Lesbian, gay, bisexual, and transgender (LGBT) individuals experience barriers to health care in the United States that cause health disparities. Discrimination against LGBT patients and provider ignorance of LGBT-specific health care needs further exacerbate this issue. The profession of nursing must increase efforts to ensure a culturally competent and knowledgeable nursing workforce while eliminating health disparities and improving patient outcomes in vulnerable populations, including the LGBT community.

Barriers to Health Care for LGBT Patients

Several issues discourage LGBT patients from seeking health care, including concerns about negative attitudes and lack of knowledge among health care providers, as well as personal experiences associated with “minority stress.” Brooks (1981) defined minority stress as the stress experienced by individuals from stigmatized social categories as a result of inferior social status. Minority stress has been linked to LGBT health disparities, including substance abuse, tobacco use, and mental health disorders (Bolton & Sareen, 2011; Grant et al., 2010; Gruskin, Greenwood, Matevia, Pollack, & Bye, 2007; Lehavot & Simoni, 2011).

Studies report low levels of knowledge related to LGBT patients, as well as negative attitudes among nurses and nursing students toward LGBT patients (Chapman, Watkins, Zappia, Nicol, & Shields, 2012; Eliason, DeJoseph, Dibble, Deevey, & Chinn, 2011; Eliason, Donelan, & Randall, 1992; Röndahl, 2009; Röndahl, Innala, & Carlsson, 2004). Lack of knowledgeable health care providers has been identified as one of the top barriers to culturally sensitive health care for the LBGT patient population (Grant et al., 2010; Sanchez, Sanchez, & Danoff, 2009). Negative attitudes and lack of competent providers may deter LGBT patients from seeking health care (Samuel & Zaritsky, 2008).

The Profession of Nursing and the LGBT Community

Nursing Research

Nursing research has inadequately addressed the health needs of the LGBT population. Between 2005 and 2009, the top 10 nursing journals published only eight articles focused on LGBT health issues of almost 5,000 total articles (Eliason, Dibble, & DeJoseph, 2010). Many studies exclude bisexuals and transgender people and focus on gays and lesbians only (Eliason et al., 2010; Shields et al., 2012). A previous study demonstrated
improvement in knowledge regarding LGBT patient care after an educational intervention among medical students (Kelley, Chou, Dibble, & Robertson, 2008), but a study focusing on nursing students has not been published.

A Nursing Curriculum for the Future

The Gay and Lesbian Medical Association (2010) and Healthy People 2020 identified LGBT cultural competence training as an integral part of all medical and nursing school curricula and continuing education for those already in the workforce (U.S. Department of Health and Human Services, 2013). The Essentials of Baccalaureate Education for Professional Nursing Practice (American Association of Colleges of Nursing, 2008) calls for undergraduate nursing curricula to prepare the graduate to meet the needs of vulnerable populations and eliminate health disparities. Recommendations have been made regarding key content in undergraduate nursing curricula to provide a strong foundation for cultural competence with LGBT patients (Brennan, Barnsteiner, Siantz, Cotter, & Everett, 2012; Jeffreys & Dogan, 2012).

Purpose

The purpose of the current study was to address the educational needs suggested by the literature and determine whether undergraduate nursing majors’ knowledge, attitudes, and cultural competence toward LGBT patients could be improved.

Research Questions

The following questions guided this study:

- What is the degree of reliability of the modified Attitudes Toward Lesbians and Gay Men (ATLG) Scale, the newly developed Lesbian, Gay, Bisexual, and Transgender Healthcare (LGBT Healthcare) Scale, and the newly developed Lesbian, Gay, Bisexual and Transgender Knowledge (LGBT Knowledge) Questionnaire? 

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**TABLE 1**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Total Score (Pretest)</th>
<th>SD</th>
<th>Total Score (Posttest)</th>
<th>SD</th>
<th>Mean Difference</th>
<th>t</th>
<th>Significance (2-Tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gay</td>
<td>11.69</td>
<td>2.631</td>
<td>12.07</td>
<td>2.308</td>
<td>0.379</td>
<td>1.873</td>
<td>0.066</td>
</tr>
<tr>
<td>Lesbian</td>
<td>11.34</td>
<td>2.905</td>
<td>11.97</td>
<td>2.456</td>
<td>0.621</td>
<td>2.578</td>
<td>0.013*</td>
</tr>
<tr>
<td>Bisexual</td>
<td>10.81</td>
<td>2.672</td>
<td>11.78</td>
<td>2.287</td>
<td>0.966</td>
<td>3.498</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Transgender</td>
<td>11.45</td>
<td>2.249</td>
<td>12.29</td>
<td>2.035</td>
<td>0.845</td>
<td>4.203</td>
<td>&lt; 0.001*</td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level.

**TABLE 2**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean Pretest</th>
<th>SD</th>
<th>Mean Posttest</th>
<th>SD</th>
<th>t</th>
<th>Significance (2-Tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: I would prefer not to provide nursing care for LGBT patients.</td>
<td>4.41</td>
<td>0.676</td>
<td>4.53</td>
<td>0.569</td>
<td>1.629</td>
<td>0.109</td>
</tr>
<tr>
<td>Q2: I would refuse to care for an LGBT patient if I were aware that they identify as LGBT.</td>
<td>4.79</td>
<td>0.409</td>
<td>4.76</td>
<td>0.432</td>
<td>–0.574</td>
<td>0.568</td>
</tr>
<tr>
<td>Q3: I feel competent to provide nursing care for LGBT patients.</td>
<td>3.52</td>
<td>1.906</td>
<td>3.88</td>
<td>0.110</td>
<td>3.024</td>
<td>0.004*</td>
</tr>
<tr>
<td>Q4: LGBT patients do not have any specific health needs.</td>
<td>3.84</td>
<td>0.745</td>
<td>4.41</td>
<td>0.593</td>
<td>5.035</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Q5: I feel I would be able to talk with a patient who identifies as LGBT in a sensitive and appropriate manner.</td>
<td>4.17</td>
<td>0.772</td>
<td>4.17</td>
<td>0.775</td>
<td>1.383</td>
<td>0.172</td>
</tr>
<tr>
<td>Q6: I believe the nursing curriculum adequately addresses the LGBT population.</td>
<td>2.21</td>
<td>0.796</td>
<td>2.35</td>
<td>0.876</td>
<td>1.211</td>
<td>0.231</td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level.
How effective is a LGBT educational intervention as measured by differences between preintervention and postintervention knowledge and attitudes?

Method

Participants

A convenience sample of 88 nursing students at an undergraduate university in the midwestern United States agreed to participate. Complete responses from 58 students were included in the data analysis; partial sets of responses were excluded from analysis. Eligibility requirements included age of 18 years or older and a declared nursing major.

Instruments

Attitudes Toward Lesbians and Gay Men (ATLG) Scale. The modified ATLG Scale was used to assess the attitudes of the participants regarding the LGBT patient population. Permission to use and modify the ATLG Scale for this study was obtained; recommendations from the authors included use of the three-item version of the ATLG Scale and a 5-point Likert scale for scoring. The ATLG Scale was expanded by the current research team to include items specific to bisexual and transgender individuals in a format similar to the original ATLG Scale (e.g., “I think bisexuals are disgusting”). The original ATLG Scale has been found to be reliable, with a Cronbach’s alpha >0.85 with college student samples (Herek & McLemore, 2011).

Lesbian, Gay, Bisexual, and Transgender Healthcare (LGBT Healthcare) Scale. The LGBT Healthcare Scale is a 6-item Likert scale that allows for an opportunity for written elaboration by participants. The first three items were based on questions asked of health care professionals in an earlier study conducted by Harris, Nightengale, and Owens (1995). The remaining three items (perceptions of competence, cultural sensitivity skills, and nursing curricula) were developed by the current research team and were specific to an undergraduate nursing student population.

Lesbian, Gay, Bisexual, and Transgender Knowledge (LGBT Knowledge) Questionnaire. The LGBT Knowledge Questionnaire is a 15-item true or false questionnaire. Two items (Q2, Q4) were taken from the Knowledge About Homosexuality Questionnaire developed by Harris et al. (1995), and 13 items were developed by the current research team after a review of the literature.

Procedure

Following institutional review board approval, participants were recruited in collaboration with four professors during scheduled class time. The study was described, written informed consent was obtained, and a packet containing the pretests and posttests was distributed to possible participants. The informed consent documents were detached from the demographics sheets and pretests to preserve confidentiality of the participants. Gender was intentionally excluded from the demographic survey due to the small number of male nursing students. All pretest and posttest materials were coded with a letter representing the student’s year in school and a number so that data collection materials could be matched for analysis. No academic or monetary incentives were offered for participation in the research study, and no consequences existed for refusal to participate.

The educational intervention was developed based on content recommended by Brennan et al. (2012) and was organized as PowerPoint® slides. To promote content validity, the intervention was piloted with an expert panel consisting of seven members of the university’s Pride Alliance, a registered student organization for those who identify as part of the LGBT community or an ally. The Pride Alliance members provided feedback about the relevance and delivery of the content, and select changes were then made to the educational intervention by the research team. This resulted in a 40- to 45-minute educational intervention that focused on relevant definitions, LGBT health disparities, cultural competence, and transgender-specific health care. One hour was allotted for the educational intervention and posttest. Nursing students studying abroad participated through the use of Polycom® technology so that they could synchronously see and hear the lecture.

Results

Demographics

Results were analyzed using IBM SPSS® Statistics for Windows, version 21.0. The sample contained four first-year students (6.9%), six second-year students (10.3%), 20 third-year students (34.5%), and 28 fourth-year students (48.3%). All students in the sample self-identified as heterosexual; two students had identified as homosexual, but their incomplete data were not included in analysis. Forty-eight (82.8%) of the students indicated that they identify with a religion. Twenty-two students (37.9%) identified as Democrats, 18 (31%) as Republicans, 16 (27.6%) indicated no political affiliation, one student (1.7%) did not respond, and one student (1.7%) marked “other” but did not elaborate.

Students were asked if they personally knew anyone who identified as a part of the LGBT community. Forty-six students reported they had a friend (79.3%), 32 reported they knew an acquaintance (55.2%), and 14 students reported they had a family member (24.1%) who identified as a part of the LGBT community. Students were queried about the most influential factors...
influencing their attitudes about the LGBT community; fifty-two students confirmed that the attitudes of family or friends (89.7%) were most influential, 33 reported positive or negative experience with the LGBT community (56.9%), and 16 indicated that the attitudes of the media (27.6%) were most influential. Two students wrote in religion (3.4%), although this option was not listed on the demographic sheet.

Reliability

Internal Consistency. The degree of reliability of the modified ATLG Scale was measured through internal consistency. Internal consistency was evaluated through Cronbach’s alpha and a high degree of reliability was established (α = 0.95). The degree of reliability of the LGBT Healthcare Scale was also evaluated through Cronbach’s alpha, and a suboptimal level of reliability was established in this sample (α = 0.54).

The degree of reliability of the LGBT Knowledge Questionnaire was measured through the alpha coefficient Kuder-Richardson 20 (KR-20). The LGBT Knowledge Questionnaire had a suboptimal level of reliability (α = 0.54). Analysis of reliability was reevaluated after separating the nursing-specific items (Q6, Q13, Q14, and Q15) from items that were LGBT-specific knowledge (Q1-5 and Q7-12). However, removal of the general nursing knowledge items did not improve the reliability (α = 0.52). Deletion of low-performing items identified through item–total correlations was not theoretically supported and was not pursued.

Criterion-Related Validity

Paired Sample t Tests. A paired sample t test was used to determine whether the differences between pretest and posttest responses were attributed to chance alone. The mean results of the modified ATLG Scale increased from pretest to posttest, indicating an increase in positive attitudes. Differences in mean scores of the lesbian, bisexual, and transgender subscales were statistically significant (Table 1).

The mean scores of the LGBT Healthcare Scale increased from pretest to posttest, with one exception seen in the item regarding refusal to care for an LGBT patient (Table 2). Higher scores on the LGBT Healthcare Scale indicated more positive attitudes. Two items (Q3 and Q4) showed increased scores on the LGBT Knowledge Questionnaire after a 40- to 45-minute lecture. These findings are consistent with the study conducted by Kelley et al. (2008), in which the authors included a 2-hour educational session with a patient panel and case studies. The brief educational intervention used in this study demonstrated the potential to have a favorable impact on students’ knowledge and attitudes. Undergraduate nursing students indicated the current nursing curriculum inadequately addressed LGBT patient care, as shown in the

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**TABLE 4**

<table>
<thead>
<tr>
<th>Question</th>
<th>t</th>
<th>Significance (2-Tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1: Sex and gender have the same meaning.</td>
<td>3.856</td>
<td>&lt; 0.001*</td>
</tr>
<tr>
<td>Q4: Homosexual men are more likely to be victims of violent crime than the general public.</td>
<td>2.055</td>
<td>0.044*</td>
</tr>
<tr>
<td>Q5: Homosexuals may experience some or all of the six phases of “coming out.”</td>
<td>2.430</td>
<td>0.018*</td>
</tr>
<tr>
<td>Q6: It is important to conduct a suicide assessment when working with LGBT patients.</td>
<td>3.035</td>
<td>0.004*</td>
</tr>
<tr>
<td>Q13: LGBT patients do not seek medical treatment as early as heterosexuals because of fear of discrimination.</td>
<td>2.403</td>
<td>0.020*</td>
</tr>
</tbody>
</table>

* Significant at the 0.05 level.
low score of Q6 regarding the nursing curriculum on the LGBT Healthcare Scale. This finding supports future incorporation of content regarding LGBT patient care into undergraduate nursing curricula.

Limitations

No established tools were found that met the current study’s needs; therefore, the LGBT Healthcare Scale and LGBT Knowledge Questionnaire were developed by the research team. Reliability for both tools was suboptimal, which may have been influenced by the small number of items in each instrument. Revision of the tools must be considered before use in subsequent studies.

Three of the four educational interventions were conducted during scheduled class time, which was intended to encourage participation, but it also limited the amount of content that could be included. Timing of recruitment and barriers related to data collection may have impacted sample size. Students studying abroad viewed the educational intervention through the use of Polycom technology; the complicated logistics of returning materials may have been a deterrent to completing all study materials.

The convenience sample recruited has limited generalizability to undergraduate nursing students due to only one school of nursing being used for recruitment and the high degree of homogeneity among participants. This study was cross-sectional, so whether changes in attitudes and knowledge were retained or demonstrated that a brief educational intervention has the power to improve attitudes and strengthen the knowledge level regarding LGBT patient care. On the basis of this pilot study, undergraduate schools of nursing should incorporate content about the LGBT patient population into the curriculum to promote a competent nursing workforce and to improve LGBT patient care.

Reference


