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LGBTQ+ Health Education: Student Experiences at a Midwest Medical School

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Abstract

Introduction: The current sociopolitical landscape surrounding lesbian, gay, bisexual, transgender, and queer (LGBTQ+) communities involves discrimination in multiple areas of life. Medical education on LGBTQ+ health is often variable and incomplete. As part of a comprehensive evaluation of LGBTQ+ health in our curriculum, we explored student experiences learning about LGBTQ+ health during medical school, including the impact of the sociopolitical landscape.

Methods: We conducted focus groups of medical students at a single Midwest institution in March 2024. All medical students were invited to participate. We analyzed the data using an inductive systematic hierarchical thematic qualitative analysis approach to describe key themes.

Results: Eighteen medical students participated in three focus groups. Analysis demonstrated 13 key themes across three domains: (1) elements that impacted student learning (six key themes, 28 subthemes); (2) aspects participants would change regarding how LGBTQ+ health is taught (four key themes, 11 subthemes); and (3) ways the sociopolitical landscape has impacted their education or anticipated career trajectory (three key themes). Most participants reported that the current sociopolitical landscape surrounding LGBTQ+ communities has impacted their education or anticipated career trajectory.

Conclusion: Medical students described positive, negative, and neutral factors that impacted their education on LGBTQ+ health in the formal and hidden curriculum. Students described insufficient learning opportunities in preclinical and clinical settings with various factors in the hidden curriculum impacting their learning. The current sociopolitical landscape surrounding LGBTQ+ communities may influence where medical students pursue future training and careers due to learning goals or identity.

Introduction

About 7.6% of the population in the United States identify as lesbian, gay, bisexual, transgender, and/or queer (LGBTQ+).[1] LGBTQ+ communities experience health disparities,[2-5] report negative experiences with healthcare providers,[6-8] and may not seek care due to fear of discrimination.[7,9] Access is further threatened by state legislation that restricts access to care for members of LGBTQ+ communities, especially those who are transgender and gender diverse (TGD).[10-12]

Beyond healthcare, the current sociopolitical landscape in the US threatens LGBTQ+ individuals in many aspects of life. Discrimination against LGBTQ+ people exists at both the interpersonal and institutional levels and includes experiences of harassment and microaggressions across many contexts, including in housing, employment, educational, and legal settings.[7,8,13,14] Discrimination has been found to exacerbate mental health challenges for LGBTQ+ communities.[8,15] Taken altogether, LGBTQ+ people face inequities and injustices, including related to health, emphasizing the importance of adequate physician preparation.

Despite the demonstrated need, medical education on LGBTQ+ health is variable and often incomplete.[16,17] Medical students have gaps in knowledge and preparedness to care for these populations, especially TGD patients.[16] Two studies to date have demonstrated that state legislation limiting access to care for TGD individuals impacts medical student applications and plans for residency.[18,19] Further research is needed to elucidate how this legislation and the broader sociopolitical landscape impact medical training.

Recent evaluations at our institution identified gaps in preclinical LGBTQ+ health education through a systematic content evaluation[20] and medical student surveys.[21] Our study explores medical student experiences learning about LGBTQ+ health, including educational materials used, factors that impacted their learning, aspects of LGBTQ+ health education they would change, and the ways, if at all, the sociopolitical environment surrounding LGBTQ+ communities impacts their education or anticipated career trajectory.

Methods

We conducted focus groups of medical students at a single Midwest institution. Figure 1 displays an overview of our methods. The University of Wisconsin-Madison Health Sciences Institutional Review Board determined this study to be exempt from review.

Data Collection

The facilitator guide included nine questions that were posed to all groups (Appendix 1). The facilitator was a medical student on the research team (T.I.J.). We felt it was necessary to have a facilitator with a comprehensive understanding of the curriculum and used a student facilitator as we anticipated that medical student participants would feel more comfortable expressing their opinions with a peer as opposed to a faculty or staff member. Participants could say as much or little as they wanted and could refrain from responding. To protect anonymity, we did not collect demographics aside from year in school.

Data Analysis

For qualitative thematic analysis we used an inductive systematic hierarchical approach[24] (Figure 1).

Results

Demographics

Eighteen medical students participated in three focus groups. This included six first-year medical students, two second-year, four third-year, five fourth-year, and one completing an additional year in a dual degree or research position. Twelve (67%) had participated in clinical rotations.

Inductive Thematic Analysis Findings

The research team identified 13 key themes. These were grouped into three common domains: (1) elements that impacted student learning; (2) aspects participants would change regarding how LGBTQ+ health is taught; and (3) ways the sociopolitical landscape has impacted their education or anticipated career trajectory.

Elements That Impacted Student Learning

Six key themes represent elements that impacted medical student education on LGBTQ+ health in their preclinical and clinical education (Table 1). These include educational sources (both preclinical and clinical), information organization and coverage, personal experiences, and other people (eg, faculty and peers, in preclinical and clinical settings). The sources were discussed positively, negatively, and neutrally. Lived personal experience was a source of education in the preclinical and clinical settings and also informed negative learning experiences (eg, feeling upset by how their identity was portrayed or excluded). Almost half of the participants who had started clinical rotations reported feeling prepared to engage in aspects of care for LGBTQ+ patients when they began the clinical rotations, most of whom attributed this to their personal lived experience.

Suggestions for Change

Four key themes were identified related to aspects participants would change with how LGBTQ+ health is taught in this medical school (Table 2). These themes include what, where, how, and by whom LGBTQ+ health information is taught.

Current Sociopolitical Environment

Most participants described at least one way that the current sociopolitical landscape surrounding LGBTQ+ health has impacted their education or anticipated career trajectory. The analysis demonstrated three key themes (Table 3). Specifically, participants described impact due to (1) their personal identity or significant other, (2) desire for residency training in LGBTQ+ health topics, and (3) medical school education.

Discussion

This study found that medical students describe a range of positive, negative, and neutral experiences learning about LGBTQ+ health. These are informed by various sources in the preclinical and clinical settings, both through intentional programming and the hidden curriculum.[25]

Similar to findings across medical schools[16,17] and reflected in other evaluations at our institution,[20,21] focus group participants described the inadequacy of LGBTQ+ health education for medical students. Many evaluations of medical student education on LGBTQ+ health have used surveys,[16] and a few studies have used focus groups.[26-29] Our study builds upon existing literature by using the depth of focus groups to further explore medical student experiences learning about LGBTQ+ health. This exploration yielded 13 key themes spanning the areas of elements that impacted student education, aspects students would change in this education and ways the sociopolitical environment surrounding LGBTQ+ communities impacts student education or career trajectory.

The themes uncovered in our study found that LGBTQ+ medical students may have negative experiences in both preclinical and clinical learning settings. This aligns with prior studies that found that LGBTQ+ medical students experience discrimination and mistreatment and face a lack of visibility of their identity in medical school curricula.[30] Medical schools must understand this multifaceted learning experience, as factors beyond the sheer presence of content may impact medical students' learning experiences. This likely extends to students' mental health, as a large study of medical students found that those who identified as lesbian, gay, or bisexual had eight times greater predicted probability of burnout compared to heterosexual students.[31]

When beginning clinical rotations, participants who felt prepared to engage in aspects of care for LGBTQ+ individuals often felt so because of their personal lived experiences, not as a result of their preclinical medical education, suggesting that limited positive instances in student education are not sufficient to prepare students

to care for LGBTQ+ individuals on clinical rotations. Participants described multiple changes they would make in medical education on LGBTQ+ health, suggesting that in addition to an increase in content, medical schools should increase contact with LGBTQ+ communities and promote cultural competency. Several studies explore LGBTQ+ cultural competency interventions,[32] and these may enhance patient interactions and LGBTQ+ medical student experiences as organizational climates become more inclusive.

Most participants described how the sociopolitical landscape surrounding LGBTQ+ health has impacted their education or career, related to personal identity, training goals, and medical education experience. This study contributes to the growing data demonstrating how this may impact the distribution of the physician workforce,[14,18,19,33] and suggests that medical schools and residency programs should ensure they offer learning opportunities on LGBTQ+ health and that they provide an inclusive space for LGBTQ+ trainees.

Limitations

This study was likely influenced by selection bias, as only 18 medical students among the total 704 across all classes elected to participate in focus groups. While some participants chose to disclose their own LGBTQ+ identity, we did not explicitly collect this demographic data from each participant, and LGBTQ+ identity, among other demographics, may impact the educational experiences evaluated in this study.

Conclusions

Despite the need for medical education on LGBTQ+ health, gaps persist throughout the preclinical and clinical curricula, including at our study institution. Preclinical medical education may not adequately prepare medical students to participate in aspects of care for LGBTQ+ patients, and learning is influenced by multiple factors outside of the required curriculum content. The current sociopolitical landscape surrounding LGBTQ+ communities may influence where medical students pursue future training and careers due to learning goals, their identity or their significant other. Future studies should explore interventions to improve medical education on LGBTQ+ health by integrating it longitudinally throughout the curriculum, education for teaching faculty on inclusive language, and the impact of the sociopolitical landscape on medical education and the physician workforce.

Tables and Figures

Figure 1. Methods Flow Diagram

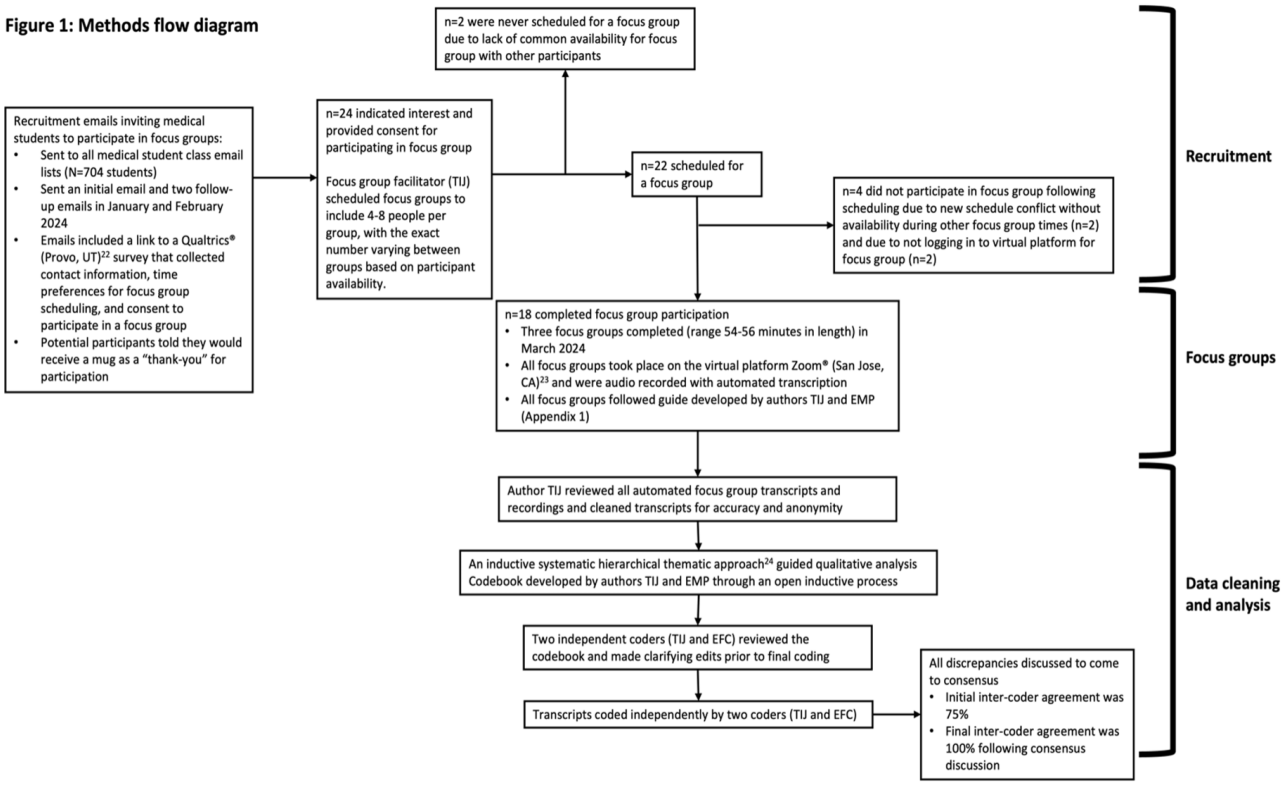

Table 1. Key Themes, Subthemes, Frequencies, and Illustrative Quotes Identified as Elements That Impact Students' Learning About LGBTQ+ Health

Key theme	Subtheme	Number of participants who mentioned each subtheme	Illustrative quote
I. Preclinical education			
Preclinical educational sources	Lecture	7	"But the lecture on terminology at the beginning of HFT [Human Family Tree], I thought, was really well done. It was still like pretty basic and covering the differences between sex and gender and what it means to be transgender, intersex, with that being said, I think that's a lot of the information is probably stuff that a lot of people haven't learned, and I think it is important that it's covered in that lecture format and not given as an additional resource, because it is something that everyone's responsible for learning."
	Case-based learning	8	"We've had a lot of CBL [Case-Based Learning] just sneak it in whether it's pronouns or same sex partners, but not necessarily dive into it."
	Clinical skills sessions	11	"I think during one of the clinical skills, maybe the, the sexual health exam, having a non-binary standardized patient come in and lead the testicular exam…I was really proud of [the medical school] for having some representation with that, because I thought it really enriched the experience and it, it made a big difference to me."
	Preceptor clinic	3	"I would say, preceptor is my primary resource…I've just been fortunate to have a couple of transgender patients, non-binary patients, so just by reading their charts ahead of time, kind of talking to my preceptor about how she would handle it, and she handles it in a very appropriate way in the sense of asking people about, 'oh, do you have a partner?' Just leaving questions pretty open-ended to make sure that they're inclusive. So it's mostly been my individual conversations with my preceptor, and then having the opportunity to interact with patients."
	LGBTQ+ student-led organization (referred to as, "PRIDE" or "PRIDE in Healthcare")	5	"I think I learned more from being involved with PRIDE [student-led LGBTQIA+ organization] than I did from any curriculum."
	Self-driven or self-sought learning	5	"most of the knowledge… I've acquired thus far has been a result of extracurricular stuff that I've personally sought out, and not a result of stuff that's included in our curriculum."
	External resources	4	"And then I'm also a member, a student member of the Gay and Lesbian Medical Association, and so participating in their online webinars and just reading their other materials and resources have been really helpful. But, it's completely separate from [the medical school]."
	Lived personal experience	1	"I've just been drawing on my own lived experience as a queer person."

Table 1, Continued

Key theme	Subtheme	Number of participants who mentioned each subtheme	Illustrative quote
Information organization and coverage in the pre-clinical curriculum	Topics covered adequately	6	"I felt like there were some topics that were covered well…like the sexual inclusive sexual history, and like HIV medications were covered well in depth."
	Topics not covered adequately	13	"…there were things like gender-affirming surgery, and like hormone therapy, that we're not covered at all,"
	Case vignettes with an LGBTQ+ patient, though not about an LGBTQ+ health topic specifically	7	"I feel like the only time that we've brought up queer people and queer identities is an add-on to like a PaCE [Patient-Centered Education cases] case or a CBL [Case-Based Learning]. Like that's pretty much the only time somebody's clearly identified that way. But it's never talking about queer health, specifically, it's just a look at this heart failure case for this lesbian. Just as like diversity, but not talking about how to adequately take care of them."
	Siloed information about LGBTQ+ health	3	"One thing I've noticed is that it seems like the education that we've gotten so far regarding LGBTQ content, it's very blocked out, so like, we might have one lecture on terminology, and I think we I saw we have one coming up on equity, but it's not interspersed throughout the curriculum, which I feel like, people would probably learn it better if it were incorporated throughout. And just like with LGBTQ people being an entire population of people that we care for, it doesn't necessarily make a ton of sense to me logically, that we're just covering it in 1 to 2 days, instead of sprinkling little things in throughout the curriculum as it applies to what we're learning at that time."
	Stereotyped representation of LGBTQ+ people	1	"I do think that when the school does sprinkle it in, it seems more like, 'oh, you're just like playing on the stereotype of what people perceive as LGBTQ+,' even during CBLs [Case-Based Learning sessions], when they use same sex partners, it's always to do with some kind of infection."
People in pre- or nonclinical settings	Positive experiences with faculty	3	"…my preceptor has been great, as an educational resource, but not necessarily part of the curriculum."
	Negative experiences with faculty	4	"…the majority of the other lecturers were not on the same page in terms of talking about gender and sexuality…so, feeling like, fundamentally, trans people are not part of the human family, is not a great way to feel when you're also just trying to be a student and learn stuff."
	Peers	5	"because I was very interested in asking patients about pronouns, or at least like sharing my pronouns and offering that. And I remember in clinical skills. I did that in the beginning and kind of asked my LTC [Longitudinal Teacher/ Coach] like, 'how can how do you incorporate this?' Or like, 'how can we best do this?' And they didn't really have a great answer, you know, like much more than what I kind of already was doing. And none of the other students were doing it, and it just quickly became something that wasn't important or wasn't encouraged, it was kind of like, 'if you wanna do it, you can.'"
	LGBTQ+ identified faculty and staff representation in the medical school	3	"On the positive, when I was able to find queer providers amidst the faculty or allies that were doing the work, I was able to find a lot of mentorship and, kind of inspiration from people doing the work. So I was, and am really appreciative of LGBTQ faculty and providers,"

Table 1, Continued

Key theme	Subtheme	Number of participants who mentioned each subtheme	Illustrative quote
Personal experiences and perceptions in the preclinical setting	Negative experiences related to personal LGBTQ+ identity	4	"I had a challenging reaction to that course. As a trans person, I sort of didn't kind of put the pieces together till towards, towards the end of HFT [Human Family Tree]. But the, the, the effect of the overall course made me feel like I was somehow not a part of the human race, which was not a feeling I normally feel"
	Lack of administration buy-in or knowledge about LGBTQ+ health	4	"I think a big thing that impacted my learning in Phase 1 is the larger overarching attitude towards LGBTQ health, from the school. I feel like it was often treated as like, I don't know, like not really medical, so to speak, or like lumped into the bucket of public health. So if you asked about it, it was like, 'Oh, yeah, you can learn about that later,' or like, 'we can talk about it a little bit, but that's somehow less important than you know learning about the cardiovascular system or something.' And that's not to say, the cardiovascular system isn't important, right? Like, it is. But both, both can be important, right?"
	Perceived lack of importance of LGBTQ+ health in curriculum	7	"And it was more my own motivation I think that kind of pushed me to learn anything regarding LGBTQ healthcare in Phase 1, especially because it wasn't at all emphasized or deemed important, like people have said so far… there's all these different topics, right, that med schools have to teach, and they have to teach a certain amount, and we have to get a certain amount of material. And we have to do all these exams, etcetera, etcetera, and trans and LGBTQ healthcare in general, is not emphasized in any exams we take in med school, in this med school, specifically, or in any board exams, any step exams, anything. And so, it's just not something that, the wider medical institution in general, deems important and necessary for students to learn and medical school."
	Lack of incentive to review materials	3	"…there wasn't a ton of incentive to consult outside resources. And it typically had to be on your own time. I remember at the end of the health equity lecture we had in HFT [Human Family Tree], there was a good list of resources. And of course I looked them up like short]y after the lecture, but I don't think I had much incentive to consult them again during Phase 1."
	Lack of consistency	3	"…there are a lot of opportunities if you seek them out to learn more about care for LGBTQ individuals like I, PRIDE in Healthcare [student-led LGBTQIA+ organization], has done a great job of providing some of those, as well as like preceptors, but that again is not standardized across all students…so I do worry that there are some students that will come out of this curriculum, not knowing how to care for LGBTQ Individuals."

Table 1, Continued

Key theme	Subtheme	Number of participants who mentioned each subtheme	Illustrative quote
II. Clinical education			
Clinical educational sources	Clinical rotations	10	"I think it was specific Phase 2 rotations with providers that just happened to… have a specific interest in providing LGBTQ care,"
	External resources	9	"…finding online resources, like GLMA [GLMA: Health Professionals Advancing LGBTQ+ Equality, previously known as the Gay and Lesbian Medical Association] and different websites, that have kind of resource guides for providers, things like that. Kind of doing independent learning has been what's most helpful so far."
	Lived personal experience	3	"I think, that there was certain aspects I felt really comfortable about, and I think part of that was just like, both from personal experience and wanting to work with the LGBTQ community, in my future patient population, is not making assumptions and things like that, and you know, having, creating a welcoming space."
	Variable experiences based on clinical or preceptor assignments	4	"…for ObGyn, and I got to participate in, 3 of my 4 hysterectomies that I participated in were gender-affirming care hysterectomies, and that was a really great experience, because the residents were very active in making sure that all the medical students that were involved in those individuals' care were aware of the dynamics and everything related to that. But again, I think it's a very specific thing that I got to experience where some other individuals during rotations don't."
People in clinical settings	Positive experiences with preceptors	4	"…there are a few truly exceptional providers at [the medical school], and I've been very fortunate to work with some of them who do really know their stuff, and provided me with really really good resources and really excellent education,"
	Negative experiences with preceptors	5	"I've… had preceptors use my correct pronouns, I think twice in the year of clinicals."

Filler words (eg, "um," "ah," like, and "uh") were removed from quotes for clarity.
School-specific terminology:
"Phase 1" refers to the pre-linical education at the institution, which is taught over the first 1.5 years of medical school.
"Phase 2" refers to the year of core clinical rotations that students complete directly following Phase 1.
Patient-centered education cases (PaCE), which are a form of case-based learning used at the institution during the preclinical education phase.
Longitudinal teacher/coaches (LTC) are faculty who teach students in clinical skills and PaCE sessions.
Human Family Tree (HFT) is a preclinical course taught in the first year of medical school, which includes information on embryology, human growth and development, reproductive health, and aging.
Case-based learning is a didactic education modality in which students work in small groups through questions in written patient-centered cases. There are no patient or standardized patient encounters in these cases.

Table 2. Key Themes, Subthemes, Frequencies, and Illustrative Quotes Identified as *Aspects Participants Would Change With Regard to How LGBTQ+ Health Is Taught* in Medical School

Key theme	Subtheme	Number of participants who mentioned the subtheme	Illustrative quote
What information is taught	Need for general increase in content	3	"I would start teaching it. I mean, not to put too fine a point on it, but I mean kind of like we all said earlier, of like, it doesn't really exist unless you're choosing your own adventure to find it."
	Specific topics that should be taught	6	"I think it would have been really helpful at the beginning of some core rotation in Phase 2 or throughout to have a session about you know, hormone therapy or you know, antiretroviral therapy, initiation or monitoring, because that is actual, I mean, all of this is important, but that's real medicine and real medicines, we're giving to people and labs we're getting, these are definitely relevant things we're gonna be experiencing."
Where information is taught	Add clinical experiences	1	"having easier access to rotations, that allow us, that experience if we want it…just being able to get that training… with hormone therapy and just, clinics that are serving the LGBTQ community more."
	Add electives (nonclinical or unspecified)	2	"I think having an elective in it, is bare, bare minimum."
	Add information in a specific preclinical course	2	"I would love to see it incorporated more. I mean, the first block of PPP <Patients, Professionalism and Public Health> is an obvious answer for it."
	Integrate content longitudinally throughout curriculum	3	"…integrating it into the different health topics we learn. So, when we're learning about eating disorders, talking about how eating disorders are over-represented in LGBTQ communities, and kind of like building in the kind of gender sexuality lens into different topics rather than siloing it as this like niche specialty, but it's something that everyone's gonna be, kind of experiencing as a provider."
How information is taught	Specific language	5	"I feel like language is just, it feels like such an easy thing that can be changed, that they're just not changing. Like simple things like, not referring to a pelvis as a female pelvis, you know, can make at least, I think, make our community feel more welcome, and not, not quite as ostracized."
	Teaching format	3	"I would say, for adding any sort of education, kind of make sure that it's not in a lecture format, probably. Because oftentimes, when we have those one off lectures… students know that, you know, it's going to be 1 to 2 questions on an exam, they can try to wing it, it'll save them, I don't know an hour of their time to not watch it. So kind of integrating it into the curriculum in a way that's whether it's through clinical skills, CBLs <Case-Based Learning sessions>…but I don't think we're going to be able to catch students who may not be interested in this, if it's just through an optional lecture format."
	General environment	3	"… just making the overall learning environment feel safer and more inclusive for learners who identify as part of the LGBTQ community."
Who is teaching LGBTQ+ health content	Integrate LGBTQ+ people in teaching	1	"So, having educational events, particularly a full dedicated day or dedicated time specifically to LGBTQ health issues, taught by members of the community, and providers and allies. So centering LGBTQ voices, when discussing LGBTQ issues."
	Education on LGBTQ+ issues for faculty and preceptors	4	"I think there also needs to be some education on the physicians that we work with during different phases of, medical school…and there is a lot of stigma around the LGBTQ+ community still in medicine, and I think if they received education themselves, they would not only be able to educate students that are coming through when they are interacting with patients that identify within the LGBTQ+ community, but I do think it would create a better environment for learning as well, if everybody who is teaching has the same baseline knowledge, or information, or just had some kind of access to that."

Filler words (eg, "um," "ah", "like," and "uh") were removed from quotes for clarity.
School-specific terminology: Patients, Professionalism, and Public Health (PPP) is the first course that students take in the medical school curriculum. In this course, students learn about health equity and social determinants of health.

Table 3. Key Themes, Frequencies, and Illustrative Quotes Identified When Exploring *How the Sociopolitical Landscape Surrounding LGBTQ+ Health Has Impacted Students' Education or Anticipated Career Trajectory*

Key theme	Number of participants who mentioned each theme	Illustrative quote
Personal identity or identity of significant other	4	"I so badly want to serve the state, but if I do not feel like I and my partner can live happy, healthy, in a smaller area, that's that… it is, without a doubt, affecting my trajectory… But, safety first."
Wanting residency training in a topic related to LGBTQ+ health	8	"it is really important to me to provide gender-affirming care as part of my career. I just went through the residency application process, and that, very heavily influenced where I applied. I exclusively applied to programs where I could receive that training, and where I knew that I could do that as part of my practice one day."
Related to medical school education	8	"I had a very terrible experience in an OR in a small town in [state] with a very, very homophobic physician…I just don't want to experience that, because I don't think people should have to deal-, I don't think it is our job as medical students to be the educators for these physicians. Because that puts us in a very dangerous position, especially since they're evaluating us, and that can come back on us in multiple different ways."

Filler words (eg, "um," "ah," "like," and "uh") were removed from quotes for clarity.

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