HHS Public Access

Author manuscript

J Pediatr Health Care. Author manuscript; available in PMC 2022 September 01.

Published in final edited form as:

J Pediatr Health Care. 2021 ; 35(5): 500–508. doi:10.1016/j.pedhc.2021.04.008.

Perspectives on Sexual Health, Sexual Health Education, and HIV Prevention From Adolescent (13–18 Years) Sexual Minority Males

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Conflicts of interest: None to report.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Abstract

Introduction: Adolescent sexual minority males (ASMM) are at disproportionate risk of HIV infection. The purpose of this study was to assess ASMM's attitudes about sexual health, barriers/facilitators to accessing HIV prevention, and actual versus ideal interactions for receiving sexual health care and information.

Method: Two online and two in-person focus groups were conducted with ASMM from across the United States. Qualitative data were analyzed using content analysis.

Results: Twenty-one racially diverse ASMM participated (average age = 16.4 years). Online focus groups were superior for reaching the target population. Four themes emerged:

1. identity formation and sources of support,
2. challenges to obtaining sexual health information,
3. attitudes/beliefs about sex and sexual behaviors, and
4. barriers to HIV prevention.

Discussion: These findings illustrate current gaps in sexual health knowledge, as well as barriers and facilitators to obtaining sexual health information, sexual health care, and affirming education and support for ASMM.

Keywords

HIV/AIDS; sexual health; adolescent health; sexual minority youth; qualitative research

INTRODUCTION

In the United States, men who have sex with men (MSM) are at high risk for HIV and other sexually transmitted infections. Although HIV diagnoses have declined among some groups since 2005—such as heterosexuals, Black women, and people who inject drugs—the same declines have not been observed among MSM, especially adolescents. Approximately 21% of new HIV infections in the United States are among MSM aged 13–24 years (Centers for Disease Control and Prevention, 2017a). Greater disparities in new HIV infections are evident among Black and Latino adolescents (Centers for Disease Control and Prevention, 2016), who are also less likely to receive care and treatment for HIV than White, non-Hispanic adolescents (Centers for Disease Control and Prevention, 2017b; Centers for Disease Control and Prevention, 2017c). In addition, MSM report barriers to care, including lack of culturally competent care, discrimination, and stigma in the health system (Lambda Legal, 2010; Ward, Dahlhamer, Galinsky, & Joestl, 2014).

Despite a disproportionate burden of HIV on adolescent MSM, limited research with this population exists. Reaching adolescents is critical, as youth often begin developing their sexual identities and behaviors at this time (Saewyc, 2011). To build adolescent-focused, effective, and evidence-based HIV interventions, a greater understanding of facilitators and

barriers among adolescent sexual minority males (ASMM; defined as adolescent males who have same-sex attractions, engage in same-sex behaviors, or identify as gay/bisexual/another nonheterosexual identity) for HIV prevention is necessary. Therefore, we sought to assess how ASMM aged 13–18 years obtain information about sexual health, their beliefs and attitudes about sex, perceived barriers and facilitators to accessing HIV/STI prevention, and their actual and ideal interactions for receiving sexual health information and care from various sources, including health care providers, teachers, and parents. Results will inform the development of effective HIV prevention tools and resources for adults (e.g., health care providers, youth workers, teachers, and school nurses) who support and care for ASMM.

METHODS

Study Population and Procedures

A purposive sample of ASMM (aged 13–18 years) was recruited either (1) online via national advertisements posted on Facebook (Facebook, Inc., Menlo Park, CA) and distributed electronically through national level youth organizations (e.g., GSA Network); or (2) online via electronic postings from local youth organizations (e.g., Mazzoni Center, BAGLY) or in-person at Boston Youth Pride. Organizations posted electronic flyers on their list-serves and social media pages. The recruitment campaign and advertisement content were developed with input from a Youth Community Advisory Board, comprised 28 diverse lesbian, gay, bisexual, transgender, and queer youth from Boston. Study protocols and procedures were approved by Fenway Health's Institutional Review Board, and participants received a token of appreciation for their time.

Interested adolescents completed an eligibility screener and informed assent/consent. Parental permission was waived for adolescents under 18. Those eligible were invited to participate in one of four focus groups. Two groups were conducted via a 3-day continuous/asynchronous discussion online, and two were conducted in-person (60 min). Inclusion criteria were as follows: (1) aged 13–18 years; (2) be a cisgender male attracted to other males; (3) live in the United States; and (4) understand English. Participants for online groups were nationally recruited, and these participants needed access to a computer and Internet during dates/times of discussions. In-person groups were conducted in Philadelphia and Boston in private conference rooms at affiliated youth centers.

Our team was interested in comparing differences between recruitment for and effectiveness of in-person and online focus group methodologies with our hard-to-reach target population. Benefits of online groups include offering a private and anonymous environment to discuss sensitive health topics, eliminating scheduling constraints, and increasing convenience/flexibility for participation (Fontenot et al., 2020; Fontenot, Rosenberger, McNair, Mayer, & Zimet, 2019; Park & Calamaro, 2013). Benefits of in-person groups include high levels of engagement during discussions and spontaneity in responses (Hsieh & Shannon, 2005).

Participants for online groups were instructed about logistics for assigned groups (date, time, login information, how to use the platform). Participants received reminders via Facebook Messenger (Facebook, Inc.), text, and/or e-mail 3 days in advance, the day before, and the start day. Immediately before the 3-day discussion began, participants received a

link to enter the secure online platform and were automatically assigned a pseudonym. Participants were asked to log in and engage in discussion at least twice per day for 3 days. One investigator moderated all discussions, and three investigators observed, took field notes, and suggested additional probes. InsideHeads facilitated the online platform and technical support. Online discussions were conducted in spring 2018. Traditional in-person discussions were conducted in May 2018 (Boston, MA) and August 2018 (Philadelphia, PA).

Measures

Demographic data were collected electronically for online groups and by paper questionnaire for in-person groups. Demographics included age, sex assigned at birth, gender identity, sex of sexual partners (if sexually active), sexual orientation, race, and ethnicity. A semistructured discussion guide included questions about identity and relationship formation, sources of sexual health information, who youth communicate with about sex, youth's definitions of sex, HIV prevention knowledge, access to health services, and other sources of support (see Table 1).

Analysis

Quantitative demographic data were downloaded from the electronic survey software or manually entered from the paper questionnaire into Microsoft Excel (Microsoft Corporation, Redmond, WA) for management and analysis. Descriptive analysis included means for continuous variables and percentages for nominal data. Transcripts from online and in-person discussions were descriptively analyzed to assess for level of engagement in discussions. Count data were collected for a number of responses for each question and probe, response to each other's comments, and word count of responses (means).

Qualitative data (audio recordings) from in-person focus groups were transcribed verbatim from digital recordings. Participant names were not used in audio recordings. Qualitative data (typed text data) from online focus groups were downloaded from the secure online platform; participants were identified by pseudonyms. All qualitative data were uploaded into NVivo (version 11, QSR International, Melbourne, Australia) software for data management. Qualitative data were analyzed using content analysis (Hsieh & Shannon, 2005; Steinke, Root-Bowman, Estabrook, Levine, & Kantor, 2017; Strauss & Corbin, 1998). Four study investigators initially immersed themselves in the data and objectively reviewed data to explore meaning in the communications and determine first-level coding. Then through an inductive process, a topical codebook was developed. Next, two investigators coded data and met regularly to review, discuss, and resolve discrepancies in coding. The four investigators reviewed coded data to identify emerging themes and patterns, discussed ongoing discrepancies to ensure inter-coder reliability, and agreed on final thematic categories.

RESULTS

Demographics

Overall, 21 adolescent males participated, and the average age was 16.4 years (range 13–18 years). Participants were diverse: 33.3% White non-Hispanic, 19.0% Black, 4.8% Asian, 33.3% Hispanic, and 9.5% multiracial. The majority (all identified as males attracted to males) described their sexual orientation as gay (76.2%) and 9.5% as bisexual, 4.8% as questioning, 4.8% as queer, and 4.8% as heterosexual. All participants were assigned male at birth and identified as male, but because our gender identity question allowed for multiple responses, some participants (14.3%) also identified their gender in other ways, such as genderqueer/gender-nonconforming. Demographic data for online and in-person groups plus geographic location and urban/rural distribution is reported in Table 2.

Adolescents were active participants in all discussions. For online focus groups, 100% of participants (n = 16) answered all the moderator's questions and follow-up probes. Online participants averaged 42 questions/probe responses, with an average of 25 words per response. In addition, participants also responded to comments/posts from peers, averaging six comments back to another peer with an average of 21 words per comment. For in-person participants (n = 5), audio files were transcribed verbatim, and names were not identified. Therefore, we were unable to determine if each participant provided their own unique answer to each of the moderator's questions/probes. Approximately these participants averaged 25 questions/probe responses, with an average of 47 words per response. In addition, participants responded to comments from peers, averaging 28 comments back to another peer with an average of 20 words per comment. Data reflect that all participants (online and in-person) spent meaningful amounts of time engaged in discussions.

Qualitative Results

Findings were consistent regardless of online or in-person methodology. Four categories emerged from the data: (1) identity formation and sources of support, (2) challenges to obtaining sexual health information, (3) attitudes and beliefs about sex and sexual behaviors, and (4) barriers to HIV prevention. Findings are explicated below with exemplar quotations. See Box for additional illustrative quotations.

Identity formation and sources of support—Adolescents described being reflective, open, and fluid in their process of sexual identity formation. They discussed why they used particular terminology to describe their sexual identity, their exploration of terminology to find the best language to fit their identities, and that labeling may limit identity formation. One stated, "I'm 98% gay but am not completely comfortable identifying as gay… I want to leave my sexuality open to the possibility of transgender and genderqueer individuals." Others expressed a desire to be respected for how they identify, where they were in the process of coming out, and how identity may change over time.

Participants described what social support they received, if any, for their sexual identity. Levels of support varied. Most received support from close friends and peers, whereas fewer had support from families. For example, one noted that his mother "always listens to

[him] and responds without judgment and with love," whereas another stated, "my father's side [of the family] is hyper religious and homo-phobic." Many expressed a desire for more parental support and affirmation. Participants desired increased access to nonfamilial social support resources and lesbian, gay, bisexual, and transgender (LGBT)–affirming mental health services. Finally, participants discussed a lack of support regarding multiple, intersectional identities, particularly the intersection of racial/ethnic identities and sexual identities. One wished that there were "more culturally diverse groups in [his] community that were inclusive and informative."

Challenges to obtaining sexual health information—Participants described challenges accessing relevant and affirming LGBT-focused sexual health information from parents, health care providers, schools, and other sources. Most described inadequate, negative, or nonexistent conversations about sex and sexual health with parents, health care providers, and educators. For example, one stated, "My father told me to use protection and to not be stupid. That's all he said, so I do think there is… room for improvement." Some wanted their parents to talk with them about sex, whereas others believed that would be uncomfortable. If participants were to talk to their parents about sex, they wanted their parents to deliver accurate sexual health information, but more importantly, to express love and acceptance of their sexual identity.

Participants reported that many health care providers did not provide sexual health information, or if they did, that conversations were brief and inadequate. One noted that his health care provider (who knew he was gay) used scare tactics as a means to educate him about sexual health, and the participant explained how he left the conversation "fearing that [his] well-being will be permanently damaged just for having sex." Participants wanted health care providers to provide accurate information and "establish a respect for dangers" without instilling fear or stigmatizing sexual identities or behaviors.

Participants had varied experiences with sexual health education in schools, varying widely by state. Many noted that their school only taught abstinence or that if sexual health was taught, it only focused on heterosexual sex. One stated that his school "never taught [him] about risks or treatment. It's all abstinence based and excludes the LGBT community and it needs to be fixed." Many reported specifically wanting a sexual education curriculum to be inclusive of same-sex behavior. They also wanted more information on HIV/STI prevention, consent, and healthy relationships. Some suggested that curriculum could be delivered online through "interactive online games and videos" because most students are "technology friendly."

Participants commonly reported learning about sex from friends, partners, porn, dating apps, and the Internet. One stated, "I talk to no one about sex, because I feel like others would be weirded out by my questions. So anything I want to know I look up [online]." Another stated, "I learned about sex mostly from porn and social media. Porn is helpful in that it demonstrates sex, but consent and protection are almost never emphasized." Although it was common to find sexual health information online, participants were wary of trusting online sources: "…it's important to ask actual people questions about sex… rather than the internet since not all of it is true."

Attitudes and beliefs about relationships, sex, and sexual behaviors— Participants discussed attitudes and beliefs toward sex, including their definitions of sex and reasons for delaying sex among those not yet sexually active. Many had an open and positive attitude about sex, whereas others felt that sex should only be discussed privately. One said, "…when it comes to sex life, it's something private that I want to keep to a part of myself." Participants defined sex broadly: one said that "typically only view[s] oral and anal [sex] as sex," whereas another participant said that sex could be any "intimate act between two partners who deeply care about each other."

Adolescents emphasized the importance of open, honest communication and consent in relationships. However, participants expressed a lack of skills for communicating in relationships, negotiating sexual behaviors, and ensuring sexual consent. For example, several participants noted that partners pressuring them to have condom-less sex was a major barrier to using condoms. Adolescents discussed difficulty with communicating effectively about sex with partners; one said, "I don't think anyone can really teach it to you… communication is learned from trial and error."

Participants who were not sexually active described reasons for delaying sex, including age, religion, asexuality, and not being in relationships. When discussing the option of delaying sex or finding other ways to be intimate as an HIV prevention strategy, participants mentioned pressure from sexual partners to have anal sex and that it might be socially unacceptable to "go back" to nonpenetrative sex once a young person becomes sexually active.

Barriers to HIV prevention—Although participants generally held positive attitudes toward the use of condoms and lubricant, HIV/STI testing, and PrEP (pre-exposure prophylaxis for HIV prevention), they noted a variety of barriers to access. Regarding condom use, one said,

> The difficulty comes in how accessible condoms are. We can't always afford them, aren't comfortable asking our parents to buy them, and we don't know where to get them otherwise. If my partner doesn't have one I'm often too uncomfortable to ask them to go buy one.

Several reported being unaware of the importance of using lubricant during anal sex as an HIV preventive measure. Participants also said fear of exposing their sexual activity or sexual orientation to parents or siblings acted as a barrier to accessing condoms and lubricant.

Participants thought HIV/STI testing was a realistic prevention strategy if they had access to free testing at times and places convenient for teens. Barriers to testing included: affordability, fear of parents finding out, finding a testing location, and fear of discovering HIV positive status. One stated, "It sounds scary [HIV testing]. I'd like to know more on how, how expensive, and what it would mean to have HIV."

Participants were interested in learning about PrEP and understood its importance as a potential HIV prevention strategy. Participants believed they would have or said they

did have difficulties in obtaining PrEP. One stated, “for minors… it’s also hard to get prescriptions without telling your parents.” Participants also reported struggling to find providers who were knowledgeable about PrEP and would prescribe PrEP to minors.

Finally, adolescents described stigma, fear of coming out, and status of “outness” as additional barriers in accessing services. They viewed “outness” as necessary to ask for HIV testing and PrEP. One described not being ready to come out and fear associated with coming out to family, friends, and even to health care providers. Another described “inability to come out” as a barrier to accessing PrEP.

DISCUSSION

This study explored ASMM’s perceptions and beliefs related to identity formation, sexual health education, relationships and behaviors, and barriers to HIV prevention and comprehensive sexual health care, as well as challenges youth encountered with support from providers, parents, and schools to optimize their sexual health.

Adolescents in our study experienced the same structural barriers to obtaining health care as adolescents in general, including affordability, transportation, and privacy concerns (Ralph & Brindis, 2010). Health centers might address these structural barriers using strategies that increase access while protecting privacy, such as increasing availability of free condoms and lubricant, expanding operating hours to evenings and weekends, and assessing confidentiality features in electronic medical records. Mobile testing where youth congregate and at youth-centered events (e.g., Youth Pride) is a strategy for reaching adolescents who might otherwise not know where or how to seek these services (Cahill et al., 2018).

Participants identified stigma around seeking sexual health care and fears of being outed to their parents as additional barriers to obtaining care. Participants were afraid to use their health insurance because then parents would know they obtained HIV testing. In addition, participants described providers’ lack of comfort in providing LGBT-affirming care and knowledge regarding PrEP, particularly for minors. Adolescent providers may benefit from education on (1) eliciting sexual health histories with LGBT adolescents; (2) ways to ensure privacy/confidentiality for minors seeking preventive services (Levine, Gold, Nash, & English, 2012); (3) HIV prevention options like PrEP, approved by the Food and Drug Administration for minors in 2018 (National Institute of Child Health and Human Development, 2018); (4) skills and competencies needed for delivering affirming care; and (5) ways in which stigma negatively affects health-seeking behaviors (Whitehead, Shaver, & Stephenson, 2016) and outcomes (Meyer, 2003).

Our study also highlights the need to develop interventions for parents, particularly around supporting identity formation and sexual education for their children. Tools to guide heterosexual parents in having nonheteronormative sexual health conversations that cover a wide array of sexuality topics may assist parents with providing appropriate guidance about sexual health and HIV prevention (Flores et al., 2020). For example, resource lists for community-based LGBT organizations might be distributed to parents and youth through school nurses, gay-straight alliances (school clubs), and adolescent health care providers.

Youth in this study described a desire and need for comprehensive, inclusive sexual health education. In the United States, there is a dearth of comprehensive, medically accurate sexual education programs being delivered to youth, particularly programs inclusive of LGBT identities. As of April 1, 2020, whereas 39 states require abstinence information in sexual education courses (29 require abstinence be stressed), only 10 states required inclusive information about sexual orientation, and seven states actually required providing negative information on homosexuality and/or positive information on heterosexuality (Guttmacher Institute, 2020). Given the disproportionate HIV/STI risk faced by adolescent MSM, sexual health education that includes LGBT identities and addresses same-sex behavior in a culturally competent manner is crucial (Steinke et al., 2017). Furthermore, discussions of consent, communication, and healthy relationships within sexual health education would be essential to providing ASMM with the skills necessary for negotiating condom use and boundaries around sexual activity.

Given the reality that comprehensive and inclusive sexual education curricula currently cannot be offered in all schools, developing innovative ways to educate youth about HIV/STI testing and sexual health using social media and web-based interventions may be an effective strategy to fill current gaps. Our findings and others (Magee, Bigelow, Dehaan, & Mustanski, 2012) suggest that LGBT youth have a significant interest in online sexual health information. ASMM are already comfortable seeking out sexual health information online and would like creative, interactive, affirming, reliable, and trustworthy online resources regarding sexual health (Fontenot et al., 2019).

Although our study methods provided rich qualitative data from both online and in-person focus groups, this study is not without limitations. Difficulty in recruiting for in-person focus groups contributed to smaller sample size. Future in-person recruitment strategies would likely benefit from the prolonged development of relationships with LGBT youth-serving organizations. Recruitment online was superior, but similar to in-person groups, recruitment of youth less than 15 years of age and from rural areas continued to be a challenge. Future online recruitment strategies may benefit from engagement with key peer online influencers to assist with recruitment and testing of multiple social media venues for recruitment (e.g., Instagram, Snap-chat, etc.). Lastly, we believe a greater incentive for online focus groups would increase interest in participation; however, per our protocol, we were only able to offer $30 for 3 days.

We found online focus groups to be the superior method for data quality. This method facilitated ease of recruitment, reduced barriers for adolescent participation, and youth reported a sense of camaraderie with other participants online. We found the most compelling and detailed responses from online participants likely because these adolescents had extended amounts of time and opportunity to thoughtfully articulate their own responses to each question and probe. Although less spontaneous peer-to-peer engagement occurred online, adolescents in-person groups were more likely to simply agree with another participant’s previously stated response. Future research should also examine the effectiveness of synchronous versus asynchronous online focus groups.

Conclusions

This study gave voice to a diverse sample of ASMM aged 13–18 years and provided a greater understanding of barriers and facilitators for youth in obtaining LGBT-focused and affirming support from adults to promote sexual health education and HIV prevention. Results from this study will inform the development of tools and resources to optimize health and prevent HIV among ASMM. Interventions should include basic LGBT education for health care providers and school educators; address barriers associated with adolescent health care, including stigma and concerns for confidentiality; expand sexual health education to be inclusive of all sexual identities; and provide guidance to support parents in engaging in sexual health conversations with sexual minority children.

Acknowledgments

Funding for this research came from the Centers for Disease Control and Prevention contract “Developing tools to engage adolescent men who have sex with men (MSM)” GS-10F-0033M/HHSD2002013M53955B/200-2015-F-88276, NORC at the University of Chicago subcontract 7836.TFI.01.

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BOX.

Additional illustrative quotations

Barriers to HIV prevention

Condoms and lubricant

- "I've heard that condoms are important, but I didn't know about lube being important at all. It's probably hard because you can't just like buy that. That's embarrassing… and having to buy them, we're poor, and it's embarrassing."

HIV and STI testing

- "Now, again, my parents would know [if I got tested]. It'd be expensive. As an independent adult, I could do it."
- "There are places that have free testing for teens like Planned Parenthood so this is realistic in my opinion."
- "Unable to find a clinic or location to get tested and obtain the medication [describing barriers to testing]… Having support and back up, not going alone when getting checked out [describing facilitators of testing]."

PrEP (pre-exposure prophylaxis for HIV prevention)

- "I think most doctors do not offer PrEP. I find that they also hardly hand out condoms. Our society is very close minded and it is hard for people to go about asking questions."
- "I believe it's great [PrEP] because it protects you from getting HIV and if you have it your partner can take it and you can still have sex and you won't feel like your sex life is over."

Attitudes and beliefs about sex and sexual behaviors

Consent

- "Of course I've learned consent is everything. And to find out what both you and your partner are comfortable with and enjoy doing." Reasons for delaying sex
- "I haven't had sex because I am very young and have barely even started puberty."
- "Mostly religious, but I also don't have time or energy to have a relationship. And I'm not sure, but I might be Ace- [asexual] that I won't want sex."

Definitions of sex

- "I often think about sex as some sort of penetration. Oral sex or a hand-job is a form of sex but not really sex itself. I feel like in order to consider an act to be 'sex,' some sort of penetration is necessary in my mind."
- "Sex is anything sexual, beyond kissing."

- "When I use the word sex, I refer to the act of having sexual pleasure amongst two people or multiple people."

Identity formation and sources of support

Identity formation

- "I have never really gotten support for my race/ethnicity so I can't say whether it was helpful. I wish there was more culturally diverse groups in our community that were inclusive and informative, especially for young teens."
- "[when thinking about identifying as gay] I would say mental health is just as important as sexual health so an open discussion with a doctor and a psychiatrist would have been helpful."
- "Yes, I actually realized my sexuality with help from friends, tv shows, and some pornography. The before mentioned sources not only helped me realize more about my identity but also that my identity is acceptable, and how I can safely express myself both emotionally and physically. Though I do wish there was more shows with gay representation, the lack of it because of societal norms and such still makes me a bit anxious to be open about my sexuality."

Variable levels of social support

- "I get many resources that allow me to decipher what is best for me such as condoms, PrEP, counseling etc…I personally wish I had my parents' support but I think any support that could help others would work too."
- "I get support from my friends, it's helpful because they're all supportive, I've got all the support."
- "I'm not out to anyone other than my peers for family reasons."

Challenges to obtaining sexual health information

Parents

- "I talk about sex with my parents. I am super close with my parents so I don't feel uncomfortable talking about the subject. I think being educated on the subject is crucial if you want to prevent HIV/AIDS."
- "My parents always tell me I can tell them anything, and because they've obviously been alive longer, they've seen and experienced more things, and I know they have good insight… I'm just lucky to have an open relationship with my parents and tell them about a lot of the questions I have or issues I might be dealing with."
- "When [my dad] found out I had sex with a boy he said things along the line of 'sex isn't love' and that he would 'love me if I was gay' but he really 'hopes [I'm] not.' My mom I'm more open with… for the most part she's understanding and tries to give good advice, but I really don't talk about sex a lot with her, she usually brings it up."

Health care providers

- "I am lucky to say that I have had the advantage of talking with our community public health nurse [from Planned Parenthood] for any questions regarding sex, medications, STD/STI prevention, etc. What is helpful about it is that she goes into detail and provides more than one concise option for what I need, for example using condoms o[r] PREP to prevent. I don't think she has ever left me questioning anything because she thoroughly explains things."
- "I contracted HPV on my anus, with it growing up to 4 inches in girth/length, and it was excruciatingly painful. And I was so ashamed!!…I asked [my provider] if because I had the HPV that I necessarily had HIV… I don't remember how he put it but he made it seem like they were synonymous with one another, that I was guaranteed to have HIV or some other STD. He even asked me. have I scared you enough?… I think it's less about instilling fear and more about establishing a respect for the dangers of unprotected sex and just scaring them ENOUGH to not WANT to do it as opposed to fearing that their well-being will be permanently damaged just for having sex."
- "I learn most of it from planned parenthood peer education program."

School sexual education

- "I have learned about the anatomy of the genitals, but I have attended schools only in Arizona and Virginia, both of which teach abstinence-only education. Because of this, I don't know how to properly prevent STDs."
- "[Ideal sex ed] would teach everything. Different forms of sex, the risks associated with it, all kind of relationships and sexual relationships regardless of sex/gender. I would still teach all the stds but also explain how likely you are to contract, what can be done to prevent it, and how it's treated. I would teach about condoms, PreP, PeP, dental dams, finger condoms, birth control, plan B, HpV vaccines… EVERY protective method out there and where to access it. I would also teach about the psychology of sex, preparing yourself mentally, how you know [you're] ready, essentially the emotional risks. not just the physical… most importantly educate them to make informed decisions, not just scare them away from it because of getting pregnant. I want to demolish abstinence based programs. They do nothing but exclude the lgbt community and shame young girls into staying abstinent."
- "I learned about most stuff through health class, friends, and the internet, it was all very helpful."
- "I've actually learned about sex in school in human anatomy it was helpful cause it tought me what could happen if i dont wear protection and were to go if i need help if i got a disease."
- "My health teacher didn't talk about gay or lesbian sex at all but I'm sure if they did add it to the curriculum it would cause a lot of controversy."

- "Nothing. Nothing. I did not learn anything [in school]."

Online sources of sexual health information

- "I learned about PreP from Grindr (which I shouldn't have been on at the age I downloaded it) and it's frustrating!"
- "I wish that there was an online support group to keep it [conversations about sex] anonymous."
- "I do wish there were more LGBT resources [online and in person]. There's an LGBT center in my county but it's way too far to be useful in my everyday life."
- "I've heard snippets from my mom about HIV prevention, but nothing complete. I need that information, so if it's not from my parents then it's a couple hours of extremely awkward Internet searching."
- "I would say that as a young gay man, I have learned about sex through porn and through social media. I personally don't think none of them were helpful because of the biased sides they take, making unrealistic scenarios and expectations that deal with sex."
- "I have learned more about sex from porn. It was very helpful and showed the safe and unsafe ways to have sex. It also shows slot of different positions."
- "I go to various sites [websites] like planned parenthood and others like it."

TABLE 1.

Interview guide sections and sample questions

Interview guide section	Sample questions
Forming relationships	Who do you talk to about your crushes on guys? What do you talk about? Who can you ask for advice about dating guys? How about dating girls? If you are attracted to girls, are the girls you are attracted to transgender, cisgender, or both?
Sex	If your parent/guardian had a conversation about sex with you, what did they say? What was helpful about it? What could have been better? Imagine that you have been given the opportunity to develop a sex education class for high-school students. What information should be covered? Who should teach it? How? Tell us about a time you had a conversation about sex with your doctor/nurse. What do you talk about? What was helpful about it? What could have been better? Sometimes we learn about sex from people and places other than parents/guardians, at school, or from doctors/nurses. These other sources include online, television/movies, porn, friends, sexual partners, and church. Have you learned about sex from any of these sources? If so, which were helpful? Why? What did you like about them? What could have been better?
HIV prevention	What do you think about using condoms and lube every time for anal sex and vaginal/frontal sex? How realistic is it to get PrEP from a doctor and take it every day? What would make it hard to do this? What would make it easier to do this? How realistic is it to take medication every day if you have HIV?
Identity and support	What support do you get related to your sexuality? What is most helpful? What support would you like? What support do you get related to your race/ethnicity? What is most helpful? What support would you like?

Note. *PrEP*, pre-exposure prophylaxis for HIV prevention.

TABLE 2.

Focus group demographics (n = 21)

Characteristics	Online groups*n* (%)	In-person groups*n* (%)	Total*n* (%)
Age (mean)	16.3	16.5	16.4 (mean)
Ethnicity			
Hispanic or Latino	5 (31.2)	4 (80.0)	9 (42.9)
Not Hispanic or Latino	11 (68.8)	1 (20.0)	12 (57.1)
Race			
White	8 (50.0)	0	8 (38.1)
Black	4 (25.0)	0	4 (19.0)
Asian	0	1 (20.0)	1 (4.8)
More than one race	1 (6.2)	2 (40.0)	3 (14.3)
Other or unknown	3 (18.8)	2 (40.0)	5 (23.8)
Sexual orientation			
Gay or lesbian	12 (75.0)	4 (80.0)	16 (76.2)
Bisexual	2 (12.5)	0	2 (9.5)
Queer	0	1 (20.0)	1 (4.8)
Questioning	1 (6.2)	0	1 (4.8)
Heterosexual	1 (6.2)	0	1 (4.8)
Gender identity			
Male	16 (100)	2 (40.0)	18 (85.7)
More than one gender identity	0	3 (60.0)	3 (14.3)
Sexually active with			
Males	8 (50.0)	5 (100)	13 (61.9)
Females	1 (6.2)	0	1 (4.8)
Males and females	1 (6.2)	0	1 (4.8)
Not sexually active	6 (37.5)	0	6 (28.6)
Urban/rural distribution			
City (big or midsized)	9 (56.2)	5 (100)	14 (66.7)
City (small)	1 (6.2)	0	1 (4.8)
Suburbs (of a big/midsized city)	4 (25.0)	0	4 (19.0)

Characteristics	Online groups*n* (%)	In-person groups*n* (%)	Total*n* (%)
Suburbs (of a small city)	2 (12.5)	0	2 (9.5)
U.S. region			
Northeast	0	5 (100)	5 (23.8)
Southeast	5 (31.2)	0	5 (23.8)
Midwest	3 (18.8)	0	3 (14.3)
West	4 (25.0)	0	4 (19.0)
Southwest	1 (6.2)	0	1 (4.8)
Unknown	3 (18.8)	0	3 (14.3)