

HHS Public Access

Sex Res Social Policy. Author manuscript; available in PMC 2023 June 01.

Published in final edited form as:

Author manuscript

Sex Res Social Policy. 2022 June ; 19(2): 806-821. doi:10.1007/s13178-021-00593-8.

A mixed methods study of sexuality education experiences and preferences among bisexual, pansexual, and queer (bi+) male youth

David Mata¹,

Aaron K. Korpak^{1,2},

Brianna Sorensen³,

Brian Dodge⁴,

Brian Mustanski^{1,2},

Brian A. Feinstein⁵

¹Institute for Sexual and Gender Minority Health and Wellbeing, Northwestern University

²Feinberg School of Medicine, Northwestern University

³Loyola University Chicago

⁴Center for Sexual Health Promotion, Indiana University Bloomington

⁵Rosalind Franklin University of Medicine and Science

Abstract

Introduction: Bisexual male youth are more likely to engage in certain behaviors that contribute to HIV/STI transmission (e.g., substance use) than are heterosexual and gay male youth. However, sexuality education rarely addresses the unique needs of sexual minority youth, especially bisexual, pansexual, and queer (bi+) youth, and little is known about their sexuality education experiences and preferences. As such, the goal of this study was to examine bi+ male youth's experiences learning about sex and their preferences for sexuality education.

Methods: In 2019, 56 bi+ male youth ages 14–17 were surveyed and interviewed about their sexuality education experiences and preferences. Participants identified as bisexual (64%), pansexual (27%), and queer (9%), were racially/ethnically diverse (39% white, 32% Latinx, 20% Black, 9% other races), and included cisgender (79%) and transgender (21%) male youth.

Results: Participants described varied experiences with school-based sexuality education (e.g., none, abstinence only, covered sexual health in some way), but it rarely addressed their unique needs. They typically learned about sex by searching for information online and from sexually

Corresponding author: Brian A. Feinstein, Ph.D., Department of Psychology, Rosalind Franklin University of Medicine and Science, 3333 Green Bay Road, North Chicago, IL 60064, brian.feinstein@rosalindfranklin.edu.

Conflicts of interest: The authors have no conflicts of interest to declare that are relevant to the content of this article.

Ethics approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the Institutional Review Board at Northwestern University.

Consent to participate: Informed consent was obtained from all individual participants included in the study.

explicit media. Participants identified several topics they wanted to learn more about (e.g., sex with same-gender partners, anal sex, consent), but they typically believed they were prepared to have sex. Finally, some participants described benefits of tailoring sexuality education to their unique needs, while others described benefits of more inclusive programs.

Conclusions and Policy Implications: Findings suggest that bi+ male youth do not receive adequate sexuality education to make informed decisions about safer sex, highlighting the critical need for reform.

Keywords

sex education; bisexual; pansexual; queer; youth; adolescents

Gay and bisexual male youth are at increased risk for HIV compared to heterosexual male youth (CDC, 2018), and accumulating evidence suggests that bisexual male youth have a unique risk profile relative to their gay male peers, such as earlier sexual debut, more sex partners, more insertive condomless anal sex, and more substance use before sex (Agronick et al., 2004; Everett et al., 2014; Marshal et al., 2008; Saewyc et al., 2006). While sexuality education has the potential to reduce engagement in sexual risk behavior, sexuality education in the US continues to encourage abstinence (SIECUS, 2020) and is rarely inclusive of LGBTQ youth's experiences (Kubicek et al., 2010; Santelli et al., 2006). Furthermore, when LGBTQ people are acknowledged in sexuality education, bisexuality and other nonmonosexual orientations (e.g., pansexuality) are typically ignored (Elia & Eliason, 2010a). As a result, bisexual, pansexual, and queer (bi+) male youth may not be prepared to protect themselves. Still, little is known about their experiences with and preferences for sexuality education because previous research has largely focused on heterosexual youth and, to a lesser extent, LGBTQ youth in aggregate. In order to develop inclusive sexuality education that meets the needs of bi+ male youth, there is a need to first understand their prior experiences and their preferences for how sexuality education is delivered and what content it includes. To address this gap, the goal of the current study was to examine bi+ male youth's experiences learning about sex and their preferences for sexuality education programs.

School-based sexuality education

Sexuality education in the US can be divided into two types: abstinence-only and comprehensive. Abstinence-only programs promote abstinence as the only way to avoid HIV/STI and unwanted pregnancy, and they often prohibit mentioning contraception unless it is to mention their limitations (SIECUS, 2018). Despite evidence that abstinence-only programs are not efficacious at delaying sexual initiation or reducing sexual risk behavior (Chin et al., 2012; Kirby, 2008; Santelli et al., 2006), 35 states are required to promote abstinence if they provide sexuality education in schools (SIECUS, 2020). In contrast, comprehensive programs emphasize the benefits of abstinence and delaying sexual debut, but also offer information on contraception and protection against HIV/STI transmission (SIECUS, 2004), and they *are* efficacious at delaying sexual initiation and increasing condom and other contractive use (Kirby, 2008).

Historically, sexuality education in the US has been rooted in traditional, conservative, and sex-negative beliefs (Campos, 2002; Elia, 2000), and it has been hostile to LGBTQ people (Cahill, 2002). The information included in sexuality education in the US varies at the state, district, and school levels (Hall et al., 2016), and this includes the extent to which it is inclusive of LGBTQ youth's experiences (Schalet et al., 2014). Currently, 11 states have policies that require sexuality education to be affirming of LGBTQ identities or to include content on LGBTQ youth (SIECUS, 2020), whereas nine states prohibit teachers from mentioning LGBTQ people in health education or require them to portray LGBTQ people negatively. As a result, many youth receive little to no sexual health education, especially as it pertains to LGBTQ people. The exclusion of LGBTQ people from sexuality education can lead to feelings of invisibility for LGBTQ youth (Elia & Eliason, 2010a, b; Fisher, 2009; Gowen & Winges-Yanez, 2014), and it may contribute to negative sexual health outcomes (Elia & Eliason, 2010b). Even when sexuality education is inclusive of LGBTQ youth, specific subgroups, such as bi+ youth, continue to be underrepresented (Elia & Eliason, 2010a), which may contribute to bi+ male youth's unique risk profile.

In addition, sexuality education in the US largely focuses on disease prevention, with limited attention to pleasure (Kantor & Lindberg, 2020). Some states specifically require HIV education, either in lieu of or in addition to broader sexuality education (SIECUS, 2020), highlighting the emphasis placed on disease prevention in school-based sexuality education. Scholars have called for greater attention to the role of pleasure in sexual health promotion (Hirst, 2012; Kantor & Lindberg, 2020; O'Quinn & Fields, 2020), and this may be particularly important for gay and bisexual male youth. Given that their sexualities are commonly associated with disease (e.g., risk for HIV; CDC, 2018) and that, for bisexual men, they are stereotyped as being sexually promiscuous and irresponsible (Dodge et al., 2016), the emphasis on disease prevention in school-based sexuality education may contribute to the stigmatization of gay and bisexual male youth.

Other sources of sexuality education

Given that school-based sexuality education in the US is rarely inclusive of LGBTQ youth's experiences, they typically have to look elsewhere to learn about sex. Parents can play an important role in educating youth about sex, and previous research has found that parent-child communication about sex is associated with less engagement in sexual risk behavior among heterosexual youth (Hadley et al., 2009; Hutchinson et al., 2003; Kincaid et al., 2012). Although few studies have examined parent-child communication about sex among LGBTQ youth, there is some evidence that it tends to be infrequent among gay and bisexual male youth (Mustanski et al., 2020; Thoma & Huebner, 2014), especially after they come out to their parents (Feinstein et al., 2018). Furthermore, when gay and bisexual male youth talk to their parents about sex, the conversations tend to be brief and focused on HIV and condom use (Feinstein et al., 2018). In contrast, heterosexual youth and their parents tend to discuss a wider range of topics, including physical development, dating, sexual decision making, and consent (Beckett et al., 2010). These differences may be related to the challenges that some LGBTQ youth experience in their relationships with their parents (Ryan et al., 2009; Savin-Williams, 2003) or to parents' lack of knowledge about LGBTQ youth's sexual health needs (Newcomb et al., 2018). Bi+ male youth may

experience unique challenges in their relationships with their parents related to monosexism and biphobia. Given the invisibility and stigmatization of bisexuality (Yost & Thomas, 2012; Eliason, 2000), parents are likely to assume their child is heterosexual or gay/lesbian and they may be invalidating of bisexuality if their child comes out as bisexual. In turn, this may hinder conversations about sex between bi+ male youth and their parents.

Friends have also been identified as an important source of sexual health information for heterosexual youth (Widman et al., 2014; Powell, 2008; Harper et al., 2004). When heterosexual youth talk to their friends about sex, they tend to cover a range of topics, such as HIV/STIs, pregnancy, contraception, and relationships (Widman et al., 2014; DiIorio et al., 1999; Holtzman & Rubinson, 1995). Peer communication about sex is also associated with a lower likelihood of being sexually active, being older at first intercourse, and greater intentions to delay intercourse (Guzman et al., 2013). Although few studies have examined LGBTQ youth's experiences talking to their friends about sex, there is some evidence that young gay men receive inaccurate information about sexual health from their peers (Mutchler & McDavitt, 2011), and that sexual minorities encounter barriers to talking to their friends about sexual health (e.g., judgement, discomfort; McDavitt & Mutchler, 2014). Given the pervasiveness of negative attitudes toward bisexuality (Yost & Thomas, 2012; Eliason, 2000), bi+ male youth may experience unique challenges related to talking to their friends about sex and sexual health as well.

Finally, research has found that LGBTQ youth look to the internet for the information about sex that they do not receive at school (DeHaan et al., 2013; Mustanski et al., 2011; Fisher 2009). In fact, LGBTQ youth are more likely than their heterosexual peers to search online for information about sexual health and they are more likely to do so because they do not have anyone to ask (Mitchell et al., 2014). There are a number of benefits to using the internet to learn about sex, such as anonymity and developing agency (DeHaan et al., 2013), but doing so can present challenges, such as difficulties discerning reliable sources (Mitchell et al., 2014). Youth also use the internet to access sexually explicit media, which can provide valuable information (e.g., how different sex acts are performed) and contribute to sexual identity development (Currin et al., 2017; Kubicek et al., 2010), but it can also contribute to unrealistic expectations about sex and engagement in sexual risk behavior (Nelson et al., 2019).

Not only is it important to understand bi+ male youth's experiences with sexuality education, it is also important to understand their preferences for how sexuality education is delivered and what content it includes. The Institute of Medicine (2001) recommends that healthcare be responsive to individual preferences, which first requires assessing them. We are not aware of any prior studies that have examined bi+ male youth's preferences for sexuality education. However, a recent study examined bisexual cisgender men's preferences for health interventions in general (Feinstein et al., 2019). In that study, participants endorsed a range of topics as important to address to improve the health and wellbeing of bisexual men (e.g., mental health, drug and alcohol use, HIV/STI, dating and relationships, coping with discrimination and victimization). A slightly larger proportion of participants preferred an intervention for gay and bisexual together compared to an intervention for bisexual men only. However, those who reported more discrimination,

especially from gay/lesbian individuals, and those who reported recent female sexual partners, were more likely to prefer an intervention for bisexual men only. In addition, a larger proportion of participants preferred a group intervention compared to an individual intervention, and a larger proportion preferred an in-person intervention compared to an online intervention. Although this recent study provided a foundation for beginning to understand bisexual men's intervention preferences, it was limited in its non-specific focus on health interventions in general and in its exclusive focus on bisexual cisgender (adult) men. As such, there is a need to examine bi+ male youth's preferences for sexuality education.

Current Study

In sum, bi+ male youth are more likely to engage in certain behaviors that contribute to HIV/STI transmission than are heterosexual and gay male youth, and sexuality education has the potential to reduce engagement in these sexual risk behaviors. However, sexuality education in the US is rarely inclusive of LGBTQ youth's experiences, especially bi+ youth's experiences. As a result, bi+ male youth may not be prepared to protect themselves during sex. Still, little is known about their experiences with and preferences for sexuality education. To address this gap, the goal of the current study was to examine bi+ male youth's experiences learning about sex at school and from other sources, and their preferences for sexuality education programs.

Methods

Participants

The current study used data from a project focused on factors that drive sexual risk behavior and substance use among bi+ male youth.¹ Fifty-eight participants completed a survey and an interview (described below), but the analytic sample included 56 participants because one participant was not asked about sexuality education (due to insufficient time) and one interview was not recorded. In the analytic sample, participants ranged in age from 14–17 (M = 16.09, SD = 0.96). Approximately two-thirds (64%) identified as bisexual, 27% as pansexual, and 9% as queer. The sample was racially/ethnically diverse (39% white, 32% Latinx, 20% Black, and 9% a different race), and included cisgender (79%) and transgender (21%) male youth. All participants lived in regions of the US, including the South (31%), West (26%), Midwest (22%) and Northeast (21%). Participants reported living in suburban (55%), urban (33%), and rural (12%) areas.

Procedures

Participants were recruited in-person (e.g., at community-based organizations serving LGBTQ youth), on social media (e.g., Facebook, Instagram), and using a participant registry maintained by the Institute of Sexual and Gender Minority Health and Wellbeing

¹All of our participants selected "male/man" or "trans male/trans man" in response to a question about gender identity. In pilot work with the target demographic, participants did not feel the term "men" was appropriate to use to describe them (it was perceived as referring to adults) and they did not feel the term "boys" was appropriate to use to describe them either (it was perceived as infantilizing). Colloquially, they preferred the term "guys," but they did not self-identify as such. Given these concerns, we decided on "male youth" as the most appropriate term to describe our participants.

Sex Res Social Policy. Author manuscript; available in PMC 2023 June 01.

at Northwestern University. Individuals interested in participating were directed to an online eligibility survey. Eligibility criteria included: (1) 14–17 years old; (2) identified as male (regardless of sex assigned at birth); (3) identified as bisexual, pansexual, or queer; (4) reported being HIV-negative or not knowing one's HIV-status; (5) lived in the US; and (6) agreed to have one's interview audio recorded. Those who were eligible were contacted by the research team and provided with a link to the assent form. If they agreed to participate, they were automatically directed to the online survey. After completing the survey, they were contacted by the research team to schedule their interview. Interviews were conducted remotely (by phone or video chat) or in-person depending on the participant's preference and where they lived. The interviews were semi-structured, approximately 90 minutes in length, and conducted by the primary investigator and two research assistants. Participants who completed the survey and the interview received a \$30 Amazon gift card as compensation. All procedures were approved by the Institutional Review Board at Northwestern University and a waiver of parental permission was granted for the study.

As part of the interview, participants were asked to describe their experiences learning about sex at school and from other sources (e.g., parents, friends, the internet). They were also asked about what they wish they had learned, what (if anything) they knew about pre-exposure prophylaxis (PrEP), and their perceptions of the benefits of tailored versus inclusive sexuality education programs. All of the participants were asked to describe their experiences with sexuality education at school, but the number of participants who were asked about their experiences with other sources and their preferences for sexuality education programs varied depending on the topic (n = 25-46) because this was the final section of the interview and there was not always sufficient time for each question.

The survey included several questions related to preferences for sexuality education. First, participants were presented with the following prompt: "We're interested in developing a program to teach bi, pan, and queer teen guys what they really want to know about sex and sexual health." Then, they were asked six questions: (1) "What type of program would you be most comfortable with?" (response options: a program that was only for bi, pan, and queer guys; a program that was for bi, pan, and queer guys and gay guys together; I would be equally comfortable with either type of program); (2) "Would you want the program to be online or in-person?" (response options: online; in-person; I don't have a preference; (3) "If the program was in-person, would you want it to be one-on-one (a program facilitator meeting with just you) or in a group?" (response options: one-on-one; group; I don't have a preference); (4) "If the program was online would you want to be able to interact with other bi, pan, and queer guys, or would you want the program to be just for you?" (response options: I would want to be able to interact with other bi, pan, and queer guys; I would want the program to be just for me; I don't have a preference); (5) "The following is a list of topics related to sex and sexual health. Which of these topics do you think it would be important to cover in the program?"; and (6) "The following is a list of topics related to being bi, pan, or queer. Which of these topics do you think it would be important to cover in the program?" The lists of topics are presented in Table 2.

Data Analysis—Interviews were transcribed and reviewed for accuracy. Transcripts were analyzed using thematic analysis (Braun & Clark, 2006). Consistent with this approach, three of the authors (first, third, and last) read the applicable sections of the transcripts, noting central ideas in participants' responses. Notes were compared across interviews and similar themes were grouped together as preliminary codes. Preliminary codes were consolidated if several overlapped conceptually. By using this inductive approach, the preliminary codes were developed based on participants' responses rather than a pre-existing framework. The preliminary codebook and the transcripts were reviewed to ensure that the codes captured all of the themes in the transcripts. Once the codebook was finalized, two authors (first and second) independently coded the transcripts in Dedoose. After they coded 25%, inter-rater reliability was tested. The pooled Cohen's kappa was 0.92, suggesting excellent inter-rater reliability (Hruschka et al., 2004). The remaining 75% were divided between the coders. All disagreements were resolved through discussion. The last author reviewed the coding and was involved in the discussions. Participant quotes were selected to represent themes. Quotes are presented verbatim with the exception of minor edits to facilitate readability. In regard to the survey questions, the proportion of participants who endorsed each response option was calculated.

Results

Our results are structured based on the five broad topics covered in the interviews: (1) school-based sexuality education; (2) other sources of sexuality education; (3) gaps in knowledge; (4) knowledge of PrEP; and (5) preferences for sexuality education. Themes within each section are not mutually exclusive (i.e., one participant could receive more than one code). Table 1 presents counts and percentages for each code. Percentages are based on the number of participants who were asked questions relevant to each topic.

School-based sexuality education

All 56 participants were asked to describe their experiences with school-based sexuality education. Approximately one-quarter (27%) described it as abstinence-only and 71% as covering sexual health in some way, but experiences within these categories varied. Only 11% reported that they had not received any sexuality education. In addition, nearly half (46%) described it as heteronormative, whereas only 27% described it as LGBTQ-inclusive; an additional 39% did not describe the inclusivity of their sexuality education.

Abstinence-only—Participants who described their sexuality education as abstinenceonly referred to being taught that abstinence was the only way to prevent HIV/STIs and unplanned pregnancies. One participant said, "It just kind of went over the different STDs and what they do to you. [It] didn't really talk about how to prevent them other than abstinence" (16, cisgender, bisexual, white). Participants also described scare tactics used in abstinence-only education. One participant said, "From kindergarten through seventh grade, I went to a Catholic school, so the majority of the sex ed that I received there was 'don't have sex or you'll go to hell.' It was a lot of teaching abstinence rather than actually teaching about sex and safe sex" (17, cisgender, bisexual, white). These examples demonstrate how abstinence-only education can leave youth feeling unprepared. Not only

Covered sexual health in some way—The majority of participants described their sexuality education as covering sexual health in some way. One participant said, "They came into our class and spoke to us about sexual education and condoms. All types of condoms. Female condoms, male condoms, how we use them, when we use them, how long they last, birth control, things like that. What you have to look for. What you have to worry about" (17, cisgender, bisexual, Black). However, there was considerable variability in the topics that participants described learning about, ranging from HIV/STIs (e.g., what they are, what their symptoms are), to prevention methods (e.g., condoms, birth control), to HIV/STI testing.

Heteronormative—Nearly half of participants described their sexuality education as heteronormative (focusing exclusively on sex between men and women), and some of the transgender participants described it as cisnormative (focusing exclusively on sex between cisgender men and women). These descriptions were particularly common for abstinence-only education. One participant said, "[Sexuality education] was not the most open space. My school does not teach how to use protection. My school does not teach any kind of sex ed that's not straight and cis[gender]" (16, transgender, pansexual, Latinx). When sexuality education was described as heteronormative, it was often described as not useful. One participant said, "It was honestly not very helpful. I just remember it being very geared towards men and women being together. I think that's what made sex very hard for me" (17, cisgender, bisexual, Latinx).

LGBTQ-inclusive—In contrast, over a quarter of participants described their sexuality education as LGBTQ-inclusive, but these experiences varied considerably. Some said their sexuality education simply mentioned or defined different sexual orientations (and, to a lesser extent, gender identities), and others said theirs was affirming of LGBTQ identities (although not necessarily bi+ identities). One participant said, "They taught us about gender and then they told us what's gay, straight, bi, and all of that" (17, cisgender, bisexual, Latinx), and another said, "My school's sex ed just said it's okay to be gay and then skipped on" (17, transgender, pansexual, Latinx).

Some participants also described learning about sex with partners of the same gender. For example, one participant said, "[my teacher] was mentioning ways to have sex other than just a man and a woman. I was like, 'this is awesome,' because I had never learned anything about it before" (17, transgender, pansexual, white). Another participant described learning about sex between partners of the same gender but in greater detail. He said his teacher taught him that it was more dangerous for a man to have sex with a man than it was for a man to have sex with a woman. When asked to elaborate, he said, "Well, she said that if you're the top and you're doing it to the bottom, a female's part [vagina] could stretch but a male's part, the anus, can't. So, when you're doing it, it cuts or rips the inside a little" (17, cisgender, bisexual, Latinx). In this example, the participant described learning about anal

sex at school, including the important details that the anus does not lubricate itself and that, as a result, it can tear during sex.

Some participants had multiple experiences with sexuality education due to moving or changing schools. After describing receiving heteronormative sexuality education at one school, one participant went on to describe receiving LGBTQ-inclusive sexuality education at a different school: "[It] was a lot more inclusive. The teacher explained things for people with female bodies and for people with male bodies. It was a lot better with protection. 'This is what kind of protection you need if you have this [body part], this is the kind of protection you'll need if you have these [body parts].' And it was a lot more inclusive of same-sex relationships as well" (17, transgender, bisexual, white). They went on to say, "I feel like I actually learned a lot more from that class and I actually kind of retained the information a bit better. And it was just an all-around nicer class to be in and it wasn't nearly as uncomfortable because of that." This example illustrates the practice of referring to people with specific body parts rather than assuming that all people of the same gender have the same body parts. It also demonstrates the potential benefits of LGBTQ-inclusive sexuality education, such as learning more and feeling more comfortable.

Other sources of sexuality education

Parents—Of the 56 participants, 46 were asked about their experiences talking to their parents about sex. Two-fifths (41%) had talked to their parents about sexual health (e.g., HIV/STIs, condom use), 17% had talked about other aspects of sex (e.g., consent, preparation), and 17% did not specify what they had talked about. In contrast, 30% had not talked to their parents about sex or sexual health.

When participants had talked to their parents about sexual health, their conversations were typically brief and focused on protection. One participant described conversations with his parents as follows: "It's usually 'if you're going to have sex, have safe sex' or just 'if you're having sex, use protection'" (17, cisgender, bisexual, Black). Of note, some participants reported that their parents provided them with inaccurate information. For example, one participant said, "It definitely feels awkward [to talk to my parents about sex] because I feel like they're teaching me the wrong way to protect myself" (15, transgender, bisexual, white). Although most participants described feeling awkward talking to their parents about sex, some were appreciative of the conversations. One participant said, "[talking to my parents about sex was] a little uncomfortable to be honest, but I was glad that they cared" (17, cisgender, bisexual, white).

Parent-child conversations tended to focus on sexual health and protection, but some participants described talking to their parents about other aspects of sex such as consent and preparation. In regard to consent, one participant said, "They just went over how you should always use a condom and never force anyone to do anything they're not comfortable with" (16, cisgender, bisexual, Black), and another said, "I've asked him [my dad] how to know if you're comfortable enough to have sex and then how to talk to your partner about what they want" (16, cisgender, pansexual, white). In regard to preparation, one participant said: "My mom bought me the equipment [a douche]. She's like, 'you gotta make sure you douche out everything'" (17, cisgender, bisexual, Black). He went on to describe his mother

giving him advice on how to prepare for anal sex: "She was like, 'oh, yeah, bottoming. I'm pretty sure it's gonna hurt. You gotta stretch out everything" (after which she went on to describe how anal trainers and beads could help him become more comfortable with being the receptive partner during anal sex).

Friends—Of the 56 participants, 25 were asked about their experiences talking to their friends about sex and sexual health. Nearly half (44%) had talked to their friends about sexual health, 32% had talked to them about other aspects of sex, and 36% did not specify what they had talked about. In regard to sexual health, participants described talking to their friends about HIV/STIs and safer sex practices (e.g., using condoms, getting tested). For example, when asked what he had learned about sex from his friends, one participant said, "I've learned how and where to get tested and ways that I can get tested for free or ways that I can get resources for things. Just general things that schools should have taught me but didn't teach me" (17, cisgender, queer, Latinx). This example illustrates how friends can bridge gaps in sexual health information when youth do not receive adequate sexuality education at school.

Participants also described talking to their friends about other aspects of sex, such as the mechanisms of sex (especially anal sex), consent, and kink. For example, when asked what he had learned from his friends, one participant said:

A lot of the guys I've talked to about [anal sex] gave me the same idea: "You just shove it all the way up there and hope for the best." That's pretty much all I kept getting. It was like, "Oh yeah, it's gonna hurt, you're probably gonna bleed." But they're like, "You'll be fine afterwards, I'm sure."

(17, cisgender, bisexual, Black)

He went on to say that another friend had told him, "If you're ever gonna bottom, make sure you have lube." As these examples demonstrate, friends can provide useful information about sex (e.g., that it is important to use lube for anal sex), but they can also provide inaccurate and dangerous information (e.g., that pain and bleeding are unavoidable during anal sex).

Internet—Of the 56 participants, 35 were asked about their experiences learning about sex and sexual health from the internet. Nearly three-quarters (71%) had searched for information about sex and/or sexual health and half (51%) had learned about sex from pornography. Participants described searching for information about a variety of topics including HIV/STI prevention (e.g., how to use a condom, where to get tested), anal sex (e.g., how to prepare), and how to talk to one's partner about sex. For example, one participant said, "I've searched for how to prevent contracting AIDS and HIV because I didn't really understand it and I still don't really understand it completely. That's why I'm so adamant about protection because I don't want to even have the chance to contract it" (17, cisgender, bisexual, Black). In regard to anal sex, one participant said, "I've read articles on how to prepare for anal. If you're going to be the bottom, you need to prep" (17, cisgender, bisexual, Black). In addition, in regard to talking to one's partner about sex, one participant said, "Reading others' experiences [about talking to their partners about sex] and them being

like 'this is how I did it and it worked out for me' is something that helps me and led me to be able to have conversations with my boyfriend about it. Knowing that it would be okay, [and that] it's not a weird thing to talk about" (16, transgender, pansexual, white). Finally, some participants searched for information about sexual orientation in general. For example, one participant said, "I educated myself about different sexual orientations because a lot of them weren't as well-known as they are now. They [teachers] mostly only covered what was straight, bisexual, and gay or lesbian" (16, cisgender, queer, white). Of note, some participants acknowledged that the internet is not always a reliable source of information, and they described strategies for determining when information is credible. One participant said, "Usually I try to look for the same information coming from multiple sources. So if I Google a topic, I'll go to numerous websites and read what they each have to say and take the best of each of them and see what they all reiterate" (17, cisgender, bisexual, white).

Participants also described learning about sex by watching pornography. Most of these participants described learning how to have sex by watching what the actors were doing. For example, one participant said, "I learned all the basics, like BJs [blowjobs] and all the positions. If you don't educate yourself, then you'd be very clueless" (16, cisgender, pansexual, Asian). Some participants acknowledged that pornography can lead to unrealistic expectations, but they still found it helpful as they explored their sexuality. For example, one participant said:

Watching porn honestly taught me how the actual mechanics of sex work. Like, what you're expected to do in the bedroom....It took me a while to understand that the things in porn aren't actually true. But eventually I did get past that and I started to be able to differentiate between porn and what actual sex looks like.

(16, cisgender, bisexual, Latinx)

Gaps in Knowledge

Nearly all of the participants (N= 54) were asked about gaps in their knowledge of sex and sexual health. Participants described gaps in four domains: (1) LGBTQ-specific gaps in sexual health knowledge (48%); (2) general (i.e., not LGBTQ-specific) gaps in sexual health knowledge (31%); (3) sexual communication (20%); and (4) other aspects of sex (31%). In contrast, 22% reported that they already knew everything they wanted and needed to know about sex and sexual health.

LGBTQ-specific Gaps—Nearly half of participants described gaps in their knowledge of sex and sexual health that were specific to being LGBTQ. For example, one participant said:

I wish I could learn how to protect against STDs and stuff like that. But with lesbian, gay, and bi people, I feel like that's so under taught. The people that I dated, they've also had experiences with other people and it's crazy because most of the time they don't use protection and that could lead to some serious things.

(15, transgender, bisexual, white)

In addition, some participants expressed a desire to learn about anal sex. Although anal sex is not exclusive to LGBTQ people, we included it in this category because participants were

typically referring to being the receptive partner during anal sex with a same-gender partner. For example, one participant said, "I wish that from a younger age I could've learned about anal sex and that type of stuff" (17, cisgender, bisexual, white). Others went into more detail about what they wanted to learn about anal sex. For example, one participant said: "Cleanliness because I think douching is something that people just don't know about...I think the prep [is] very important because if you're not [prepared], it's just messy and gross. I think everyone wants to avoid that" (17, cisgender, bisexual, Latinx). Another participant, when asked what specifically he wanted to learn about anal sex, simply responded with, "how it's pleasurable" (16, cisgender, bisexual, white). Finally, another participant, after saving he would have wanted to learn more about bottoming at a younger age, went on to say: "It would have been helpful to know more besides just the science of it and more so about how to be a good sexual partner and what to look for in a good sexual partner because there were times where sex just wasn't as enjoyable to me as it is now" (17, cisgender, bisexual, Black). When asked why sex wasn't enjoyable and what changed to make it more enjoyable, he responded, "well, in terms of bottoming, there's not really much to go off of...So, you don't really know much about it until it happens" (17, cisgender, bisexual, Black). These examples illustrate how heteronormative sexuality education can contribute to gaps in knowledge regarding sex and sexual health for LGBTQ people.

General (i.e., not LGBTQ-specific) Gaps—Approximately one-third of participants described wanting to learn more about topics related to sex and sexual health in general (i.e., not specific to LGBTQ people). One participant said:

"In school, it would've been nice to have more on what specifically are the types of protection? Like, what is an IUD? What does a birth control pill do? People understand how a condom works because you see it in action or you see it on a banana. It's self-explanatory what [a condom] does, but other stuff can be even more confusing."

(17, cisgender, bisexual, white)

Another participant also expressed the desire to learn about protection other than condoms. He said: "I've only really been taught about condoms...I wish they would talk about different types of protection for both the female and the male body. I know there's lots of female protection but I've never really learned about it" (15, transgender, bisexual, Asian and white). These examples illustrate the lack of basic sexual health information that youth are receiving at school, which can contribute to engaging in unsafe behaviors. For example, one participant said: "I wish I had learned about the risk of STDs and stuff earlier on. I was a little irresponsible my first few times because I didn't really know" (16, transgender, bisexual, white).

Sexual Communication—One-fifth of participants expressed the desire to learn more about how to communicate with one's partner, especially in regard to giving and asking for consent. For example, after saying that he wished he had learned how to give proper consent, one participant went on to describe why that was important to him: "So many people don't know what consent looks like. Some think it's okay for you to see a sleeping person and then just go up and do that [have sex with them]. Or [they don't know that] if they're not

saying no, but they're acting like they don't want it, that's not consent" (17, transgender, pansexual, white). Consent was described as particularly important when it came to having sex with a transgender person. For example, when asked what they wanted to learn, one participant responded:

Mostly consent, especially for cis people when they meet a trans person. If you would like to have sex with [a transgender person] and you're not familiar with how to establish those boundaries because trans people, [for example] with a trans male, they might not be comfortable with you touching their vagina or their breasts but they're okay with the anus.

(14, transgender, bisexual, Asian and white)

In addition to consent, some participants described wanting to know how to assess a partner's comfort level with different sexual activities. For example, one participant said, "I wish I knew how to know if a partner is comfortable or not...basically how to talk to your partner and understand what is or is not comfortable" (16, cisgender, pansexual, white).

Other Gaps—Some participants described gaps in knowledge that did not fit into any of the categories, such as kink and fetishes, healthy relationships, and sexual orientation/ identity in general. For example, one participant said, "I think that there should be an acknowledgement [that] people have certain kinks and fetishes....if they want to do it, where to research it and where to get the things that you need to get to be prepared to have safe intercourse" (14, transgender, bisexual, Asian and white). In regard to healthy relationships, one participant said that sexuality education should include "...talking about safety risks and talking about how abuse can be seen in queer relationships as well because that does fall into the whole relationships and sex ed part of teaching" (15, transgender, pansexual, white), and another participant said, "I wish I would learn more about different types of relationships. Healthy versus unstable versus toxic" (17, cisgender, bisexual, Black). Finally, in regard to sexual orientation/identity, one participant simply said, "I wish I would have learned the different types of sexualities" (17, cisgender, bisexual, Black).

Knowledge of PrEP

Nearly all of the participants (N=53) were asked if they had heard of PrEP and, if so, what they had heard about it. Only 38% had heard of it *and* described it accurately, whereas 21% had heard of it but did not know anything about it, 4% had heard of it but described it wrong, and 40% had not heard of it. Among those who had heard of PrEP (N=25), nearly half said that adolescents could use it (48%) and nearly half did not know (52%).

Preferences for sexuality education programs

Of the 56 participants, 38 were asked whether they thought a sexuality education program designed specifically for bi+ male youth would be useful, and nearly all of them (97%) responded affirmatively. In contrast, one participant (3%) said he would not be interested in a sexuality education program for bi+ male youth because he did not think he needed additional sexuality education. In addition, of the 56 participants, 20% described benefits of a program that was exclusively for bi+ male youth, 41% described benefits of a program that was for both bi+ and gay male youth, and 7% described benefits of providing all youth with

comprehensive and LGBTQ-inclusive sexuality education; 48% did not describe any specific benefits.

The usefulness of a sexuality education program for bi+ male youth-

Participants described various reasons for why a sexuality education program for bi+ male youth would be useful including: filling knowledge gaps by providing information they did not receive at school; teaching them how to have safe and enjoyable sex (especially with same-gender partners); having information be presented in a way that was not heteronormative; and being able to meet other bi+ youth and build community. For example, when asked if a sexuality education program for bi+ male youth would be useful, one participant said:

I definitely think that it would be beneficial because our school system, which is supposed to be responsible for education, is failing. A lot of these people [youth], they have to turn to online sources and you might get the wrong information or some people are just too scared to look it up for whatever reason or don't have the ability to look it up. And so having a source for that would be beneficial.

(17, cisgender, bisexual, white)

Similarly, another participant said:

I feel like that would be a really great thing to exist and it would be a really helpful thing for a lot of youth, especially if they're not in a situation where their parents have talked to them about any of it [or] if their school didn't really delve into it that much.

(17, transgender, bisexual, white)

These examples illustrate participants' interests in a program that could fill the gaps in their knowledge that resulted from not receiving comprehensive and LGBTQ-inclusive sexuality education at school and not having access to credible information from other sources.

The benefits of a program for bi+ male youth only—One-fifth (20%) of participants described benefits of a program that was exclusively for bi+ male youth, including that they would feel more comfortable learning about sex in a group where everyone shared their gender and sexual orientation, that this would make it easier for them to learn, that the information could be more tailored (e.g., focused on sex with partners of different genders), and that it would help them meet other people like themselves and build community. For example, one participant explained, "bisexuals are kind of pushed to the side and them knowing that there are other people out there like us, it kind of probably gives them a sense of relief and make them feel as if they are wanted, [and] not pushed to the side" (16, cisgender, bisexual, Black). Another participant, when asked why he would prefer a program that was exclusively for bi+ male youth, said:

"...there are similarities [between gay and bi+ people] but there are also differences and so it's really important to have those spaces where gay people can talk about their issues and the gay community...and then [to have spaces where] bi and pan

people can talk about being bi and pan and their issues...Merging those groups together can lead to one group taking up more of the time..."

(17, cisgender, bisexual, Black)

The benefits of a program for bi+ and gay male youth—Two-fifths (41%) of participants described benefits of a program for both bi+ and gay male youth, including that they could learn from each other, it could help build a broader community, the information would be valuable even if it did not seem to apply to everyone, it could help people in both groups feel more comfortable with their sexuality, and it could reduce prejudice between the groups. When asked to explain why he thought it would be best to include both bi+ and gay male youth in a sexuality education program, one participant said, "I feel like we're all a part of the community and these are things that we can all learn from. So why not involve as many people as this can apply to?" (17, transgender, pansexual, Latinx). Similarly, another participant said, "it's a case of having more voices at the table, like getting more thoughts on the subject. The more people we have there, the more discussion you can have, more opinions you can have there. And I think the more the better" (17, cisgender, bisexual, white).

The benefits of a program for all youth—Finally, 7% of participants described benefits of providing all youth with comprehensive and LGBTQ-inclusive sexuality education. For example, when asked who they would want to be included in a sexuality education program, one participant said:

I think everybody, no matter what their sexual orientation, because there are a lot of people who don't know what that is. They may figure out that they're gay or bi later in life. Then they would have to do extra work to figure out how to live that kind of lifestyle correctly. Rather than if they had already known about it because they're already educated...So maybe just like presenting it in a way where you're acknowledging all the different reasons that, even if someone doesn't need this information right now, it's still good to know for a million different reasons.

(16, transgender, bisexual, white)

Sexuality education preferences: Survey responses—Participants were also asked to respond to survey questions about their preferences for sexuality education. Seven percent preferred a program exclusively for bi+ male youth, 11% preferred a program for bi+ and gay male youth, and 82% did not have a preference. In regard to preference for an in-person versus an online program, 5% preferred in-person, 54% preferred online, and 41% did not have a preference. If the program was in-person, 20% preferred an individual (one-on-one) program, 46% preferred a group program, and 34% did not have a preference. If the program was online, 66% wanted to be able to interact with other youth, 4% wanted it to be just for them, and 30% did not have a preference.

Finally, participants were presented with two lists of topics—one focused on sex and sexual health and one focused on being bi+—and they were asked to select the topics they thought should be covered in a sexuality education program for bi+ male youth (see Table 2). All 17 topics related to sex and sexual health were selected by at least 55% of participants

and most were selected by at least 75%. The most commonly selected topics were how to prevent STIs (89%), how to safely and comfortably have anal sex (88%), and how to prevent HIV/AIDS (82%). The least commonly selected topic was the influences of alcohol and drugs on sexual behavior (55%). All 6 topics related to being bi+ were selected by at least 63% of participants. The most commonly selected topics were how to deal with prejudice and discrimination (86%), how to find support related to being bi+ (77%), and how to feel comfortable being bi+ (75%). The least commonly selected topic was how to talk with sexual partners about being bi+ (63%).

Discussion

The goal of the current study was to examine bi+ male youth's experiences learning about sex, their gaps in knowledge, and their preferences for sexuality education programs. Across each of these domains, our findings highlight the variability in bi+ male youth's experiences. These findings, described in detail below, can be used to inform the development of sexuality education programs that are better able to address the needs of bi+ male youth.

School-based sexuality education

While the majority of our participants described receiving sexuality education at school that covered sexual health in some way, approximately one-quarter received abstinence-only sexuality education and nearly half described their sexuality education as heteronormative. This is consistent with previous research on young MSM, which has found that they do not receive information on anal sex as part of sexuality education and they feel uninformed about HIV/STIs and unprepared for sex (Kubicek et al., 2008). Although bi+ male youth may benefit from some of the information included in heteronormative sexuality education (e.g., risk and protection with partners of a different gender), it can lead to feeling unprepared to have sex with partners of the same gender (Kubicek et al., 2008) and it can contribute to feelings of isolation (Gowen & Winges-Yanez, 2014). In sum, these findings suggest that bi+ male youth are not receiving adequate sexuality education, which may help to explain their greater engagement in sexual risk behavior (Agronick et al., 2004; Everett et al., 2014; Marshal et al., 2008; Saewyc et al., 2006).

Other sources of sexuality education

Most of our participants described talking to their parents about sex and sexual health. However, consistent with previous research (Feinstein et al., 2018), these conversations were typically described as brief, uncomfortable, and focused on condom use. Of concern, nearly one-third of our participants had never talked to their parents about sex, few had talked to them about topics other than condom use, and some described their conversations as heteronormative. These findings suggest that some parents may not be equipped with the appropriate knowledge and skills to meet their bi+ child's sexual health needs. Furthermore, these findings support the longstanding but unrealized call for programs to provide parents of sexual minority youth with education about LGBTQ-inclusive sexual health and/or to include sexual minority youth and their parents in sexual health interventions (Garofalo, Mustanski, & Donenberg, 2008).

Previous research has suggested that sexual minority youth may feel more comfortable talking to their friends than their parents about sex (Currin et al., 2017) and that talking to friends about sexual health may be particularly important for sexual minority youth because many of them cannot safely discuss sex with their parents or teachers (Owens, 2018). Our participants described asking their friends questions about sexual health and learning through their friends' experiences. While some described receiving accurate and helpful information, others described receiving inaccurate information (e.g., that bleeding is unavoidable as the receptive partner during anal sex). These inaccuracies can be dangerous, as friends can shape early assumptions about what is and is not safe in regard to sex (Mutchler & McDavitt, 2011). As such, while there may be benefits to discussing sexual health with friends, it can also have limitations.

Most of our participants described using the internet to learn about sex, including searching for information (typically about HIV/STI prevention) and watching pornography. These findings are consistent with previous research, which has found that young MSM use the internet to search for sexual health information (Kubicek et al, 2011; Mustanski et al., 2011; Pingel et al., 2013), and they support the use of the internet to deliver sexuality education to youth. That said, some youth noted that online resources are not always credible, highlighting the importance of teaching youth how to discern trustworthy versus untrustworthy information. Our participants also described watching pornography as a way to explore their sexuality and to learn about the mechanics of sex, but they also noted that it contributed to unrealistic expectations. As such, while pornography can serve as a learning tool for sexual minority youth (Kendall, 2004), they need to receive education to understand what is and is not realistic in pornography.

Gaps in knowledge

The majority of our participants described gaps in their knowledge of sexual health, including gaps specific to LGBTQ people (e.g., protection with same-gender partners, anal sex) as well as more general gaps (e.g., protection in general, consent). Although less common, they also described gaps in their knowledge of kink, healthy relationships, and sexual orientation. These findings support previous recommendations for sexuality education to address general sex and sexual health topics (e.g., anatomy, HIV/STI prevention), broader relationship topics (e.g., communication, dating violence), and LGBTQ-specific topics (e.g., gender identity, sexual orientation; Gowen & Winges-Yanez, 2014; Mustanski et al., 2015). Furthermore, this information can be used to inform LGBTQ-inclusive sexuality education programs.

Implications for sexuality education programs

The current findings have important implications for the reform of sexuality education curricula and the development of tailored sexuality education programs for bi+ male youth. First, our findings suggest that many bi+ male youth are not receiving sexuality education that acknowledges their sexual orientation and addresses their unique needs. This is not surprising given that only 11 states have policies that require sexuality education to be affirming of LGBTQ identities or to include content on LGBTQ youth's sexual health (SIECUS, 2020). As such, there is a critical need to reform sexuality education curricula

to acknowledge and affirm LGBTQ identities and to address the unique needs of LGBTQ youth. Furthermore, given that there can be resistance to teaching youth about LGBTQ identities and experiences (DePalma & Atkinson, 2006; Hermann-Wilmarth & Ryan, 2019), there is also a need to facilitate the adoption of inclusive sexuality education curricula at the local level. In order to do so, it will be important to develop materials and resources for educators, including those who are hesitant to address topics related to LGBTQ youth in the context of sexuality education.

While HIV prevention programs have been developed to address the unique needs of MSM, these programs have largely focused on gay men (with limited attention to bisexual men) and adults (with limited attention to youth) (Feinstein & Dodge, 2020). Our findings suggest that many bi+ male youth would be interested a sexuality education program that was tailored to their unique needs. They expressed that programs like this could fill the gaps in their sexual health knowledge that resulted from not receiving comprehensive and LGBTQinclusive school-based sexuality education and not having access to credible sexual health information from other sources. Of note, the majority of our participants did not have a preference for whether the sexuality education program was exclusively for bi+ male youth or for both bi+ and gay male youth, and participants described potential benefits of both types of programs. It is likely that the participants who described potential benefits of a program that also included gay male youth expected that the program would be affirming of bi+ identities and that it would address safer sex practices with partners of different genders. If that is the case, then there may in fact be benefits to including gay and bi+ male youth in the same program. However, our findings also suggest that some bi+ male youth would prefer a program that was exclusively for them regardless.

In order to address the needs of bi+ male youth in sexuality education, it is also important to acknowledge the heterogeneity of this population and to consider the unique needs of youth at the intersections of different minoritized identities (e.g., Black and Latinx bi+ male youth). While gay and bisexual male youth are generally at increased risk for HIV, those who are Black or Latinx are at greatest risk (CDC, 2019). In addition, youth of color are less likely to report receiving HIV education than are white youth, which may be related to broader inequities in education, such as schools with higher proportions of youth of color having fewer resources to devote to sexuality education (Phillips et al., 2020). Young Black sexual minority men have also described a lack of access to accurate HIV prevention information in their schools and communities (Voisin et al., 2013), and experiences of homophobia within their families and communities may contribute to their lack of knowledge of HIV prevention methods (Moore et al., 2019). Although none of our participants mentioned race or ethnicity in relation to their sexuality education experiences or preferences, we did not explicitly ask about this in our interviews. In addition, race/ ethnicity was not significantly associated with our application of codes or participants' survey responses, but this should be interpreted with caution given our relatively small numbers of participants in specific racial/ethnic minority groups. It will be important for future research to more directly explore the role of race/ethnicity in sexuality education experiences and preferences among bi+ male youth.

Finally, our findings can help to inform the topics that should be covered in sexuality education programs in order to address the needs of bi+ male youth. Specifically, the three most commonly selected topics related to sex and sexual health were how to prevent STIs, how to safely and comfortably have anal sex, and how to prevent HIV/AIDS. While many sexuality education programs cover HIV/STI prevention (as long as they are not abstinence-only programs), they may not cover the range of prevention methods that are available for both HIV/STI and pregnancy (e.g., external condoms, internal condoms, birth control, IUDs, PrEP). Furthermore, our findings suggest that sexuality education programs rarely cover anal sex, despite the importance of teaching safe anal sex practices in order to prevent HIV/STI. In addition, our findings support the need to attend to positive aspects of sex and relationships in sexuality education (Hirst, 2012; Kantor & Lindberg, 2020; O'Quinn & Fields, 2020), such as what makes relationships healthy, how to talk to partners about what you want to do sexually, and how to make sex comfortable and enjoyable.

The three most commonly selected topics related to being bi+ were how to deal with prejudice and discrimination, how to find support, and how to feel comfortable being bi+. These findings suggest that many bi+ male youth are interested in sexuality education that goes beyond risk and protection to address other topics related to sexual orientation. These topics could be incorporated into sexuality education curricula in ways that make them relevant to all youth regardless of their sexual orientation. For example, sexuality education curricula could include content focused on feeling comfortable with one's sexuality (including sexual orientation, sexual likes and dislikes, etc.), finding support related to sex and sexual health (whether it is related to being a sexual minority or not), and coping with challenges related to sexuality (again, whether it is related to being a sexual minority or not). Programs designed specifically for bi+ male youth or LGBTQ youth in general could also address these topics and they could do so in a more direct and tailored way (e.g., specifically focusing on how to cope with prejudice and discrimination related to one's sexual orientation). In sum, these findings highlight the need for the reform of sexuality education curricula and the development of tailored sexuality education programs for bi+ male youth, and they provide suggestions for how to do so.

Limitations

The current findings should be considered in light of several limitations. First, while our sample was relatively large for a mixed methods study, it was not a probability sample. Second, our findings were based on self-report and it is possible that some participants may not have accurately remembered all of their experiences learning about sex. It may be useful to collect information from other sources, such as teachers and parents, to gain a more comprehensive understanding of sexuality education from the perspectives of all those involved. Third, some participants received a subset of interview questions due to insufficient time. As such, some of the proportions of participants who received certain codes were based on a subset of participants. Finally, although our survey included questions about which topics participants thought should be included in a program to teach bi+ male youth about sex and sexual health, our assessment was not comprehensive and few of the items focused on the positive aspects of sex (e.g., pleasure). That said, our interview data

revealed the importance of including content on the positive aspects of sex in sexuality education in order to meet bi+ male youth's needs.

Conclusion

Despite limitations, the current findings provide important insights into bi+ male youth's experiences with sexuality education. Similar to other sexual minority youth, bi+ male youth continue to be overlooked in school-based sexuality education. When bi+ male youth do not receive adequate sexuality education, they look to other sources outside of school (e.g., friends, the internet). These other sources can provide benefits (e.g., comfort), but they can also have consequences (e.g., inaccurate information). Despite receiving sexuality education at school and from other sources, many of our participants continued to express gaps in their knowledge of sex and sexual health. As such, our findings suggest that there is still a great deal of work to be done to make sexuality education more inclusive of bi+ male youth's experiences and to address their sexual health needs. Until then, it is likely that we will continue to observe disparities in sexual health outcomes affecting bi+ male youth and other sexual minority populations.

Funding:

This project was supported by a grant from the National Institute on Drug Abuse (K08DA045575; PI: Feinstein). Research reported in this publication was also supported by the National Institute on Minority Health and Health Disparities of the National Institutes of Health under Award Number T37MD014248. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

References

- Agronick G, O'Donnell L, Stueve A, Doval AS, Duran R, & Vargo S (2004). Sexual behaviors and risks among bisexually- and gay-identified young Latino men. AIDS and Behavior, 8, 185–197. [PubMed: 15187480]
- Beckett MK, Elliott MN, Martino S, Kanouse DE, Corona R, Klein DJ, & Schuster MA (2010). Timing of parent and child communication about sexuality relative to children's sexual behaviors. Pediatrics, 125, 34–42. [PubMed: 19969618]
- Braun V, & Clarke V (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101.
- Cahill S (2002). Scared chaste, scared straight: Abstinence-only-until-marriage education in U.S. schools. The Public Eye, 1–5.
- Campos D (2002). Sex, youth, and sexuality education: A reference handbook. Santa Barbara, CA: ABC-CLIO.
- Centers for Disease Control and Prevention (CDC). (2018). HIV surveillance: Adolescents and young adults, 2018. Retrieved from: https://www.cdc.gov/hiv/pdf/library/slidesets/cdc-hiv-surveillance-adolescents-young-adults-2018.pdf
- CDC. (2019). HIV Surveillance Report, 2018 (Preliminary), vol. 30. Retrieved from: http:// www.cdc.gov/hiv/library/reports/hiv-surveillance.html
- Chin HB, Sipe TA, Elder R, Mercer SL, Chattopadhyay SK, Jacob V, Wethington HR, Kirby D,
 Elliston DB, Griffith M, Chuke SO, Briss SC, Ericksen I, Galbraith JS, Herbst JH, Johnson RL,
 Kraft JM, Noar SM, Romero LM, Santelli J, ... Community Preventive Services Task Force.
 (2012). The effectiveness of group-based comprehensive risk-reduction and abstinence education
 interventions to prevent or reduce the risk of adolescent pregnancy, human immunodeficiency virus,
 and sexually transmitted infections: Two systematic reviews for the Guide to Community Preventive
 Services. American Journal of Preventive Medicine, 42, 272–294. [PubMed: 22341164]

- Currin JM, Hubach RD, Durham AR, Kavanaugh KE, Vineyard Z, & Croff JM (2017). How gay and bisexual men compensate for the lack of meaningful sex education in a socially conservative state. Sex Education, 17, 667–681
- DeHaan S, Kuper LE, Magee JC, Bigelow L, & Mustanski B (2013). The interplay between online and offline explorations of identity, relationships, and sex: A mixed-methods study with LGBT youth. Journal of Sex Research, 50, 421–434. [PubMed: 22489658]
- DePalma R, & Atkinson E (2006). The sound of silence: Talking about sexual orientation and schooling. Sex Education, 6, 333–349.
- Dilorio C, Kelley M, & Hockenberry-Eaton M (1999). Communication about sexual issues: Mothers, fathers, and friends. Journal of Adolescent Health, 24, 181–189
- Dodge B, Herbenick D, Friedman MR, Schick V, Fu T-C(J), Bostwick W, Bartelt E, Muñoz-Laboy M, Pletta D, Reece M, & Sandfort TG (2016). Attitudes toward bisexual men and women among a nationally representative probability sample of adults in the United States. PLoS One, 11, e0164430. [PubMed: 27783644]
- Elia JP (2000). Democratic sexuality education: A departure from sexual ideologies and traditional schooling, Journal of Sex Education and Therapy, 25, 122–129
- Elia JP, & Eliason M (2010a). Dangerous omissions: Abstinence-only-until-marriage school-based sexuality education and the betrayal of LGBTQ youth. American Journal of Sexuality Education, 5, 17–35.
- Elia JP, & Eliason M (2010b). Discourses of exclusion: Sexuality education's silencing of sexual others. Journal of LGBT Youth, 7, 29–48.
- Eliason M (2000). Bi-negativity: The stigma facing bisexual men. Journal of Bisexuality, 1, 137–154.
- Everett BG, Schnarrs PW, Rosario M, Garofalo R, & Mustanski B (2014). Sexual orientation disparities in sexually transmitted infection risk behaviors and risk determinants among sexually active adolescent males: Results from a school-based sample. American Journal of Public Health, 104, 1107–1112. [PubMed: 24825214]
- Feinstein BA, & Dodge B (2020). Meeting the sexual health needs of bisexual men in the age of biomedical HIV prevention: Gaps and priorities. Archives of Sexual Behavior, 49, 217–232. [PubMed: 31691076]
- Feinstein BA, Thomann M, Coventry R, Macapagal K, Mustanski B, & Newcomb ME (2018). Gay and bisexual adolescent boys' perspectives on parent–adolescent relationships and parenting practices related to teen sex and dating. Archives of Sexual Behavior, 47, 1825–1837. [PubMed: 29280027]
- Fisher CM (2009). Queer youth experiences with abstinence-only-until-marriage sexuality education: "I can't get married so where does that leave me?" Journal of LGBT Youth, 6, 61–79.
- Garofalo R, Mustanski B, & Donenberg G (2008). Parents know and parents matter: Is it time to develop family-based HIV prevention programs for young men who have sex with men? Journal of Adolescent Health, 43, 201–204.
- Guzmán BL, Schlehofer-Sutton MM, Villanueva CM, Stritto MED, Casad BJ, & Feria A (2003). Let's talk about sex: How comfortable discussions about sex impact teen sexual behavior. Journal of Health Communication, 8, 583–598. [PubMed: 14690890]
- Gowen LK, & Winges-Yanez N (2014). Lesbian, gay, bisexual, transgender, queer, and questioning youths' perspectives of inclusive school-based sexuality education. Journal of Sex Research, 51, 788–800. [PubMed: 24003908]
- Hadley W, Brown LK, Lescano CM, Kell H, Spalding K, Diclemente R, Donenberg G, ... Project STYLE Study Group. (2009). Parent-adolescent sexual communication: Associations of condom use with condom discussions. AIDS and Behavior, 13, 997–1004. [PubMed: 18841462]
- Hall KS, McDermott Sales J, Komro KA, & Santelli J (2016). The state of sex education in the United States. Journal of Adolescent Health, 58, 595–597.
- Harper GW, Gannon C, Watson SE, Catania JA, & Dolcini MM (2004). The role of close friends in African American adolescents' dating and sexual behavior. Journal of Sex Research, 41, 351–362. [PubMed: 15765275]
- Hermann-Wilmarth JM, & Ryan CL (2019). Navigating parental resistance: Learning from responses of LGBTQ-inclusive elementary school teachers. Theory Into Practice, 58, 89–98.

- Hirst J (2013). "It's got to be about enjoying yourself": Young people, sexual pleasure, and sex and relationships education. Sex Education, 13, 423–436.
- Holtzman D & Rubinson R (1995). Parent and peer communication effects on AIDS-related behavior among U.S. high school students. Family Planning Perspectives, 27, 235–240. [PubMed: 8666087]
- Hruschka DJ, Schwartz D, St. John DC, Picone-Decaro E, Jenkins RA, & Carey JW (2004). Reliability in coding open-ended data: Lessons learned from HIV behavioral research. Field Methods, 16, 307–331.
- Hutchinson MK, Jemmott JB, Jemmott LS, Braverman P, & Fong G (2003). The role of motherdaughter sexual risk communication in reducing sexual risk behaviors among urban adolescent females: A prospective study. Journal of Adolescent Health, 33, 98–107.
- Kantor LM, & Lindberg L (2020). Pleasure and sex education: The need for broadening both content and measurement. American Journal of Public Health, 110, 145–148. [PubMed: 31855482]
- Kendall CN (2004). Educating gay male youth: Since when is pornography a path towards selfrespect? Journal of Homosexuality, 47, 83–128. [PubMed: 15451706]
- Kirby DB (2008) The impact of abstinence and comprehensive sex and STD/HIV education programs on adolescent sexual behavior. Sexuality Research and Social Policy, 5, 18.
- Kincaid C, Jones DJ, Sterrett E, & McKee L (2012). A review of parenting and adolescent sexual behavior: The moderating role of gender. Clinical Psychology Review, 32, 177–188. [PubMed: 22366393]
- Kubicek K, Beyer WJ, Weiss G, Iverson E, & Kipke MD (2010). In the dark: Young men's stories of sexual initiation in the absence of relevant sexual health information. Health Education & Behavior, 37, 243–263. [PubMed: 19574587]
- Kubicek K, Carpineto J, McDavitt B, Weiss G, Au CW, Kerrone D, Martinez M, & Kipke MD (2008). Integrating professional and folk models of HIV risk: YMSM's perceptions of high-risk sex. AIDS Education and Prevention, 20, 220–238. [PubMed: 18558819]
- Kubicek K, Carpineto J, McDavitt B, Weiss G, & Kipke MD (2011). Use and perceptions of the internet for sexual information and partners: A study of young men who have sex with men. Archives of Sexual Behavior, 40, 803–816. [PubMed: 20809373]
- Marshal MP, Friedman MS, Stall R, King KM, Miles J, Gold MA, Bukstein OG, & Morse JQ (2008). Sexual orientation and adolescent substance use: A meta-analysis and methodological review. Addiction, 103, 546–556. [PubMed: 18339100]
- McDavitt B, & Mutchler MG (2014). "Dude, you're such a slut!" Barriers and facilitators of sexual communication among young gay men and their best friends. Journal of Adolescent Research, 29, 464–498. [PubMed: 25419044]
- Mitchell KJ, Ybarra ML, Korchmaros JD, & Kosciw JG (2014). Accessing sexual health information online: Use, motivations and consequences for youth with different sexual orientations. Health Education Research, 29, 147–157. [PubMed: 23861481]
- Moore S, Jones M, Smith JC, Hood J, Harper GW, Camacho-Gonzalez A, del Rio C, & Hussen SA (2019). Homonegativity experienced over the life course by young Black gay, bisexual and other men who have sex with men (YB-GBMSM) living with HIV in Atlanta, Georgia. AIDS and Behavior, 23, 266–275. [PubMed: 31463712]
- Mutchler MG, & McDavitt B (2011). 'Gay boy talk' meets 'girl talk': HIV risk assessment assumptions in young gay men's sexual health communication with best friends. Health Education Research, 26, 489–505. [PubMed: 21059803]
- Mustanski B, Greene GJ, Ryan D, & Whitton SW (2015). Feasibility, acceptability, and initial efficacy of an online sexual health promotion program for LGBT youth: The Queer Sex Ed intervention. Journal of Sex Research, 52, 220–230. [PubMed: 24588408]
- Mustanski B, Lyons T, & Garcia S (2011). Internet use and sexual health of young men who have sex with men: a mixed-methods study. Archives of Sexual Behavior, 40, 289–300. [PubMed: 20182787]
- Mustanski B, Moskowitz DA, Moran KO, Rendina HJ, Newcomb ME, & Macapagal K (2020). Factors associated with HIV testing in teenage men who have sex with men. Pediatrics, 145, e20192322. [PubMed: 32047100]

- Nelson KM, Perry NS, & Carey MP (2019). Sexually explicit media use among 14–17-year-old sexual minority males in the U.S. Archives of Sexual Behavior, 48, 2345–2355. [PubMed: 31506866]
- Newcomb ME, Feinstein BA, Matson M, Macapagal K, & Mustanski B (2018). "I have no idea what's going on out there:" Parents' perspectives on promoting sexual health in lesbian, gay, bisexual, and transgender adolescents. Sexuality Research and Social Policy, 15, 111–222. [PubMed: 30245747]
- Owens RE (2018). Queer kids: The challenges and promise for lesbian, gay, and bisexual youth. Routledge.
- O'Quinn J, & Fields J (2020). The future of evidence: Queerness in progressive visions of sexuality education. Sexuality Research and Social Policy, 17, 175–187.
- Phillips G, McCuskey DJ, Felt D, Curry CW, Ruprecht MM, Wang X, & Beach LB (2020). Association of HIV education with HIV testing and sexual risk behaviors among US youth, 2009–2017: Disparities between sexual minority and sexual majority youth. Prevention Science, 21, 898–907. [PubMed: 32804334]
- Pingel ES, Thomas L, Harmell C, & Bauermeister J (2013). Creating comprehensive, youth centered, culturally appropriate sexuality education: What do young gay, bisexual and questioning men want? Sexuality Research and Social Policy, 10, 293–301.
- Powell E (2008). Young people's use of friends and family for sex and relationships information and advice. Sex Education, 8, 289–302.
- Ryan C, Huebner D, Diaz RM, and Sanchez J (2009). Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. Pediatrics, 123, 346–352. [PubMed: 19117902]
- Saewyc E, Skay C, Richens K, Reis E, Poon C, & Murphy A (2006). Sexual orientation, sexual abuse, and HIV-risk behaviors among adolescents in the Pacific Northwest. American Journal of Public Health, 96, 1104–1110. [PubMed: 16670224]
- Santelli J, Ott MA, Lyon M, Rogers J, Summers D, & Schleifer R (2006). Abstinence and abstinenceonly education: A review of U.S. policies and programs. Journal of Adolescent Health, 38, 72–81.
- Savin-Williams RC (2003). Lesbian, gay, and bisexual youths' relationships with their parents. In Garnets LD & Kimmel DC (Eds.), Psychological perspectives on lesbian, gay, and bisexual experiences (2nd ed., pp. 299–326). New York: Columbia University.
- Schalet AT, Santelli JS, Russell ST, Halpern CT, Miller SA, Pickering SS, ... & Hoenig JM (2014). Invited commentary: Broadening the evidence for adolescent sexual and reproductive health and education in the United States. Journal of Youth and Adolescence, 43, 1595–1610. [PubMed: 25200033]
- SIECUS (2004). Guidelines for comprehensive sexuality education: Kindergarten through 12th grade (3rd edition). Retrieved from: https://siecus.org/wp-content/uploads/2018/07/Guidelines-CSE.pdf
- SIECUS. (2018). A history of federal funding for abstinence-only-until-marriage programs. Retrieved from: https://siecus.org/wp-content/uploads/2018/08/A-History-of-AOUM-Funding-Final-Draft.pdf
- SIECUS. (2020). Sex ed state law and policy chart. Retrieved from: https://siecus.org/wp-content/ uploads/2020/05/SIECUS-2020-Sex-Ed-State-Law-and-Policy-Chart_May-2020-3.pdf
- Thoma BC, & Huebner DM (2014). Parental monitoring, parent-adolescent communication about sex, and sexual risk among young men who have sex with men. AIDS and Behavior, 18, 1604–1614. [PubMed: 24549462]
- Voisin DR, Bird JD, Shiu CS, & Krieger C (2013). "It's crazy being a Black, gay youth": Getting information about HIV prevention: A pilot study. Journal of Adolescence, 36, 111–119. [PubMed: 23218485]
- Widman L, Choukas-Bradley S, Helms SW, Golin CE, & Prinstein MJ (2014). Sexual communication between early adolescents and their dating partners, parents, and best friends. Journal of Sex Research, 51, 731–741. [PubMed: 24354655]
- Yost MR, & Thomas GD (2012). Gender and binegativity: Men's and women's attitudes toward male and female bisexuals. Archives of Sexual Behavior, 41, 691–702. [PubMed: 21597943]

Table 1.

Number and percentage of participants who received each code.

Level 1	Level 2	Level 3	N	%
School-based sexuality education (N = 56)	Type	None	9	11%
		Abstinence only	15	27%
		Covered sexual health in some way	40	71%
	Inclusivity	Heteronormative	26	46%
		LGBTQ-inclusive	15	27%
		Inclusivity was not discussed	22	39%
Other sources	Parents ($N = 46$)	Didn't talk to	14	30%
		Talked about sexual health	19	41%
		Talked about other aspects of sex	8	17%
		Don't know what they talked about	8	17%
	Friends $(N = 25)$	Talked about sexual health	11	44%
		Talked about other aspects of sex	8	32%
		Don't know what they talked about	6	36%
	Internet $(N=35)$	Searched for information	25	71%
		Learned from pornography	18	51%
Gaps in knowledge (N = 54)	LGBTQ-specific gaps		26	48%
	General (i.e., not LGBTQ-specific) gaps		17	31%
	Sexual communication		11	20%
	Other		17	31%
	None		12	22%
PrEP	Knowledge (N = 53)	Had not heard of it	21	40%
		Had heard of it, but did not know anything about it	11	21%
		Had heard of it and described it accurately	20	38%
		Had heard of it, but described it wrong	2	4%
	Knows that teens can use it $(N = 25)$	Yes	12	48%
		Unsure	13	52%
Preferences for sexuality education programs	Usefulness (N = 38)	Useful	37	97%

Author Manuscript

Level 1	Level 2	Level 3	Ν	%
		Not useful	1	3%
	Benefits (N = 56)	Benefits of a program for bi+ male youth	11	20%
		Benefits of a program for bi+ and gay male youth 23 41%	23	41%
		Benefits of a program for all youth	4	7%
		Did not describe benefits	27	48%

Note. The sample included 56 participants, but percentages are based on how many participants were asked questions about each topic. Themes within each section are not mutually exclusive (i.e., one participant could receive more than one code).

Table 2.

Endorsement of topics that should be covered in a sexuality education program for bi+ male youth.

Торіс	%
Sex and sexual health	
How to prevent sexually transmitted infections (STIs)	89
How to safely and comfortably have anal sex	88
How to prevent HIV/AIDS	82
The types of sex you can have with partners of different genders	80
How to talk with sexual partners about whether or not THEY want to do something sexually (i.e., how to ask for consent)	79
How to talk with a doctor about sex and sexual health	79
How to talk with sexual partners about what you would like to do sexually	77
How to talk with sexual partners about what you would NOT like to do sexually	77
How to talk with sexual partners about STIs/HIV	77
Where to get sexual health information and resources (e.g., condoms, HIV/STI testing)	77
How to use lubrication or lube (e.g., K-Y, bodyglide)	73
How to say no to sex	66
Methods of birth control (i.e., methods to prevent unwanted pregnancies)	64
How to use a condom	64
How to safely and comfortably have vaginal sex	64
How to talk with a parent or guardian about sex and sexual health	61
The influences of alcohol and drugs on sexual behavior	55
Being bi+	
How to deal with prejudice and discrimination toward bi+ guys	86
How to find support related to being bi+	77
How to feel comfortable being bi+	75
How to talk with other people (e.g., family members, friends) about being bi+	71
How to challenge stereotypes about being bi+	66
How to talk with sexual partners about being bi+	63