literature search on CINAHL was performed using combinations of key words such as “LGBT,” “LGBTQ,” “education,” “intervention,” “provider knowledge,” “culture competency,” and “disparity.” Primarily, sources that discussed the level of provider knowledge or education regarding the LGBTQ population, provided education-based interventions, highlighted health disparities in the LGBTQ population, and combinations of these were included. Articles were only included if they were published in English. Articles published within the past ten years were included but older articles were used as needed due to a shortage of research on the topic. Other relevant sources were included as needed. Articles that did not pertain to the LGBTQ population, provider knowledge, confidence, or cultural competency, education, health disparities, or stress and its impact on mental health, were excluded. Additionally, articles pertaining to education or pedagogy in adolescent or pediatric populations were excluded.

Synthesis of Evidence

Summary

The literature supports that education-based interventions can improve healthcare staff knowledge and confidence. The literature shows healthcare providers and staff with higher levels

of education and knowledge provide better care and their patients have better clinical outcomes, such as lower patient mortality (Estabrooks et al., 2005). Providing education to staff is more effective when the staff understand the reason for the education, believe it will be valuable to them or relevant in their personal or professional lives, or view it as important (Knowles, 1970). Providing online education modules has been shown to be an effective method of delivery to improve knowledge and self-efficacy (Mousseau et al., 2021; Radville et al., 2022). Providing education online also allows learners the logistical convenience to progress at their own pace, work around their own schedule, and work from home (Shorten et al., 2023).

In contrast to these findings, one study found that providing advanced cardiac life support (ACLS) education in-person was significantly more effective than providing education online (Walker et al., 2020). However, it is important to note that ACLS is typically an 8–12-hour class, and the evaluation is based on a simulated code blue scenario (Walker et al., 2020).

Throughout the literature search, there was little research on LGBTQ patient experience, however there was a large amount of information available from Cochran reviews and public groups such as the CDC and NAMI. LGBTQ individuals experience significant health disparities in physical and mental health issues and are more likely to suffer from mental illness, experience substance abuse, and have worse physical health for several reasons, including stress (Cochran et al., 2004; Cochran & Mays 2007; Cochran et al., 2003). Minority stress is a significant stressor for LGBTQ people and encompasses stress related to their experience of discrimination, prejudice, stigma, or a pressure to hide their identity (Meyer, 2003). People can knowingly or unknowingly discriminate against LGBTQ individuals which can harm the therapeutic relationship and decrease trust (Centers for Disease Control and Prevention [CDC], 2021). Microaggressions can contribute to minority stress even from well-intentioned people and can risk alienating this vulnerable population (National Institutes of Health [NIH], 2016).

Additionally, patients may not feel comfortable or safe to “come out” because they do not know how the provider will react to their sexual orientation or gender identity (National Alliance on Mental Illness, [NAMI], n.d.). One survey found that 22% of LGBTQ youth reported concerns about being “outed,” 20% had concerns about not having their LGBTQ identity understood by the provider, and 16% reported concerns that providers would focus too much on their LGBTQ identity (Green et al., 2020).

Overall Strength of Evidence

Overall, the evidence found in the literature review was strong. It included a systematic review, experimental studies, government agency statements, census data, and other journal articles. One weakness of the evidence is that much of the strong literature on LGBTQ health comes from the early 2000s while the lower-level evidence sources are more recent. Some selected sources were not as strong but can still provide relevant and important information.

The Need and the Gaps

Currently, many healthcare professionals receive insufficient education on the LGBTQ population and there is no standardized education plan that includes this population (Rowe et al., 2017). Healthcare workers receive different education depending on their degree program, state licensure requirements, and variation between schools (Holmboe & Kogan, 2022). Although much of the literature on this topic recommends providing additional education to healthcare staff and providers on the LGBTQ population, there is little information about implementation of this. This could be due to several factors, such as the gap of time between research publication and translation into practice, or possible negative personal beliefs of individuals towards the LGBTQ population.

This gap could be addressed by educating healthcare providers and staff during hospital orientation, or with annual competencies to provide this necessary information that they may not

have otherwise learned. Using a web-based education module could allow this education to be easily implemented at a low cost to the organization and allow staff to complete it at their own convenience.

Theoretical Framework

The theoretical framework that guided this project was the adult learning theory because this project involved educating adults and required the learners to be invested. This theory assumes five characteristics of adult learners: (1) they are self-directed, (2) they have previous experience as learners, (3) their readiness to learn is focused on material that will be relevant to their roles, (4) their orientation to learning becomes focused on immediate application of knowledge, and they focus on problems instead of subjects, and (5) motivation to learn is internal (Knowles, 1970). Within this project, the adult learners are assumed to be self-directed and able to complete the education module, and they are assumed to have previous experience as learners throughout their lives. The readiness to learn characteristic indicates that this project required demonstration to the learners that the information was relevant to their jobs and roles and thus important for them to learn. The orientation to learn characteristic indicates the pre-tests and post-tests and educational module may have needed to be framed as a problem to be solved, rather than a subject-centered education to garner more interest in learning the information (Knowles, 1970). Motivation to learn is internal, which indicates that it is possible some individuals still may not have responded to the external pressure to learn but targeting the other characteristics of learners may have mitigated this to an extent (Knowles, 1970). These characteristics were used to structure the education in a way that engaged the learners and motivated them to learn.

Methods

Study Design

This project involved two groups with quasi-experimental designs. Patient participants completed a brief questionnaire after their pre-procedure assessment was completed that included demographic information and evaluated the patient's experience and perception of staff knowledge and confidence to establish baseline data. Staff participants completed a pre-intervention questionnaire and then received the educational intervention immediately after, which was a video recording of a PowerPoint with voice-over that took approximately 9 minutes to view. Approximately one month after the distribution of the pre-intervention questionnaire and education, staff were invited to complete a post-intervention questionnaire. After the post-intervention questionnaire was distributed, another group of patient participants completed the same questionnaire used prior to the intervention.

Setting

Agency Description

The setting for this project was an outpatient, ambulatory unit of the University of Kentucky Medical Center. This project surveyed patients pre-intervention prior to implementation and a second group of patients were surveyed after intervention implementation. The unit sampled was one of a university-based healthcare system that includes several hospitals, clinics, and other facilities. It is a not-for-profit healthcare system that aims to decrease disparities and is committed to creating a healthier state. It has been designated as a Magnet hospital for several years.

Congruence of Project to Selected Agency's Mission and Goals

The university-based healthcare system has several core values including diversity, innovation, respect, compassion, and teamwork. This DNP project aims to improve the

knowledge and confidence of healthcare providers and staff providing care to members of the LGBTQ community. The LGBTQ community is a minority group that faces discrimination and healthcare disparities, so working to understand the community and improve their healthcare is congruent with the values of diversity, respect, and compassion. Implementing a DNP project as a possible solution is congruent with the value of innovation, and involving the staff at the site is congruent with the value of teamwork. This aligns with the university's strategic plan because it addresses a health disparity in a minority group, showing respect for others, appreciation of diversity, and compassion because it aims to improve their healthcare. The project itself exemplifies innovation in its design and teamwork in its implementation with staff.

Description of Stakeholders

Stakeholders in this project are varied. The most directly involved stakeholders were the staff that received the education and provided care to patients, including LGBTQ people; their cooperation was essential to implement this project. The managers of the unit within which this project was implemented were stakeholders as well because the staff they manage and patients they serve could be impacted by the project. As stakeholders, the managers supported and approved the project to be implemented on the unit. Additionally, this project required some of their staff's time; however, staff were able to receive a free, brief educational intervention aimed at improving their knowledge and LGBTQ patient care. Staff development specialists and educators were stakeholders as well because the findings of this project could illustrate its necessity to be implemented in future staff education or could show that it is nonessential. Additional hospital leadership staff are stakeholders because this project had to be approved for implementation and because its results could impact staff performance and quality of patient care. Patients are also stakeholders because they must buy-in and complete the questionnaire to establish baseline and post-intervention data.

Site-specific Facilitators and Barriers to Implementation

Managers on the unit within which this project was implemented provided enthusiastic approval and committed to cooperation with project implementation. Managers were great facilitators in implementation because they encouraged and reminded staff to participate during their morning huddles, they assisted with utilizing staff to relieve and cover each other to allow each participant time to complete the questionnaire and view the educational module. A staff development specialist agreed to facilitate the project and assisted in the development of the educational module. The staff development specialist also created a list of additional education resources for unit staff to learn more information upon request. Staff on the unit were friendly and supported the project, which also facilitated buy-in and participation among them.

The largest barriers were that some staff were not invested and did not participate in the project, they were busy during the workday and unable to participate, and they did not check their email frequently. To address some of these barriers, the managers conveyed the importance of the project and participation and provided relief staff to cover participants to give them the time to complete the questionnaire and education. Managers also reminded staff each day to check their email and to participate if they had not done so.

To address staff investment, there was a reward of one \$25 gift card funded by personal finances for a randomly drawn staff participant who completed their questionnaire and entered the raffle. To address patient investment, there was a reward of one \$25 gift card funded by personal finances for a randomly drawn patient participant who completed their questionnaire and entered the raffle.

Sample

The staff sample was a convenience sample of voluntary staff and providers at the chosen outpatient, ambulatory unit of the University of Kentucky Medical Center. Inclusion criteria for

the sample were that the participant must be an employee of the research site or travel staff currently working for the unit and be involved in patient care; this included registered nurses, nurse navigators, nursing care technicians, unlicensed assistive personnel, radiology technologists, doctors, advanced practice providers, and managers of staff that are involved in patient care. Exclusion criteria were that the staff were not involved in patient care and did not manage staff that are involved in patient care or did not complete all questions on the questionnaire.

The patient sample was a convenience sample of voluntary patients that had completed their pre-procedure assessment at the research site. Inclusion criteria for the patient sample were that the participant be at least 18 years of age or older, their own legal guardian, have a Glasgow Coma Scale score of 15/15, and must be assessed at the research site that received the intervention. Exclusion criteria included that the participant does not complete all questions on the questionnaire, they are younger than 18 years of age, they are a prisoner, or they do not speak English fluently.

Procedure

Patient participants were asked if they would be willing to complete a brief questionnaire after their nurse had finished their pre-procedure assessment. The questionnaire included demographic information as well as questions that evaluated their perception of staff knowledge and confidence to establish baseline data. After achieving thirty patient participants, the implementation phase began. The sample size of thirty patients was chosen based on guidance from the DNP committee to demonstrate statistical significance between pre-intervention and post-intervention data. The primary investigator created a Redcap pre-intervention questionnaire for staff participants with an educational video at the end, aimed at improving cultural competency with the LGBTQ population. The primary investigator distributed the questionnaire

via email to staff and managers of the research site. Participating staff completed the pre-intervention questionnaire that assessed their LGBTQ-specific knowledge and confidence. After completing the pre-intervention questionnaire, the staff participant reviewed the educational video. The goal was to reach a minimum of 30 staff participants to be able to show statistical significance with the data. After 30 participants completed the pre-intervention questionnaire, the primary investigator distributed the post-intervention questionnaire. After all participating staff had received the intervention, the primary investigator obtained another sample of thirty patients using the same questionnaire as was used pre-intervention.

IRB Approval

This project was submitted to the IRB for approval to ensure the safety of human subjects prior to any data collection or implementation.

Description of Evidence-based Intervention

The intervention provided is an online educational module that staff that completed regarding LGBTQ-specific healthcare and communication. The module consisted of a PowerPoint with voiceover and included several topics, such as mental health in the LGBTQ population, communication with LGBTQ patients, methods to avoid alienating LGBTQ patients, common population-specific health concerns, and LGBTQ health disparities. The module was developed with the assistance of experts in the field, a staff development specialist, and clinical mentors.

Measurements and Instruments

For the staff group, a brief questionnaire based on a modified Sexual Orientation Counselor Competency Scale (SOCCS) was used as an evaluation instrument for after review by experts in the field to achieve face validity (Bidell, 2005). This instrument's measurements come from a rating scale from 1-7; 1 means "completely disagree," 2 means "mostly disagree," 3

means “somewhat disagree,” 4 means “neutral,” 5 means “somewhat agree,” 6 means “mostly disagree,” and 7 means “completely agree.” This was changed to a 5-point Likert scale ranging from 1-5; 1 means “completely disagree,” 2 means “partly disagree,” 3 means “neutral,” 4 means “partly agree,” and 5 means “completely agree.” Participants could also choose an option indicating “I don’t know,” “choose not to answer,” or “not applicable.” There was a list of 6 statements to which participants rated the degree that they agree or disagree. The first three questions assessed confidence and the last three questions assessed knowledge.

A brief questionnaire was developed and used to assess the patient’s experience and perception of staff knowledge. This was reviewed by experts in the field to achieve face validity. The questionnaire included 5 statements to be rated on a Likert scale, as well as the patient’s reported age, gender identity, sexual orientation, and race. The patient questionnaire was not based on a preexisting questionnaire but was developed specifically to assess measures relevant to the project.

Data Collection

Staff participants in the project completed a pre-intervention and/or a post-intervention evaluation using the online platform Redcap. Data were then imported to SPSS for analysis. Demographic data were collected during both the pre- and post-intervention evaluation and included age, gender, sexual orientation, race, and occupation. Patient participants in the project completed a questionnaire on paper that was stored in accordance with the university’s policies, manually entered into SPSS, and disposed of in accordance with university policy.

Data Analysis

The data collected were analyzed using SPSS version 28.0. An independent sample t-test was used to assess the differences between the two groups of staff questionnaires for pre-intervention and post-intervention. A paired t-test was not used because pre-intervention and

post-intervention data could not be linked, and because some staff did not take both tests. The same group of staff members were sampled, but participation was mixed. Some staff did not follow up, and some staff were new. Staff were not required to complete the intervention to take the post-intervention questionnaire. Tests of association were also performed to evaluate for any statistically significant differences between different groups based on demographic data or occupation. Another independent sample t-test assessed the differences between the two groups of patient questionnaires pre-intervention and post-intervention.

Results

Staff Sample

Demographics

Of the staff sample, there were 31 respondents to the pre-survey and 30 respondents to the post-survey. The mean age in years was 40.6 for the pre-survey and 40.0 for the post-survey with a standard deviation of 12.1 in both. Many respondents in both surveys identified as women, straight or heterosexual, and Caucasian or white. In the pre-survey roughly half of respondents were nurses, while a fifth of respondents were patient care techs or nursing assistants. In the post-survey, the most common occupation was nurse, but “other” accounted for one fifth of responses. Occupations that fell under the category “other” included, but were not limited to, nurse navigators, managers, and front desk staff. Some differences between the pre- and post-survey samples can be accounted for by the turnover of travel nurses between surveys. The full demographic data for staff can be seen in Table 1.

Findings

The findings in the staff sample indicate that there was statistically significant improvement in five of the six measures. All three measures of confidence improved, and two of three measures of knowledge improved. The full data with statements can be found in Table 2.

Staff rated statements from 1 to 5 on a Likert scale to designate how much they agreed or disagreed with them; 1 means “completely disagree,” 2 means “partly disagree,” 3 means “neutral,” 4 means “partly agree,” and 5 means “completely agree.”

The following three statements are measures of confidence in treating the LGBTQ population. For the statement, “I feel confident in my ability to care for the special needs of lesbian, gay, bisexual, transgender, and queer (LGBTQ) clients,” the mean score was 3.94 (SD = 1.21) pre-intervention and 4.60 (SD = 0.77) post-intervention, which was statistically significant with a p -value of $p=.013$. The statement “I have had a lot of experience caring for LGBTQ clients,” was rated a mean of 2.90 (SD = 1.40) pre-intervention and 3.77 (SD = 1.36) post-intervention with a statistically significant change with a p -value of $p=.017$. The statement “I am confident that I can communicate effectively with LGBTQ clients without alienating them” was rated a mean of 3.74 (SD = 1.26) pre-intervention and 4.67 (SD = 0.61) post-intervention with a statistically significant change with a p -value of $p<.001$.

The following three statements are measures of knowledge relating to the LGBTQ population. The statement “LGBTQ clients are more likely to be diagnosed with mental illnesses than heterosexual clients,” was rated a mean of 3.29 (SD = 1.30) pre-intervention and 4.17 (SD = 1.02) post-intervention with a statistically significant change with a p -value of $p=.005$. For the statement, “Institutional barriers may inhibit LGBTQ people from using health services,” the mean score was 3.71 (SD = 1.04) pre-intervention and 4.50 (SD = 0.90) post-intervention, which was statistically significant with a p -value of $p=.002$. The statement, “Providers frequently impose their values, consciously or unconsciously, concerning sexuality upon LGBTQ clients,” had a mean score was 3.61 (SD = 1.20) pre-intervention and 4.13 (SD = 1.36) post-intervention, which was not statistically significant with a p -value of $p=.118$.

Patient Sample

Demographics

For the patient sample, there were 30 respondents to both the pre-survey and post-survey. The mean age in years was 55.3 (SD = 18.4) for the pre-survey and 46.7 (SD = 18.7) for the post-survey. The most common demographics in both surveys were women, straight or heterosexual, and Caucasian or white. Women were most common, followed by men, and each survey had a few respondents that selected “prefer not to answer,” “nonbinary,” or that they were transgender. The pre-survey included 1 transgender man (3.3%), 2 nonbinary respondents (6.7%), and 1 person that chose not to answer (3.3%). The post-survey included 1 transgender woman (3.3%), 3 nonbinary respondents (10%), and 1 person that chose not to answer (3.3%). It is significant to note that in the pre-survey, 22 (73.3%) of respondents were straight, but in the post-survey, only 14 (46.7%) of respondents were straight. In other words, 16 of the 30 respondents (53.3%) were not straight or heterosexual in the post-survey. The racial makeup of the surveys was a majority of Caucasian or white respondents, with 27 (90%) in the pre-survey and 25 (83.3%) in the post-survey. The full demographic data for the patient sample can be seen in Table 3.

Findings

Patients rated five statements on the same Likert scale in the staff sample section. The first three statements evaluated the patients’ experience with staff and perception of them. The statement “The staff that cared for me today asked for my preferred name, gender identity, and pronouns,” was rated a mean of 3.53 (SD = 1.68) pre-intervention and 4.53 (SD = 0.73) post-intervention with a statistically significant change with a p -value of $p=.005$. The statement “The staff that cared for me today asked about my sexual orientation,” was rated a mean of 1.37 (SD = 1.03) pre-intervention and 4.50 (SD = 1.08) post-intervention with a statistically significant

change with a p -value of $p < .001$. The statement “The staff that cared for me today were knowledgeable about LGBTQ health,” was not a required question, so 10 participants answered it in the pre-survey and 25 answered it in the post-survey. It was rated a mean of 2.40 (SD = 1.51) pre-intervention (n = 10) and 4.16 (SD = 0.94) post-intervention (n = 25) with a statistically significant change with a p -value of $p = .005$.

The other two statements evaluated if patients felt alienated based on healthcare staff treatment of LGBTQ patients in their lifetime or the day they were surveyed. The statement “I have felt alienated by healthcare staff due to comments or treatment of LGBTQ patients at least once in my life,” was rated a mean of 1.63 (SD = 1.45) pre-intervention and 2.77 (SD = 1.85) post-intervention with a statistically significant change with a p -value of $p = .011$. The statement “I have felt alienated by healthcare staff due to comments or treatment of LGBTQ patients today,” was rated a mean of 1.33 (SD = 0.84) pre-intervention and 1.10 (SD = 0.31) post-intervention which was not a statistically significant change with a p -value of $p = .163$. The full data can be seen in Table 4.

Discussion

One of this project’s primary aims was to educate healthcare staff and providers on LGBTQ health concerns, health disparities, microaggressions, inclusive communication, and culturally competent care to improve their knowledge and confidence when treating the LGBTQ patient population. The other aim was improving the care that LGBTQ patients receive and lessen the likelihood that they will experience minority stress or its sequelae by taking an upstream approach and improving healthcare staff and providers’ ability to care for LGBTQ patients.

Staff Data Discussion

Many of the findings for this project demonstrated statistically significant positive changes. The three measures of staff confidence and two of the three measures of staff knowledge all showed statistically significant improvements. This demonstrates that the intervention was successful in improving staff confidence and knowledge. The statements, “I feel confident in my ability to care for the special needs of lesbian, gay, bisexual, transgender, and queer (LGBTQ) clients,” “I have had a lot of experience caring for LGBTQ clients,” and “I am confident that I can communicate effectively with LGBTQ clients without alienating them,” all increased significantly, demonstrating that the intervention improved confidence in caring for LGBTQ clients and confidence in communicating with LGBTQ clients. There was also a significant ($p=.017$) increase in staff stating that they had experience caring for LGBTQ clients. Even though this project did not provide direct experience in caring for LGBTQ clients, it appears that an increase in staff knowledge and confidence may have resulted in them rating higher scores.

The most significant change among staff was the confidence measure that evaluated confidence in communicating with LGBTQ without alienating them, with an increase of 0.93 p -value of $p<.001$. It is also important to note that the range for scores is 4, with scores ranging from 1 to 5, meaning that the increase is quite large within its context. This measure is notable in that healthcare staff can knowingly or unknowingly discriminate against LGBTQ individuals, which can harm the therapeutic relationship and decrease trust between the patient and staff (CDC, 2021). Providing an intervention to educate staff on the LGBTQ population is an easy method to improve this communication and is likely the reason that staff reported increased confidence in their ability to communicate in a culturally competent manner. These findings highlight the need for staff education on the LGBTQ population. As Rowe et al. (2017) noted,

healthcare providers may be insufficiently educated on LGBTQ care and thus may not effectively be able to treat the population. Additionally, the same research noted that there is a scarcity of research on the topic of educating healthcare staff and providers about LGBTQ patient care, and they recommended providing LGBTQ-focused courses to healthcare staff (Rowe et al., 2017).

Staff also demonstrated an increase in the three knowledge measures, indicating that they learned information from the intervention. The two statements, “LGBTQ clients are more likely to be diagnosed with mental illnesses than heterosexual clients,” and “Institutional barriers may inhibit LGBTQ people from using health services,” were significant in their improvement ($p=.005$ and $p=.002$ respectively). This indicates an increase in knowledge about disparities in both the prevalence of mental illness in the LGBTQ population as well as institutional barriers they may face. The statement, “Providers frequently impose their values, consciously or unconsciously, concerning sexuality upon LGBTQ clients,” also increased from 3.61 (SD = 1.20) to 4.13 (SD = 1.36) but was not statistically significant ($p=.118$). Although it was not statistically significant, there was still a noted increase in score and the p -value was relatively low.

Patient Data Discussion

The findings from the patient surveys illustrate that staff improved their practices in asking patients for their preferred name, gender identity, pronouns, and sexual orientation to a significant degree. While the improvement in asking for preferred name, gender identity, and pronouns went up a full point from a mean of 3.53 (SD = 1.68) to 4.53 (SD = 0.73) with a significant p -value of $p=.005$, the improvement in assessing sexual orientation is even more apparent. In the pre-survey, the statement, “The staff that cared for me today asked about my sexual orientation,” was rated a mean of 1.37 (SD = 1.03), meaning that the sampled patients almost completely disagreed with this statement, but it increased a full 3.13 points in the post-

survey to a value of and 4.50 (SD = 1.08), which means that patients were rating this item between partly agree and completely agree. The change was statistically significant with a p -value of $p=<.001$, showing that this change is a direct result of the intervention's effectiveness. It is important for providers to assess sexual orientation to provide patient-centered care. One study found that 85% of healthcare providers had never received any training on LGBT patient care (Rowe et al., 2017).

The third item for patients to rate was the statement, "The staff that cared for me today were knowledgeable about LGBTQ health," which was an optional rating. Patients could rate this statement whether they identified as members of the LGBTQ community or not, based on their experience with the staff. Only 10 (32.3%) of pre-intervention respondents rated this statement, while 25 (83.3%) post-intervention respondents rated it. The score did increase to a statistically significant degree ($p=.005$), but the pre-intervention data is limited by a small sample size and possible response bias, and the post-intervention data may be significantly higher due to a larger sample of patients that did not identify as straight or heterosexual.

Items four and five assessed prevalence of alienation by healthcare staff. Item four, "I have felt alienated by healthcare staff due to comments or treatment of LGBTQ patients at least once in my life," was significantly higher in the post-intervention group, but this is likely because there were more LGBTQ patients in the sample. The fifth item, assessing the same statement but for "today" instead of "at least once in my life," showed a decrease that was not statistically significant, but it is still important to discuss. The pre-intervention group mean score was 1.33 (SD = 0.84), while post-intervention was 1.10 (SD = 0.31), meaning that most patients stated that they completely disagreed with the statement. This is important to note, because more patients did not select "straight or heterosexual" in the post-intervention sample with 16 (53.3%) compared to the pre-intervention sample of 8 (26.7%). Although the difference was not

statistically significant, there was still a decrease, and the p -value was still relatively low ($p=.163$).

How Project Impacted Site and Plans for Sustainability or Next Steps

This project had a profound impact in improving healthcare staff knowledge and confidence with treating the LGBTQ population at this site, improving the thoroughness of patient assessments, and improving patient perception of staff knowledge. The greatest improvement was the large increase in frequency of staff assessing patients' sexual orientations.

This project could be adopted and sustained by the research site. The primary investigator met with the managers at the site and informed them of the results; the managers deferred the decision about continuing the project to the staff development specialist and clinical nurse specialist. The staff development specialist has a copy of the recorded video voice-over PowerPoint educational module and could implement it with staff orienting at the site. As far as the next steps go, after publishing the project and results within the university's database, the staff development specialist and clinical nurse specialist will read over the results of the project and determine if they would like to implement the education. They may choose to implement the education either as a required one-time training, annual training, or biannual training.

Implications for Practice, Education, Policy, and Research

Translation of Findings

Research

This DNP project has several implications for research. Firstly, as noted in the review of literature, there is a scarcity of research and literature on this topic, and it is recommended that more research on this topic be done (Rowe et al., 2017). There are several opportunities to modify the design of this project for future research. One of the easiest modifications could be linking staff pre-intervention data and post-intervention data to analyze them with a paired t -test.

It may be beneficial to use a larger staff sample to account for loss of subjects on follow-up. There is also the opportunity for future research on this topic within a similar vein to use different statements to measure staff confidence and knowledge.

Another research opportunity would be providing the intervention in-person to eliminate the question of whether staff viewed the intervention after completing their pre-intervention questionnaire. This approach would require more resources to have the time or educators available to provide the education in-person. To get a large enough sample, it would likely require more buy-in from managers and staff participants than this project because it would take more time for staff to complete. However, if a unit manager was deeply involved in the implementation and ensured that staff would have the time to complete the education in-person, more staff might be able participate. The intervention could also be delivered either to individuals or to several staff members at a time.

Eliminating the patient questionnaire is another option for future research and could be replaced with chart audits. Instead of asking patients about staff actions, a chart audit could examine if a patient's gender identity, pronouns, and sexual orientation were reviewed or documented. The research site uses post-appointment surveys that patients receive via email and evaluate their care; utilizing this and implementing an additional question evaluating LGBTQ patient experience could be another minor implementation that could aid in research.

Lastly, it could be more impactful implementing this at a different research site, such as a facility or clinic that only serves LGBTQ patients. While it is possible that a site with more LGBTQ patients could benefit from similar research, it is also possible that there would be limited benefit because staff might be more knowledgeable and confident about caring for LGBTQ patients due to their job-specific training and experience.

Education, Practice, and Policy

The implications of this project in education clearly demonstrate the importance of providing education to staff on the LGBTQ population. It may be appropriate to recommend that healthcare facility orientation programs ensure that new staff receive adequate education about the LGBTQ population, and that current staff receive annual or biannual refresher courses during annual trainings. Prior to healthcare facility orientation, it could be beneficial to target nursing program curricula and recommend devoting more time to understanding the LGBTQ population while students are still in school. Furthermore, requiring continuing education credits for renewal of licensure could target nurses state-wide as well as other occupations that require continuing education for license renewal.

In practice, the addition of buttons in the electronic medical record to confirm that the user has reviewed the patient's preferred name, gender orientation, pronouns, sexual orientation, or all the above with one button. The pre-intervention data showed that staff sometimes inquired about preferred name, gender orientation, and pronouns, and very rarely inquired about sexual orientation. While patients reported that these items were not always addressed, requiring documentation or review could prompt staff and improve patient assessment, even without an educational intervention. Asking patients about these items could also allow them to feel more comfortable with self-disclosure, because LGBTQ patients may not feel comfortable "coming out" to their providers (NAMI, n.d.). In addition, documentation of these items can allow all members of the care team to understand the patient better and prevent them from harming the therapeutic relationship. Using gender-neutral language such as "partner," or "spouse," instead of "husband," or "wife," can support the therapeutic alliance and prevent alienating LGBTQ patients (NIH, 2016).

Cost Implications and Benefit Analysis

This project could be adopted and sustained by the research site at virtually no cost. The staff development specialist has a copy of the recorded video voice-over PowerPoint educational module and could utilize it for future education and trainings at no cost to the research site. The only cost would be approximately ten minutes of staff time to complete the education during scheduled work hours, and less than a minute of additional assessment with patients that should not impact productivity or workflow. The benefits of implementing this project are an improvement staff knowledge and confidence in treating the LGBTQ population, a decrease in the alienation of LGBTQ patients, improvements in patient assessments, and an improved LGBTQ patient experience. It is difficult to quantify the cost of preventing further stress to LGBTQ individuals, but it is possible that it could contribute to decreasing the costs of future mental health treatment. In 2020, approximately \$280 billion were spent on mental health services (United States Government, 2022). Of that \$280 billion, roughly \$70 billion came from U.S. Medicaid (United States Government, 2022). Among LGBTQ youth, between 50% and 58% reported concerns about being able to afford mental health care (Green et al., 2020). With the current difficulties of LGBTQ people being able to afford mental health care, it is important that the healthcare system does not contribute to causing further costs to individuals or to Medicaid. Improving the relationship between LGBTQ patients and their healthcare providers and staff could result in a decrease to repeat visits or unnecessary hospitalizations (Kamimura et al., 2020).

Limitations

Throughout the project implementation, there were several limitations that became apparent. The most concerning limitation was ensuring that staff viewed the educational module and truly received the intervention. The pre-intervention questionnaire usually took one to three

minutes to complete, but the educational module involved viewing a nine-minute video after the survey. It is possible some staff participants may have completed the survey and then closed the window without viewing the educational intervention, and there is no method to determine if they did or did not view it. Only 10 staff members entered the raffle to win a gift card out of a total of 61 participants between pre-intervention and post-intervention questionnaires, which caused the primary investigator to suspect that they may not have viewed the education.

One staff member told the primary researcher, “We get so many surveys all the time. I don’t know which ones to do or why, so I usually don’t do any.” This highlights another limitation in the form of email fatigue, survey fatigue, and limited buy-in; scheduling days to collect data on-site and encourage staff participation was beneficial in addressing this limitation, but the fatigue may also contribute to staff participants choosing not to view the educational module.

One limitation regarding the design of the study is that there was not the ability to perform a paired t-test with pre-intervention and post-intervention questionnaires. The reason for this design was that the research setting had many travel nurses and travel radiology technologists that might participate in the pre-intervention questionnaire and may not be present for the post-intervention questionnaire. However, if most staff participated, it was possible that lessons learned would be spread by word of mouth, and possible that new practices and communication techniques with patients would be taught to the new staff and travel staff, resulting in more knowledge and confidence among the post-intervention sample.

Another limitation arose after the distribution of the post-intervention questionnaire, when two staff members from the research site reached out to the primary investigator via email, stating that they had misread a question and thus chosen the wrong answer. The staff members wanted to edit their data, but data could not be linked back to a specific subject after the

questionnaire was submitted. The cover letter noted that data could not be linked back to individuals, and that once submitted, data would be unable to be changed or removed from the project. If identifiers were used and data could be traced back to the participant, this could have been avoided, but it would also have required identifying data and being able to link the participant with the data, which the primary investigator aimed to avoid. This was avoided to protect the participant's anonymity and encourage honest responses.

One limitation with the patient surveys was that the primary investigator was on-site collecting data from patients. It is possible that observation bias was present because staff saw the primary investigator and started thinking about the study, which could prompt them to be more cognizant of their practices and result in assessing their patients' sexual orientations more often than usual. Additionally, the staff present during days when data was collected could have a significant impact on patient data, because it is possible that the staff working during post-intervention patient data collection may have been more thorough and culturally competent with the LGBTQ population than those working during pre-intervention patient data collection.

Conclusion

Summary

This project aimed to educate healthcare staff and providers on LGBTQ health concerns, health disparities, microaggressions, inclusive communication, and culturally competent care to improve their knowledge and confidence when treating the LGBTQ patient population. The other aim was improving the care that LGBTQ patients receive and lessen the likelihood that they will experience minority stress or its sequelae by taking an upstream approach and improving healthcare staff and providers' ability to care for LGBTQ patients. This project was successful in achieving its aims. The intervention of providing an educational module via recorded video voice-over PowerPoint educational module was effective in improving healthcare

staff and provider knowledge and confidence in treating the LGBTQ population and had the additional impact of improving the thoroughness of the staff assessment of patients. This project also improved LGBTQ patient experience, though not to a statistically significant degree. The improvement is still clinically significant because it decreased the average level of patients' reports of being alienated, which is beneficial in maintaining rapport, trust, and the therapeutic relationship. Existing literature shows healthcare providers and staff with higher levels of education and knowledge provide better care and their patients have better clinical outcomes (Estabrooks et al., 2005).

Value to Healthcare and Practice

This project demonstrates its value in healthcare and practice through the improvement of knowledge and confidence in healthcare staff regarding treating patients of the LGBTQ population. As noted in the cost-benefit analysis, it could be implemented again at virtually no cost to the research site and result in improvement in staff knowledge and confidence with treating a vulnerable population that already faces discrimination (Meyer, 2003). Utilizing an online education module as the mode of delivery for education has been shown to be an effective method to improve knowledge and self-efficacy (Mousseau et al., 2021; Radville et al., 2022). Providing education online also allows learners the logistical convenience to progress at their own pace, work around their own schedule, and view the materials from home (Shorten et al., 2023).

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Table 1

Staff Participant Demographics

	Pre-education (n = 31) Mean (SD) or n (%)	Post-education (n = 30) Mean (SD) or n (%)
Age in years	40.6 (12.1)	40.0 (12.1)
Gender Identity		
Man	7 (22.6%)	9 (30%)
Woman	23 (74.2%)	21 (70%)
Transgender Man	0 (0%)	0 (0%)
Transgender Woman	0 (0%)	0 (0%)
Nonbinary	0 (0%)	0 (0%)
Prefer not to Answer	1 (3.2%)	0 (0%)
Sexual Orientation		
Straight / Heterosexual	23 (74.2%)	25 (83.3%)
Gay / Homosexual	2 (6.5%)	3 (10%)
Bisexual	4 (12.9%)	2 (6.7%)
Queer	1 (3.2%)	0 (0%)
Prefer not to answer	1 (3.2%)	0 (0%)
Race (Select all that apply)		
Caucasian or white	28 (90.3%)	27 (90%)
African American or black	1 (3.2%)	1 (3.3%)
Asian	1 (3.2%)	2 (6.7%)
Native American, American Indian, or Alaskan Native	0 (0%)	0 (0%)
Native Hawaiian or Pacific Islander	0 (0%)	0% (0%)
Other	3 (9.7%)	2 (6.7%)
*Totals may exceed 100% because participants could select more than 1 race		

Which of the following best represents your job title?		
Registered Nurse (RN)	15 (48.4%)	13 (43.3%)
Patient care tech or certified nursing assistant	6 (19.4%)	4 (13.3%)
Radiology technologist	4 (12.9%)	2 (6.7%)
Advanced practice provider (such as a physician assistant or nurse practitioner)	2 (6.5%)	3 (10%)
Doctor (MD, DO, MBBS)	2 (6.5%)	2 (6.7%)
Other	2 (6.5%)	6 (20%)

Table 2

Staff Pre-Intervention and Post-Intervention Data

Statements*	Pre-education Mean (SD)	Post Education Mean (SD)	<i>p</i> -Value
I feel confident in my ability to care for the special needs of lesbian, gay, bisexual, transgender, and queer (LGBTQ) clients.	3.94 (1.21)	4.60 (0.77)	.013
I have had a lot of experience caring for LGBTQ clients.	2.90 (1.40)	3.77 (1.36)	.017
I am confident that I can communicate effectively with LGBTQ clients without alienating them.	3.74 (1.26)	4.67 (0.61)	<.001
LGBTQ clients are more likely to be diagnosed with mental illnesses than heterosexual clients.	3.29 (1.30)	4.17 (1.02)	.005
Institutional barriers may inhibit LGBTQ people from using health services.	3.71 (1.04)	4.50 (0.90)	.002
Providers frequently impose their values, consciously or unconsciously, concerning sexuality upon LGBTQ clients.	3.61 (1.20)	4.13 (1.36)	.118

*Statements were rated and scored with a Likert scale, with 1 = Completely disagree and 5 = Completely agree

Table 3

Patient Participant Demographics

	Pre-education (n = 30) Mean (SD) or n (%)	Post-education (n = 30) Mean (SD) or n (%)
Age in years	55.3 (18.4)	46.7 (18.7)
Gender Identity		
Man	9 (30%)	11 (36.7%)
Woman	17 (56.7%)	14 (46.7%)
Transgender Man	1 (3.3%)	0 (0%)
Transgender Woman	0 (0%)	1 (3.3%)
Nonbinary	2 (6.7%)	3 (10%)
Prefer not to Answer	1 (3.3%)	1 (3.3%)
Sexual Orientation		
Straight / Heterosexual	22 (73.3%)	14 (46.7%)
Gay / Homosexual	1 (3.3%)	6 (20%)
Bisexual	2 (6.7%)	3 (10%)
Queer	2 (6.7%)	3 (10%)
Prefer not to answer	3 (10%)	4 (13.3%)
Race (Select all that apply)		
Caucasian or white	27 (90%)	25 (83.3%)
African American or black	2 (6.7%)	3 (10%)
Asian	0 (0%)	2 (6.7%)
Native American, American Indian, or Alaskan Native	0 (0%)	1 (3.3%)
Native Hawaiian or Pacific Islander	0 (0%)	0 (0%)
Other	2 (6.7%)	2 (6.7%)
*Totals may exceed 100% because participants could select more than 1 race		

Table 4

Patient Pre-Intervention and Post-Intervention Data

Statements*	Pre-education Mean (SD)	Post Education Mean (SD)	<i>p</i> -Value
The staff that cared for me today asked for my preferred name, gender identity and pronouns.	3.53 (1.68)	4.53 (0.73)	.005
The staff that cared for me today asked about my sexual orientation.	1.37 (1.03)	4.50 (1.08)	<.001
The staff that cared for me today were knowledgeable about LGBTQ health. **	2.40 (1.51) n = 10	4.16 (0.94) n = 25	.005
I have felt alienated by healthcare staff due to comments or treatment of LGBTQ patients <u>at least once in my life.</u>	1.63 (1.45)	2.77 (1.85)	.011
I have felt alienated by healthcare staff due to comments or treatment of LGBTQ patients <u>today.</u>	1.33 (0.84)	1.10 (0.31)	.163

*Statements were rated and scored with a Likert scale, with 1 = Completely disagree and 5 = Completely agree

**This question was not required, so the number of answers is included in the table.

Appendix A

Staff Questionnaire Item List and Description

1. I feel confident in my ability to care for the *special needs* of lesbian, gay, bisexual, transgender, and queer (LGBTQ) clients. C
2. I have had a lot of experience caring for LGBTQ clients. C
3. I am confident that I can communicate effectively with LGBTQ clients, without alienating them. C
4. LGBTQ clients are more likely to be diagnosed with mental illnesses than heterosexual clients. K
5. Institutional barriers that may inhibit LGBTQ people from using health services. K
6. Providers frequently impose their values, consciously or unconsciously, concerning sexuality upon LGBTQ clients. K

The rating scale is from 1 to 5.

1 = completely disagree

2 = partially disagree

3 = neutral

4 = partially agree

5 = completely agree

N/A = “I don’t know” or “Choose not to answer”

Note: The Confidence items are designated by the letter C after each item, and Knowledge items are designated by the letter K after each item.

Appendix B

Staff Questionnaire

Below is a list of statements. Please indicate the degree to which you agree or disagree with the statements by circling the number in the column below your choice. If you do not know an answer or do not understand the question, circle the “N/A” in the rightmost column.

Questions	Completely Disagree	Partially Disagree	Neutral	Partially Agree	Completely Agree	N/A
1. I feel confident in my ability to care for the <i>special needs</i> of lesbian, gay, bisexual, transgender, and queer (LGBTQ) clients.	1	2	3	4	5	N/A
2. I have had a lot of experience caring for LGBTQ clients.	1	2	3	4	5	N/A
3. I am confident that I can communicate effectively with LGBTQ clients, without alienating them.	1	2	3	4	5	N/A
4. LGBTQ clients are more likely to be diagnosed with mental illnesses than are heterosexual clients.	1	2	3	4	5	N/A
5. Institutional barriers may inhibit LGBTQ people from using health services.	1	2	3	4	5	N/A
6. Providers frequently impose their values, consciously or unconsciously, concerning sexuality upon LGBTQ clients.	1	2	3	4	5	N/A

Appendix C

Patient Questionnaire

Below is a list of statements. Please indicate the degree to which you agree or disagree with the statements by circling the number in the column below your choice. If you do not know an answer or do not understand the question, circle the “N/A” in the rightmost column.

Questions	Completely Disagree	Partially Disagree	Neutral	Partially Agree	Completely Agree	N/A
1. The staff that cared for me today asked for my preferred name, gender identity, and pronouns.	1	2	3	4	5	N/A
2. The staff that cared for me today asked about my sexual orientation.	1	2	3	4	5	N/A
3. The staff that cared for me today were knowledgeable about LGBTQ health.	1	2	3	4	5	N/A
4. I have felt alienated by healthcare staff or a healthcare facility due to comments or treatment of LGBTQ people at least ONCE in my life.	1	2	3	4	5	N/A
5. I have felt alienated by healthcare staff or a healthcare facility due to comments or treatment of LGBTQ people TODAY.	1	2	3	4	5	N/A

Appendix D

Demographic Information Questionnaire

Age: _____

Gender Identity: _____

Sexual Orientation: _____

Race: _____

For staff only:

Occupation/Role: _____

Appendix E

Form to Enter into Raffle Drawing

If you have completed a questionnaire for this study, you are eligible to enter a drawing to win a \$25 gift card. Please leave an email address to be entered into the drawing. The winner will be chosen randomly and notified via email. If there is not a response within 2 weeks, another winner will be chosen randomly.

Email address: _____

Appendix F

Drawing Winner Notification Email

Congratulations, you've been randomly selected to receive a \$25 gift card! Recently, you completed a questionnaire for a research project and used this email to enter a drawing to win a \$25 gift card. You have 7 days to reply to this email to receive the \$25 gift card, otherwise another randomly selected individual will receive it.

Thanks,

Logan Price RN, BSN, DNP-student

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College of Nursing DNP Program