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Lesbian, Gay, Bisexual, and Transgender Adolescent Health: An Interprofessional Case Discussion

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Abstract

Introduction: Lesbian, gay, bisexual, and transgender (LGBT) adolescents frequently endure considerable adversity as they encounter identity-related stigma. As a result, LGBT adolescents are often at disproportionate risk for experiencing negative social and health outcomes. **Methods:** This four-module curriculum allows learners to explore challenges common to the clinical care of LGBT adolescents while also providing exposure to current trends and evidence in LGBT health. Through a combination of reflective exercises, didactic lectures, foundational readings, facilitated case discussion, and debate, the curriculum introduces learners to issues of assessment, treatment, and support as they relate to LGBT youth. The curriculum was written for use with learners in an interprofessional training program representing the disciplines of medicine, nursing, nutrition, social work, and psychology. **Results:** Four years of evaluation data indicate that the curriculum is particularly useful for exposing learners to the complexities of serving and supporting LGBT youth and identifying personal skills that may require additional development. Learners emerge with greater confidence in identifying local and national LGBT resources. **Discussion:** Incorporating cultural humility is key to fostering a commitment to lifelong learning and maintaining learners' confidence when working with marginalized populations. Optimal discussion occurs when learners in all disciplines contribute, yet instructors can teach modules separately or modify them when learners from all disciplines are not present. In addition, learners emerge with greater confidence in connecting with outside resources, which assists both referrals for patients and self-directed learning.

Keywords

Health Disparities, LGBT, Communication Skills, Case-Based Learning, Interprofessional Collaboration, Adolescent Health, Lecture, Debate, Sexual Minorities

Educational Objectives

By the end of the curriculum, learners will be able to:

1. Demonstrate cultural humility in regard to understanding and addressing the concerns of gender and sexual minority adolescents and young adults.
2. Differentiate between sex, sexual orientation, gender identity, and gender expression; their development across adolescence and young adulthood; and issues in terminology and assessment.
3. Conduct a culturally sensitive and developmentally appropriate interview that elicits information about gender identity, sexual behavior, and sexual identity.
4. Examine the role of minority stress and stigma in the development of gender identity and sexual orientation health disparities by discussing the intersections of sexual orientation and gender identity with other key identities (i.e., race/ethnicity, religion/spirituality) and social determinants of health (i.e., class, neighborhood) and analyzing how these factors impact treatment and support.
5. Identify local and national resources for lesbian, gay, bisexual, and transgender youth.
6. Coordinate with professionals across other health care disciplines (e.g., medicine, nursing, nutrition, social work, psychology) to address concerns of gender and sexual minority adolescents and young adults.

Appendices

A. Community Resources Exercise.docx
B. Instructors' Guide of Cases and Supplemental Resources.docx
C. Supporting Abe.docx
D. LGBT Resource List.docx
E. Gender and Sexuality Definitions.docx
F. Supports and Challenges Grid.docx
G. Supporting Dani.docx
H. Public Health Policy Debate Topics.docx
I. Syllabus.docx

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

Introduction

The term *sexual minority* generally encompasses individuals with same-gender attractions, romantic and/or sexual relationship experiences, and/or identities. Typically endorsed sexual minority identities include gay, lesbian, bisexual, and mostly heterosexual/mostly straight.[1] The term *gender minority* describes individuals who identify with a gender identity and/or expression that is different from the sex they were assigned at birth, including individuals who identify as transgender and, in some cases, individuals who do not identify as transgender but are highly gender nonconforming.[1] The term *LGBT* (lesbian, gay, bisexual, and transgender; also GLBT, LGBTQ, LGBTQIA, etc.) is often used as a shorthand to refer to sexual and gender minority communities, which, in and of themselves, consist of diverse individuals. LGBT individuals may describe themselves with commonly used terms, terms that exist outside the LGBT acronym, or terms that synthesize aspects of both sexual orientation and gender identity (e.g., queer, genderqueer, pansexual, aggressives, questioning, two-spirited, etc.). Everyone, including individuals who identify as heterosexual or cisgender (i.e., individuals who identify with a gender identity that matches the sex they were assigned at birth) has a sexual orientation and gender identity. Sexual and gender minority identities in and of themselves are not pathological but instead are associated with considerable social stigma due to societal homophobia and hegemonic gender role norms that oppress gender nonconformity.[1,2]

Considerable research indicates that the stress of having a stigmatized sexual and/or gender identity can create pathways to adverse social and health outcomes.[2] Facets of sexual orientation begin to emerge in early adolescence, with sexual minority individuals reporting initial same-gender attractions around ages 12-14.[3,4] Gender identities emerge much earlier in childhood,[5] although an understanding of the onset of the development of transgender identities is limited due to scant research. Stigma related to having a minority sexual or gender identity can lead to early emergence of health disparities. A wealth of epidemiologic research indicates that sexual and gender minority adolescents are at disproportionate risk for adverse social experiences (e.g., abuse, bullying, school dropout, homelessness) and health outcomes in comparison to heterosexual and cisgender youth.[6-10] Furthermore, research indicates that gender-nonconforming expression in childhood (an experience that often but not always overlaps with having a sexual or gender minority identity, such as gender-nonconforming heterosexual youth) is associated with maltreatment and a host of negative health outcomes in later life, including depression and post-traumatic stress disorder.[11-12] Beyond stress related to minority status contributing to health disparities (e.g., stress leading to depression, drinking alcohol to cope), sexual and gender minority youth may engage in maladaptive health behaviors as a means of building affinity with LGBT communities (e.g., using substances in clubs and at parties).[13,14]

Providing early support to sexual and gender minority youth is critical in order to prevent the emergence of health disparities later in life. Beyond supporting sexual and gender minority youth themselves, it is also important to foster supportive familial, school, and community environments. Many health care providers have limited experience with individuals declaring gender or sexual minority identity status, and lack of cultural competency to support gender and sexual minority youth can lead to potentially less open dialogue and inappropriate screening for risk behaviors.[15,16] In addition, growing survey research indicates that LGBT populations cite a lack of LGBT-competent physicians as a barrier to seeking and accessing health care.[15,16] To address this, we created two realistic cases that are a composite of patients with whom we have had contact in our many collective years of clinical work and that are consistent with the growing body of research on LGBT and gender-nonconforming youth. The curriculum is meant to provide a safe space for clinicians from multiple backgrounds to increase their knowledge of and comfort in treating patients from across the spectra of sexual and gender identities.

MedEdPORTAL has previous published case material and brief curricula concerning the care of sexual and gender minority patients, but these resources are nearly exclusively directed towards training medical students and residents. These materials include standardized patient cases to assist in sexual history taking,[17-19] training on terminology,[20] and learning resources for providing gender-affirming care (e.g.,

pelvic exams for transgender patients).[21] Additional learning resources emphasize the breadth of health issues affecting sexual and gender minority populations, such as lessons on health disparities affecting LGBT populations[22] and lessons on how a commitment to lifelong learning is needed to better serve the dynamic needs of diverse LGBT populations.[23] Very little material exists on interprofessional care training efforts (i.e., coordination between professionals from different health disciplines) to support LGBT youth.

This curriculum represents a unique contribution to the field of medical education through its focus on adolescent health and its emphasis on building knowledge about diverse local and national resources for sexual and gender minority youth, which is consistent with the AAMC's commitment.[24] Through a debate and a complex, realistic, case-based learning format, this curriculum emphasizes how providers from diverse disciplines, including medicine, nursing, social work, nutrition, and psychology, play unique and complementary roles in supporting LGBT youth. For example, one dialogue about how members from each profession can support LGBT youth at risk for homelessness helps individual learners not only to develop their own, discipline-specific expertise but also to learn how to coordinate an interprofessional team around a common issue.

Methods

This curriculum was written for fellows and learners in a postgraduate, interprofessional Leadership Education in Adolescent Health (LEAH) training program, which included those representing the disciplines of medicine, nursing, nutrition, social work, and psychology. The minimum recommended class size for the curriculum is six learners (approximately one to two learners per discipline; also the minimum size for the public health policy debate activity in Appendix H) with one instructor. We have successfully implemented the curriculum in class sizes of 10 learners. Because learners from different professions likely vary in their level of baseline clinical experience and/or prior experience with supporting LGBT youth (e.g., social work vs. medicine), optimal discussion during the curriculum occurs when learners from all disciplines contribute. Learners should rely on the expertise of their interprofessional colleagues to enhance their understanding of content presented in the curriculum (i.e., members from all disciplines should weigh in on key aspects of the discussion). Instructors can further help to ensure a collaborative learning environment among learners with varying levels of educational, clinical, and life experience by utilizing the learning goals activity and cultural humility exercise described in Module 1. When questions arise about case-related content that learners are unable to answer, instructors may (1) provide an answer to allow the group to move on, (2) provide the learners time to look up the answer during the module, or (3) ask a learner to look up the answer in advance of the next module.

This curriculum was designed for four 1- to 3-hour-long modules. Copies of learner materials for each module (e.g., case material, resource list; refer to Appendices C-H) should be provided to learners as described in the Instructors' Guide (Appendix B). For case-discussion portions of the curriculum (Modules 1-3), one learner should be asked to read the case material aloud so that all can hear the details of the case. Instructors should guide learners through the discussion with the probing questions provided in the Instructors' Guide and use the take-home points described in the Instructors' Guide (which can be written on a board, presented on a lecture slide, or read aloud at the appropriate spots during each module) as a means of summarizing key content before proceeding to the next portion of the curriculum.

Before beginning the first module, instructors should set the stage for a safe learning environment where the perspectives of all disciplines are equally valued and shared. If the curriculum is going to be team taught, creating a safe space can be accomplished by having co-instructors from multiple disciplines, thus modeling interprofessional collaboration. A safe space can also be created by explicitly calling attention to the importance of the interprofessional approach. If time permits, use of any of the excellent MedEdPORTAL modules on interprofessional learning could be completed in advance of this case. The publication titled "A Hybrid Educational Experience Training Future Health Professionals to Work Together to Improve Patient Outcomes" may be particularly useful.[25] For the current curriculum, the activities in Module 1 may be helpful in creating a safe learning environment for sharing experiences, discussing

biases, and identifying learning goals for treating and supporting LGBT youth. As time permits, instructors should solicit past experiences treating/working with LGBT adolescents with various health issues, preferably in writing, in advance of the first module. This will allow instructors to draw upon the strengths in the group and to target the discussion to individual learning goals.

Detailed instructions for administration of each module in the curriculum are in the Instructors' Guide (Appendix B). For each module, we briefly summarize the time line of activities, their administration, take-home points, assignments, and materials. Instructors should share preparatory readings and appendices with learners via email or post materials to a shared electronic server or folder. As displayed in the Instructors' Guide, each module is broken down into subsections, with suggested discussion question probes and key takeaway messages. We recommend that instructors utilize the discussion question probes as needed to ensure that discussions of curriculum assignments and case material stay focused on the described learning objectives for each section. We also recommend that instructors state the takeaway messages (either read aloud or summarized as bullet points and displayed on a lecture slide) at the conclusion of each subsection in order to ensure that key content is acquired before proceeding to the next section of the module.

Module 1

Module 1 requires a total of 45 minutes to complete and focuses on introducing the curriculum and the framework of cultural humility, establishing personal learning goals, and introducing a patient who may identify as a gender or sexual minority youth. Prior to the module, instructors may assign an article by Tervalon and Murray-García that provides background on cultural humility,[26] although this article may also be assigned after the module. Instructors begin by reviewing the syllabus (Appendix I) and the overall intended learning outcomes of the curriculum, describing the general content of the four modules and assignments for each module, introducing the debate topics (Appendix H), and assigning learners to debate groups for Module 4. If this curriculum is implemented at a program that does not currently have a list of LGBT youth resources, the LGBT community resource assignment (Appendix A) can be supplied to learners for them to work on throughout the duration of the curriculum. Prior to starting the discussion of cultural humility, instructors can play a video clip from the documentary "Cultural Humility: People, Principles & Practices," by Vivian Chávez (https://www.youtube.com/watch?v=SaSHLbS1V4w, minutes 0:00-3:30). This clip is optional, but it reinforces the material described in the Tervalon and Murray-García reading and can help to facilitate discussion of the topic. Instructors should begin a discussion of cultural humility by reflecting on their own experiences working with LGBT adolescents and young adults, their biases and assumptions, and the successes and challenges they have faced in their own work. In sharing their own experiences, instructors are able to model for the learners their own humility as it pertains to working with LGBT populations, challenges and opportunities they have encountered when working as a member of an interprofessional team, and their own commitments to lifelong learning. After asking learners to share their experiences working with LGBT youth, instructors ask them to identify personal learning goals to focus upon throughout the duration of the curriculum. To reinforce this exercise, learners write one to two learning goals that they hope to make progress on throughout the course of the curriculum on an index card. Instructors collect these goals and revisit them at the conclusion of Module 4. Collecting these learning goals in advance provides useful feedback to instructors for how to tailor discussions to suit the individual learning goals of the learners in Modules 2-4.

The final section of Module 1 is reviewing the first part of a patient case (Appendix C) and receiving take-home assignments. In preparation for Module 2, learners are divided into three groups. Each group reads, summarizes, and reports on one of three articles on (1) sexual orientation health disparities,[7] (2) the minority stress framework for understanding the development of health disparities,[2] and (3) the effects of family support and rejection on the development of sexual minority youth.[27] In preparation for the discussion of interviewing about sexual and gender identity, all learners should skim either the article on sexual orientation and gender identity data collection in clinical settings by Cahill, Singal, Grasso, et al.[28] or the Williams Institute report on assessing sexual orientation on research surveys.[29] In addition to the

preparatory readings, all learners are asked to begin to familiarize themselves with available LGBT resource lists (using either Appendix D or the LGBT resources assignment in Appendix A if the institution does not have an extensive list of LGBT resources). Learners also begin research for Module 4 debate assignments and research any additional topics generated during the Module 1 case discussion to report back at Module 2.

Module 2

Module 2 requires a total of 2 hours and 45 minutes to complete and is focused on reviewing terminology and gender and sexual orientation identity development, asking questions about gender and sexual orientation during a health visit, and contextualizing gender and sexual orientation within research on identity development and health disparities. The first section of the module allows learners to report on any research they have conducted on topics of interest identified during discussions in Module 1. The instructors then ask learners to teach their classmates about the key findings and perspectives from their respective preparatory readings. The second section of the module focuses on reviewing terminology about gender and sexual identity and discussing approaches for broaching the topic of sexual orientation with adolescent patients. Instructors should share Appendix E (Gender and Sexuality Definitions) with learners as a reference for terminology, with a caveat that definitions and language used to describe gender and sexual orientation are evolving and changing with time. It is recommended that instructors avail themselves of potential guest speakers at their home or neighboring institutions who may have expertise in researching or serving sexual minority populations. Learners are encouraged to brainstorm different ways of assessing sexual orientation identity in clinical settings and to discuss potential consequences for different approaches. Learners can use sample patient Abe (Appendix C) as an example for different ways to assess sexual orientation identity and anticipate different ways he might react. In the absence of existing guest speakers, other supplemental material could include additional learning modules (such as those available from MedEdPORTAL for sexual history taking that is LGBT inclusive[17,18]).

The remaining section of Module 2 focuses on additional case material on Abe, with a focus on integrating information on Abe's social history, mental health history, and contexts of development to better understand his potential safety net. To assist in the safety net exercise, instructors distribute Appendix F (the Supports and Challenges Grid[30]) to help learners visualize how identity, stigma, and supports intersect in the health and health care of gender and sexual minority youth and strategize how to leverage supports across contexts to support gender and sexual minority youth. The module concludes with learners receiving their take-home assignments. Learners divide into three groups, and each group reads one of three articles: (1) an overview of psychological and medical care of gender-nonconforming youth,[31] (2) outcomes of longitudinal research on pubertal suppression for transgender youth,[32] and (3) an epidemiologic study of transgender youth from an urban community health center.[33] In addition, learners are asked to familiarize themselves with resources for transgender and gender-nonconforming youth in their community (via an online search), to continue conducting research on debate topics for Module 4, and to research any topics of interest identified during Module 2 (to be reported on at Module 3).

Module 3

Module 3 requires a total of 2 hours and 15 minutes to complete and allows for a deeper discussion of gender dysphoria and transgender youth health via the discussion of a new patient. The first section of the module allows learners to report on any research they have conducted on topics of interest identified during discussions in Module 2. In the second section of the module, the instructors introduce a new patient, Dani (Appendix G). After introducing Dani and opening the discussion of gender nonconformity, gender identity, and provider assumptions, the instructors guide the learners to section three of the module, which focuses on a discussion of transgender health. We highly recommended that instructors avail themselves of potential guest speakers at their home or neighboring institutions who may have expertise in researching or serving transgender populations. In the absence of guest speakers, one alternative is to watch the optional video "Voices of Transgender Adolescents in Healthcare," produced by the Adolescent Health Initiative at the University of Michigan Health System

(https://www.youtube.com/watch?v=CHN3YhMi-5A), which can spark discussion about how to ask about gender identity or provide gender-affirming care. In the absence of guest speakers or the video option, a rich discussion can still be made possible by focusing on the assigned readings to discuss potential methods for working with and supporting transgender youth populations. Learners should brainstorm different ways of assessing transgender identity, gender nonconformity, and gender dysphoria in clinical settings and should review potential consequences for different approaches. Learners can use the case material presented for Dani as an example for different ways to assess identity and anticipate different ways that Dani might react. Finally, in section four, learners continue to discuss case material on Dani, specifically decision making regarding management and treatment options for adolescents who are potentially transgender or gender questioning. The module concludes with identifying topics of interest to research and report on during Module 4 and providing time for learners to meet in groups and finalize presentation materials and information for the debates in Module 4.

Module 4
Module 4 takes approximately 1 hour and 50 minutes to complete and focuses on advocacy and leadership by giving learners the opportunity to apply knowledge in health policy– and social policy–oriented debates. The first section of the module allows learners to report on any research they have conducted on topics of interest identified during discussions in Module 3. The second section of the module focuses on the debates. As described in the Instructors' Guide and Appendix H, two out of three topics are debated (bullying policies, protections for transgender and gender-nonconforming youth, inclusive sexuality education). For each topic, groups have 10 minutes to present their position (10 minutes pro side, 10 minutes con side), followed by a 10-minute open class rebuttal and discussion period (30 minutes total per topic). As learners prepare for their debates throughout the curriculum (i.e., as part of their assignments across Modules 1-3), it is possible that some may express resistance or difficulty while preparing their con arguments (e.g., constructing arguments against protections for transgender adolescents in public schools). If these challenges arise, instructors should remind learners that the purpose of the debate exercise is to expand learners' awareness of multiple perspectives on LGBT issues —some of which may not be supported by research evidence or align with current clinical recommendations—that are all a part of the sociopolitical and cultural milieu of the LGBT adolescents they serve. In the final section of the module, learners revisit the personal learning goals they set for themselves during Module 1, reflecting on goals that were met successfully and ways to make progress on unmet goals. Leaners also provide feedback on how the curriculum can be improved to enhance subsequent learners' progress. To close this module and the curriculum overall, the instructors ask learners to each indicate one pearl of wisdom they gained from the curriculum that will enhance the care they provide to LGBT youth.

Results

The curriculum was evaluated across 4 years from 2013-2016 as it was implemented in the LEAH training program (cohorts ranged from six to 10 learners) and was modified slightly each year based on feedback. The LEAH coordinator, not the instructors, collected the evaluation data in order to ensure confidentiality of responses. Due to the small cohort sizes, we report mean ratings on the curriculum for descriptive purposes only, as well as qualitative data (written and verbal feedback) in order to describe the impact of the curriculum on increasing learners' capacity to serve LGBT adolescents in health settings.

In 2013, 10 learners completed the curriculum (three guest scholars and seven LEAH fellows). The seven LEAH fellows who completed the curriculum rated the curriculum on (1) organization, (2) clarity of learning objectives, (3) helpfulness of readings, and the extent to which the (4) discussions and (5) assignments helped them learn. Responses were reported on a 1-10 scale (1= lowest, 10= highest). Average scores for each of these five evaluation areas ranged from 8.9 (organization and helpfulness of readings) to 9.3 (discussions helped them learn). In addition, written feedback on evaluations noted that learners thought the case was interesting, informative, and relevant. As one learner indicated, "This case was nice because the patient [Abe] was so thought out—I think the group really felt like the patient was someone we were

seeing in clinic." After the first implementation of the case, we revised the curriculum to provide additional details regarding the case presentation and to strengthen the facilitator's guide for use by instructors not directly involved in the care of LGBT adolescents or research on these populations.

In 2014, the LEAH coordinator collected pre- and postcase evaluation data and held a verbal feedback session to examine the extent to which the curriculum affected learners' confidence to address LGBT adolescent health care issues. Learners reported on pre- and postcase 4-point Likert scales that the case experience improved their identification of community resources (Table). In verbal feedback, learners reported that the case experience improved their understanding of the role of a medical doctor, nurse practitioner, nutritionist, psychologist, and social worker in the care of LGBT adolescents.

Table. Ratings From Seven Interprofessional Learners on Anonymous Pre- and Postcase Surveys, 2014

Domain	Precase survey[a] *M* (range)	Postcase survey[a] *M* (range)
Taking sexual health, sexuality health, and sexuality history from adolescents	3.3 (2-4)	3.2 (3-4)
Counseling LGBT adolescents	3.0 (2-4)	2.7 (1-3)
Identifying community resources for LGBT adolescents	2.4 (2-4)	3.2 (3-4)

[a]Four-point Likert scale (1 = *not at all confident,* 2 = *somewhat unconfident,* 3 = *somewhat confident,* 4 = *very confident*).

The 2014 evaluation data revealed that the curriculum is particularly useful for exposing learners to the complexities of serving and supporting LGBT youth, as well as identifying skills that may require additional development. For example, learners indicated a slight decrease in confidence in "taking sexual health, sexuality health, and sexuality history from adolescents" and "counseling LGBT adolescents," which we interpreted as being due to newly heightened awareness of self-limitations around these topics. It is also possible that some of the decrease in confidence in counseling LGBT adolescents could be attributed to the uneven distribution of discipline-specific content. For example, although the social, political, and health issues affecting LGBT youth lend themselves easily to interprofessional discussion, finding ways to integrate the experiences and perspectives of the nutrition fellow into case discussion was more difficult than with the other disciplines. Including more material about sexual orientation disparities in eating disorders and obesity[34,35] is one possible means of addressing this challenge.

The learners emerged from the curriculum feeling more confident in identifying LGBT resources, which may be useful for referrals. Although the learners could identify outside resources to support LGBT youth, the pre- and postsurvey feedback on the curriculum indicated that it could be improved to enhance learners' confidence in serving LGBT youth in clinical settings. Additional points of verbal feedback were that the learners felt that there were too many learning goals in the curriculum and that they would like a greater focus on sexual orientation rather than transgender health issues, given the greater likelihood of encountering LGB rather than transgender youth in clinical settings.

In revising the curriculum for 2015, we pared down the number of primary and secondary learning outcomes (e.g., dropping elements about psychopharmacology, content less explicitly tied to LGBT youth issues). Due to the perceived decrease in confidence in working with LGBT youth, we focused Module 1 on developing cultural humility, a stance that enables learners to understand that working with LGBT adolescents is a continuous learning process. We also created separate units for sexual orientation and sexual orientation health disparities (Module 2) and health issues related to transgender identities and gender nonconformity (the latter is a construct that affects more youth than just those with transgender identities; Module 3). Separating out sexual orientation and gender identity and expression created opportunities to explore these components in greater depth. Additionally, we modified Module 4 to focus on leadership, advocacy, and public health practice, with learners exploring particular health and policy issues pertaining to the lives of LGBT youth via a debate exercise.

In 2015 (N = 8) and 2016 (N = 6), learners rated the curriculum on the same five evaluation areas as in 2013. Average ratings for each of these five evaluation areas ranged from 9.0-9.5 in 2015 and 8.2-8.8 in 2016. Written feedback from learners in 2015 and 2016 indicated that the unit on cultural humility helped

them identify gaps in their training and develop greater confidence in working with LGBT youth in the years ahead. Furthermore, one learner noted that the interprofessional, case-based learning format was "excellent for letting the group generate ideas and conversation; it was a great case!"

Discussion

This four-part curriculum provides new opportunities for medical education through its focus on adolescent health, interprofessional training and collaboration, and building knowledge about diverse local and national resources for sexual and gender minority youth. Indeed, learners reported emerging with greater confidence in identifying local and national LGBT resources, which can be an important source of referrals and continuing education. In addition, the interprofessional, case-based learning format provided multiple opportunities for learners to experience how their skills and expertise were directly relevant to promoting the health and care of LGBT youth.

Although we developed this curriculum for learners in an interprofessional adolescent health fellowship program, it could be used in unidisciplinary contexts with fellows from a variety of backgrounds (nursing, social work, psychology, nutrition, and medicine) who are involved in the assessment or care of adolescents with LGBT issues. If teaching to a unidisciplinary group, the instructor may need to supply information regarding other disciplines not represented (from the Instructors' Guide) or encourage learners to look up this information outside of class time and report back to the group. If time does not permit teaching the curriculum in its entirety (a total of 5 hours and 45 minutes of content), it is also designed to be adapted to other settings. For example, instructors could combine Modules 1, 2, and 3 into fewer modules of longer duration, which would provide a similarly in-depth education experience. In addition, it is also possible to teach select modules if time is limited or if instructors wish to focus on a limited scope of material. Please consult the Instructors' Guide (Appendix B) for recommended modifications if teaching modules as stand-alone units. Future work should evaluate the effectiveness of individual modules as stand-alone units. In addition, future work should modify and evaluate the effectiveness of teaching the curriculum, or individual modules, to learners of different levels of expertise (e.g., residents, medical students, social work students, etc.).

Due to the length of the curriculum, it is possible that some learners and instructors with limited experience working with LGBT populations will find it challenging. Evaluation data indicated that some learners felt less confident working with LGBT populations after completing an earlier version of the curriculum. Although having expertise or experience in research or clinical practice with LGBT youth can certainly enhance the learning experience of participants, this is not a requirement for instructors. We believe that incorporating concepts of cultural humility into the curriculum is key to fostering learners' commitment to lifelong learning and maintaining their confidence when working with marginalized populations. Instructors whose experience with LGBT populations may be more limited may similarly approach the modules from a stance of humility. Feedback from learners on subsequent versions of the curriculum indicated that the curriculum is particularly useful for exposing learners to the complexities of serving and supporting LGBT youth and identifying personal skills that may require additional development.

Prior to implementing the curriculum, we recommend that instructors connect with local LGBT resource centers in the community and schools (e.g., universities, primary and secondary schools), where they are available, to help tailor the materials provided in the appendices to the specific setting (e.g., resources listed in Appendix D). This also allows instructors to gather information about potential guest speakers or new research literature and clinical practice guidelines to supplement or update the materials provided in this brief curriculum. In the absence of robust local resources or expertise (e.g., researchers and clinicians specializing in LGBT health), population health and professional organizations, such as the Fenway Institute Center for Population Research in LGBT Health (http://lgbtpopulationcenter.org) and the World

Professional Association for Transgender Health (http://www.wpath.org) can provide updated health research on gender and sexual minority populations.

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