

From Friendly to Knowledgeable: Increasing Family Medicine Residents' Education on Managing and Treating the LGBTQ Population

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Background

Nearly 4.5% of the United States population identifies as Lesbian, Gay, Bisexual, Transsexual/Transgender, or Queer/Questioning (LGBTQ). This population experiences a disproportionately higher number of health disparities, in areas including but not limited to mental health, STIs and HIV/AIDS, substance use, and preventative care.^{1,2} Physicians should be trained to address the unique health issues of the LGBTQ population. Unfortunately, there are two major barriers to addressing these health disparities: bias among medical providers and lack of knowledge or understanding.^{3,4} Many members of the LGBTQ population report they have experienced bias by a medical professional.³ According to the 2011 National Transgender Discrimination Survey, approximately 28% of respondents postponed care because of barriers to care, including refusal of care due to their gender status or harassment and violence in the medical setting.⁵ Furthermore, only 30% and 29% of LGBTQ patients disclosed their sexual identity and gender identity to their medical provider, respectively.⁶



Figure 1. LGBTQ Population⁷

More recently, there has been greater cultural acceptance of the LGBTQ community.⁴ However, the provider's knowledge level and ability to care for LGBTQ health issues remains a barrier. Approximately 50% of transgender patients reported teaching their provider about their own care.⁵ While education regarding the LGBTQ population is encouraged, it is not standardized across medical education.⁴ The American Academy of Family Physicians endorsed an LGBTQ curriculum following the educational competencies outlined by the Accreditation Council for Graduate Medical Education, though it is neither standard nor mandatory curriculum for medical training.^{8,9} As a result, many physicians are unprepared to attend to the health issues specific to this population, or appropriately address health disparities.⁴ This population, like any other, is entitled to proper care, and primary care providers should be educated on their unique needs to maximize health outcomes.

The purpose of the project was to develop an LGBTQ curriculum for the University of South Florida-Morton Plant Mease Family Medicine Residency in order to help physicians-in-training increase familiarity with health concerns specific to this population, health disparities faced by these individuals, terminology unique to this population, and local resources to facilitate their care.

Methods

The LGBTQ curriculum intervention consisted of a lecture series, creation of a resource binder, and completion/analysis of a knowledge assessment. The lecture series covered a variety of topics pertaining to the LGBTQ health issues:

- Introduction to LGBTQ Health
- Providing Quality Gender-Affirming Treatment for the Transgender Patient
- HIV Medicine
- Treatment of Transgender Adolescents Journal Club

The resource binder included provider- and patient-specific information regarding preventative services, HIV and PrEP, transgender affirming care, safe tucking/binding practices, and a compendium of local LGBTQ resources including helplines.

To evaluate the curriculum, a 10-item knowledge assessment quiz was created by the researchers based on the lecture series content. The participants completed the knowledge quiz twice, as a pre-assessment and post-assessment. Each assessment included survey questions to measure previous exposure to LGBTQ health education, and the post-assessment included additional survey questions to obtain feedback and resident engagement information.

The participants who successfully completed both the pre- and post-assessment were included in the analysis. The assessments were administered electronically using Qualtrics. The knowledge-based questions from the assessments were analyzed for statistical significance using McNemar's Test for paired data using SAS software.

Results

A total of 15 residents completed the 10-item pre-assessment and post-assessment quizzes. The pre-assessment average score was 7.06 (out of 10 items) and post-assessment average was 7.66 (p=0.25). While there was no statistically significant difference in the results of the knowledge assessment when comparing scores preceding and following the intervention, the average score did increase. The question regarding health disparities faced by the LGBTQ curriculum showed the most improvement in score following the intervention and was also closest to achieving statistical significance, with a p-value of 0.06. The participants reported an increase in their comfort level caring for this population.

Question & Answer	PreTest Correct (n=15)	PostTest Correct (n=15)	p-Value
The LGBTQ population represents what portion of the US Population? A: Four and a half (4.5) percent of the US Population	8	9	p=1.00
Which of the following is not a potential side effect of estrogen hormone therapy for a patient transitioning from male to female? A: Erythrocytosis	8	6	p=0.72
What is the protocol for informed consent for starting a transgender person on hormone therapy? A: Informed consent can be completed in the office of the prescriber of the hormone therapy	6	8	p=0.68
Sexual orientation is defined as: A: Emotional, romantic, or sexual attraction to people	13	12	p=1.00
Gender Identity is defined as: A: One's innermost concept of self as male, female, a blend of both, or neither	14	13	p=1.00
Which laboratory test is required prior to initiating pre-exposure prophylaxis (PrEP)? A: Hepatitis B	7	11	p=0.21
True or False: PrEP is sufficient treatment for HIV. A: False	15	15	N/A
True or False: A transgender female-to-male patient who has had bilateral mastectomy ("top surgery") requires cervical cancer screening with a Pap smear. A: True	14	15	N/A
The LGBTQ Population faces a great deal of health disparities. Please select all the health disparities that apply to this population: A: (Select All) Housing Discrimination, Tobacco Use, Risk of HIV, Homelessness, Suicide, Domestic and Nondomestic Violence	8	13	p=0.06
Which patients should have screening for anal cancer with an anal Pap smear? A: (A, B, and D): Men who have sex with men, Heterosexual women who have anal sex, and Heterosexual men who previously had anal sex with men	13	13	p=1.00

Table 1. Pre- and Post-assessment Knowledge Base Comparison – McNemar's Test for Paired Data



Figure 2. Pre-assessment Rating of Comfort Level of Managing Patients that Identify as LGBTQ+



Figure 3. Post-assessment Rating of Comfort Level of Managing Patients that Identify as LGBTQ+

Feedback for the curriculum was overwhelmingly positive and residents believed it should be continued for future residents. Participants were asked if they would recommend the curriculum be continued. Their comments are below:

- "Yes. There is a significant amount of information which can be utilized in any provider's practice."
- "Yes. It is lacking elsewhere in our education and a vital population that needs to be served."
- "Yes. Very thorough and relevant"
- "Yes. It is an important group of disadvantaged patients that need our care. As providers, we need to learn more how to be respectful towards this community. Having lectures learning more about how the care differs slightly is important to increasing our awareness and our comfort level."
- "Yes. Much needed information I wouldn't have known otherwise"

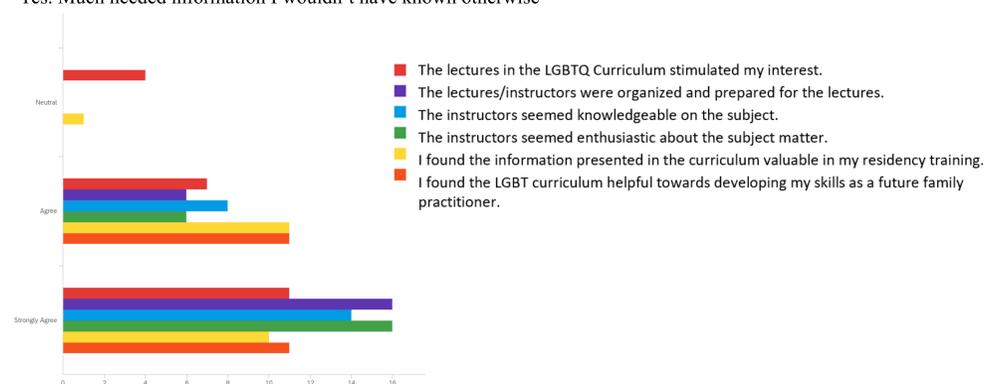


Figure 4. Post-Assessment Survey Question: Rate How Much You Agree with the Statements

Discussion

Though not statistically significant, the average score of the knowledge assessment increased from the pre-assessment to post-assessment. As the objectives of the LGBTQ curriculum were to increase the awareness of health disparities experienced by the LGBTQ population, it is encouraging to see the most improvement in that response.

Subjective responses to the curriculum demonstrated that family medicine providers-in-training are eager to help provide care to the LGBTQ population, but lacking education in specifics regarding their care. The curriculum was successful in creating awareness of the health issues specific to the LGBTQ population and increasing provider comfort level in caring for this population. The results are consistent with other studies examining the impact of LGBTQ curricula in medical education.^{3,4}

Participants considered the dedicated didactic lectures and interactive quizzes most helpful for learning about the LGBTQ population. The lectures regarding mental health care and HIV care were rated as the most pertinent to residents. Critiques of the curriculum were that the transgender lecture focused too much on procedures which are not performed by family physicians and that the resource binder contained an overwhelming amount of information.

Lastly, participants gave recommendations for future iterations of the curriculum. Residents suggested providing a greater emphasis on health maintenance, particularly in the transgender population, holding a patient and provider panel discussion, and creating a pocket reference for LGBTQ health or virtual binder as opposed to the large binder.

The study had some limitations. Didactic time at the residency program is pre-scheduled, therefore, two of the lectures were presented prior to the pre-assessment, which may have positively skewed the results. Complications from the COVID-19 pandemic led to changes from in-person to virtual didactic sessions, which may have affected attendance at lectures. Furthermore, unanticipated format changes within Qualtrics software in the fall of 2019 during data collection time led to loss of some pre-assessment data which limited the number of responses. Lastly, the small sample size impacts statistical significance.

Overall, the curriculum was well received by participants and the study indicated a general desire among residents to continue the curriculum with new ideas for topics of discussion and resources.

Conclusion

Residents responded well to an LGBTQ curriculum and felt as though this training will help them as future family physicians. Opportunities to further develop the curriculum include: expanding on health maintenance points for this population, transgender screening recommendations, and increasing hands-on experiences. Suggestions included bringing champions of the LGBTQ community (both patients and providers) to speak on their experiences, creation of a pocket resource, and the initiation of journal clubs and discussion groups.

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