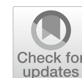
Archives of Sexual Behavior (2023) 52:1169–1181
https://doi.org/10.1007/s10508-022-02447-9

ORIGINAL PAPER



Substance Use Experiences Among Bisexual, Pansexual, and Queer (Bi+) Male Youth: A Qualitative Study of Motivations, Consequences, and Decision Making

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Received: 16 February 2022 / Revised: 3 August 2022 / Accepted: 2 October 2022 / Published online: 21 October 2022
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Abstract
Sexual minority youth are at increased risk of substance use compared to their heterosexual peers, and bisexual youth appear to be at greatest risk. However, little is known about their motivations for and against using substances, how they make decisions, and what consequences they experience. We used qualitative data from a study of 54 cisgender and transgender male youth (ages 14–17 years) who reported attractions to more than one gender or regardless of gender (i.e., bisexual, pansexual, or queer; collectively referred to as bi+) to explore these aspects of substance use. Participants completed a survey and an interview, and interviews were thematically analyzed. Qualitative analyses revealed that participants described diverse motivations for using substances (e.g., to cope with stress, to experiment, to have fun) and for not using them (e.g., concern about consequences, not having access). The most common sources of stress were mental health problems, school, and family. They did not describe sexual orientation-related stress as a motivation for their use, but they acknowledged that it could influence others' use. Participants also described thinking about when, where, and with whom they were going to use prior to doing so (e.g., only using in safe places and with people who they trusted). Finally, they described a range of consequences they experienced (e.g., getting sick, getting in trouble), and a subset of transgender participants described experiencing dependence symptoms. These findings suggest that substance use prevention and harm reduction interventions for bi+ male youth should address diverse motivations for use, including general stressors, which are often overlooked compared to minority-specific stressors. Further, interventions should approach youth as capable of making decisions. Findings also highlight the particular need to address substance use among transgender youth.

Keywords Bisexual · Pansexual · Queer · Adolescents · Gender identity · Sexual orientation

Introduction

Research has consistently demonstrated that sexual minority (e.g., gay, lesbian, bisexual) youth are more likely to use alcohol, marijuana, and illicit drugs than their heterosexual peers (Kann et al., 2018; Marshal et al., 2008). For example, in the 2019 Youth Risk Behavior Survey, sexual minority youth were more likely than heterosexual youth to report current (past-month) alcohol use (34% vs. 29%), marijuana use (31% vs. 21%), and prescription drug misuse (12% vs. 6%) (Jones et al., 2020), as well as lifetime illicit drug use (28% vs. 13%; inclusive of cocaine, inhalants, heroin, methamphetamines, ecstasy, and hallucinogens; CDC, 2020a). These disparities tend to increase from adolescence to young adulthood (Marshal et al., 2009), highlighting the need to understand and address them early in development. While most studies have focused on sexual minority youth in aggregate,

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accumulating evidence suggests that bisexual youth are especially likely to use substances. In a meta-analysis, sexual minority youth reported higher rates of substance use compared to heterosexual youth, but moderator analyses revealed that this was only true of bisexual youth and not gay/lesbian youth (Marshal et al., 2008). Despite this evidence, little is known about substance use experiences among youth who experience attractions to more than one gender or regardless of gender (e.g., those who identify as bisexual, pansexual, or queer; collectively referred to as bi+). To address this, we used qualitative data from a study of bi+ male youth to explore various aspects of substance use, including motivations for and against using substances, how they made decisions related to substance use, what consequences they experienced, and connections to experiences related to one's sexual orientation.

Minority Stress Theory and Substance Use

The predominant conceptual framework used to explain mental health problems and substance use among sexual minority youth is minority stress theory (Goldbach & Gibbs, 2017; Meyer, 2003). Minority stress theory proposes that sexual minority youth experience unique stressors related to their stigmatized social status (e.g., discrimination, internalization of negative societal attitudes) and these stressors contribute to their increased risk of mental health problems and substance use (Meyer, 2003). The associations between minority stressors and substance use are well documented among sexual minority youth. For example, in a meta-analysis, victimization, negative reactions to disclosure of one's sexual orientation, and lack of support from parents and other adults at school were significantly associated with substance use among sexual minority youth (Goldbach et al., 2014). Of note, bi+ individuals face unique stressors at the intersection of heterosexism and monosexism (e.g., being stereotyped as confused about their sexual orientation, experiencing discrimination from both heterosexual and gay/lesbian people; Feinstein & Dyar, 2017), and attitudes toward bi+ men tend to be particularly negative (Dodge et al., 2016). Although few studies have specifically examined the associations between minority stressors and substance use among bi + individuals, the available evidence suggests that bi+ stressors are indeed associated with substance use among bi+ youth (Feinstein et al., 2019) and adults (Dyar et al., 2020; Feinstein et al., 2017).

Motivational Models of Substance Use

While research on substance use among sexual minorities has emphasized the role of minority stress, research on substance use in general has identified other important contributing factors such as motives. Motivational models of substance use propose that people use substances to attain valued outcomes, such as to reduce negative emotions (coping motives), to enhance pleasure (enhancement motives), to bond with others or improve social gatherings (social motives), and to avoid social censure or gain others' approval (conformity motives), and these motives have been identified among adolescents and adults (Cooper et al., 2016). Motivational models have also distinguished between the extent to which substance use is motivated by a desire to pursue a positive outcome versus avoid a negative one, and the extent to which motives are internally/self-focused versus externally/other-focused (Cooper et al., 2016). These two dimensions can be used to create the four categories of motives described above: (1) self-focused approach motives (i.e., enhancement motives); (2) self-focused avoidance motives (i.e., coping motives); (3) other-focused approach motives (i.e., social motives); and (4) other-focused avoidance motives (i.e., conformity motives). Related to conformity motives, prior studies have demonstrated that peer pressure is associated with substance use among adolescents (Santor et al., 2000), and meta-analytic findings support the influence of peers on adolescent substance use (Allen et al., 2003). However, other studies suggest that personal choice and curiosity have greater influences on youth substance use than do peer pressure and the desire to conform (McIntosh et al., 2003). In addition, several other motives have been identified among adolescents, including experimentation motives (e.g., drinking to find out what the experience is like; Lo & Globetti, 2000; Palmqvist et al., 2003) and identity motives (e.g., drinking to assert one's independence or to feel more mature; Kloep et al., 2001).

Although few studies have explored substance use motives, including peer pressure, among sexual minority youth, one study found that sexual minority youth were more likely than heterosexual youth to endorse coping and conformity motives (Bos et al., 2016). In addition, research on young gay and bisexual men has found that coping motives help to explain the associations between minority stressors and substance use problems (Feinstein & Newcomb, 2016). Given the limited research in this area, additional research is needed to understand bi+ youth's motivations for using substances, especially the extent to which their motivations are influenced by experiences related to their minoritized identities.

In addition, even fewer studies have examined people's motivations for not using substances. One study of 30 young adults who did not use alcohol found diverse motivations for not drinking including wanting to be in control of one's behavior, wanting to avoid the negative health consequences, not liking the taste, knowing someone who died for reasons related to alcohol use, having parents who did not drink often or at all, and religious/cultural values (Hardcastle et al., 2019). However, we are not aware of any prior studies that have examined why some sexual minority youth choose not

to use substances. It is likely that some motivations for not using substances are universal, but some may be unique to bi+ youth (e.g., not using substances to remain in control of one's behavior and not accidentally disclose one's sexual orientation).

Decision Making

Scholars have also applied theories of reasoned action and planned behavior to adolescent risk behavior, including substance use. These theories describe a path to adolescent risk behavior in which decision making is a deliberative process that involves consideration of behavioral options and anticipated outcomes (Gerrard et al., 2008). In such instances, the behavior and associated risks are considered, and the decision to engage in the behavior is reasoned and intentional. Still, little is known about this deliberative process with respect to how youth make decisions about substance use (e.g., what and how much to use, when and where to use). Understanding the various factors that youth consider when making decisions about substance use has the potential to inform the development of more effective prevention and harm reduction strategies by providing youth with the necessary skills to make thoughtful and deliberate decisions about their health and behavior.

A small qualitative study of 13 adolescents who used alcohol and marijuana simultaneously found that decisions about substance use were influenced by various social and contextual factors (e.g., where they were, who was present) (Wolf et al., 2019). For example, participants tended to use alcohol at parties with large groups of peers, whereas they tended to use marijuana at small gatherings with close friends. In addition, they described using alcohol when they wanted to be more social, whereas they described using marijuana when they wanted to maintain greater control over their behavior (e.g., in the presence of adults). Participants were also more likely to use alcohol and marijuana simultaneously when their peers were doing so. This study highlights the various factors that youth consider when making decisions about substance use. While it is likely that some of these factors are relevant to the experiences of both heterosexual and bi+ youth (e.g., whether adults are present), bi+ youth may consider additional factors when making decisions about substance use (e.g., whether other sexual minority youth are present). However, this has yet to be explored.

Consequences of Substance Use

Substance use tends to increase from adolescence into young adulthood (Marshal et al., 2009), and many adults with substance use disorders started using substances as adolescents (United States Department of Health and Human Services, 2016). The consequences of substance use during adolescence are well documented (e.g., mental health and suicide risks, exposure to violence, sexual risk behavior; CDC, 2020b). Adolescence also marks a critical period for brain development and maturation, during which substance use can lead to persistent changes in brain function (Salmanzadeh et al., 2020). While there is substantial evidence of the consequences of substance use during adolescence, little is known about the specific consequences experienced by sexual minority youth and bi+ youth in particular.

It is likely that heterosexual and bi+ youth experience many of the same consequences of substance use, but some consequences may be exacerbated for bi+ youth. For example, sexual minority youth are disproportionately affected by adverse mental health outcomes (e.g., depression, suicidality; Lucassen et al., 2017; Marshal et al., 2011), and these disparities are often greatest for bisexual youth (di Giacomo et al., 2018). As a result, bi+ youth may be particularly vulnerable to experiencing affective consequences of substance use, such as depressed mood. In addition, sexual minority youth are disproportionately exposed to violence (e.g., childhood sexual abuse, parental physical abuse) and, again, these disparities are often greatest for bisexual youth (Friedman et al., 2011). Therefore, bi+ youth may be at risk of experiencing harsher discipline by their parents if they are caught using substances. Finally, sexual minority youth report higher rates of sex while intoxicated than do heterosexual youth (Herrick et al., 2011), and may be more likely to experience unwanted sexual encounters as a consequence of substance use.

The Current Study

In sum, the goal of the current study was to understand substance use experiences among bi+ male youth including motivations for using and not using substances, how they make decisions related to substance use, what consequences they experienced, and connections between substance use and experiences related to one's sexual orientation. Consistent with motivational models of substance use (Cooper et al., 2016), we conceptualized motivations as why participants used substances. In contrast, consistent with theories of reasoned action and planned behavior (Gerrard et al., 2008), we conceptualized decision making as how participants thought about what they were going to use, how much they were going to use, and when and where they were going to use. Of note, our sample was inclusive of transgender male youth and, as such, we were also able to explore connections between substance use and experiences related to being transgender. This is particularly important given that bi+ identities are especially common among transgender individuals (Galupo et al., 2017; Grant et al., 2011; Morandini et al., 2017), and transgender youth are more likely to experience victimization and use substances than their cisgender peers (Johns et al., 2019).

Method

Participants

The current analyses used data from a larger mixed methods project focused on sexual risk behavior and substance use among bi+ male youth.[1] A total of 58 participants completed a survey and an interview, but the analytic sample included 54 participants because three were not asked about substance use (there was not enough time) and one interview was not recorded (the recording device failed). Participants in the analytic sample ranged in age from 14 to 17 years ($M = 16.12$, SD = 0.97). Approximately two-thirds (63%) identified as bisexual, 30% as pansexual, and 7% as queer. They were racially/ethnically diverse (39% White, 33% Latinx, 19% Black, and 9% a different race). Approximately three-quarters (76%) of participants were cisgender male youth (i.e., they selected "male/man" as their gender identity and "male" as their sex assigned at birth) and 24% were transgender male youth (i.e., they selected "trans male/trans man" or "male/man" as their gender identity and "female" as their sex assigned at birth). Of the 13 transgender participants, nine selected "trans male/trans man" as their gender identity and four selected "male/man."

Procedure

All data were collected in 2019, prior to the start of the COVID-19 pandemic. Participants were recruited online (e.g., Facebook, Instagram), in-person (e.g., at local community-based organizations serving LGBTQ + youth), and using a participant registry maintained by the Institute for Sexual and Gender Minority Health and Wellbeing at Northwestern University. The study was broadly described as being about sexual orientation and health. Potential participants 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 or another bi+ identity (e.g., pansexual, queer); (4) reported being HIV-negative or not knowing one's HIV-status; (5) lived in the U.S.; and (6) agreed to have their interview audio recorded. Those who were eligible were contacted using their preferred contact method (email, text message, or phone call) and provided with a link to a consent form. If they consented, they were automatically directed to the online survey.

As part of the survey, participants were asked to report on their lifetime and past-year use of alcohol, marijuana, hallucinogens, inhalants, cocaine, ecstasy, methamphetamine, heroin, and poppers. For alcohol, participants were asked how many days they had at least one drink of alcohol in their lifetime and in the past year (0 days, 1 or 2 days, 3 to 9 days, 10 to 19 days, 20 to 39 days, 40 to 99 days, or 100 days or more). Participants who reported any past-year alcohol use were also asked to report the largest number of alcoholic drinks they had in a row (i.e., within a couple of hours) within the past month (1 or 2 drinks, 3 drinks, 4 drinks, 5 drinks, 6 or 7 drinks, 8 or 9 drinks, or 10 or more drinks); this was used to determine whether or not participants had engaged in binge drinking within the past month.[2] For all other substances, participants were asked how many times they had used each substance in their lifetime and in the past year (0 times, 1 or 2 times, 3 to 9 times, 10 to 19 times, 20 to 39 times, or 40 or more times). Responses were dichotomized for descriptive analyses. These questions came from the 2017 Youth Risk Behavior Survey; questions about lifetime use were adapted to assess past-year use, and questions about the use of poppers were added. After completing the survey, they were contacted to schedule their interview.

Interviews were conducted remotely (by phone or video chat) or in-person depending on the participant's preference. The interviews were semi-structured, conducted by the primary investigator and two research assistants, and approximately 90 min in length. All of the interviewers were members of the LGBTQ + community. The primary investigator is a clinical psychologist with extensive experience conducting research on the experiences and health of LGBTQ + individuals across the lifespan, and the research assistants were graduate students in social work and medicine who were also involved in conducting research on LGBTQ + populations.

As part of the interview, participants were asked a series of questions about their use of alcohol, marijuana, and other drugs. First, they were prompted with: "Tell me a little about your use of [alcohol, marijuana, other drugs]" (depending on which, if any, they reported ever using in the survey). As participants responded, interviewers probed for additional information by asking questions such as: "How often do you

[1] All 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 perceived the term "men" as referring to adults and they perceived the term "boys" 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.

[2] The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking that brings blood alcohol concentration (BAC) to 0.08 percent or higher. The typical cutoffs used to operationalize binge drinking are 4 + drinks (for female adults) and 5 + drinks (for male adults) in about 2 h (NIAAA, 2018). However, fewer drinks in the same timeframe result in the same BAC for youth (3 drinks for girls and 3–5 drinks for boys, depending on their age and size; Chung et al., 2018). Of note, it is unclear if the same cutoffs can be used with cisgender and transgender people. For these reasons, we report a range of 11–19% for past-month binge drinking in our sample (19% reported 3 + drinks in a row, 17% reported 4 + drinks in a row, and 11% reported 5 + drinks in a row).

use it? Who do you use it with? What kinds of situations do you use it in?" Then, they were prompted with: "Tell me about the most recent time you used [alcohol, marijuana, other drugs]." Again, as they responded, interviewers probed for additional information by asking questions such as: "Who were you with? What were you doing? How did you decide to use it?" For any substances that they had never used, they were prompted with: "You said that you haven't used [alcohol, marijuana, other drugs]. Tell me about that." As they responded, interviewers asked follow-up questions about whether they had experienced any peer pressure and, if so, how they had resisted it.

Finally, participants were asked two questions about the potential connection between sexual orientation and substance use: "How does being bisexual/pansexual/queer influence your use of alcohol and drugs?" and "Some research has found that bisexual guys are more likely to use alcohol and drugs than other guys, including gay guys. Do you have any ideas why that might be?" Of note, 10 participants did not report any lifetime substance use on the survey. With the exception of the first prompt described above ("Tell me a little about your use of [alcohol, marijuana, other drugs]," these participants were asked the same questions during the interview as the participants who did report lifetime substance use.

The interviewers conducted member checks throughout the interviews by paraphrasing participants' responses and asking whether their own understandings of the responses were accurate. 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.

Data Analysis

Interviews were transcribed, reviewed for accuracy, and analyzed using a reflexive thematic analysis approach (Braun & Clark, 2006, 2019, 2020). As such, our analysis reflects the data as well as the backgrounds, experiences, and knowledge of our research team. Our research team was knowledgeable about general and LGBTQ+ specific theories of substance use (e.g., motivational models of substance use, minority stress theory) as well as research on the unique experiences of bi+ individuals relative to other sexual minority individuals. Throughout the analytic process, we met to discuss how our own experiences with and assumptions about substance use could influence our interpretations of participants' responses to interview questions.

Consistent with Braun and Clark's approach, the first and second authors read the relevant sections of all of the transcripts, noting key ideas in participants' responses. Notes were compared across transcripts and similar ideas were grouped together as codes. Codes were consolidated if several codes overlapped conceptually. By using this inductive approach, the codes were developed based on participants' responses rather than a pre-existing framework. 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 0.98, suggesting excellent inter-rater reliability (Hruschka et al., 2004). When disagreements were identified, they were discussed by the two coders and the last author until consensus was reached. The remaining 75% were divided between the coders.

Frequencies and percentages for codes are reported in Table 1. For most percentages, the denominator was the total analytic sample size ($N = 54$). In exceptions, for "motivations for using" and "negative consequences" the denominator was the number of participants who reported any lifetime substance use ($N = 44$), and for "sources of stress" the denominator was the number of participants who reported using substances to cope with stress ($N = 17$). Percentages do not add up to 100% because each participant could receive codes for multiple sub-themes within a theme and not all participants contributed relevant data to every theme. Participant quotes were selected to represent themes. Quotes are presented verbatim with the exception of minor edits to facilitate readability.

Results

Frequencies and Contexts of Use

In regard to any lifetime use, 74% of participants reported alcohol use, 46% marijuana use, and 20% other drug use (11% hallucinogens, 11% inhalants, 4% cocaine, 4% ecstasy, and 2% methamphetamine). No participants reported ever using heroin or poppers. Ten participants did not report any lifetime substance use on the survey. In regard to past-year use, 32% of participants reported alcohol use, 39% marijuana use, and 13% other drug use (9% hallucinogens, 6% inhalants, 4% ecstasy, 2% cocaine, and 2% methamphetamine). Five participants did not report any past-year substance use. In addition, 11–19% of participants reported past-month binge drinking. Participants described using substances with friends (59%), with family members (26%), alone (22%), and with romantic/sexual partners (7%).

Motivations for Use

The 44 participants who reported any lifetime substance use described diverse motivations for using substances. The most commonly coded motivations were to cope with stress (39%), to experiment (32%), to have fun (23%), and to conform to

Table 1 Number and percent of participants who received each code

Level 1	Level 2	Level 3	*N*	%
Motivation for using	To cope		17/44	39%
		Mental health stress	10/17	59%
		School stress	7/17	41%
		Family stress	3/17	18%
		Other sources of stress	4/17	24%
	To experiment		14/44	32%
	To have fun		10/44	23%
	To conform		3/44	7%
	Peer pressure	Has experienced	19/54	35%
		Has not experienced	19/54	35%
	Other motivations		8/44	18%
Thoughtful decision making			17/54	31%
Negative consequences	Problematic use		4/44	9%
	Other negative consequences		14/44	32%
Motivations for not using	Aware of and concerned about consequences		25/54	46%
	Saw substances negatively affect others		19/54	35%
	Not liking them		17/54	31%
	Limited access		9/54	17%
	Experienced consequences		8/54	15%
Connection to sexual orientation	Not related		28/54	52%
	Related through stigma		25/54	46%
	Related through other mechanisms		8/54	15%

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social norms (7%). Other motivations (e.g., to relax, to feel more comfortable, to rebel) were described by 18% of participants, but only one or two participants described each one.

Using to Cope. Nearly two-fifths of participants described using substances to cope with stress. Of the 17 participants who reported using substances to cope with stress, the most common sources of stress were mental health problems (59%), school (41%), and family (18%). Other sources of stress (e.g., work, romantic relationships) were described by 24% of participants, but only one or two participants described each one. Of note, no participants described using substances to cope with stress related to their sexual orientation and only two of the 13 transgender participants described using substances to cope with stress related to their gender (e.g., dysphoria, being misgendered).

As an example of using substances to cope with mental health problems, one participant (16, cisgender, bisexual, White) said: "There are points where I just feel absolutely empty inside. And it's those points that I'll pretty much just do anything to end it. Not end my life but to end feeling that way. And weed basically like numbs my mind." Another participant (16, transgender, pansexual, White) similarly described using marijuana to cope with depression and anxiety, noting that it was more effective than prescription medication: "I do smoke weed pretty often…I kind of use it for medicinal purposes. I have depression and anxiety and when I smoke it, I feel a little better. And every time I've worked with a prescription medicine, it hasn't helped."

Although mental health problems were the most commonly described source of stress, participants also described using substances to cope with external stressors (e.g., school, family). For example, one participant (17, transgender, pansexual, Latinx) described a recent incident where he drank to cope with academic stress: "I'm rather stressed out about my school right now because I'm currently going through the college application process and she [his friend] offered to bring alcohol and I jumped at the opportunity. I kind of drank beyond my own limits that day." Another participant (17, cisgender, bisexual, White) said that he liked drinking "…because it kind of numbs me and makes me forget about depression, stress, and stuff." Then, when asked what caused him stress, he talked about his parents, saying that "…they fight a lot…and it stresses me out…"

Using to Experiment. Approximately one-third of participants described their substance use as experimentation. When they did, they were typically describing only using a substance once or twice. For example, one participant (16, cisgender, pansexual, White) described drinking alcohol and smoking marijuana once: "It was just kind of to see what the hype is about. People like it and I wanted to see what people like about it." Another participant (16, transgender, pansexual, White) reflected on his experimentation with inhalants, saying: "That was just me being a dumb kid because they would always talk about it like, 'Oh, inhalants are very dangerous.' And I was like, 'Oh, are they? Well let me just do that.' I was a stupid kid…It's just like, 'This is something that I'll try'."

Using to Have Fun. Nearly one-quarter of participants described using substances as a way to have fun. These descriptions tended to be brief and to the point. For example, one participant (16, cisgender, bisexual, White) said: "Usually I drink and smoke just to like have fun." Another participant (16, cisgender, bisexual, White) described drinking a few times a month and getting drunk at least one of those times, noting: "I've been told that I'm more fun when I'm drunk." Sometimes the desire to have fun led to using more than intended. For example, one participant (17, cisgender, bisexual, Latinx) described a situation where he had at least five drinks in a row, saying: "I was just having a lot of fun and I wasn't keeping track."

Using to Conform to Social Norms. Finally, a few participants described using substances because their peers were doing it. For example, one participant (17, transgender, pansexual, White) described only drinking in social situations, saying: "If I'm hanging out with people and they start drinking, I'll start drinking with them just because it's not fun to be the only sober person there." Another participant (17, cisgender, bisexual, White) described using marijuana because his friends were doing it: "When I first starting using it, I did it because I thought it was cool and I was trying to fit in with my friends."

Peer Pressure. Approximately one-third of all participants (35%) experienced pressure from their peers to drink or use drugs, but nearly all of them reported that they were able to resist it. For example, one participant (15, cisgender, bisexual, Latinx) described being pressured by his friends to smoke marijuana at a party: "They were like, 'Come on, I'm gonna give it to you free' and 'It's a good feeling,' but I just told them no. And then they were telling me how's it's going to make me feel, that it was going to make my life better, but I just texted my friend to come get me." Even participants who used substances described experiencing pressure to use in greater quantities. For example, one participant (16, cisgender, bisexual, White) said he experienced pressure to drink more than he wanted to, but he went on to say: "I haven't really caved in. I only drink what I'm comfortable with and if I think I've had too much, I'll stop…I don't need people telling me what I need to do to have fun." Although most participants who experienced peer pressure were able to resist it, some participants described giving in at times. For example, one participant (17, cisgender, bisexual, Latinx) said: "I did use marijuana, but that was only once because I was pressured into it, and I never did it again."

The same proportion of participants (35%) had not experienced peer pressure. Some of them described not associating with people who used substances, while others described having friends who used substances but who didn't pressure them. For example, one participant (17, cisgender, bisexual, Black) said: "There are those at my school that do that kind of stuff. So I try not to talk to them as much or I avoid spending time with them because I don't want to be pressured into doing that and I don't know if I would do it if I was pressured into it." Another participant (16, transgender, pansexual, White) said: "People are very chill about it. Especially people that I hang out with. They're like 'You don't have to do anything you don't want to do'."

Decision Making

Nearly one-third of all participants (31%) described thinking about what substances they were going to use, how much they were going to use, and when and where they were going to use them prior to doing so. For example, some participants described using marijuana, but not other drugs, because they perceived marijuana as safer. One participant (16, transgender, pansexual, White) said he used marijuana, but not other drugs, because: "I prefer things that can't hurt me and I like to just stay more safe and other drugs really can just mess you up, like mess up your brain….I don't really think of weed as a drug." Another participant (17, cisgender, bisexual, White) expressed similar sentiments, but specifically said that he would only use marijuana in the form of edibles because he perceived them as safer than smoking: "I had been thinking about it, [that] it's something that would be fun to try…especially since it was an edible so I didn't have to worry about the effects of the smoke at all."

When participants described rules for when and where they used substances, the rules generally had to do with only using substances in safe places and with people who they trusted. For example, one participant (17, transgender, bisexual, White) described his rules for drinking as follows: "It has to meet all three: comfortable place, comfortable people, comfortable mindset. Cause it always ensures that I'm not doing it because I'm depressed or anything." He went on to describe similar rules for when he smoked marijuana: "…it was only around people who I really, really trusted and felt comfortable with." Similarly, another participant (15, cisgender, bisexual, Latinx) described only drinking in certain situations: "Usually it's me and a couple of my friends at

home. We're never out. We're never driving." Participants also described asking their friends for help with keeping their substance use within certain limits. For example, one participant (16, cisgender, bisexual, White) said: "I know when to cut myself off….When I start slurring words together or stuttering more than I usually do, I tell the most sober one in the room to stop letting me have alcohol." As demonstrated, even though this participant was thoughtful about not exceeding certain limits, he still drank to the point where his behavior was affected.

Negative Consequences

Of the 44 participants who reported any lifetime substance use, nearly one-third (32%) described a range of negative consequences related to their substance use (e.g., getting sick, getting in trouble with their parents, putting themselves in potentially dangerous situations), but only one or two participants described each one. In addition, a small subset of these participants (9%), all of whom were transgender, described their substance use as getting to a point where it became problematic. For example, one participant (15, transgender, bisexual, White) said: "I used to have a problem with alcohol. I used to drink a lot. It became a serious problem and I think it might've contributed to my depression…" He went on to say: "I would drink to the point where I couldn't walk up the stairs….It was a horrible experience. It wasn't fun because I started feeling like I needed it…" Similarly, another participant (17, transgender, bisexual, White) described a cycle of drinking and feeling depressed: "I just became a really depressed drunk and then every time I was drinking I would just get really depressed…and then I started drinking because I was depressed." One participant (17, transgender, pansexual, Latinx) went as far as to say: "I tend to refer to myself as an alcoholic waiting to happen, because I'm very, very susceptible to drinking whenever I feel upset. And if I had more access to it, I would most definitely probably be an alcoholic."

Motivations for Not Using Substances

Participants described diverse motivations for not using substances often or at all including being aware of and concerned about the consequences (46%), seeing them negatively affect others (35%), not liking them (31%), having limited access (17%), and personally experiencing negative consequences (15%).

Being Aware of and Concerned About the Consequences. Nearly half of participants described not using substances because they were aware of and concerned about the physical, psychological, and legal consequences. For example, one participant (17, cisgender, bisexual, Black), said: "I've never used alcohol and drugs….I don't think you should ever really mess with [drugs] because anything that changes your state of mind and leaves you vulnerable to be taken advantage of is not good for you." Similarly, another participant (16, transgender, pansexual, White) said: "My future is very important to me and I don't want to compromise that by doing anything and getting in legal trouble or getting in mental trouble."

Seeing Them Negatively Affect Others. Approximately one-third of participants described not using substances because they had seen them negatively affect other people's lives. For example, one participant (16, cisgender, bisexual, White) said: "I live in an apartment facility and I have grown up surrounded by cigarettes, heroin needles, dirty condoms, marijuana, everything. And I don't want to do that. I see how it affects the people." They went on to say: "I've had people die up where I live because of drugs. I don't want to get myself involved in that. I'd rather stay sober and clean." Another participant (14, transgender, bisexual, White and Asian) described how his older sister's drug use affected him and his family: "I haven't really been inclined to do so [drink], but especially since my older sister…she was doing hard drugs and it left a really big impact on all of my family. And my younger sister and I, we've talked about it and we're not planning on drinking at all because we're so afraid that we're going to get addicted like our older sister."

Not Liking Them. Nearly one-third of participants described not using substances often or at all simply because they didn't like them. For example, one participant (16, cisgender, pansexual, White) said: "I wish I liked drinking because you know, it's kind of the norm in society….It's just not something that I'm really into…I don't like the taste of it." Similarly, another participant (17, cisgender, queer, Latinx) said: "I spend most of the time with the Mexican side of my family. And they drink alcohol a lot. So I've always had access to alcohol, but I don't really like alcohol that much. I don't like the taste of it or anything about it. And so I never really drink alcohol." Other participants expressed similar sentiments about marijuana. For example, one participant (15, cisgender, bisexual, Latinx) said: "A lot of my friends say weed smells good, but to me it smells really bad. I heard the feeling is good, but my friends told me that if I ever did weed, I'll be the type to be very paranoid."

Limited Access. Some participants described not having access to substances as a reason for not using them often or at all. For example, one participant (16, transgender, pansexual, White) said: "I drink sometimes, but it's a very rare occurrence. Usually I don't even have the opportunity to if I wanted to." Other participants were more specific in saying that they only used substances when they were with people who had access to them. For example, one participant (17, cisgender, pansexual, White) said: "I've only drank a few times…and it was with older family members, like older cousins, that had access to it." Similarly, another participant

(15 cisgender, pansexual, American Indian/Alaska Native) described smoking marijuana once in a while with specific friends who would offer it to him. He went on to say: “It only happened once in a while because they weren't wealthy enough [to get it more often].”

Experiencing Negative Consequences. Some participants stopped using substances or cut-back because of the negative consequences they experienced. For example, one participant (16, cisgender, bisexual, White) described getting in trouble with his parents for smoking marijuana and he said: “I'm cutting everything off since I don't want to get in trouble again.” Another participant (16, transgender, pansexual, Latinx) who stopped using substances said: “I started drinking by myself and that was when I realized that there was danger involved… and that was when I stopped. It was still never very, very frequent, but it was something I started using as a coping mechanism.”

Connection to Sexual Orientation

When first asked about the potential connection between their sexual orientation and their substance use, 52% of participants said that their substance use was not related to being bi+ in any way. However, half of them (and 46% of participants in total) went on to describe how being bi+ could be connected to substance use for other people through stigma (i.e., bi+ people experiencing stigma and using substances to cope with it). Other connections were described by 15% of participants (e.g., bi+ people being more open to new experiences or more rebellious), but only one or two participants described each one.

As an example of how being bi+ could be related to substance use through stigma, one participant (17, cisgender, bisexual, Black), said: “Being bisexual is super stressful…. You’re not accepted by straight [community] members. Sometimes you’re not accepted by gay people. Sometimes you’re in your own league. You're an outsider to all these people. So, if a bottle is the only person who accepts you, then the bottle is.” Another participant (17, transgender, bisexual, White) described how being bisexual was related to substance use through internalized stigma for one of his friends: “I have a friend who is bisexual but he'll only say it if he is drunk cause that's the only time he ever feels comfortable enough to say it. And it's the only time he'll ever do things [sexually] with a guy, if he is drunk, because of that.” Although most of these participants were not describing their own experiences, one participant (17, transgender, pansexual, Latinx) described struggling with his sexuality when he was younger and he went on to say: “When I was younger, it happened a couple of times where I just completely broke down because of something someone said to me and I just wanted to calm down, to numb the pain, and ended up taking the drink or two.”

Discussion

The goal of the current study was to understand substance use experiences among bi+ male youth, including motivations for using and not using substances, decision making, negative consequences, and connections between substance use and experiences related to one’s sexual orientation. While substance use was not required to participate in the study, rates of substance use were similar to national rates among sexual minority youth (CDC, 2020a, 2020b; Jones et al., 2020). For example, rates of past-month alcohol use, lifetime marijuana use, and lifetime illicit drug use were 32%, 46%, and 20% in our sample (compared to 34%, 50%, and 28% among sexual minority youth in the 2019 Youth Risk Behavior Survey). Our findings can be used to inform the development of substance use prevention and harm reduction programs to address the high rates of substance use among bi+ male youth.

Motivations for Using and Not Using Substances

Our participants described diverse motivations for using substances (e.g., to cope with stress, to experiment, to have fun), which paralleled the motivations that have been described in the broader literature (Bos et al., 2016; Cooper et al., 2016; Lo & Globetti, 2000; Palmqvist et al., 2003). The most commonly described motivation was to cope with stress, but sexual orientation-related stress was not described as a source of stress. Instead, the most common source of stress was mental health problems (e.g., depression, anxiety), followed by school (e.g., applying to college), and family (e.g., parents fighting with each other). It is possible that sexual orientation-related stress played a role in these other stressors, but that was not explicit in participants’ narratives. Although our participants did not describe sexual orientation-related stress as a motivation for their own substance use, they did acknowledge that it could contribute to substance use for other bi+ male youth (e.g., if they did not feel accepted or if they were not comfortable with their sexual orientation). Therefore, it is possible that our participants experienced relatively low levels of sexual orientation-related stress and, for that reason, they did not perceive it as having an influence on their substance use. It is also possible that our participants lacked insight into the extent to which sexual orientation-related stress influenced their substance use. Regardless, our findings highlight the importance of attending to other sources of stress in order to understand substance use among bi+ male youth.

In addition, although peer groups can have a powerful influence on adolescents’ engagement in potentially risky

behaviors, including substance use (Miller & Prentice, 2016; Neighbors et al., 2007), very few of our participants described using substances to conform to social norms. Approximately one-third of our participants did report that they had experienced pressure from their peers to drink or use drugs, but nearly all of them described being able to resist it. These findings are consistent with evidence that factors other than peer pressure (e.g., personal choice, curiosity) may have greater influences on youth substance use than do peer pressure and the desire to conform (McIntosh et al., 2003). Those who had not experienced peer pressure explained that they either did not associate with people who used substances or they had peers who used substances but who did not pressure them. It has been suggested that sexual minority youth may be at increased risk of substance use because they may be more likely to associate with peers who use substances (Dermody et al., 2016). While this may be true of some sexual minority youth, our findings suggest that others may be equipped to resist peer pressure.

Our participants also described diverse motivations for *not* using substances, which were consistent with the limited prior research in this area (Hardcastle et al., 2019). Many of these were related to the consequences of substance use (e.g., being aware of and concerned about the consequences, having personally experienced consequences, having seen others experience consequences), suggesting that both personal experience and vicarious learning through others' experiences can function to keep youth from using substances. However, other motivations for not using substances were not related to the potential consequences (e.g., not liking the taste, not having access). In particular, lack of access suggests that some of our participants would have used substances, or used them more, if they had greater access to them. As such, it may be particularly important to direct substance use prevention and harm reduction interventions to these youth in an effort to prepare them for when they do have greater access.

Decision Making

Consistent with theories that describe a path to adolescent risk behavior in which decision making is a deliberative process (Gerrard et al., 2008), approximately one-third of our participants described thinking about what substances they were going to use, how much they were going to use, and when and where they were going to use them prior to doing so. For example, they described using marijuana, but not other drugs, because they perceived marijuana as safer, and they described only using substances in safe places and with people who they trusted. These findings are consistent with the results of a prior qualitative study, which also found that adolescents had rules for when, where, and with whom they used alcohol and marijuana (Wolf et al., 2019). These findings stand in contrast to the common framing of adolescent substance use as impulsive and thoughtless. However, it is important to acknowledge that even with rules, adolescents may still engage in unsafe behavior. For example, one of our participants explained that he asked his friends to stop him from drinking once he had reached a certain point, but the point at which he thought he should stop was once his behavior was already affected (e.g., once he started slurring his words). As such, these findings are encouraging in that they suggest that some bi+ male youth are approaching substance use in a thoughtful way, but they also suggest that youth may need support to ensure that they use substances as safely as possible.

Negative Consequences

Some youth described a range of consequences related to their substance use (e.g., getting sick, getting in trouble with their parents, putting themselves in potentially dangerous situations). In addition, a small subset of participants, all of whom were transgender, described their substance use as getting to a point where it became problematic (e.g., feeling dependent on alcohol, substance use having a negative influence on one's mental health). Some of our transgender participants also described using substances to cope with gender-related stress (e.g., dysphoria, being misgendered). These findings are consistent with evidence that transgender youth are more likely to experience victimization and use substances than their cisgender peers (Johns et al., 2019), and they highlight the critical need to identify and address substance use problems among transgender youth.

Limitations

The current findings should be considered in light of several limitations. First, while our sample was relatively large for qualitative analyses, the extent to which the current findings generalize to the broader population of bi+ male youth remain unclear. It will be important for future quantitative studies with larger samples to continue to examine bi+ male youth's experiences with substance use, including motivations for using and not using substances, decision making processes, negative consequences, and connections between substance use and experiences related to one's sexual orientation. Second, our findings were based on self-report and it is possible that some participants may not have felt comfortable disclosing the details of their substance use or they may not have accurately remembered all of their experiences using substances. It may be useful to collect information from other sources, such as parents or peers, to gain a more comprehensive understanding of substance use from the perspectives of all those involved. Third, some of our 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, two transgender participants described using substances to cope with stress related to their gender, but we did not specifically ask about this and it is possible that more transgender participants would have described similar experiences if they had been asked.

Conclusion

Despite limitations, the current findings provide important insights into bi+ male youth's experiences with substance use and can be used to inform substance use prevention and harm reduction interventions for this population. While a number of interventions have been developed to reduce substance use (typically in conjunction with sexual risk behavior) among sexual minority young adults (for a review, see Newcomb & Feinstein, 2019), we are only aware of one intervention that was specifically developed to address substance use among sexual and gender minority youth (Schwinn et al., 2015). Schwinn and colleagues developed a three-session, online drug abuse prevention program that focused on teaching skills related to minority stress management, decision making, and drug use refusal, and they tested it in a randomized trial with a no intervention control condition. At three-month follow-up, youth who completed the intervention reported lower stress, peer drug use, and past 30-day other drug use (i.e., inhalant, club drug, steroid, cocaine, methamphetamine, prescription drug, and heroin use), as well as higher coping, problem solving, and drug use refusal skills compared to youth who did not complete the intervention. Based on the current findings, it is important to not only focus on minority stress, but to also attend to general stressors that all youth experience (e.g., academic pressure, family conflict). In addition, while focusing on stress and coping is important, our findings highlight the range of motivations that bi+ male youth have for using substances. When substance use is motivated by other desires, different intervention strategies may be needed. For example, it has been suggested that those who drink to cope may benefit from stress reduction and coping skills training, whereas those who drink to enhance pleasure may benefit from alternative sources of pleasure and restructuring expectancies for alcohol's enhancing effects (Cooper et al., 1995). Finally, our findings also suggest that not all substance use among youth is impulsive. Instead, our participants described thinking about which substances they used, how much they used, and when, where, and with whom they used. As such, when it comes to helping bi+ male youth make decisions about substance use, it is important to approach them as being capable of making thoughtful decisions related to substance use.

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.

Data Availability De-identified data (including survey data and coding of interview data) are available from the senior author upon request. Survey and interview materials are also available from the senior author upon request.

Code Availability Not applicable.

Declarations

Conflict of interest The authors do not have any conflicts of interest to disclose.

Human or Animal Rights All study procedures were approved by the Institutional Review Board at Northwestern University prior to implementation. The study was performed in accordance with the ethical standards in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Online informed consent to participate was obtained from all participants.

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