

A Mixed Methods Study of Drinking Behavior at an LGBTQIA+ Pride Festival

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Abstract

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Sexual and gender minoritized (SGM) populations experience elevated rates of alcohol-related harm, often attributed to minority stress and social norms. However, less is known about how alcohol-related processes vary based on specific cultural event-level contexts. LGBTQIA+ Pride festivals (“Pride”) represent environments where alcohol use is highly visible, raising the possibility that they may function as high-risk drinking events (HRDEs).

This mixed methods study examined alcohol use during Pride using on-site and follow-up surveys ($N = 145$) and qualitative interviews ($n = 18$). Participants reported significantly higher perceived drinking norms during Pride compared to a typical weekend. However, these norms were not associated with quantity of alcohol consumed during

Pride. Instead, typical drinking patterns emerged as the only consistent predictor, and no evidence was found for moderation by minority stress.

Qualitative findings indicated that while Pride is widely perceived as a drinking-oriented environment, participants more often described drinking as motivated by celebration and social facilitation rather than coping with identity-related stress. Participants also discussed factors that made “the LGBTQIA+ community” a more or less salient reference group for their own personal behavior, and discussed potential interventions to reduce alcohol-related harms at Pride.

Implications for future research and for practical intervention are discussed.

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Chapter 1: Introduction

Background and Importance of the Problem

Drinking in the LGBTQIA+ Community

Alcohol misuse is a significant public health issue, with alcohol-related deaths, illnesses, and hospitalizations projected to increase over the coming years (Julien et al., 2020; Spillane et al., 2020; White et al., 2018). There is much evidence to suggest that different subpopulations in the United States experience disproportionate rates of alcohol-related harms, with differences in outcomes observed between racial and ethnic groups, men and women, and socioeconomic strata (Katikireddi et al., 2017; Vaeth et al., 2017; White, 2020). According to the NIH Sexual and Gender Minority Research Office, sexual and gender minoritized (SGM) populations include, but are not limited to, individuals who identify as lesbian, gay, bisexual, asexual, transgender, Two-Spirit, queer, and/or intersex (LGBTQIA+). Individuals with same-sex or -gender attractions or behaviors and those with a difference in sex development are also included. These populations also encompass those who do not self-identify with one of these terms but whose sexual orientation, gender identity or expression, or reproductive development is characterized by non-binary constructs of sexual orientation, gender, and/or sex (NIH Sexual and Gender Minority Research Office, 2019). SGM are at heightened risk of developing alcohol-related problems compared to heterosexual, cisgender peers (Connolly & Gilchrist, 2020; King et al., 2008; Meads et al., 2023; Mereish, 2019; Shokoohi et al., 2022).

There are two primary theories proposed to underly this disparity between SGM and cisgender, heterosexual populations. Perhaps the most researched is that of minority

stress theory, which posits that disparities in health outcomes, including alcohol-related outcomes, in SGM are due to excess stress these groups are exposed to as a result of their minoritized social position (Meyer, 2003). Indeed, there is evidence that individuals may drink more when exposed to experiences of SGM identity-related discrimination (Connolly & Gilchrist, 2020; DeSon & Andover, 2023; Schulz et al., 2022), when endorsing a higher level of internalized heterosexism (Huynh et al., 2022), and when living in an area with greater structural SGM-related stigma (Zollweg et al., 2023). Although minority stress theory has been widely supported, emerging research suggests that its association with alcohol use may be more complex than originally conceptualized. While between-person associations between minority stress and alcohol outcomes are well-documented, within-person and event-level findings are more mixed, with some studies failing to detect prospective or daily-level effects (e.g. Dyar et al., 2020, 2022). These findings suggest that minority stress processes may not uniformly predict alcohol use across contexts, highlighting the importance of examining these relationships in specific social environments.

There is also evidence that social norms theory may help to explain some of the observed disparity in alcohol-related outcomes between SGM and non-SGM groups. Social norms theory suggests that individuals moderate their own drinking behavior based on their perceptions of norms in their social group (Perkins & Berkowitz, 1986). Social norms theory is grounded in broader social-cognitive frameworks, including the Theory of Reasoned Action and the Theory of Planned Behavior, which posit that behavior is shaped by attitudes, perceived norms, and perceived behavioral control (Ajzen, 1991; Fishbein &

Ajzen, 1975). Importantly, these models highlight that perceived norms do not always translate directly into behavior, particularly when behaviors are constrained by situational or individual factors.

Both perceived descriptive norms (i.e. beliefs about others' drinking levels) and perceived injunctive norms (i.e. beliefs about others' approval of drinking) are associated with drinking (Krieger et al., 2016; Lewis & Neighbors, 2006). Often, individuals' perceived norms are significantly different than the real norms of the group, and this discrepancy, referred to as norm misperception, is the primary target of interventions taking the social norms approach. Alcohol-related community norms have been a primary target of research and intervention development in other high-risk drinking groups such as college students (Miller & Prentice, 2016) and veterans (Martens et al., 2015; Young et al., 2018), but has been relatively under-researched in the SGM community (Boyle et al., 2020). There is research evidence to suggest that SGM tend to overestimate their peers' use of alcohol and other drugs, and that these misperceptions might be related to the visibility of substance use behavior in SGM community spaces like bars and nightclubs (Ahmed et al., 2016; Boyle et al., 2016).

Recent research has aimed to synthesize minority stress and social norms theories of SGM drinking behaviors and outcomes (Boyle et al., 2017; Boyle & LaBrie, 2022; Hamilton & Mahalik, 2009; Mereish et al., 2017). There is evidence to suggest that experiences of minority stress may moderate the relationship between perceived drinking norms and alcohol use, such that individuals who have experienced recent interpersonal stigma may have a stronger positive relationships between perceived peer drinking norms

and their own alcohol use (Boyle & LaBrie, 2022). This finding is consistent with self-categorization theory (Turner et al., 1987), which suggests that when an individual is more aware of their group membership (e.g. sexual minority status), they are more likely to self-stereotype and engage in behaviors consistent with their perceived norms of their group. It may be the case that experiences of discrimination and other minority stressors may increase the salience of one's group membership, activating this self-categorization effect. Another pathway through which minority stress and social norms may converge to explain drinking behavior is that a subset of SGM people may engage in substance use in order to cope with discomfort following experiences of victimization and other minority stressors; if their peers come to view these behaviors as normative, then this may in turn lead these peers to engage in similar drinking behaviors, even among those who do not personally face the minority stressors (Lick et al., 2013).

Heavy Episodic Drinking and High Risk Drinking Events

People who drink frequently and infrequently alike may engage in heavy episodic drinking (HED), defined as consuming 4+ drinks on one occasion for cisgender women and 5+ drinks on one occasion for cisgender men, and may be particularly likely to do so at high risk drinking events (HRDEs; Neighbors et al., 2011). The literature on HRDE primarily has drawn on university settings, where there are often certain community-based celebrations (e.g. parties, New Year's Eve, music festivals) that may be associated with HED (Garcia et al., 2022). There is evidence that students' drinking motives and perceptions of drinking norms for HRDE may differ from a "typical" time period (O'Grady et al., 2011). Negative alcohol-related consequences are common among those who engage in HED during

HRDE, and are particularly likely among those who drink heavily during the HRDE despite not typically drinking heavily (Lee et al., 2009; Lewis et al., 2009).

Recommended areas of strategic intervention in preventing HRDE harms include implementing prevention strategies (e.g. addressing knowledge, attitudes, norms, skills, self-efficacy, behavioral interventions), environmental changes (e.g. alcohol-free options, normative environment, alcohol availability, marketing and promotion, and policy development and enforcement), health protection, and intervention and treatment (Dejong & Langford, 2002; National Institute on Alcohol Abuse and Alcoholism, 2019; Neighbors et al., 2007).

A number of these strategies have been implemented and tested in various HRDE contexts. For example, one university task force sought to redesign a campus-specific HRDE by offering more alcohol-free options, offering corrective normative feedback in advertisements, increasing law enforcement presence and visibility, and increasing numbers and visibility of emergency vehicles and healthcare workers around the event. Over the course of several years, these policy changes were associated with significant decreases in the number of drinking-related cases seen by local medical personnel and number of arrests made by state police surrounding the event (Neighbors et al., 2007). A number of event-specific personalized normative feedback interventions have also been developed and tested, and find that changes in perceived drinking norms are associated with reduced event-specific drinking (Buckner et al., 2019; Lee et al., 2014).

Pride Festivals as a Possible High Risk Drinking Event

Pride festivals represent a unique social and structural context in which alcohol use may be highly visible and normalized. In addition to influences such as minority stress and social norms, structural factors including alcohol industry sponsorship, targeted marketing, and the concentration of alcohol-serving venues may shape drinking behavior in these settings. The demonstrations that became known as the first gay pride parades happened in urban centers across the United States in the Summer of 1970, around the one-year anniversary of the Stonewall Riots (Bruce, 2016). Over the following decades, these events grew in size and scope, and as of 2022, LGBTQIA+ Pride events (i.e. “Pride”) are held in all fifty US states and in over 100 countries globally (Outright International, 2023).

To our knowledge, no published research has evaluated Pride as a potential HRDE, and only one study has published data about drinking behavior specifically in the context of Pride (Shuper et al., 2018). However, certain common features of these events, namely the frequent alcohol industry sponsorships and centrality of drinking venues, suggest that alcohol use may be particularly visible and normalized at these celebrations. As of 2016, a majority of Pride events in the United States who listed their sponsors online were sponsored by at least one alcohol company (Spivey et al., 2018). In cities that hosted both Pride and 4th of July festivals in 2019, the Pride festivals had a significantly higher percentage of sponsorships from alcohol companies compared to the Independence Day celebrations (Arshonsky et al., 2025). During Pride Month (June), alcohol retailers commonly use point-of-sale marketing strategies to target the SGM community, such as

rainbow or Pride flag imagery (Ennis et al., 2025). SGM community members have mixed opinions about this phenomena, with many noting the value that comes from alcohol industry sponsorships (e.g. the ability to host community events), while others have concern about the alcohol industry exploiting the community for financial gain, and encouraging harmful drinking behaviors (Adams et al., 2023). With a better understanding of the extent to which Pride may represent a HRDE for attendees, Pride event organizers may be able to implement event-specific prevention strategies, pulling on the strategies explored in other event-specific contexts, while tailoring these strategies to be feasible and acceptable in the context of Pride, and for SGM individuals.

The Present Study

The present study aimed to extend the extant literature on the impacts of social norms and minority stress on SGM drinking and drinking -related consequences, by applying these constructs to event-level drinking in the context of Pride. We proposed the following aims and hypotheses:

Aim 1: Using cross-sectional survey data collected at Pride events, explore whether differences in perceived peer drinking norms exist between Pride weekend and typical weekends.

H1a. Participants will report higher perceived descriptive norms and perceived injunctive norms during Pride weekend than a typical weekend.

H1b. Participants' degree of identification with the LGBTQIA+ community will be associated with their Pride-related perceived drinking norms, such that those who

endorse a higher degree of identification with community will perceive their peers drink more and approve of drinking more at Pride.

Aim 2: Using the on-site Pride survey data and follow-up survey data collected the week following the Pride events, examine how perceived event-specific peer drinking norms and experiences of minority stress relate to Pride event-related alcohol use and alcohol-related consequences.

H2. Perceived descriptive drinking norms will predict participants' actual drinking over the course of Pride weekend, and this relationship will be moderated by recent experiences of minority stress, such that participants who report greater levels of recent minority stress will have a stronger positive relationship between perceived Pride drinking norms and Pride drinking behavior.

Aim 3. Conduct semi-structured qualitative interviews with a subset of participants who report HED at Pride. Questions aimed to **(Q1)** provide insight into SGM participants' own perceptions of the factors underlying their drinking behavior at Pride, including how components of minority stress, social norms, and individual factors, including their unique intersectional identities, impact their experiences, and **(Q2)** assess participants' perceptions of potential Pride-specific interventions to reduce alcohol-related harm.

Chapter 2: Method

While much prior research attention has been paid to drinking behaviors among the SGM community, besides our own preliminary studies (Conroy et al., 2023, 2024), this study is the first to our knowledge to recruit participants on-site at a LGBTQ+ Pride event, specifically to study event-specific drinking behavior, consequences, and associated phenomena. Participants were asked to complete two self-report surveys, one brief survey on their mobile device completed on-site and one during the week following Pride, to provide retrospective reports on drinking behavior and consequences across their entire Pride celebration. A subset of participants from the quantitative study who completed both surveys and who opted in to further contact from the research team were invited to complete a semi-structured qualitative interview in the weeks following the event, to better understand how members of the SGM community understand their own drinking behavior at Pride in the context of their intersectional identities, social influences, and minority stressors.

Participants

Eligibility criteria for the study included being over the age of 18 years and reporting having had a drink containing alcohol within the past month. Further, to complete the informed consent process, participants were required to have a web-enabled mobile device available to them and were monitored for observable signs of acute intoxication (exclusion criterion). There were no other inclusion or exclusion criteria.

A sample of $N = 145$ provided at least partial data for Survey 1. Participants were between the ages of 18-81 years old ($M = 29.7$, $SD = 8.5$) and 97.2% were SGM. Further

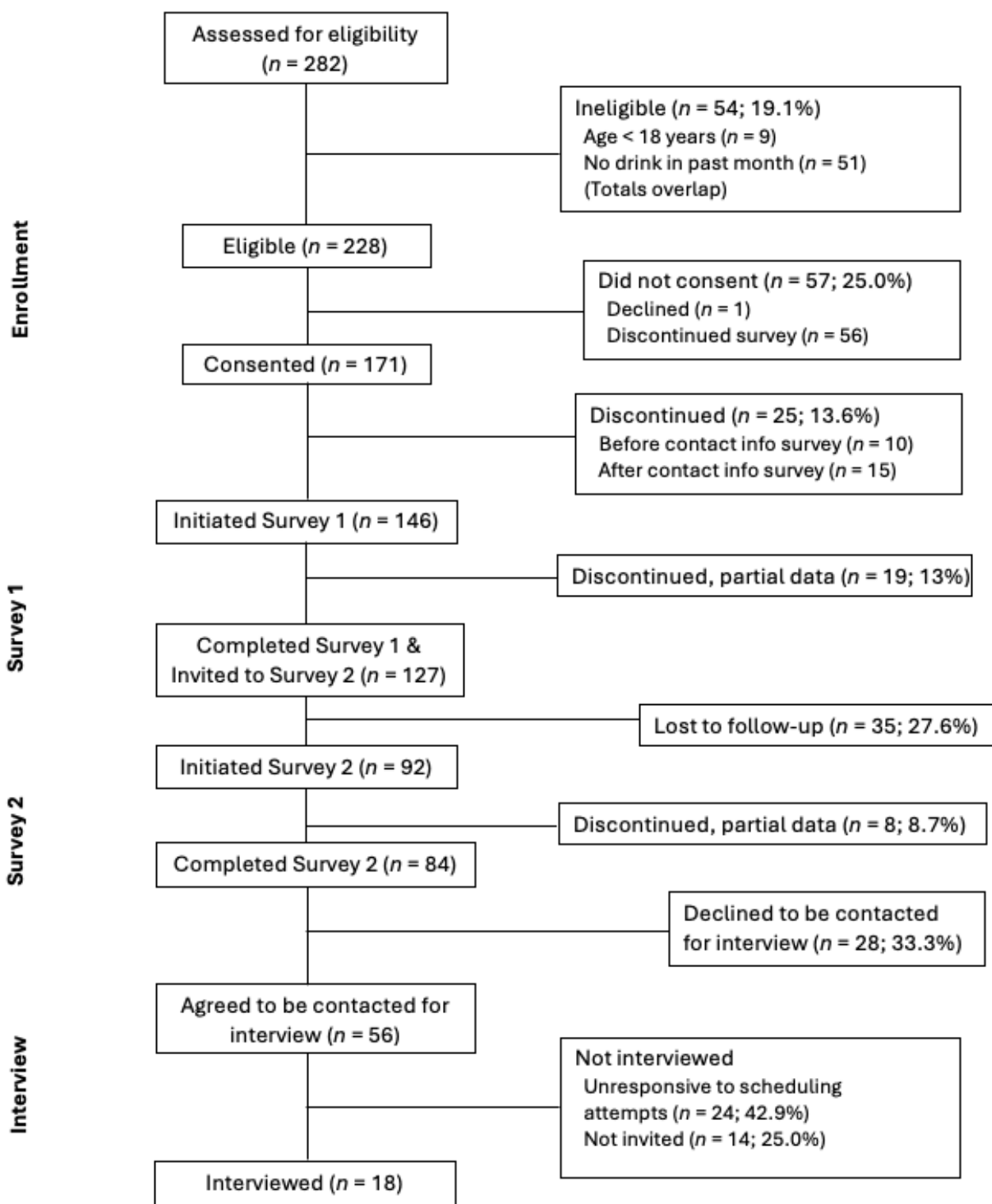
demographic information can be found in Table 1. Note that participants were instructed to check any and all gender identity, sexual orientation, and racial/ethnic identity categories that applied to them. A detailed description of participant flow through the study can be found in Figure 1. Of those who initiated Survey 1, 42% did not complete Survey 2. The demographics of the subsample of participants who completed Survey 2 are also presented in Table 1. Survey 2 completers did not significantly differ from non-completers demographically.

A final question on Survey 2 asked participants to opt in/out of being contacted for the optional qualitative interview follow-up. Of the 84 participants who completed the survey-based portion of the study, 56 agreed to be contacted for the follow-up interview. A final group of 18 participants completed the follow-up qualitative interview, with the remainder being unresponsive to scheduling attempts ($n = 24$) or not being invited ($n = 14$). Summary of the demographic characteristics of the interview participants can be found in Table 1.

Table 1. Participant Demographic Characteristics

Demographic	Survey 1 (<i>n</i> = 145)	Survey 2 (<i>n</i> = 84)	Interviews (<i>n</i> = 18)
Age in years, <i>M</i> (<i>SD</i>)	29.8 (8.6)	30.1 (7.1)	29.4 (6.8)
Range	18 – 81	18 – 48	20 - 47
Gender Identity, <i>n</i> (%)			
Woman	73 (50.3)	45 (53.6)	9 (50.0)
Man	29 (20.0)	17 (20.2)	4 (22.2)
Non-binary	56 (38.6)	36 (42.9)	4 (22.2)
Two-spirit	2 (1.4)	1 (1.2)	0 (0.0)
Other gender identity	17 (11.7)	9 (10.7)	2 (11.1)
Transgender Identity, <i>n</i> (%)			
Yes	51 (35.2)	29 (34.5)	7 (38.9)
Somewhat	19 (13.1)	10 (11.9)	1 (5.6)
No	73 (50.3)	44 (52.4)	10 (55.6)
Sexual Orientation, <i>n</i> (%)			
Gay	25 (17.2)	15 (17.9)	5 (27.8)
Lesbian	29 (20.0)	19 (22.6)	6 (33.3)
Bisexual	43 (29.7)	23 (27.4)	4 (22.2)
Pansexual	34 (23.4)	20 (23.8)	6 (33.3)
Queer	56 (38.6)	38 (45.2)	8 (44.4)
Asexual	8 (5.5)	6 (7.1)	2 (11.1)
Demisexual	13 (9.0)	10 (11.9)	3 (16.7)
Questioning	6 (4.1)	3 (3.6)	1 (5.6)
Mostly straight	7 (4.8)	3 (3.6)	1 (5.6)
Exclusively straight	5 (3.4)	1 (1.2)	0 (0.0)
Other orientation	5 (3.4)	3 (3.6)	0 (0.0)
Racial/Ethnic Identity, <i>n</i> (%)			
American Indian / Alaska Native	2 (1.4)	1 (1.2)	0 (0.0)
Asian / Asian American	22 (15.2)	11 (13.1)	5 (27.8)
Black / African American	7 (4.8)	3 (3.6)	0 (0.0)
Hispanic / Latino/a/e	22 (15.2)	15 (17.9)	4 (22.2)
Middle Eastern / North African	7 (4.8)	4 (4.8)	1 (5.6)
Native Hawaiian / Pacific Islander	3 (2.1)	1 (1.2)	0 (0.0)
White	105 (72.4)	64 (76.2)	9 (50.0)
Other racial/ethnic identity	3 (2.1)	1 (1.2)	0 (0.0)
Annual Personal Income, <i>n</i> (%)			
<\$30,000	42 (29.0)	25 (29.8)	6 (33.3)
\$30,000 - \$89,999	64 (44.1)	37 (44.0)	7 (38.9)
≥\$90,000	35 (24.1)	20 (23.8)	5 (27.8)
Declined to answer	4 (2.8)	2 (2.4)	0 (0.0)
IOS Scale, <i>M</i> (<i>SD</i>)	6.1 (2.1)	6.3 (1.8)	6.0 (1.8)

Figure 1. Consort Flow Diagram



Survey Recruitment and Screening

Recruitment occurred in Seattle, Washington, in a neighborhood that is home to multiple community-based Pride events and a density of gay drinking venues, many of which have ticketed events and celebrations during Pride festival weekend.

The research team had a station at two official Pride events. The first event (E1) occurred on the Friday evening of Pride weekend. The event centered the trans community, specifically, and was held in a public park, featured a stage with entertainment, food trucks, and a tabling fair, where our research station was located. Importantly, though the event was located in a neighborhood with a density of restaurants, bars, and other drinking venues, the event itself did not serve alcohol. The second event (E2) was a larger and non-identity-specific LGBTQIA+ Pride event on a Saturday afternoon and early evening. The event took place on a main street lined with businesses, bars, and restaurants, many of which were advertising drinking specials for the event. The event included multiple entertainment stages, food and beverage vendors, and included a street fair for vendors and organizations to table, where our research station was located.

These stations served as a central data collection area, with the PI and several research assistants stationed with additional supplies. Large signs and brochures advertising “Project TEA”, Pride-themed décor and free bottles of water were used to attract festival attendees to visit the booth and learn more about the study.

Researchers approached potential participants about participating in a study about Pride and drinking. Researchers observed behavior for signs of acute intoxication (exclusion criteria). Prospective participants were provided with a QR code which led them

to a Qualtrics webpage with the eligibility questions. If they met eligibility criteria, the survey continued to an informed consent form. If they did not meet criteria, the survey ended. The anonymous eligibility survey was initiated by 282 people and 54 were found to be ineligible (see Figure 1).

Those who opted to provide informed consent and participate in the study were automatically redirected in their web browser to a new separate survey that collected their email address and phone number. At the end of this survey, they were encouraged to begin Survey 1 right away by clicking a “next” button to take them to another separate survey link. Participants were informed that they must complete Survey 1 in its entirety by 11:59pm on that Sunday night to be eligible to continue participation. Survey 1 was a brief 5-minute survey collecting demographic information as well as items about typical weekend drinking quantity and perceived drinking norms.

On the Monday following these Pride events, participants who completed Survey 1 received a follow-up message via email inviting them to complete Survey 2. This survey was lengthier and included retrospective measures of alcohol use over the prior weekend, alcohol-related consequences, drinking motives, and experiences of minority stress. Participants who completed Survey 2 were compensated with an online gift card for \$15 through Tango.

Survey Measures

Survey 1 contained a brief selection of measures relevant to Aim 1 – demographic information, typical weekend drinking, and drinking norms. Survey 2 was lengthier and

included measures relevant to Aim 2, including retrospective reports of drinking, drinking-related consequences, and SGM minority stress.

Demographics. Participants provided their age, gender identity, sexual orientation, race, ethnicity, and annual income. To measure degree of LGBTQIA+ community connectedness, participants were presented with an adapted version of the Inclusion of Other in the Self scale (IOS; Aron et al., 1992). This single-item pictorial measure asks participants to indicate the degree to which they identify with the LGBTQIA+ community by choosing a Venn-like image that best represents the overlap between themselves and the LGBTQIA+ community, ranging from entirely separate circles (1) to entirely overlapping circles (8).

Drinking norms. Participants were oriented to the definition of a standard drink. Based on the Drinking Norms Rating Form (Baer et al., 1991), participants were asked to think of a typical person of their same age, gender identity, and sexual orientation, and to rate how many standard drinks they believe that person would drink on a typical Friday, Saturday, and Sunday, and on the Friday, Saturday, and Sunday of Pride weekend. They also rated their perceived injunctive drinking norms (Krieger et al., 2016), indicating the maximum number of standard drinks they believe that their typical peer would approve of drinking on a typical Friday, Saturday, and Sunday and during Pride Friday, Saturday, and Sunday.

Typical drinking quantity. Participants reported their own typical drinking quantity using the Daily Drinking Questionnaire (DDQ; Collins et al., 1985). The questionnaire prompts participants to consider a typical week during the last three months, and to

indicate the number of drinks consumed each day of that typical week. The totals for Friday, Saturday, and Sunday were summed to calculate a total number of drinks estimated for a typical weekend.

Pride event attendance. For each day of the Pride Weekend (Friday, Saturday, Sunday), participants were asked to indicate whether they attended a Pride-related event. They were asked to indicate which setting(s) they attended (e.g. public festivals, LGBTQIA+ bars, house party) and with whom (e.g. LGBTQIA+ friends, cis/straight friends, family).

Event drinking quantity. Participants were asked to report the number of drinks they consumed on each day of the Pride weekend (Friday-Sunday), and over how many hours they consumed these drinks on each day. These numbers were summed to calculate a total number of drinks consumed over the 3-day Pride weekend.

Sexual orientation minority stress. Participants filled out a measure of sexual orientation-related minority stressors. The Daily Heterosexist Experiences Questionnaire (DHEQ; $\alpha = .92$; Balsam et al., 2013) was used to measure sexual orientation-related minority stress across the lifetime and across the prior 6 months (i.e. “Since January 1, 2024...”). Subscales related to various forms of sexual orientation-related stigma were administered: vigilance, harassment and discrimination, parenting, victimization, family of origin, vicarious trauma, isolation, and HIV/AIDS. For each potential experience of minority stress, participants were asked to indicate whether they experienced the stressor in the given timeframe and if so, the degree to which it was distressing, ranging from 1 = not at all to 5 = extremely. The measure was scored by taking an average distress score for each timeframe (recent vs. lifetime).

Gender identity minority stress. The Gender Minority Stress and Resilience measure (GMSR; Testa et al., 2015) was used to measure gender identity-related minority stress across the lifetime and across the prior 6 months (i.e. “Since January 1, 2024...”). The measure consists of 9 subscales, 7 of which measure gender minority stress: gender-related discrimination, gender-related rejection, gender-related victimization, non-affirmation of gender identity, internalized transphobia, and negative expectation for the future. To mirror the scoring of the DHEQ, participants were asked to indicate whether they experienced the stressor in the given timeframe and if so, the degree to which it was bothersome, ranging from 1 = not at all to 5 = extremely. The measure was scored by taking an average distress score for each timeframe (recent vs. lifetime).

Survey-Based Data Analysis

Aim 1

All survey-based data were entered online via Qualtrics and downloaded into IBM SPSS Statistics v.29. for analyses. Aim 1 uses cross-sectional data from Survey 1, collected directly at the Pride events. **H1a** will be addressed through paired *T*-tests. **H1b** will be addressed through multiple linear regression, with the outcome being Pride-related drinking norms. Predictors will be degree of identification with the LGBT community, with demographic covariates of age in years and a dummy coded variable representing minoritized racial/ethnic identity included (0 = endorsed identifying only as white, 1 = endorsed identifying with one or more non-white racial/ethnic identity).

Aim 2

Aim 2 uses both surveys, collected at the Pride events and during the week following Pride, to examine the association of drinking norms and minority stress with alcohol use during Pride. **H2** will be addressed by conducting multiple linear regression moderation analyses with the PROCESS macro for SPSS (Hayes, 2022). The independent variable of perceived drinking norms (descriptive (X_1) and injunctive (X_2)) will predict the dependent variable of drinking quantity (Y), while including the same demographic covariates as H1b, as well as typical weekend drinking quantity. Recent experiences of minority stress (DHEQ (W_1), GMSR (W_2), and a composite score (W_3)) will be examined as potential moderators. Therefore, 6 models will be tested.

Due to the outcome variable, Pride weekend drinking quantity, having a positively skewed distribution with overdispersion, as is common with substance use count outcomes, negative binomial regression was considered for analyses. However, the original planned analyses of multiple linear regression were retained due to the modest sample size and inclusion of interaction terms, as count-based models can be less stable under these conditions and may yield unreliable estimates or be prevented from converging (Atkins & Gallop, 2007).

To determine the target survey sample size, a priori power analyses were conducted for Aim 2, the most computationally intensive model, with G*Power. For a power of .8, calculations indicated a minimum sample size of 159 participants would be needed to detect a moderation effect of $R^2\Delta = .05$, an effect size consistent with recent work examining a similar moderation model (Boyle & LaBrie, 2022). To account for the likelihood

of participants being lost to follow-up between Surveys 1 and 2 and other sources of missing data, we set a recruitment goal of $N = 200$.

Our actual recruitment and retention rates led to an analytic sample of $n = 83$ for Aim 2. Of the 84 people who completed Survey 2, one person was excluded from analyses for having skipped the entirety of the Drinking Norms Rating Form in Survey 1. Post hoc power analyses for Aim 2 were conducted to determine the likelihood of detecting a moderation effect of $R^2\Delta = .05$. This yielded a power of .52, which is likely to be inadequate to detect the interaction effect.

Interview Recruitment and Procedure

Of the 84 participants who completed Survey 2, $n = 56$ agreed to be contacted for the follow-up interview and of those, $n = 42$ received an invitation to do so. The proposed strategy of purposive sampling of participants who reported HED on Survey 1 was initially utilized and identified only $n = 4$ participants who met this criterion. Participants were then invited to be interviewed in order of those who reported drinking the most to the least. Participants were invited via email, given up to two weeks to respond, and were sent two reminder invitations within that 2-week timeframe. Invitations to participate in the follow-up interview were sent in waves between 3 - 12 weeks following the Pride events. A total of 18 participants completed the follow-up interview. Interviews were conducted on Zoom with the primary investigator, a white queer woman and doctoral candidate in clinical psychology in their late 20s. The interviewer conducted all interviews with their camera on, and invited participants to leave their camera on or off, whichever was more comfortable.

Interview Script

The follow-up qualitative interviews were semi-structured and guided by the three specific qualitative aims outlined above. Questions explored participants' phenomenological experiences of drinking at Pride, probing for factors related to social norms, minority stress, and other individual factors, including their unique intersectional identities. Participants were asked about their perceptions of potential Pride-related HRDE interventions, guided by HRDE intervention recommendations in prior literature (Neighbors et al., 2007). Interviews were guided by a semi-structured interview script, and follow-up questions were guided by participants' answers. A complete interview script is included in Appendix 1.

Qualitative Data Analysis.

Aim 3

Each interview was audio-recorded and transcribed verbatim. Our qualitative analysis research team consisted of the primary investigator and two undergraduate psychology major research assistants. This team conducted a six-phase thematic analysis protocol (Braun & Clarke, 2006). First, all three raters familiarized themselves with the data by reading through the transcripts – it was during this phase that research assistants also identified and removed potentially identifying information from the transcripts, such as names, specific job titles, and references to very specific places. Next, the raters generated initial codes by systematically identifying significant or relevant data segments. The research team then reviewed codes together and searched for potential themes by grouping together similar codes. Themes continued to be reviewed and refined, going back

through the dataset to match coded extracts to proposed themes. Disagreements about codes and themes were discussed amongst the research team to reach consensus. After several iterations of reviewing proposed themes, each theme was clearly defined and named to capture its essence.

These themes are used to address the qualitative research aims by **(Q1)** providing insight into SGM participants' own perceptions of the factors underlying their drinking behavior at Pride, including components of minority stress, social norms, and individual factors, **(Q2)** exploring how each participant's unique intersectional identities impact their experiences, and **(Q3)** assessing participants' perceptions of potential Pride-specific interventions.

Chapter 3: Results

Aim 1

Table 2 presents bivariate associations among variables investigated in Aim 1. Participants' event-specific and typical weekend norm rating were highly correlated for both descriptive ($r = .75, p < .001$) and injunctive ($r = .77, p < .001$) norms.

Participants reported higher event-specific descriptive drinking norms ($M = 11.18, SD = 7.16$) than typical weekend descriptive drinking norms ($M = 6.11, SD = 4.38$), $t(130) = -12.06, p < .001, d = -1.05$. The same was true for injunctive drinking norms where Pride weekend injunctive norms ($M = 13.26, SD = 9.86$) were significantly higher than typical weekend injunctive norms ($M = 8.54, SD = 6.76$), $t(127) = -8.44, p < .001, d = -.746$.

As indicated in Table 2, on a bivariate level, degree of identification with the LGBTQIA+ community was not significantly associated with event-specific drinking norms. Nonetheless, hierarchical multiple linear regression analyses were conducted to examine whether demographic characteristics, typical alcohol consumption, and identification with the LGBTQIA+ community predicted event-specific descriptive (Model 1A) and injunctive (Model 1B) drinking norms. Age and minoritized racial identity were entered in Step 1, typical weekend drinking was entered in Step 2, and degree of identification with the LGBTQIA+ community was entered in Step 3. The model summaries can be found in Table 3. Overall, Model 1A was statistically significant, $F(4, 120) = 5.94, p < .001$, explaining 16.5% of the variance in descriptive drinking norms, with typical weekend drinking emerging as the only significant predictor. Model 1B was not statistically significant, $F(4, 118) = 1.30, p = .27$, explaining 4.2% of the variance in injunctive drinking norms.

Table 2. Bivariate correlations between IOS, typical drinking behavior (DDQ), drinking norms, and demographic covariates.

	<i>M (SD)</i>	2	3	4	5	6	7	8
1. IOS	6.13 (2.1)	.034	.097	.036	.094	.017	.033	-.109
2. DDQ	3.90 (5.0)	-	.281***	.083	.353***	.031	-.215*	-.012
Typical Norms								
3. Descriptive	6.11 (4.4)		-	.668***	.754***	.490***	-.082	.143
4. Injunctive	8.54 (6.8)			-	.592***	.772***	-.016	.079
Event-Specific Norms								
5. Descriptive	11.18 (7.2)				-	.593*	-.119	.160
6. Injunctive	13.26 (9.9)					-	-.071	.180*
Demographic Covariates								
	<i>M (SD) / N (%)</i>							
7. Age	29.8 (8.6)						-	-.144
8. Minoritized racial/ethnic Identity	60 (41.4)							-

* indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Table 3. Summaries of regression models predicting event-specific drinking norms.

Model, Step	Predictor	Outcome: Event-Specific Descriptive Drinking Norms				
		<i>B</i>	<i>SE</i>	<i>t</i>	<i>F</i> Δ	<i>R</i> ² Δ
1A, 1	Age in years	-.08	.07	-1.11	2.42	.04
	Minoritized racial identity	2.27	1.30	1.75		
1A, 2	Typical weekend drinks	.52	.13	4.11***	16.89***	.12
1A, 3	Degree of identification with LGBTQIA+ community	.33	.29	1.15	1.31	.01
		Outcome: Event-Specific Injunctive Drinking Norms				
		<i>B</i>	<i>SE</i>	<i>t</i>	<i>F</i> Δ	<i>R</i> ² Δ
1B, 1	Age in years	-.05	.10	-.54	2.54	.04
	Minoritized racial identity	3.81	1.81	2.11*		
1B, 2	Typical weekend drinks	.05	.19	.24	.06	.00
1B, 3	Degree of identification with LGBTQIA+ community	.17	.44	.03	.14	.00

Coefficients are presented for predictors in the initial model step in which they were entered.

* indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Aim 2

Of note, participants who completed Survey 2 ($n = 84$) reported drinking fewer drinks in a typical weekend ($M = 3.24$, $SD = 4.61$) than those Survey 1 participants who discontinued participation prior to finishing Survey 2 ($n = 58$, $M = 4.86$, $SD = 5.39$), though this difference did not reach statistical significance $t(140) = 1.93$, $p = .06$. Participants who completed Survey 2 reported consuming between 0 and 21 drinks over the course of the 3-day weekend ($M = 4.04$, $SD = 4.44$), with 19 participants (22.6%) reporting not drinking at all. Though the average Pride weekend drinking quantity was greater than the average typical weekend drinking quantity, this difference did not reach statistical significance $t(83) = 1.98$, $p = .05$.

On the DHEQ, participants rated their distress level at an average of 1.57 ($SD = .31$) on a 1-5 scale across items inquiring about sexual orientation-related stressors in the prior 6 months. On the GMSR, participants rated their distress level at an average of 1.47 ($SD = .43$) on a 1-5 scale across items inquiring about gender identity/expression-related stressors in the prior 6 months. Scores on the DHEQ and GMSR were moderately positively correlated ($r = .31$). Participants who identified as transgender had a higher GMSR distress score on average ($M = 1.81$, $SD = .58$) compared to those who did not identify as transgender ($M = 1.15$, $SD = .18$), $t(81) = 7.19$, $p < .001$. Table 4 presents bivariate associations among the variables investigated in Aim 2.

Table 4. Bivariate correlations between Pride weekend drinking quantity, event-specific drinking norms, minority stress, typical drinking quantity, and demographic covariates.

	<i>M (SD)</i>	2	3	4	5	6	7	8	10
1. Pride drinking quantity (Y)	4.04 (4.44)	.138	-.121	-.026	-.182	-.152	.666** *	-.202	.005
2. Pride descriptive norms (X ₁)	10.61 (5.79)	-	.658** *	-.124	-.152	-.172	.205	-.058	.066
3. Pride injunctive norms (X ₂)	13.65 (11.42)		-	-.150	-.135	-.170	.003	-.065	.184
4. DHEQ (W ₁)	1.57 (.31)			-	.308**	.684** *	-.015	.022	-.153
5. GMSR (W ₂)	1.47 (.53)				-	.905** *	-.170	-.209	-.170
6. SGM minority stress composite (W ₃)	1.52 (.35)					-	-.137	-.150	-.200
Covariates	<i>M (SD) / N (%)</i>								
7. Typical drinking quantity	3.24 (4.61)						-	-.225*	.049
8. Age	30.30 (7.19)							-	-.223*
9. Minoritized racial/ethnic identity	33 (39.3)								-

* indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Table 5. Summaries of moderation models predicting Pride weekend drinking quantity.

	Model 2A ($X_1 \times W_1$)	Model 2B ($X_1 \times W_2$)	Model 2C ($X_1 \times W_3$)	Model 2D ($X_2 \times W_1$)	Model 2E ($X_2 \times W_2$)	Model 2F ($X_2 \times W_3$)
Constant	3.35 (1.91)	4.12 (2.00)*	3.77 (1.97)	3.58 (1.90)	4.37 (1.98)*	4.13 (1.95)*
Norms (X)	.02 (.39)	-.18 (.41)	-.15 (.40)	-.63 (.44)	-.94 (.54)	-.82 (.51)
Minority stress (W)	-.24 (.41)	-.67 (.45)	-.59 (.43)	-.19 (.39)	-.69 (.45)	-.54 (.41)
$X \times W$	-.43 (.43)	-.49 (.48)	-.55 (.46)	-.08 (.36)	-.54 (.63)	-.26 (.46)
Age	-.04 (.06)	-.06 (.06)	-.05 (.06)	-.05 (.06)	-.07 (.06)	-.06 (.06)
Race	-.30 (.80)	-.59 (.81)	-.55 (.81)	-.18 (.80)	-.39 (.80)	-.36 (.81)
DDQ	.63 (.09)***	.60 (.09)***	.61 (.09)***	.62 (.08)***	.59 (.08)***	.60 (.08)***
R^2	.46***	.47***	.47***	.47***	.48***	.48***
$\Delta R^2 (X \times W)$	.007	.007	.010	< .001	.005	.002

* indicates $p < .05$, ** indicates $p < .01$, *** indicates $p < .001$

Event-specific descriptive drinking norms (X_1) and event-specific injunctive drinking norms (X_2) were separately examined as predictors of Pride drinking, while sexual orientation minority stress (DHEQ, W_1), gender identity minority stress (GMSR, W_2), and a composite of the two (W_3) were each tested as potential moderators. Across all six models, the overall regression models were statistically significant ($F(6, 76) = 10.66 - 11.54$, all $ps < .001$, explaining 46-48% of the variance in Pride drinking. The interaction terms did not significantly improve model fit ($\Delta R^2s \leq .007$, all $ps \geq .23$; see Table 5), indicating no evidence of moderation. In each of the 6 models, typical weekend drinking as reported on the DDQ emerged as the only significant predictor of Pride drinking. Diagnostic evaluation indicated no substantial violations of linear regression assumptions. Although residuals exhibited moderate positive skew, values remained within acceptable ranges and no influential outliers were identified. Visual inspection of residual plots further indicated no clear violations of homoscedasticity. As a sensitivity analysis, models were re-estimated among only participants who reported consuming alcohol during Pride ($n = 65$), and results were substantively unchanged, with no evidence of moderation and typical weekend drinking remaining the only consistent significant predictor across models.

Aim 3

Interview Participant Demographics and Characteristics

The demographics of each individual who completed an interview are reported in Table 6, with some details (e.g. precise age and racial/ethnic identities) redacted to ensure de-identification. The age of interviewees ranged from 20 to 47 years ($M = 29.4$, $SD = 6.8$).

Eight participants (44.4%) identified as only white, while the remaining 10 (66.6%) identified with a minoritized racial and/or ethnic identity.

Participants were presented with their reports of age, racial/ethnic identity, gender identity, and sexual orientation from Survey 1 and asked to confirm this information. Some participants preferred to offer more specific ethnic identity (e.g. “Korean”), though this information is not presented to protect anonymity. Participants were also asked at the outset of the interview whether they wished to share other identity factors important to them or understanding their experiences at Pride. Participants shared a wide range of identity factors, including religion, immigration status, partner/marital status, relationship orientation (e.g. polyamory), body size, political orientation, neurodivergence, disability, and other mental and physical health factors.

Interview subjects consumed an average of 6.83 drinks over the course of the 3-day Pride weekend ($SD = 4.73$, range 2 - 20), made up of Friday ($M = 2.44$, $SD = 2.28$, range 0 – 7), Saturday ($M = 2.83$, $SD = 2.28$, range 0 – 8), and Sunday ($M = 1.56$, $SD = 1.61$, range 0 – 6). Though our sampling strategy was successful in collecting an interview subsample that drank more on average than the remaining Survey 2 completers who were not interviewed ($M = 3.27$, $SD = 4.07$; $t(82) = 3.17$, $p < .01$), it is notable that 6.83 drinks over three days still represents a fairly low-moderate level of drinking.

Table 6. Interview Participant Demographic Descriptions

ID	Age	Identity Description	IOS
P01	20s	White cisgender woman; bisexual	8
P02	20s	Hispanic/Latino cisgender man; mostly straight	5
P03	30s	White cisgender woman; gay, lesbian, queer	7
P04	30s	Asian cisgender man; gay	8
P05	30s	White cisgender woman; bisexual, pansexual, queer	3
P06	20s	White transgender person; gay, bisexual	8
P07	20s	Asian cisgender woman; lesbian	6
P08	20s	Hispanic/Latina cisgender woman; pansexual, queer	8
P09	20s	Hispanic/Latine transgender nonbinary person; lesbian	8
P10	30s	White transgender nonbinary, agender person; bisexual, pansexual, queer	8
P11	20s	White transgender woman; lesbian, asexual, queer	4
P12	20s	Hispanic/Latine transgender nonbinary person; asexual, pansexual, queer, questioning, demisexual	7
P13	30s	White transgender woman; pansexual	5
P14	30s	Asian cisgender man; gay	5
P15	40s	Asian cisgender man; gay	4
P16	20s	Asian transgender nonbinary person; lesbian	6
P17	20s	Middle Eastern/North African cisgender woman; lesbian	4
P18	40s	White woman, somewhat transgender-identified; pansexual	4

Theme 1: Pride is generally perceived as a drinking event

Participants were directly asked whether they perceived Pride events to be associated with drinking. Most participants (n = 17) responded with a strong or moderate agreement with this association. Among those who agreed with a strong association between Pride events and drinking:

“Yes. Yeah, definitely. Like depending on the event, some less so than others. But overall thinking about Pride celebrations, I definitely think about drinking.”

(P01)

“It's like associated with partying and drinking, like pretty heavily. And like I said, I like drinking, I definitely drink during pride. I definitely drink to get drunk during pride.”

(P09)

“I do [think that Pride festivals are associated with drinking]. I mean at least for like me and my friends, we definitely drink quite a bit. I think that the parties and like the festivals and that stuff. I think that's like a big piece of it.”

(P17)

Other participants agreed with some degree of association between Pride events and drinking but considered this association to be on further contextual factors, like particular setting of the event or time of day, or only true for some further subset of Pride attendees.

“I want to answer it this way. I think that drinking is definitely an activity that is partaken in a lot at pride, and part of that is like, well, you have these places

out on [E2] or whatever with like beer gardens that you know they like, get permits or whatever to like, go into the sidewalk in a way that they don't normally...It's like part of the prescribed activities. It's like, oh, we're going to see a drag show at...a place that has alcohol as its primary function for people. I definitely think there's other overlap too like, you can follow that down to addiction and also people who are sad because maybe they aren't accepted by, you know, have not felt accepted. There is, like, there's more prevalence for sad people to then use substances to feel better like maybe they're kicked out of their house for being trans...there's so many reasons why yes, there is an overlap. When I think of pride, I don't think of alcohol. I also want to answer it that way like I think so much more of like celebration fun people in like crazy amazing outfits and like people coming together”

(P05)

“I'd say a little somewhat, but not enormously in my opinion. I don't know. Nobody I was with or went out with, none of us were drinking particularly heavily. Some alcohol usage, but I'm like, I don't feel like anybody many folks go to pride and get obliterated because then you don't really have a good time.”

(P11)

A small number of participants denied any unique association between Pride and alcohol use, acknowledging that alcohol use does happen at Pride, but that this is not unique to Pride.

“I feel like, going out all the time, there's just drinking at any events and so I don't want to say like Pride is specifically a time to get wasted. No more than usual. These same places where you're celebrating Pride are also like pretty alcohol centric on a typical weekend.”

(P04)

Some participants noted that they associate Pride events more so with other types of substance use. After this topic emerged unprompted in several interviews, it was added to the interview script as a standard query. The most frequently mentioned substance other than alcohol was cannabis. Other drugs specifically named at least once included nicotine, psilocybin, LSD, cocaine, methamphetamine, MDMA, GHB, and poppers. Several participants described that they or others in their lives choose to use these other drugs instead of alcohol, often with a perception of increased positive effects or decreased harms.

“I feel like particularly for my age range, I think drinking is becoming less popular than compared to older generations and I don't know if that just that younger generations are a little bit more like disillusioned about alcohol and getting drunk, or if just other substances are more accessible than they used to be and they're like, I find this more fun, so I don't care about drinking that much right now”

(P01)

“Most of my friends have transitioned to just doing drugs...like K and G. And so they don't really synergize well or like it's dangerous to do with alcohol. And I think a lot of

my friends also workout as well, and so alcohol is kind of caloric, well, very caloric, and it interferes with gains”

(P04)

Due to this sample’s low-moderate overall rates of drinking during Pride, it was not uncommon for participants to discuss these perceived associations as a third-party observer – noting that they see high rates of drinking at Pride, but that the two are less associated in their personal experience.

“I would say for me personally not so much. But I definitely see how it could be especially at the tail end of [E2], a lot of people went to the various bars around...Like they were packed. So I can definitely see how it could be, but personally for me, no. But for other people? Yeah sure. I could see how there could be an association between Pride and partying and alcohol consumption”

(P13)

Theme 2: Event-specific context may influence drinking motives

When asked about their reasons for drinking during Pride, participants discussed many of the standard drinking motives that are well-established in the drinking motives literature, particularly social, enhancement, and coping motives. Some other commonly described motives did not fit neatly into one of these standard motive categories. One of the most common was what we termed “celebration motives” or drinking because Pride is a special event or occasion. We also identified what we termed “activity motives” or descriptions for drinking to facilitate engagement in specific activities, independent of general enjoyment (enhancement motives) or tension reduction (coping motives).

"I think the decision [to drink at Pride] was I definitely wanted to I guess, add a little spice to the celebrations. Fun. I don't know. You know when there's music around and I know that there's music. I definitely like to at least have, like a beer or two to add to that. And it makes me dance more and things like that. So yeah, that was kind of the reasoning behind it. But yeah, it definitely warmed me up a bit more. And you know, be a bit more social and interact with people... it definitely eased up thoughts I had with myself, of how I'm dancing or how I should be moving my body and things like that"

(P02)

"And it is like, enjoyable to be drunk and move my body. That is, those things go well together and that's that desire of like to go dancing where I'm like, if I was also drunk while I was dancing, that would be fun or tipsy, I suppose I wouldn't need to be that drunk."

(P06)

"I think the normal me feels a lot of anxiety about misspeaking. You know, like saying the wrong thing, worries more than other people actually care about, you know. Very like self-involved, conceited anxiety and so I think sometimes alcohol can help the effect of like loosening me up enough to not worry so much about little things that people don't care about, and then it becomes easier to talk to other people, carry on conversations"

(P16)

Participants were asked whether their drinking motives during Pride were similar to or different from their typical reasons for drinking, with many participants denying such a difference between typical weekend and Pride weekend motives. People who identified a difference described how the Pride environment may heighten or activate certain drinking motives that they may experience at other times, as well. Several people brought up the price of alcohol both as a reason to drink less (due to high price) or more (due to low price).

“[Compared to a typical weekend, Pride events are] just more expensive, more busy, which can be fun sometimes. Overwhelming. But that's why, you know, I smoke and drink...I feel like for me during pride like it gets so busy to a point where I'm like a drink will or you know a hit of a joint, will you know, kind of take the edge off and also just like, you know, in past years where I have been like flirting, looking for like a hookup or whatever, it also brings down my inhibitions”

(P09)

Participants also brought up their motives for moderating their drinking, many of which were not specific to Pride, like avoiding hangovers and nausea, being able to drive themselves home, or avoiding longer-term consequences like alcohol use disorder or liver disease. Some also mentioned unique event-specific concerns for moderating their drinking, primarily around specific safety concerns related to being at Pride:

“I think being also newer to the area and also some of the kind of scarier like shooting things have happened around the area that make me a little wary to like, OK, maybe not drink to like the point of not being socially aware or just knowing that, hey, is it gonna be turned into, like, a dangerous situation?”

(P08)

Theme 3: People experience positive and negative drinking-related consequences at Pride

Consistent with the overall low drinking rates among this sample, reports of negative drinking-related consequences that participants personally experienced at this event were reported infrequently. However, some participants did report negative consequences including unintentional overconsumption, hangover, and social missteps.

“I was at the club for like maybe a maximum of 15 minutes and then I did leave my friend after those 15 minutes I was like, ‘I gotta go, girl, meet me at home.’ And the reason I left was because I did end up doing a drunk text exchange with an ex. So that was kind of like a a questionable decision...that I don't think I would have done sober. And then, additional sort of negative consequences outside of like abandoning my friend at the club really quickly, was the next morning I was absolutely sick. Spent my entire morning throwing up like a ridiculous amount to a point where I was just like sleeping on, like, literally sleeping in my like bathroom floor because I was like, I'm going to have to get up and puke again...the negative side effects of that, I would say now that we roll into Saturday like my morning plans are essentially dust at this point”

(P14)

Some participants described being negatively impacted by other people's drinking, including feeling distressed at seeing other people get into accidents, having to take care of a sick friend, or being subjected to unwelcome sexual contact.

“There was a friend of a friend who was super drunk and she was really trying to kiss me, and all of her friends were trying to pull her off me... And she was so out of her mind. It's like I don't want to kiss someone who's out of their mind.

Like that's she's not even seeing me as a real person. She's just so wasted. And so that was kind of like, borderline sexual assault, but I didn't feel that scared. I mostly felt like irritated and a little bit violated”

(P10)

Overall, participants reported that they did perceive positive consequences of drinking in line with their previously stated enhancement and social drinking motives. Participants spoke with great enthusiasm about having had fun, made social connections, feeling like they were more confident, and dancing. Even participants who reported a high number of negative consequences tended to report that it was “worth it” for a special occasion celebration.

Theme 4: Drinking to cope with general and minority stress is not frequently endorsed when directly queried

As discussed in Theme 2, it was not uncommon for participants to describe drinking motivated by tension reduction, a form of drinking to cope. However, when directly asked about whether the idea of drinking to cope with identity-related stress resonated with them, few participants agreed. Those who did were often referencing past personal history of drinking to cope, rather than dynamics present at the time of the Pride event.

“At different time in life, yes [I drank to cope], I would say probably not at this point, I think I you know, I definitely have had moments, even, probably in the last like 10

years of being like, oh, I'm noticing that like I may be drinking every single day in a way that is not the, because of like that, it feels like I'm coping with something rather than, I want to have a cold beer because it's a sunny day and it's refreshing?"

(P03)

"Before I started to transition, I used alcohol as a way of self-medicating and coping and that lasted for a long time so I'm very well aware of the effects of alcohol and how much I don't like the negative effects... It was gender dysphoria and body dysmorphia. So I self harmed a lot and I drank a lot until I started transitioning."

(P13)

Some participants who denied personally drinking to cope with minority stress discussed their perceptions that other people in their lives do drink to cope.

Some participants denied drinking to cope with identity-related stress, though endorsed occasionally drinking to cope with other forms of stress.

"I definitely have not drank alcohol to kind of cope with the issues with my gender or sexuality or race but definitely for other traumatic issues that I've dealt with in my life that just aren't related to those topics."

(P02)

A participant reported that although they do drink to cope at other times, they actually drank less at Pride than typical due to the positive experiences of social fulfillment at the event.

"I drink less at Pride weekend than I normally would for a normal weekend, and that is probably because I like I drink for my own like reasons and when I'm like less

happy. I drink more and so to have, like a social to have all these things of like, deep desires that I've had for a long time, kind of fulfilled by like this support group and friends and like fun event and like distraction. And like all this stuff. Yeah, it wasn't. I'm not sure if I'm gonna qualify it. Like, I didn't need a drink, but like, I didn't want them. And I was getting such fulfillment out of, like, what we were doing, what we were doing anyway."

(P05)

Theme 5: Pride-related drinking norms vary based on many different influences

Consistent with the quantitative results and with qualitative Theme 1, most participants acknowledged that Pride normalizes greater drinking. When discussing normative influences, participants referenced how Pride is associated with certain types of venues like bars, clubs, and music venues, where alcohol use is more normalized. Some participants also noted that norms vary by neighborhood, with the particular neighborhood that hosted these Pride events being known to be more associated with heavier drinking.

"Even if I'm not feeling like drinking [at a club], it feels awkward to stand without a drink in my hand."

(P04)

"I noticed that it was kind of like a like a blackout or get out sort of vibe from not just my friends, but like everybody, whenever you're just walking through [the neighborhood hosting Pride events] you could see people really like deliberately drunk or people like throwing up and even just enjoying themselves, like dancing in the like streets, having such a great time."

(P08)

“Yeah, when all the fun events are taking place at bars, it's normalized. I know some bars have non alcoholic options and stuff, but it's still a bar and I know some queer folks who are sober, who are like, where can I even go?”

(P10)

Some participants discussed how these venues encourage even more alcohol consumption during Pride through promotions like drink specials, while other participants noted that drinking is heavily normalized in these settings no matter the event or time of year.

Some people discussed how norms vary based on with whom they are drinking.

“I feel like I'm more comfortable to drink more around my friends versus around like relatives or like my parents' friends.”

(P07)

Several participants discussed the normalization of drinking at Pride or in queer spaces more generally, and some also noted that this is not unique to the queer community, and that other non-community-specific events like music festivals, sports games, and other parties share these normative pressures.

“Yeah, I think most of the contexts, drinking is very much so normalized in queer communities, but also as well in like outside communities. And I think maybe it's also helpful to add in some further context, like even just outside of queer spaces, like workplaces do happy hours... the generalization of drinking in our society of like workplaces will have these happy hours or drinks at every event

and then if you are a non-drinker your life just becomes more difficult, right? Typically those social gatherings end up being times when you are able to engage with colleagues in a way that is not work-oriented, engage with higher-ups in in a more social way. And oftentimes when people don't drink they're either not going because it is an uncomfortable place to be, like you don't want to be the sober one...and it's also uncomfortable because when you do go there...and you maybe are drinking a soda, people are like, 'what are you drinking?'...And then you have to spend your entire time explaining and then they continue to pressure you to try to drink alcohol. So I feel like there's, it's so normalized that I'm not surprised that it is also a normalization in, in our in queer culture as well"

(P14)

Theme 6: Ideas and concerns about prevention and harm reduction strategies

Toward the end of the interviews, participants were asked about their ideas for potential prevention and intervention strategies to reduce negative alcohol-related consequences at Pride. The most mentioned intervention was increased availability and accessibility of water.

"It's not like you could force people to drink water, but I mean if I was holding a drink and I was getting kind of drunk, and if someone came to me with water, I would drink the water, but you know, if I'm drunk, then going all the way to the other floor to find the cooler to fill it up with water seems like a step too far. So I guess increased prevalence of water?"

(P04)

“I wish there was more like water stations or like while passing out water. It's kind of like music festivals and like they'll just pass out water bottles to people. I wish there was more of that because I feel like you know the like, especially in Pride like hot as hell. It's really important to stay hydrated and like alcohol can impact you more if you're dehydrated.”

(P09)

Many participants also discussed increasing the number of non-alcoholic beverage options and also increasing the appeal of these options – ensuring they are delicious and feel “special” like a signature cocktail might. Some participants also discussed how they recognize that alcohol sales are likely to be the primary way that venues make profit over hosting Pride events, and that offering special non-alcoholic drinks may still allow them to charge a premium.

“The first thing that comes to mind is advertising, like cute or or appealing non alcoholic drinks. So, like everybody knows, you can get alcohol at a bar, but not everybody knows we have this special rainbow like, non alcoholic thing like. And then people like oh, I want that. And then if someone wants to drink, they can get a drink, but they would probably like, be like I want the rainbow thing or I want the virgin Pina colada or whatever. If it's advertised as a special, and people- because a lot of people when they drink, they want to feel special because it's special occasion.”

(P10)

“Just having more stands that sell bubbly drinks, like frescas and whatnot.

Or different like, like mocktails. Like non-alcoholic cocktails, so you still have the fun aspect to it without adding the alcohol to it. I think would probably help people drink less, cause it's still fun, it's still enjoyable, you're still having a good time and you get to have like, a colorful drink in your hand that's refreshing and sweet."

(P13)

Some participants discussed there being space for more alcohol-free events, particularly alcohol-free events that still feature fun activities typically associated with drinking venues, like music, dancing, drag shows, and opportunities for sexual expression.

"Also do feel like part of like this desire I am seeking out a little bit with drinking and partying is this like concept of a little bit of like sexual liberation. And I think that if there were maybe more conversations around being able to like feel sexual liberation in a more communal or personal way without having to associate more alcohol to it...in a public setting where they're more safe...is kind of a harm reduction tactic... that's the thing that definitely like all Americans, struggle with this concepts of like nakedness and sexuality and queerness is is bundled up in that. So when we're trying to unpack people's fear around queerness, we are inherently also trying to help with Americans fear of sexuality. So yeah, doing it publicly and being like actually this is fine and none of us are Puritans and we can just have naked people on the stage because none of us are Puritans."

(P06)

Participants highlighted that interventions ought to be intra-community, rather than imposed from other communities or authorities. Most participants in this sample

personally employed a number of protective behavioral strategies while drinking and often described that they learned these strategies from trial-and-error, or by being taught by others in their community.

“I was specifically taught how to drink and how to hold my alcohol [by my housemates] when I was 18... like strategies like making sure that you have appropriate food in your body first and after and also like drinking enough water to like try and like mitigate things where it's like it can be a lot easier to drink more and be in more control when you're drinking at home and still be expressing control because you have access to water and a bathroom where you can be drinking.”

(P06)

Some participants mentioned educational materials like posters or flyers having utility, while others expressed skepticism about such interventions, noting that many drug and alcohol education campaigns they had been exposed to were stigmatizing.

“What annoys me about a lot of like anti-drug campaigns is moralizing and it insults the person who's using drugs...if someone was like ‘you...idiot, you shouldn't be drinking that much’. That is not very helpful to me. What like would be helpful to me is like having a friend there. You know, having someone who's supporting me”

(P09)

Some participants expressed appreciating the presence of security workers at drinking venues or events, particularly when these workers were community members themselves. State law enforcement, such as police and the liquor and cannabis board,

were described as ineffective at promoting public safety and unwelcome at Pride by participants who mentioned them.

“Liquor board...they like... went to [local gay bar] and like, were like you have your nipple showing like, that's not gonna prevent someone from alcohol poisoning, right? It's like someone showing their nipples near the drinks.

Like, that's... ridiculous.”

(P09)

Some participants discussed skepticism at the idea that Pride attendees would be open to drinking less at events, if they are determined to do so. In these cases, some discussed how surrounding people with community care and a safe environment may prevent harm.

“I would say [Pride attendees] are probably not super willing [to change the amount of alcohol they consume in order to avoid negative consequences]. There might be some people that do, but I think there will be a lot of people that wouldn't necessarily change anything”

(P17)

“In my experience, being interventionist with someone that is bound or determined to get drunk or high or etcetera usually doesn't go well. The person is usually not receptive to it. If its one-on-one, if they're already falling over and whatnot they're a little bit more receptive. But if they're on their way towards getting there, I've noticed, not so much. However, I think having supportive friends that are there, like a supportive network that is wanting to help their friend would make it a lot easier.”

(P13)

Several participants who identified as having previously had a problem with alcohol or drug use discussed how mental healthcare, including therapy and psychiatry, was key to their recovery. Some mentioned how increasing accessibility of these services – ensuring that available services are well-advertised and affordable, is an important strategy to prevent harm, so that as community members move toward contemplating changing their substance use, they can quickly find professional support.

Theme 7: Interpretation of and responses to the IOS scale item were varied and highly influenced by intersectionality.

Participants were asked what led them to select the rating that they did on the IOS scale, with follow-up questions querying factors that made them feel closer to or more a part of the LGBTQIA+ community and factors that made them feel further from or less a part of the LGBTQIA+ community.

One sub-theme that emerged among reasons for feeling closer to the community included strong identification with their SGM identity. That is, feeling like one's minoritized sexual orientation and/or gender identity was central to one's self-concept.

“I’m gay. And pretty clearly gay. Never thought I was straight. And I can’t imagine outside the Venn diagram...What part of me is not gay? I don’t know.”

(P04, IOS = 8)

Another closeness sub-theme was engagement with activism, volunteering, or donating to causes related to the LGBTQIA+ community.

“I chose to volunteer with or donate to nonprofits that support the community”

(P07, IOS = 6)

A third sub-theme related to feeling closer to, or more a part of, the community was one's sense of being close with or interacting with others who are members of the LGBTQIA+ community.

"Knowing other queer people, like interacting with other queer folks, whether it's on a day-to-day or also just being close friends with them...[Event neighborhood] feels like a much safer place where you also will just see other queers, too. And other queer couples. Very natural."

(P08, IOS = 8)

Some participants reported that feeling distant from their family of origin increased their feeling of closeness with the LGBTQIA+ community.

"It's the layers of not talking to or having relationships with my biological family hardly at all, so like the folks I have are queer people"

(P06, IOS = 8)

Engaging with community-centered events or activities, including Pride, as well as other groups like LGBTQIA+ sports clubs, also was cited as a reason for feeling closer to the LGBTQIA+ community.

"When I go to things like Pride or a bar or something like that, I feel closer"

(P17, IOS = 4)

Another closeness sub-theme was alignment on values, politics, or beliefs seen as "queer" or otherwise aligned with the LGBTQIA+ community.

“It has a lot to do with my politics. I think my politics are pretty queer in terms of the way that I look at the world and the way that I hold multiple truths and also view the ways that relationships and community and just life can be”

(P03, IOS = 7)

A final sub-theme that emerged related to feeling closer to or more a part of the LGBTQIA+ community was having “come out”, having same-gender sexual experiences, or navigating shifts in gender identity early in life.

“Since middle school TBH, I had always had problems with my gender identity. I had never felt like a woman or girl and I very often was called a tomboy...so in undergrad, that’s when I was told about being non-binary and trans I was like ‘oh wow’. Like there’s a name for this thing that I’ve struggled with for so long. And like I very happily took that.”

(P12, IOS = 7)

Similarly, there were several sub-themes related to feeling more distance from, or less a part of, the LGBTQIA+ community. The first was feeling a sense of privilege relative to others in the community, particularly pertaining to identifying as cisgender and/or with a sexual orientation that includes people of the “opposite” gender.

“I think the biggest thing that makes me feel distant, although not necessarily in a bad way, is the way I experience privilege as being a cis woman able to be in a hetero passing relationship if I want. There are a lot of close friends or other members of the LGBT community who don’t have those privileges. I think the feeling of distance to me is also tied to a feeling of responsibility.”

(P01, IOS = 8)

Another sub-theme was a relative lack of identification with a particular minoritized sexual orientation or gender identity, or the experience of such an identity being less central to one's self-concept.

"I think I still have a lot of growing to do in terms of understanding other aspects of that community that I'm not aware of...It makes me feel like I'm not a complete member...I don't think I earned to be a full member. I think there's a lot more work that needs to be done in order for me to completely identify as being part of that community"

(P02, IOS = 5)

Another reason cited for feeling less a part of the LGBTQIA+ community was a lack of connection with other members of the community.

"I'm pretty early on in my transition and I am don't have many relationships with other folks. Just trying to build friends. I don't feel like an outsider anymore, but also not like fully a member"

(P11, IOS = 4)

A few participants reported that interpersonal conflict within the LGBTQIA+ community led to them feeling distanced from or less a part of the community.

"Man, there is some weird infighting stuff that happens...How to navigate conflict and discomfort without just deciding to cut that person out forever or whatever is definitely a skill that I feel my community needs more of all the time"

(P06, IOS = 8)

Another sub-theme that emerged for feeling distant from or less a part of the LGBTQIA+ community was related pressures or stressors from hetero/cisnormative culture, such as feeling like one's workplace, family, or social group stifled expression of one's identity.

"I'm in a really conservative little tiny town...where nobody thinks it's okay for me to wear leggings that have stripes and a dress that has flowers"

(P18, IOS = 4)

Some participants reported that a reason for feeling more distant from the community was that identities other than sexual orientation or gender identity felt more important or central to their self-concept.

"The reason it wasn't number 8 is because I really identify more as Asian American than part of the LGBTQ community...when I think of self, I'm thinking about my own racial and ethnic identity"

(P15, IOS = 4)

Finally, a prominent sub-theme related to feeling distance from or less a part of the LGBTQIA+ community was experiences of rejection, discrimination, or othering based on one's identities other than sexuality and gender. Specifically, on the basis of race/ethnicity, family immigration status, and age/generation. Participants frequently labelled that the stereotype or image of the LGBTQIA+ community is white, and some participants of color mentioned that if the IOS scale instead showed a circle that showed both their racial/ethnic and LGBTQIA+ identity, they may have selected a higher rating.

“A while ago my brother was racially profiled by some cops...just some of the responses I got from white queer people I told that story to was just kind of bizarre...I don’t think they really understood the heaviness of that...just like white queer people not understanding why queer people of color do not want cops in their spaces”

(P09, IOS = 8)

“When we say ‘broader queer community’, it is something that’s conceptualized as sort of this white cisgender, and particularly for gay men, just like white cis gender male, like Anglo-Saxon kind of community. And so I think a lot of the othering that I feel, I don’t necessarily think it’s a lot of like direct experiences where someone’s like, ‘you immigrant!’ It’s not really that, I think it’s a lot of it’s just a lot of those things that because I’m an immigrant I’m like, ‘oh like I I don’t relate to what you’re saying.’ This idea of like, ‘And now my parents accept me and we talk about, like, gay stuff and like my parents watch drag race with me.’

That sounds white and not really reflective of other people’s experience, or in me and my friends’ experiences of like, how we talk about queerness with our families. I know I’m doing a great disservice by kind of perpetuating this idea that, like, whiteness, is like accepting of queer communities. That’s not really the full tea. But I think as a broad generalization, that’s the experiences that myself and my friends of color have shared.”

(P14, IOS = 5)

“I don’t drink as much. I don’t do drugs. I don’t do a lot of different things that maybe would be associated with gay community, gay culture, and I have to say as an older

person now...I sometimes think about...gay culture is also younger. You know, it's a younger culture...I've had conversations with friends who are older than me where you know, as you get older, you don't fit in as much just because of age. You just kind of age out of that scene and when you are part of that scene...I think there is a stereotype around older men"

(P15, IOS = 4)

Chapter 4: Discussion

This study sought to examine whether Pride festivals function as high-risk drinking events (HRDEs), and to test how event-specific drinking norms and sexual orientation and gender identity-related minority stress relate to alcohol use in this context.

Hypothesis 1a, that participants would report higher perceived descriptive and injunctive drinking norms during Pride weekend as compared to a typical weekend was supported. On average, participants estimated that their peers would drink an average of 5 more drinks during Pride weekend than a typical weekend, and that these peers would also approve of drinking about 5 more drinks during Pride weekend than a typical weekend. Results from Survey 2 show some trend toward heavier drinking during Pride weekend compared to a typical weekend, though this difference was not statistically significant.

Notably, participants reported substantially higher perceived drinking norms for both typical and Pride weekends than actual reported drinking behavior. Despite strong perceptions that Pride weekend would involve elevated drinking, the observed increase in alcohol consumption relative to a typical weekend in this sample did not reach statistical significance, and over 1 in 5 participants reported abstaining from alcohol entirely during the Pride weekend, while no participants reported abstaining from alcohol on a typical weekend. This finding is consistent with other HRDE research which indicates that some holidays (e.g. Super Bowl Sunday) may be associated with a lower overall proportion of people drinking, while the portion of people who do drink may be drinking more than they typically would (Neighbors et al., 2011b).

Contrary to expectations, event-specific drinking norms, both descriptive and injunctive, were not associated with actual Pride weekend drinking among the Survey 2 sample. This pattern suggests that while norm misperceptions are present, they may not translate directly into increased alcohol consumption in this context. It is possible that Pride-specific drinking behavior is more strongly predicted by typical drinking patterns than by event-specific perceptions. However, there are methodological constraints that complicate the interpretation of this finding. Rates of attrition between Survey 1 and Survey 2 were quite high, and missing data is unlikely to be random. It stands to reason that individuals who drank more over the course of the 3-day Pride weekend may have been less likely to complete the follow-up survey. Further, the low-moderate average drinking quantity over the course of the weekend among those who did complete Survey 2 means there was limited variability in an already rather small sample, leaving us underpowered to detect effects.

Findings from the qualitative interview further strengthen the survey finding that Pride is seen as an event where people drink more (descriptive norms) and are permissive of drinking more (injunctive norms). Thematic analysis also supports the interpretation that participants' perceived norms were not always a strong influence on their own drinking behavior. A number of interview participants reported that they perceive Pride to be associated with alcohol or with heavy drinking, but more so for other people rather than for themselves. An unexpected sub-theme that emerged in the qualitative interviews is that some participants associated Pride events more so with recreational substances other than alcohol. Other substance use and related norms were not measured at all in our

surveys due to survey length constraints in this recruitment context, and ought to be explored in future work.

This study also sought to understand for whom event-specific drinking norms may be most influential. Hypothesis 1b stated that one's degree of identification with the LGBTQIA+ community, as measured by the IOS scale, would predict one's Pride-specific drinking norms above and beyond typical weekend drinking frequency. This hypothesis was not supported, as only typical weekend drinking quantity emerged as a significant predictor of Pride descriptive drinking norms, with IOS score not contributing to the overall model. The regression model predicting Pride injunctive norms was not statistically significant. The use of the IOS item and construct was exploratory and as such, an exploration of participants' perceptions of the item was specifically added to the qualitative interview script. As evidenced in Theme 7, numerous factors influenced participants' responses to this item, particularly intersectional identity factors. Hypothesis 2 was predicated on the theory that individuals who more strongly include LGBTQIA+ community membership into their self-concept would be more influenced by community norms and normative misperceptions. However, looking at the qualitative results helps to imagine other interpretations. Qualitative findings indicated that participants often interpreted the IOS item in varied ways. This variability in interpretation may have reduced the precision of the IOS measure as an indicator of the specific construct most relevant to social norms processes – identification with a proximal reference group whose behavior is perceived as personally meaningful. Future work ought to utilize a more multi-dimensional assessment of degree and types of closeness to the LGBTQIA+ community.

This study also aimed to add to the growing literature aiming to integrate the social norms and minority stress theories of SGM alcohol use disparities in the Pride-specific context. Results from Aim 2 did not support Hypothesis 2, that event-specific drinking norms would predict event-specific drinking and that this relationship would be moderated by levels of recent SGM minority stress. Across all models, perceived event-specific drinking norms, both descriptive and injunctive, were not significantly associated with Pride weekend drinking. Further, there was no evidence that recent experiences of SGM minority stress moderated the relationship between perceived norms and alcohol use. Instead, typical weekend drinking quantity emerged as the only consistent predictor of Pride weekend drinking across all models. Scores on the measures of sexual orientation minority stress and gender identity minority stress were not associated with Pride drinking quantity on the bivariate level.

Several explanations may account for this pattern of findings. The final analytic sample size for Aim 2 was small, resulting in limited statistical power to detect effects of the modest magnitude observed in prior work. Further, recent event-level research indicates that the effects of minority stress on alcohol use may be highly context-dependent and not consistently observable within short timeframe or single events (Dyar et al., 2022). Further, the measures of minority stress in the present study were somewhat limited – inquiring about experiences that participants perceived to be directly related to their gender identity / expression or sexual orientation. In qualitative interviews, participants very rarely endorsed drinking to cope with these types of explicitly identity-related stressors, and those who did typically reported that this was a behavior they

engaged with in the past (e.g. to cope with dysphoria before a gender transition). However, a greater number of participants reported that they drink to cope with general stressors like social anxiety, work stress, and trauma that they did not explicitly link to their SGM identity.

Though participants did not typically associate these stress experiences with their SGM identity, a substantial body of epidemiological research indicates that sexual minorities experience elevated rates of anxiety and related conditions compared to heterosexual populations, with these disparities commonly understood as downstream consequences of minority stress processes (Wittgens et al., 2022). Taken together, these findings suggest that minority stress may influence alcohol use through more indirect or diffuse pathways than those captured by explicit identity-linked measures, highlighting the need for more nuanced approaches to assessing stress and coping in SGM populations.

Limitations

Several limitations should be considered when interpreting these findings. First, the study was underpowered to detect moderation effects, with post hoc analyses indicating approximately 50% power to detect small interaction effects. As such, null findings should be interpreted with caution, particularly in the more complex regression models.

Second, on the one hand, recruiting in-person at Pride ensured that each of our participants were truly attendees of a Pride event. However, this method is nonrandom and introduced multiple opportunities for bias. By recruiting only in one neighborhood in one city, we cannot generalize findings outside of the context from which the sample was drawn. Indeed, even our own interview participants frequently described how Pride

celebrations and norms differed greatly in their own experiences celebrating in different parts of the country and world.

Recruitment occurred over the course of about 24 hours, and thus, it was difficult to observe and respond to issues of unbalanced recruitment. While we were successful in recruiting a demographically diverse sample in terms of sexual orientation, gender identity, and race/ethnicity, our sample was not very diverse in terms of drinking variables and had few participants who reported engaging in HED during the event, despite this being the primary population of interest. This may be a result of recruitment occurring in sections of Pride events more focused on tabling by community organizations, rather than alcohol sales and related activities. It may also be the case that the population of Pride attendees who engage in HED are less likely to approach researchers recruiting for a study like this, for a myriad of reasons. Some evidence of this comes from informal observations from the research team, who were trained to spot signs of acute intoxication among potential participants, as this was an exclusion criterion. While research assistants did observe these behavioral signs in many Pride attendees passing our stations and were sometimes approached by these folks for the free bottled water that was being used to aid in recruitment, no one who was showing these acute signs of intoxication expressed interest in participating in the study. Further, two research assistants attempted to specifically recruit from a line of Pride attendees waiting to be admitted into an event hosted by a LGBTQIA+ nightclub, sponsored by multiple alcohol companies, and observed a much lower rate of engagement with these attendees compared to those who came across the research study at the tabling fair. Future research investigating Pride event-specific

substance use should collect a larger sample of Pride attendees, across a greater number of cities, in order to increase power and generalizability of findings. Future studies may also consider strategies for recruiting a higher-risk sample, such as recruiting directly in drinking venues, or identify likely heavy drinkers prospectively rather than attempting to recruit after the event has already begun.

All measures collected in this study relied on self-report responses, including measures of drinking quantity, which relied on accurate retrospective self-report. It is likely that some participants inaccurately recalled or estimated the quantity of standard drinks they had over the past weekend and over a typical weekend. Research could also strengthen findings by collecting real-time drinking, social norms, and minority stress data over the course of the weekend using ecological momentary assessment, rather than relying on retrospective self-report, as has been done in other non-event-specific studies in this population (Dyar et al., 2022).

Significance

This mixed-method examination of drinking behavior in the context of a LGBTQIA+ Pride festival represents a significant contribution to the extant literature on SGM drinking behaviors and high-risk drinking events and has important implications for theory and intervention. From a theoretical perspective, results suggest that the influence of social norms on alcohol use may be more limited in event-specific contexts. This highlights the need for models that integrate both stable behavioral tendencies and situational influences.

This study is the first to our knowledge to recruit a gender-diverse sample of participants at an LGBTQ+ Pride festival for the purposes of studying drinking behavior at the festival itself. While researchers have used Pride as a convenient site to recruit SGM research participants to study a variety of different health behaviors (e.g. Allensworth-Davies et al., 2008; Tamí-Maury et al., 2015), to our knowledge only one other published study has recruited at Pride to study Pride event-specific drinking behavior, and this study recruited only men who have sex with men (Shuper et al., 2018). The findings indicate that in a gender diverse sample of Pride attendees, there is a strong normative perception that people drink more and are permissive of drinking more at Pride, and this perception is worth further investigation among larger and higher-risk event-specific samples.

The concurrent examination of drinking norms and minority stress adds to a growing body of literature that synthesizes these two predominant theories of SGM drinking disparities – minority stress and social norms (Boyle et al., 2017; Boyle & LaBrie, 2022; Cerezo et al., 2020; Hamilton & Mahalik, 2009; Mereish et al., 2017). While the hypothesized relationships between social norms, minority stress, and drinking behavior based on prior literature were not observed in this sample, the study nonetheless adds a unique contribution of these factors in the Pride event-specific context.

Finally, the qualitative portion of this study gives us the opportunity to get a deeper understanding of participant's own perceptions of their Pride-related drinking behaviors and explore emergent themes to inform future research and intervention development. That event-specific normative perceptions did not appear to significantly predict event-specific drinking suggests that interventions targeting norms misperceptions, such as

personalized normative feedback (PNF) may not be the most effective in this specific context, despite the body of evidence pointing to their efficacy in a number of populations, including with other HRDEs (Buckner et al., 2019; Lee et al., 2014). Instead, interview participants tended to point toward environmental interventions including increased access to water and non-alcoholic beverages, community-based care, harm reduction, and accessibility to mental health and substance use recovery resources for community members who are seeking these services.

Conclusion

This study examined alcohol use within LGBTQIA+ Pride festivals, a unique event context which may be considered a high-risk drinking event in the LGBTQIA+ community. While Pride attendee participants consistently perceived Pride as having greater descriptive and injunctive drinking norms than those of a typical weekend, there was not significant evidence of these perceptions being associated with actual increases in drinking behavior during Pride as compared to a typical weekend among the current sample. Drinking behavior during Pride was most strongly predicted by individuals' typical patterns of alcohol use, suggesting that event-specific drinking norms may have less importance in predicting event-specific drinking than one's own established alcohol use tendencies.

Findings also add to the growing body of work suggesting that on the event-level, minority stress may not be associated with increased drinking. Findings from both the quantitative and qualitative arms of the study did not support the idea that Pride-related alcohol use is driven by coping with identity-based stress. Rather, participants more often

described drinking in terms of celebration, enhancement, and social facilitation. Notably, some participants reported that Pride functioned as an affirming context facilitating social connection that reduced, rather than exacerbated, motives to drink.

Taken together, these findings suggest that although alcohol is highly present within Pride events through structural factors such as venue type, marketing, and sponsorship, individual drinking behavior appears to be more strongly predicted by one's own behavioral baseline rather than event-specific social norms or recent minority stressors.

From a practical intervention standpoint, these findings support a shift away from interventions that focus primarily on correcting individuals' perceived norms, and toward approaches that address the structural and environmental features of Pride settings. .

Pride festivals occupy a unique position of cultural significance among the LGBTQIA+ community, and have also been targeted by corporations, including alcohol companies, for commercial influence. Continued research in this area can support the development of interventions that reduce harm among attendees at greatest risk while preserving the vital role of Pride as a space for celebration, connection, and community.

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Appendix: Interview Guide

First I wanted to confirm a few of your answers from the survey and check if they are still true for you:

- Age
- Race/ethnicity
- Gender identity label(s)
- Sexual identity label(s)

Is there anything on here that you would change or prefer to elaborate on?

Are there any identities not listed on here that you would like me to know or think it would be important for me to know to better understand your experience at Pride this year?

Degree of identification with the LGBT+ community

- Could you tell me a bit about what led you to choose this rating?
- What makes you feel close to or a part of the LGBTQI community?
- What makes you feel distant from or not so much a part of the LGBTQI community?

Tell me a little bit about your personal history with Pride events. Had you been to such events before this year? When was your first Pride festival?

Why did you choose to attend Pride this year?

Which events did you attend?

What was your experience like?

As you know, this project is examining people's experiences at Pride, and specifically, how alcohol use impacts their experiences. In your personal view and experience, are Pride festivals associated with drinking?

[Added after the first several interviews] Are Pride festivals associated with other recreational substances?

What led you to decide to drink that weekend?

Is this different than the reasons you might drink on a typical weekend throughout the year?

What did you like about drinking that day? What didn't you like?

Some people report that they drink alcohol to cope with painful emotions or experiences, including those related to their [insert relevant SGM identity label(s)] identity, race/ethnicity, or other identities. Does that resonate with you, personally?

Some people report that they drink alcohol more in certain situations, places, or with certain other people, because it is normalized. Does that resonate with you, personally?

How willing do you think Pride attendees would be to change the amount of alcohol they consume at the event in order to avoid those negative consequences?

What would help people to drink less, or to take fewer risks after drinking, at Pride?

What are some ways that event organizers and venues might be able to help?

Is there anything else you'd like our team to know about your experiences at Pride or with our study?