

Original Publication

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# Interprofessional LGBT Health Equity Education for Early Learners

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## Abstract

**Introduction:** The eQuality project at the University of Louisville aims to train future physicians to deliver equitable quality care for all people by creating an integrated educational model utilizing the competencies identified in the AAMC's *Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born With DSD*. This foundational interprofessional health equity session for early learners addresses knowledge and attitude milestones relating to interprofessional collaboration, professionalism, and systems-based practice competencies for lesbian, gay, bisexual, and transgender (LGBT) populations. **Methods:** First-year medical students were assigned to interprofessional teams of approximately 10 health sciences students each. Students participated in a 75-minute session utilizing a group case study activity, including a systems lecture exploring social determinants and community resources related to LGBT health. Students collaboratively discussed the case and recorded strategies for optimal patient care. The Readiness for Interprofessional Learning Scale and health disparities attitudes and knowledge scales were administered pre-/postsession. **Results:** One hundred fifty-eight first-year medical students participated in the session. Posttest scores reflected an improvement for all disparities knowledge items ( $p < .001$ ), and an increased interest in working with other health professions students on future projects ( $p < .001$ ). Changes in attitudes toward systemic and social factors affecting health were also observed. However, content analysis of worksheets revealed that only 36% of teams identified specific action steps for the case scenarios. **Discussion:** This session was effective in improving knowledge and attitudes related to LGBT health equity and interprofessional education.

## Keywords

Interprofessional Education, Interprofessional Relations, Health Services for Transgender Persons, Health Equity, Hereditary, Sexual Minorities, LGBT Health, Nephritis

## Educational Objectives

By the end of this session, learners will be able to:

1. Recognize factors that contribute to the health status of lesbian, gay, bisexual, and transgender (LGBT) individuals or populations.
2. Identify community resources that support LGBT patients and their families during difficult social conditions and crises.
3. Describe the roles of other health professionals in caring for LGBT populations through shared learning.

## Introduction

In today's diverse society, it is essential that physicians have an awareness and understanding of how social and cultural issues impact the health of patients seen in clinical practice. Individuals who identify within the lesbian, gay, bisexual, and transgender (LGBT) communities have specific health care needs and face significant health disparities.<sup>1-4</sup> In 2011, the national mean curriculum time dedicated to LGBT health amounted to only 5 hours in the undergraduate, preclinical curriculum.<sup>1</sup> Medical students need

## Appendices

- A. LGBT Health Equity.pptx
- B. LGBT Health Equity Instructor Guide.docx
- C. Case A Worksheet.docx
- D. Case B Worksheet.docx
- E. LGBT Health Equity Pre-Posttest.docx

All appendices are peer reviewed as integral parts of the Original Publication.

specific LGBT health care training to inform their future practice and mitigate health and health care disparities.

In November 2014, the AAMC Advisory Committee on Sexual Orientation, Gender Identity, and Sex Development released *Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born With DSD*, which includes professional medical education competencies to address the specific health care needs of these populations.<sup>5</sup> In response, the University of Louisville initiated the eQuality project to train future physicians to deliver equitable quality care for all people, regardless of identity, development, or expression of gender/sex/sexuality. eQuality aims to provide a clear strategy and national model for implementation of the new AAMC competencies within the 4-year undergraduate medical education (UME) curriculum.

Through a rigorous curriculum-mapping project, 50 hours of UME content in preclinical years one and two were revised or developed to be more inclusive and affirming of LGBT, gender-nonconforming (GNC), and differences of sexual development-affected (DSD-affected) populations for the 2015-2016 eQuality pilot year. Educational milestones related to LGBT/GNC/DSD competency specifiers were developed for preclinical students. In addition to material concerning the medical needs of individual patients, broader content related to health equity and health systems issues in these and other disparate populations was enhanced.

Each year, first-year medical students participate in a campus-wide symposium focused on culturally effective care, which is integrated into the Introduction to Clinical Medicine course. Learners from other health professions schools also participate in the symposium to meet curricular requirements. Thus, there is a unique opportunity for both interprofessional and cultural competency education for preclinical learners. Content for the fall 2015 symposium was revised to include an interprofessional LGBT health equity session in order to address three AAMC competency specifiers presented in Table 1.<sup>5</sup> This was the first interprofessional education session (of any type) for first-year medical students. While medical students participate in other interprofessional education sessions throughout UME on other topics such as palliative care, this was the only interprofessional education component included in the eQuality pilot curriculum.

**Table 1.** Guiding AAMC LGBT/GNC/DSD Competencies and Anticipated M1 Educational Milestones for the Interprofessional LGBT Health Equity Session

Competency Domain	LGBT/GNC/DSD Specifier	M1 Educational Milestones
Professionalism	E3: accepting shared responsibility for eliminating disparities and overt bias (e.g., discrimination), and developing policies and procedures that respect all patients' rights to self-determination.	<ul style="list-style-type: none"> <li>Identify health and health care disparities in LGBT populations.</li> <li>Recognize how patients' gender, sexual orientation, and other aspects of diversity may impact professional relationships and patient care.</li> </ul>
Systems-Based Practice	F3: identifying and partnering with community resources that provide support to the individuals described above (e.g., treatment centers, care providers, community activists, support groups, legal advocates) to help eliminate bias from health care and address community needs.	<ul style="list-style-type: none"> <li>Identify community providers, resources, and agencies that support LGBT patients.</li> <li>Recognize bias (implicit/explicit) toward LGBT patients that exists within the health care system.</li> </ul>
Interprofessional Collaboration	G: valuing the importance of interprofessional communication and collaboration in providing culturally competent, patient-centered care to the individuals described above and participating effectively as a member of an interdisciplinary health care team.	<ul style="list-style-type: none"> <li>Demonstrate awareness of the roles and responsibilities of physicians and other care providers in patient care.</li> <li>Communicate with and contribute to an interprofessional learning group on shared responsibility for culturally competent, patient-centered LGBT patient care.</li> </ul>

Abbreviations: DSD, differences in sexual development; GNC, gender-nonconforming; LGBT, lesbian, gay, bisexual, and transgender; M1, first-year medical student.

This session was developed to introduce preclinical students to health and health care disparities in LGBT populations using a social determinants of health framework in an interprofessional learning environment. Teaching medical and other health sciences students about the social determinants of health and cultural competency presents numerous challenges as this is often new content for most of them. Martinez, Artze-Vega, Wells, Mora, and Gillis identified strategies for teaching this difficult content<sup>6</sup> that were carefully considered in the development of this session. Within the lecture, key terms were defined, disparities data

were provided, and proposed models of social determinants as pathways to disease outcomes were presented. Historical context relating to policies and determinants was discussed. The case study activity allowed for self-reflection and content application in small-group discussions and problem solving.

In order to prepare medical graduates to reach LGBT/GNC/DSD competency specifiers related to interprofessional collaboration, foundational educational experiences are imperative in the preclinical years. However, there are additional challenges associated with implementing interprofessional learning experiences within an already crowded UME curriculum.<sup>7</sup> According to the World Health Organization, “interprofessional education occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.”<sup>8</sup> Therefore, partnerships with curricular leaders from other health professions programs are essential. This session combines cultural competency and interprofessional education, meeting multiple educational requirements of professional accreditation bodies. This may incentivize potential partnerships with other health professions programs and expand the reach of LGBT/GNC/DSD curricular initiatives beyond UME. Although programs ranging from similar foundational experiences to clinical clerkships exist within other institutions that provide interprofessional training in LGBT care,<sup>9-11</sup> there remains a dearth of peer-reviewed reports of these efforts.

This session was incorporated into preclinical medical student year one in the fall of 2015 as one of the early sessions in the eQuality curriculum. A total of 653 students participated in the session, including students from eight other health sciences degree programs (DMD, PharmD, AuD, BS Dental Hygiene, BS Nursing, MPH, MS Speech Pathology, and MS Social Work). A breakdown of participants is presented in Table 2. The majority of participants were in the first year of their degree program, with the exception of fourth-year BS Nursing and BS Dental Hygiene students, who had clinical experience prior to the session. Participation in the session was not a curricular requirement for MS Social Work and MPH students; however, there were numerous voluntary participants.

**Table 2.** Session Participants by Academic Program

Educational Program	Number of Participants	Academic Year(s)	Required Curriculum
MD	158	1	Yes
DMD	120	1	Yes
BS Dental Hygiene	59	3, 4	Yes
AuD	9	1	Yes
MS Speech Pathology	23	1	Yes
PharmD	87	1	Yes
BS Nursing	134	3, 4	Yes
MS Social Work	49	varies	No
MPH	14	varies	No

Abbreviations: AuD, doctor of audiology; BS, bachelor of science; DMD, doctor of medicine in dentistry; MD, doctor of medicine; MPH, master in public health; MS, master of science; PharmD, doctor of pharmacy.

## Methods

Session development began with initial planning for the culturally effective care symposium in spring 2015. Content and learning objectives for this session related to the relevant LGBT/GNC/DSD specifiers and were designed during an intensive content-development summit with the University of Louisville eQuality Steering Committee and project national partners held in June 2015. Once participating schools and programs were finalized, content was reviewed and edited by faculty from participating academic programs who served on the culturally effective care symposium programming committee to ensure applicability for all health professions. The programming committee met several times to review and edit content until final approval was obtained from all disciplines. Faculty from multiple health professions programs also circulated throughout the room, serving as small-group facilitators during the session (see Appendix B: LGBT Health Equity Instructor Guide). Each participating program was required to provide one faculty member to serve as a small-group facilitator for every 20 student attendees from that program. Faculty facilitators received session materials 1 week prior to the symposium and were instructed to meet with their school’s representative from the culturally effective care symposium programming committee. Four weeks prior to the symposium, students were randomly preassigned to interprofessional teams of

approximately 10 students, with each team representative of the overall makeup of participants. For example, nursing students amounted to 20% of overall participants. Therefore, each team of 10 contained two nursing students. Each team contained no more than three medical students. Students from other participating programs were representatively assigned to teams as well. This LGBT health equity session is one of four sessions that all teams rotated through during the symposium.

This 75-minute session is divided into four components: personal stories to stir students' interest and interaction with the LGBT community<sup>12,13</sup> (10 minutes), didactic lecture focusing on health disparities and social determinants of health in LGBT populations (25 minutes), interprofessional group case study discussions (25 minutes), and a case study debrief (15 minutes). Preparation in regard to timing is essential to the implementation of the session, and it is recommended that a designated timer monitor the session, providing time warnings at the 5-minute, 1-minute, and time-expiration markers. Appendix A is the PowerPoint used for the entirety of the session and contains the LGBT health equity lecture. Appendix B is the instructor's guide that provides detailed directions and timing for each component, which should be used for all sections.

In recruiting members of LGBT communities to share their stories, several factors must be considered for ethical assurances and program fidelity. The eQuality Steering Committee and associated offices have productive relationships with local LGBT communities and ongoing relationships with individuals who voluntarily share their stories. Community speakers for this session were also employed or volunteered with agencies that do LGBT advocacy. Thus, they had significant experience sharing personal stories in large-group settings for educational purposes and were equipped to handle a variety of student responses. In addition, community members received \$50 gift cards as compensation for their time. While this can be an empowering experience for a skilled advocate, poor selection of speakers may have negative emotional consequences for the speakers, reinforce stereotypes, allow for inaccurate content, or permit veering off subject or schedule. Careful selection of speakers must be considered by the planning committee.

Two case studies were used during the session to assure applicability to a wider breadth of health professions, as it would be unrealistic for a single case to encompass elements related to all participating health professions. Case A (Appendix C), adapted with permission from Sanchez,<sup>14</sup> centers on a transgender woman experiencing intimate partner abuse. Case B (Appendix D), adapted with permission from the AAMC,<sup>5</sup> concerns a questioning teen experiencing depression. The patient in Case B also presents with Alport syndrome. While this is a rare disease, this case component was included to engage learners in the AuD and MS Speech Pathology programs. Other institutions may wish to adapt case components as appropriate based on participating academic programs. The two case studies were randomly assigned to the interprofessional teams. Students were asked to collaboratively discuss the case, record how each health profession would provide care and support to the individuals and families, and identify strategies for interprofessional teamwork to achieve optimal patient care (see Appendices C & D for specific case study questions).

Appendix E contains the pre-/posttest used to assess change in students' knowledge and attitudes. The tests contained the validated 19-item Readiness for Interprofessional Learning Scale (RIPLS)<sup>15</sup> and health disparities knowledge and attitude scales. Both tests were administered on the day of the symposium (pretest in the morning before content, posttest in the evening after content). Data were analyzed using the Wilcoxon signed rank test to determine changes in knowledge and attitude from pre- to posttest. Content analysis of case study worksheets was performed by two independent coders to evaluate student responses.

## Results

One hundred fifty-eight first-year medical students participated in the session. Only 31% of students reported any previous cultural competency training. Similarly, only 30% of students reported previous interprofessional education prior to the session.

Posttest scores reflected an improvement for all LGBT self-reported knowledge items (see Table 3). Changes in attitudes toward systemic and social factors that affect health were also observed, with students showing statistically significant changes ( $p < .001$ ) for all items except for lifestyle and genetics. The student pretest mean score for heterosexism was 3.38 out of 5, with only 49% agreeing that this was a strong determinant of health status, compared to a posttest mean score of 3.96 out of 5, with 76% agreeing that heterosexism is a strong determinant of health status. In regard to interprofessional learning, analysis of the 19 RIPLS items indicated statistically significant changes ( $p < .05$ ) for the three items presented in Table 4.

**Table 3.** Pre-/Posttest Results: LGBT Self-Reported Knowledge

Item and Test	Strongly Disagree/Disagree		Undecided		Agree/Strongly Agree		M	SD	p
	Freq	%	Freq	%	Freq	%			
	I am knowledgeable about systemic barriers to health faced by LGBT populations.								
Pretest	44	31%	45	31%	54	38%	3.08	0.92	<.001
Posttest	1	1%	11	8%	131	92%	4.1	0.53	
I am knowledgeable about health disparities experienced by LGBT populations.									
Pretest	41	29%	41	29%	61	43%	3.17	0.93	<.001
Posttest	1	1%	9	6%	133	93%	4.14	0.54	
I am knowledgeable about community resources that support LGBT populations.									
Pretest	64	45%	48	34%	31	22%	2.76	0.87	<.001
Posttest	2	1%	19	13%	122	85%	4.02	0.61	

Abbreviation: Freq, frequency of response; LGBT, lesbian, gay, bisexual, and transgender.

**Table 4.** Pre-/Posttest Results: Readiness for Interprofessional Learning Scale

Item and Test	Strongly Disagree/Disagree		Undecided		Agree/Strongly Agree		M	SD	p
	Freq	%	Freq	%	Freq	%			
	Shared learning will help me to think positively about other professionals.								
Pretest	2	1%	28	20%	111	79%	4.06	0.74	0.011
Posttest	4	3%	15	11%	123	87%	4.25	0.76	
Shared learning will help to clarify the nature of patient problems.									
Pretest	6	4%	26	18%	109	77%	3.93	0.74	0.001
Posttest	5	4%	17	12%	120	85%	4.15	0.76	
I would welcome the opportunity to work on small group projects with other health care students.									
Pretest	15	11%	28	20%	98	70%	3.74	0.87	<.001
Posttest	8	6%	21	15%	113	80%	4.03	0.84	

Abbreviation: Freq, frequency of response.

Analysis of the 69 team worksheets revealed that the top solution for 51% of teams was to refer the patient to a provider who specialized in LGBT care. Examples of responses included the following:

- “Refer to another professional who specializes in these issues.”
- “Find a therapist who will work with LGBT youth.”
- “Refer to someone who is comfortable with dealing with these issues.”

Only 36% of teams were able to provide specific action steps to address micro- and macrolevel issues presented in the case studies. Thirty-seven teams received Case A (transgender woman), while the other 32 teams received Case B (questioning teen). Student responses differed greatly between cases, with only 15% of teams identifying specific action steps for Case B, compared to 54% for Case A.

In regard to community resources, 71% of teams were able to list a specific LGBT resource correctly related to their case. For Case A (transgender woman), 74% of teams listed the name of a local domestic violence center serving LGBT clients and/or the name of the local transwoman support group. For Case B (questioning teen), 68% of teams listed the name of a local support group for LGBT youth and/or the name of a local support group for parents and family members of people who are or may be LGBT.

## Discussion

This foundational session was effective in improving knowledge and attitudes related to LGBT health equity and interprofessional education. However, there appeared to be a disconnect between knowledge

and application, as indicated by the high referral rate observed in the worksheets. Patient referral to practitioners who specialize in LGBT health is not viable as the only strategy to address health care barriers and disparate health outcomes within this community and may actually perpetuate health disparities through increased mistrust of the health care system. At times, it is very important to refer to specialized care, but this cannot be the only solution. Care for LGBT patients is the responsibility of all health professionals working independently and collaboratively. More targeted questions regarding referral rationale and potential consequences will be added to the worksheet and debriefing questions. This will aid in further assessing the effectiveness of this session.

This project had several limitations. First, this work was conducted at an institution that has laid significant groundwork in LGBT health, including LGBT health programming since 2009, with formal establishment of an LGBT Health Sciences Center Satellite Office and an LGBT Health Certificate program in 2014. The eQuality Steering Committee, LGBT Health Sciences Center Satellite Office, and Health Sciences Center Office of Diversity and Inclusion have strong ties to members of LGBT communities, which also assisted in securing community speakers to share their stories. Interest from institutional and community stakeholders also established a climate supportive of the implementation of such content. Second, participants in this session were primarily in their preclinical years and may have had a limited understanding of their professional role. This likely limited students' ability to provide specific action steps for the case studies.

As this report focuses on the eQuality pilot year (fall 2015) session, there are several important lessons we learned that were incorporated into the fall 2016 symposium. While formal feedback was not collected from all students, the eQuality Steering Committee solicits feedback from student class representatives for all eQuality curricular components. The week following this session, members of the eQuality Steering Committee met with first-year class representatives regarding their perceptions and experiences with the session. Students expressed a desire for real-world application examples and felt it was challenging to picture how interprofessional collaboration leads to improved patient care and outcomes. The 2016 program included exemplary LGBT practice models and incorporated the perspectives and experiences of local health care providers, which required additional time for the session. In addition, greater emphasis was placed on training faculty who served as small-group facilitators, requiring participating faculty to attend a 1.5-hour facilitator training session a week prior to the symposium. This training session included symposium logistics, an overview of the facilitator role, a session review, and case discussions to elucidate treatment recommendations from faculty members from all represented health professions programs.

Students also expressed a need for earlier exploration of professional roles prior to this session. As groups explored the cases, students from other programs often deferred to the medical students to lead case discussions, even though some of the students from other programs had more clinical experience and/or prior exposure to health equity concepts. Since most participants were early in the preclinical curriculum at the time of the session, some were unsure of physicians' roles in relation to other members of health care teams. To better understand the roles of all health professionals and establish group norms, a 30-minute group orientation session was added to the fall 2016 symposium for students to become familiar with team members both socially and professionally and also to address potential hierarchical issues. Structured orientation time may aid in mitigating professional hierarchical structures. Student leaders also requested more longitudinal interprofessional education activities around LGBT health, which is a long-term goal for the eQuality project. Overall, this session served as an important first step in educating medical students in LGBT health equity in an interprofessional learning environment.

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