

Original Publication

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Let's Talk About Sex: The Social Determinants of Sexual and Reproductive Health for Second-Year Medical Students

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Abstract

Introduction: Sexual health is influenced by a myriad of social factors including health care access, social and cultural norms, insurance status, educational level and health literacy, economic status, sex, gender identity, and sexual orientation and behavior. It is pivotal to educate future physicians about these social determinants so that they can work to mitigate the resulting disparities and thereby improve the health of patients and their communities. **Methods:** This 2-hour, large-group session for second-year medical students was first given in the fall of 2017. It included a 1-hour, case-based lecture followed by a patient panel. Panelists discussed their interactions with the medical system and how these related to their sex and gender identity. Ninety students (77.5% response rate) completed both pre- and postsurveys and an overall assessment of the session. **Results:** Students reported high levels of satisfaction with the session. Eighty-seven percent felt they would benefit from more classes including a patient panel, and 93% reported specifically that the panel helped them to identify their own biases related to sexual orientation and gender. In the postsurvey, there was a significant ($p < .05$) increase in the number of students reporting increased comfort regarding various aspects of sexual history taking and interacting with patients of different sexual orientations and gender identities. **Discussion:** This instructional format provided an effective way to teach medical students about the social determinants of sexual and reproductive health. Students both appreciated the session format and reported increased comfort and confidence related to the subject matter.

Keywords

Social Determinants of Health, Contraceptive Agents, Patient Education as Topic, Sexual Health, Sexual and Gender Minorities, Preventive Health Services

Appendices

- A. Student Readings.docx
- B. PowerPoint Presentation .pptx
- C. Facilitator Guide.docx
- D. Session Survey.docx

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

Educational Objectives

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

1. Describe at least five social determinants of sexual and reproductive health.
2. Identify the specific sexual and reproductive health needs of certain populations, including women, LGBTQ+ (lesbian, gay, bisexual, transgender, and queer/questioning) communities, people living with chronic diseases, and incarcerated people.
3. Identify health concerns and disparities of LGBTQ+ patients and strategies for addressing these specific needs.
4. Discuss the United States Preventive Services Task Force's screening recommendations related to sexual health.

Introduction

Healthy People 2020 outlines the pivotal role that sexual and reproductive health plays in eliminating health disparities and ensuring the overall health of individuals and communities.¹ Within this framework, Healthy People 2020 focuses on reducing rates of unintended and adolescent pregnancies, decreasing the rate of HIV transmission through testing and treatment, and increasing early diagnosis and treatment of other sexually transmitted infections. Attainment of sexual health and well-being is influenced by a

myriad of social factors including health care access, social and cultural norms, insurance status, educational level and health literacy, economic status, gender identity and bias, and sexual orientation.¹ Exposing medical students to these determinants of sexual and reproductive health is essential to training future physicians who are able to strategize ways in which to mitigate disparities and thereby improve the health of patients and their communities.

This 2-hour session is split evenly between a didactic lecture and a patient panel. The didactic component is divided into three cases, each of which addresses one of the session learning objectives; this participatory lecture provides an introduction to the social determinants of sexual and reproductive health; lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ+) health disparities; and HIV and sexually transmitted infections within Miami-Dade County, Florida (where our medical school is located). Previously, the lecture had been given without a patient panel, but we discovered that our students found it difficult to connect with the information presented. Despite the case-based format and presented statistics, students struggled to identify the relevance of sex, sexual orientation, and gender identity to the day-to-day realities of patient care. Several students said they felt that health care disparities experienced by LGBTQ+ people were exaggerated and politically motivated and did not truly impact their health outcomes. As a result of this anecdotal feedback, we added a second hour to the session; during this hour, patients share their experiences with the health care system. Each invited patient adds relevance to one of the topics covered by the lecture; our patient panelists included a transgender woman, a middle-aged gay man, and an older woman with HIV. This is an interactive panel, and students are given the opportunity to ask questions of the speakers, thereby making the session both more relevant and dynamic.

MedEdPORTAL has multiple publications related to teaching the social determinants of health; however, the focus of these teaching interventions is not specifically on the social determinants of sexual and reproductive health. For example, “Exploring Health Systems Within the Context of Social Determinants of Health: A Global Health Case Study” examines health systems resources and individual health through a case study that spans both the United States and Haiti.² Another resource, “Teaching Social Determinants of Health Through Mini-Service Learning Experiences,” describes the use of short, onetime field experiences to solidify in-class learning regarding the social determinants of health.³ A third curriculum, “Breast Health Disparities: A Primer for Medical Students,” uses a lecture and case study to discuss the social determinants of breast cancer screening, diagnosis, and treatment.⁴

There are also multiple curricula related specifically to teaching LGBTQ+ health; many of these focus on sexual history taking, employing standardized patient cases in a variety of different ways.

“Interprofessional LGBT Health Equity Education for Early Learners” is an educational resource that presents an interprofessional case-study discussion focused on the social determinants of LGBT+ health, with an emphasis on discovering relevant community resources.⁵ Similarly, “Preparing Future Physicians to Care for LGBT Patients: A Medical School Curriculum” presents a lecture, patient panel, and small-group case discussion related to LGBTQ+ health care and disparities.⁶ While our educational resource encompasses LGBTQ+ health disparities, it also takes a much broader view, including cases focused on the social determinants of reproductive health, HIV/AIDS and guidelines for sexual health screenings, and a young gay-identified man. As such, our educational resource is unique in the way that it broadly combines education regarding the social determinants with the topic of sexual and reproductive health. Furthermore, the case-based format allows for a more cohesive presentation of a large amount of material in the allotted 1-hour time period.

Methods

The Florida International University’s Herbert Wertheim College of Medicine has a longitudinal, integrated curriculum related to sexual health, including but not limited to the topics of gender identity, reproductive health and family planning, and LGBTQ+ health. In their first year, students take a course on the social determinants of health; in this class, there is one 2-hour lecture dedicated to sex and gender. This lecture

provides the basics of the differences between sex and gender and lays the foundation for understanding the specific needs of the LGBTQ+ community, including terminology and existing health disparities. During the second-year clinical skills course, students also participate in a 3-hour workshop related to taking the sexual history; they are taught the Centers for Disease Control and Prevention's 5 P's model of taking a sexual history (partners, practices, prevention of pregnancy, protection from sexually transmitted diseases, past history of sexually transmitted diseases).⁷ In addition, students are taught to add a sixth P—pleasure—and the approach to taking the history of a transgender or gender-conforming patient is also addressed. After the lecture, students practice their skills by participating in a transgender standardized patient case. As such, neither the sexual history nor a discussion of sexual pleasure is the focus of the resource presented here.

The session presented here was delivered around the same time in the second-year curriculum as the sexual history lecture mentioned above. It was assumed that students had the background knowledge about sex and gender that had been delivered during their first-year lecture on these topics. The lecture presented in this resource was given to second-year medical students as part of the Community Engaged Physician course series. This course, the curricular component of the Green Family Foundation Neighborhood Health Education Learning Program (NeighborhoodHELP), focused on teaching students practical ways to address the social determinants of health as they exist for our patients. In the service-learning component of NeighborhoodHELP, students were assigned to interprofessional teams to provide longitudinal, holistic care to households in underserved communities of Miami-Dade County. Medical students, in conjunction with nursing, social work, law, physician assistant, and education students, conducted household visits and worked to provide care addressing each household's medical and social needs. The cases presented in this lecture were embedded within the context of NeighborhoodHELP's service-learning component, where care was delivered in a free mobile health center or within the patient's home, but they could easily be altered to fit the clinical context of another institution.

Students were assigned three short readings in advance of the session (Appendix A). The first reading assignment was the American College of Obstetricians and Gynecologists' committee report on the role of social determinants of health in the delivery of reproductive health care.⁸ The second reading was a short article outlining a patient-centered approach to transgender health care.⁹ The third assigned article was a brief, accessible piece from the *New York Times* discussing the importance of obtaining a sexual history and information from patients.¹⁰

For the session itself, the only required equipment was a computer and a projector screen for the PowerPoint, in addition to three chairs and a microphone for the panelists. The 2-hour session was divided into two 1-hour blocks. During the first hour, the PowerPoint (Appendix B, with notes for the facilitator listed on each slide) was delivered by one faculty member to a class of 116 students. The case-based format invited participation from students. After the conclusion of the lecture, students were given a 10-minute break as the session transitioned to its second half.

In the second hour, three community members were invited to discuss their experiences with the health care system, particularly as these experiences related to their sex, sexual orientation, or gender identity. At our institution, this panel included a transgender woman, a middle-aged gay man, and an older heterosexual woman with HIV; the panel was moderated by a faculty member who was also each speaker's physician and took primary responsibility for recruiting the panelists. In advance of the session, the panel moderator oriented the panelists about the audience; she specifically provided a brief explanation about where the medical students were in their training and about the longitudinal sexual and reproductive health curriculum at our medical school. The panelists were reassured that the environment was nonjudgmental and confidential. However, they were encouraged to disclose only information that they were comfortable with the public knowing. While each of the panelists was already an experienced

public speaker, we would recommend giving those with less public speaking experience some tips, such as how the room will be arranged, how to use a microphone, and how to manage questions that they are uncomfortable with or do not know the answer to.

The goal was to have each panelist provide a face and voice for each of the different topics highlighted in the lecture. However, the specifics of the panel's members could easily be adopted and modified based on the patients and stories available at other institutions. During the panel, students were asked to write questions down on index cards. The cards were then collected and given to the moderator, who organized the questions and asked them of the panelists in a facilitated manner. A facilitator guide for the patient panel (Appendix C) is included in this publication.

In order to evaluate the effectiveness and impact of this session, we incorporated a pre- and postsurvey (Appendix D) to determine students' levels of comfort with and beliefs about various aspects of sexual and reproductive health. The postsession survey also included questions regarding the students' overall satisfaction with the session and its teaching methods. The surveys consisted of Likert-type questions, with answers rated from 1 (*strongly disagree*) to 5 (*strongly agree*). The presession survey was posted on the course's web-based management system in advance of class, and the postsurvey was posted directly following the session. Students were encouraged verbally and over email to complete the surveys, but completion was optional. For the pre- and postsurveys, students' responses were ranked and then analyzed using the Wilcoxon signed rank test to assess changes in students' level of comfort and beliefs at a 5% level of significance. Data were analyzed using SPSS 23. Evaluation of students' overall assessment of the learning session involved categorization of student responses and calculation of the proportion of counts by category.

Results

Out of 116 students who participated in the session, 90 completed both the pre- and postsurveys, resulting in a 77.5% response rate. Answers from students who completed only the presurvey or the postsurvey were not included. Our results showed that upon completion of this session, there was a statistically significant increase ($p < .05$) in the number of students who reported feeling comfortable with multiple aspects of the sexual history, including discussing a patient's sexual history, discussing issues related to sex with patients over 60 years old, discussing a patient's sexual history as it related to gender development and identity, treating people with a different sexual orientation than their own, and treating people with transgender identity. There was also a statistically significant increase in the number of students who reported feeling prepared to address the sexual and reproductive health needs of their patients. These results can be found in questions 1-5 and 8 in [Table 1](#).

Table 1. Evaluation of Ranked Students' Responses ($N = 90$)^a

Question	Positive Mean Rank ^b	Negative Mean Rank ^c	<i>p</i>
I feel comfortable discussing a patient's sexual history.	18.9	14.5	<.001
I feel comfortable discussing issues related to sex with patients >60 years old.	26.0	16.5	<.001
I feel comfortable discussing a patient's sexual history as it relates to issues of gender development and identity.	25.0	21.4	<.001
I feel comfortable treating people with a different sexual orientation than my own.	14.6	12.6	.025
I feel comfortable treating people with a transgender identity.	19.7	18.6	<.001
I believe it is important to address a patient's sexual and reproductive health as part of his/her social determinants of health.	11.3	10.5	.102
LGBTQ+ people face unique health concerns compared to heterosexual and cis-gender people.	21.2	15.1	.129
It is important to address screening/testing for HIV/AIDS with all patients.	18.5	18.5	.505

^aRank is determined from an evaluation of the pre- and postsurvey responses on a 5-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*).

^bA positive rank is any change on the scale that results in an increase in score; for example, a change from neutral to agree is considered positive because of the +1 increase from a score of 3 to 4.

^cA negative rank is any change on the scale that results in a decrease in score; for example, a change from neutral to disagree is considered negative because of the -1 decrease from a score of 3 to 2.

Though analysis of the remaining survey questions (see Table 1, questions 6, 7, and 9) showed increases in the absolute number of students who reported that they agreed with the given statements, these changes were not statistically significant.

Overall, students reported high levels of satisfaction with the session itself. Ninety-nine percent of students strongly agreed or agreed that the patient panel was an effective way to expose them to patients of diverse sexualities and genders. More specifically, 93% of students strongly agreed or agreed that the patient panel helped them to identify their own biases when addressing issues related to sexual orientation and gender. Eighty-seven percent of students also reported that they would benefit from more classes consisting of a lecture followed by a patient panel. Results from this postsession evaluation are found in Table 2.

Table 2. Evaluation of Overall Session Assessment Result (*N* = 90)

Question	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
The objectives of this session were clear.	63	34	2	0	0
The lecture was helpful in preparing me for the panel discussion.	63	32	3	0	1
I feel the session covered a topic that is relevant to my own future practice.	72	24	1	1	1
The patient panel allowed me to identify my own biases when addressing sexuality and gender.	49	44	4	1	1
The patient panel was an effective way to expose me/students to patients of diverse sexualities and genders.	61	38	0	0	1
This session helped me feel more comfortable addressing issues related to sexuality and gender.	57	38	3	1	1
Based on this session, I feel like I need more practice and exposure related to issues of gender and sexuality.	43	40	9	7	1
I would benefit from more sessions of this type (lecture followed by panel discussion).	54	32	9	3	1

Discussion

Comprehensive sexual and reproductive health care plays a critical role in effectively addressing health disparities. Attainment of sexual health and well-being is influenced by a myriad of social factors including health care access, social and cultural norms, insurance status, educational level and health literacy, economic status, gender identity and bias, and sexual orientation. The 2-hour session described above and presented in the associated PowerPoint offers an effective introduction to the social determinants of sexual and reproductive health. Our analysis of the pre- and postsession surveys showed that students reported increased comfort regarding various aspects of taking a sexual history and, importantly, in interacting with patients of sexual orientations and gender identities that differed from their own. Furthermore, when comparing answers on the pre- and postsession surveys, there was an increase in the number of students who stated that they felt prepared to address the sexual and reproductive health needs of their patients.

Three questions that we asked our students on the pre- and postsession surveys showed no statistically significant change in answers. A lack of statistical significance may be secondary to a high baseline number of students who strongly agreed or agreed with the statements, thereby leaving little room for student opinions and answers to be shifted toward the strongly agree category. Furthermore, anecdotally, multiple students told us that prior to the session, they felt that they were confident in their abilities and knew a lot about the subject matter; however, the lecture showed them that there was a lot more to learn and know than they had previously thought. This points to the fact that this is an introductory lecture, with much more material that could be covered for any of the presented topics.

There are several limitations to the evaluation of our session. First, the majority of our questions/statements related to perceived comfort and confidence and did not assess actual skills or competence. Students also may have overstated their comfort levels, and it is not clear that their perception of increased confidence would necessarily translate into better care for the marginalized

populations discussed during the lecture. Furthermore, our pre- and posttest questions did not align to clearly assess students' achievement of our session objectives. This misalignment of session objectives, lecture content, and the session evaluation may have contributed to the lack of statistically significant changes seen for several of our pre- and posttest questions. For this reason, the pre- and posttest questions in this publication have been edited to better align with the session objectives. Ideally, case-based short-answer questions would be used to determine students' ability to assess and then address the social determinants of sexual and reproductive health of one or several patients; the ability to implement such an assessment strategy may be limited by time and course structure, as it is at our institution.

While multiple publications in *MedEdPORTAL* address either LGBTQ+ health or the social determinants of health, there are no current curricula or presentations that combine these two areas to specifically address the social determinants of sexual and reproductive health. Additionally, it is important to recognize that sexual and reproductive health includes more than LGBTQ+ health issues. Our resource looks at unintended pregnancy and sexual health outcomes of women and at screening guidelines for sexually transmitted infections. The lecture effectively begins to fill the gap that exists in terms of available medical education curricula in this realm.

The lecture component of this session does not require significant resources beyond those needed for a PowerPoint presentation, and it could easily be given to groups of varying numbers of students without significant adaptation. Several of the slides refer to programs and clinical contexts specific to the community and clinical context of our medical school. References to household visits (slides 10, 24) could be altered to ask about clinic visits. Slide 25 reports family planning and sexually transmitted infection screening services available to NeighborhoodHELP patients, and slides 47-48 feature information specific to HIV/AIDS and community resources in Miami; all of these would need to be changed to present information relevant to the town/area where the presentation is being given.

The patient panel component of this session may be more challenging for other institutions to recreate. It hinges on having three patients from diverse backgrounds who have engaging, representative stories and are willing to speak in front of a lecture hall of medical students. It was important that we found a faculty member with a varied clinic practice and long, trusting relationships with her patients; she took primary responsibility for organizing this panel, and the participants felt comfortable with her. If finding panelists from within the patient population of an institution proves difficult, many towns have LGBTQ+ resource centers and other not-for-profit organizations with speakers' bureaus that will likely be able to help coordinate a panel for the session. Despite the possible challenges to planning a patient panel, our data suggest that students found this portion of the session to be effective on multiple levels, including exposing them to patients of varied sexualities and genders and increasing awareness of their own biases. Students overwhelmingly felt that having more sessions following this format would be useful in the future.

No significant changes are planned for this session for next year. For the panel, we would like to provide the speakers with three to four questions in advance of the session, so that they can prepare their answers with a specific focus on sexual and reproductive health outcomes.

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Informed Consent

All identifiable persons in this resource have granted their permission.

Ethical Approval

The Florida International University Health Sciences Review Board approved this study.

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