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Do lesbians overestimate alcohol use norms? Exploring the potential utility of personalized normative feedback interventions to reduce high-risk drinking in Southern California lesbian communities

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Abstract

This study examines the potential utility of social norms-based approaches to reduce heavy alcohol use in lesbian community settings. In a sample of 278 Southern Californian lesbians recruited from social media networks to complete an online survey, the majority of participants overestimated the quantity of alcohol consumed by their lesbian peers and more frequent lesbian bar attendance was associated with elevated perceptions of how much other lesbians drink. Greater than 90% of participants expressed interest in receiving personalized normative feedback, suggesting that culturally tailored personalized normative feedback interventions focused on correcting perceptions of heavy drinking may be successful in mitigating the alcohol-related risks of lesbians in Southern California, and potentially beyond.

Keywords

lesbians; alcohol use; social norms; survey research

Compared to heterosexual women, lesbians are more likely to drink alcohol, engage in heavy alcohol use (Cochran, Keenan, Schober, & Mays, 2000; Diamant, Wold, Spritzer, & Gelberg, 2009; Drabble & Trocki, 2005; Gruskin, Hart, Gordon, & Ackerson, 2001; Mays, Yancey, Cochran, Weber, & Fielding, 2002; Nawyn, Richman, Rospenda, & Hughes, 2000; Skinner & Otis, 1996), experience alcohol-related problems (Cochran et al., 2000; Diamant et al., 2000; Dibble, Roberts, & Nussey, 2004; Drabble & Trocki, 2005; Gilman et al., 2001), and become dependent on alcohol (Bolton & Sareen, 2011; Gedro, 2014). Despite repeated identification of these sexual orientation-based alcohol disparities (Hughes, 2005) and much discussion of contributing factors (Drabble, Trocki, Salcedo, Walker, & Korcha, 2015; Gedro, 2014; Ricks, 2012), very few targeted intervention efforts have been developed to reduce alcohol consumption in this population (Rizer, Mauery, Haynes, Couser, & Gruman, 2015). Seeking to inform future prevention efforts, this research introduces social norms-based approaches to reducing high-risk alcohol use, and examines the potential utility of

social norms personalized normative feedback (PNF) interventions to reduce high-risk drinking in lesbian community settings.

Although sexual minority stress (Frost & Meyer, 2009; Hatzenbuehler, 2009; Meyer, 2003) remains the most researched and supported explanation for sexual orientation-based substance use disparities (Amadio, 2006; Austin & Irwin, 2010; Chakraborty, McManus, Brugha, Bebbington, & King, 2011; Condit, Kitaji, Drabble, & Trocki, 2011; Herek & Garnets, 2007; Hughes, 2003; Hughes, McCabe, Wilsnack, West, & Boyd, 2010; Lehavot & Simoni, 2011; Lick, Durso, & Johnson, 2013; McCabe, Bostwick, Hughes, West, & Boyd, 2010), numerous researchers have identified social norms in lesbian, gay, bisexual, and transgender (LGBT) communities to also be contributing factors to substance use among LGBT populations (Cochran, Grella, & Mays, 2012; Cogger, Conover, & Israel, 2012; Gilmore et al., 2014; Green & Feinstein, 2012; Hamilton & Mahalik, 2009; Johns et al., 2013). For lesbians in particular, research has revealed perceptions of lesbian community social norms and pressures to conform to lesbian community normative standards to be particularly powerful psychological influences (Boyle & Omoto, 2014; Cogger et al., 2012), and there is growing evidence that perceptions of heavy drinking as a normative behavior in lesbian communities contribute to heavier alcohol use (Cochran et al., 2012; Gilmore et al., 2014; Green & Feinstein, 2012; Hatzenbuehler, Corbin, & Fromme, 2008). We contend that sexual minority stress and social norms explanations for lesbians' heavy drinking may be understood as two sides of the same coin (Cochran et al., 2012; Lick et al., 2013). That is, if lesbians who have personally faced stigma visibly use alcohol and other substances to cope in lesbian community settings, use of these substances may come to be perceived as normative among lesbian observers, leading to harmful substance use behaviors even among those who have not personally faced stigmatization. For lesbian health interventionists this may be a particularly useful perspective. Extinguishing sexual minority stress by erasing the stigma attached to lesbian identity may not represent a viable strategy for reducing lesbians' drinking. However, several established social norms-based intervention strategies have yet to be investigated as tools to reduce lesbians' alcohol use.

Several studies have drawn attention to the central position of the bar in lesbian communities and suggested that this structural characteristic may contribute to swift communication of alcohol use norms (Drabble & Trocki, 2014; Gruskin, Byrne, Kools, & Altschuler, 2007; Remafedi, Jurek, & Oakes, 2008; Trocki & Drabble, 2008). Historically, lesbian bars were established as places of refuge from a highly prejudiced society, and were the only places that lesbians could feel safe to gather and socialize. Although social climates have greatly improved over the years, alcohol-serving establishments have remained a centerpiece of most lesbian communities. We propose that lesbian bars as structural focal points of lesbian communities may not only contribute to the communication of actual alcohol use norms, but also exaggerate perceptions of how much and how often other lesbians drink. That is, because lesbian bars remain the most visible and accessible physical spaces for lesbians to observe the behaviors of like-identified women as well as meet potential friends and lovers, the behavioral observations that occur in these alcohol-serving institutions may actually lead lesbian observers to *overestimate* descriptive drinking norms.

Consistent with this proposal, Social Norms Theory (Berkowitz, 2004; Perkins, 2003; Perkins & Berkowitz, 1986) emphasizes that observable public behavior is a large source of information fueling misperceptions of alcohol use norms. That is, misperceptions of how much and how often peers drink are most likely to result from observing a minority of the peer group publicly engaging in high-risk alcohol use (i.e., as would be likely to occur in a lesbian bar setting). Observations of heavy drinking are remembered to a greater degree than responsible behaviors that may be more common in the group but are less visible (i.e., behaviors occurring outside of lesbian bars).

Importantly, Social Norms Theory suggests that over estimations of lesbian drinking norms may contribute to disproportionate rates of high-risk drinking in this population. Perceptions (and misperceptions) of peer alcohol use norms have been found to reliably predict individuals' own future alcohol consumption (Berkowitz, 2004; Borsari & Carey, 2003; Cialdini & Trost, 1998; Neighbors, Lee, Lewis, Fossos, & Larimer, 2007; Perkins, 2003; Perkins & Berkowitz, 1986). Thus, lesbians who overestimate alcohol consumption by lesbian peers are likely to increase their own drinking as a means of approximating the alcohol consumption they perceive to be normative. With this pattern well-established in a number of other high-risk drinking groups, correcting overestimated peer alcohol use norms has become one of the most prominent intervention strategies employed to reduce alcohol use among adolescents (Tevyaw & Monti, 2004), college students (Larimer & Cronce, 2007; Walters & Neighbors, 2005), non-college young adults (Doumas & Hannah, 2008), working adults (Hester, Squires, & Delaney, 2005; Walters & Woodall, 2003), and military personnel (Pemberton et al., 2011; Williams, Herman-Stahl, Calvin, Pemberton, & Bradshaw, 2009).

In these populations, misperceived drinking norms have been corrected by brief, engaging, and cost-effective PNF interventions. Simply requiring that a target population overestimate the drinking behaviors of peers (Berkowitz, 2004; Perkins, 2003; Perkins & Berkowitz, 1986), PNF utilizes three pieces of self-reported information: perceptions of others' drinking, others' actual drinking, and the individual's own drinking (Berkowitz, 2004; Borsari & Carey, 2003; Lewis, Neighbors, Oster-Aaland, Kirkeby, & Larimer, 2007; Perkins, 2003; Perkins & Berkowitz, 1986). The feedback is designed to change the individuals' perceptions of "normal" drinking by exposing their misperceptions of the actual norm as well as by comparing their behavior with "normal" behavior within the self-relevant group.

This preliminary study sought to determine whether lesbians overestimate lesbian peers' frequency and quantity of alcohol use, and whether a factor associated with overestimated drinking norms is how often one visits lesbian community bars. Research questions were designed to directly test both the applicability and feasibility of PNF interventions to reduce heavy drinking among lesbian community members.

1. Do lesbian-identified women residing in Southern California overestimate the drinking behaviors (i.e., descriptive drinking norms) of lesbian peers?
2. Are lesbians' perceptions of how much and how often other lesbians drink and confidence in their perceptions positively related to how often they visit lesbian community bars?

3. Would this population be interested in receiving personalized normative feedback?

Method

Participants and procedure

Two hundred seventy-eight lesbians residing in Southern California were recruited via advertisements on Facebook, Instagram, and HER social networking platforms to complete The Lesbian Alcohol Insight Survey (LAIS), a 10-minute online survey assessing lesbians' own alcohol use and perceptions of other lesbians' alcohol use. All women in the sample identified as lesbians reported residence in one of 9 Southern California counties (Los Angeles, Riverside, San Diego, Imperial, Orange, Ventura, Santa Barbara, San Luis Obispo, Kern), with the majority residing in Los Angeles County (43.2%; $N = 120$). Participants ranged in age from 18 to 40 years old, with a mean age of 25.32 ($SD = 5.37$). The majority of participants described themselves as Caucasian (59.3%; $N = 165$), followed by Hispanic (18.7%; $N = 52$), African-American/Black (9.7%; $N = 27$), multiracial (7.6%; $N = 21$), and Asian (4.7%, $N = 13$). The LAIS study was approved by the Institutional Review Board at Loyola Marymount University.

Measures

Perceived norm and corresponding behavioral items assessed alcohol abstinence, heavy episodic drinking (i.e., four or more drinks within a two-hour period) during the past month and past year, average number of drinking days per week, average drinks per occasion, and peak drinks consumed on one occasion. Prior to receiving perceived norm items, participants were instructed to think about "typical California lesbians of their same age." Following these instructions wording of both perceived norm (e.g., "During the past month, on average, how many drinks did the typical lesbian consume each time she drank?," etc.) and behavioral items (e.g., "During the past month, on average, how many drinks did you consume each time you drank?," etc.) were consistent with those commonly used in PNF alcohol use intervention studies targeting specific groups of individuals (Doumas & Hannah, 2008; Hester et al., 2005; Kuerbis, Schaumberg, Davis, Hail, & Morgenstern, 2014; Lewis et al., 2007; Neighbors et al., 2014; Pemberton et al., 2011; Walters & Woodall, 2003; Williams et al., 2009). Survey pages containing these items presented graphics to illustrate quantities of alcohol (beer, wine, liquor) equivalent to one standard drink. Following norm items, participants rated their confidence in their estimations of lesbian alcohol use on a scale ranging from 1 (not at all confident) to 5 (very confident) and indicated how often during the past three months they had (a) gone to lesbian bars and clubs and (b) hung out with lesbian friends, using 5-point scales ranging from 0 (never) to 7 (every day). A final survey item asked participants, "Hypothetically, how interested would you be in finding out the ACTUAL drinking behaviors of other lesbians your age compared to your perceptions of their drinking and your own drinking?" Response options ranged from 1 (not at all interested) to 5 (very interested).

Secondary data

Publicly available lesbian alcohol use norms from the California Health Interview Survey (CHIS) were also utilized for the purposes of gauging the representativeness of our convenience sample's reported drinking behaviors, and comparison to our convenience sample's perceptions of other lesbians' drinking behaviors. The CHIS is a telephone survey that uses a dual-frame random-digit-dial (RDD) technique. By using traditional landline RDD and cell-phone RDD sampling frames, it is representative of the state's population and thus is the most accurate estimation available for how much "typical" or "average" lesbians in California actually drink. The Web-based AskCHIS query application draws upon the responses of more than 50,000 Californians interviewed by the CHIS every two years prior to 2008 and every year since 2009. Although neither stable age-group nor county-specific estimates were available due to small sample sizes of lesbians surveyed even when we pooled across years, AskCHIS provided stable weighted estimates of California lesbians ages 18 to 40 years currently abstaining from alcohol (CHIS 2005–2006), and engaging in heavy episodic drinking (HED) during the past month (CHIS 2005–2006), and past year (pooled CHIS 2011 and 2012).

Analysis strategy

Statistical tests were informed by previous studies investigating misperceptions of alcohol use norms in college (Berkowitz, 2004; Borsari & Carey, 2003; Lewis et al., 2007) and military populations (Neighbors et al., 2014). Analyses included chi-square tests (to compare actual norms for categorical variables in CHIS and LAIS samples, as well as LAIS perceived and actual norms in both CHIS and LAIS samples), one-sample *t*-tests to compare LAIS sample perceived and actual norms for continuous variables, ANOVA to examine differences between age groups, and bivariate correlations to examine relationships between frequency of visiting lesbian bars, perceived norms, and participants' own alcohol use behaviors.

Results

Figure 1 provides overall percentages and standard errors for alcohol abstinence, past-month HED, and past-year HED actual norms in both CHIS and LAIS samples as well as corresponding perceived norms in the LAIS sample. Comparing actual norms, only percentages of lesbians reporting HED in the past month differed significantly, with the LAIS sample reporting slightly more past-month HED than the CHIS sample. However, in line with predictions, results revealed that LAIS participants significantly overestimated the percentages of their lesbian peers that engaged in HED in the past month and year according to both CHIS and LAIS actual HED norms. In contrast, LAIS participants were relatively accurate in their estimates of percentages of lesbians abstaining from alcohol.

As presented in Table 1, the within age-group comparisons between actual and perceived LAIS norms were fairly consistent with the overall pattern presented in Figure 1, with the exception that differences between perceived and actual past-month HED only reached statistical significance in the oldest age group (30 to 40 years). Participants, overall, were also accurate in their perceptions of drinking days per week, but overestimated peers'

average drinks per occasion and peak drinks on one occasion (Figure 1). Comparing perceptions across age groups, lesbians in the 30- to 40-year-old age group perceived other lesbians their age to consume alcohol more frequently than both younger age groups, with the difference between their actual and perceived drinking days also marginally significant.

Although participants reported moderate to high levels of confidence in their perceptions, greater than 90% of participants in each age group expressed moderate to high levels of interest in receiving PNF. Finally, as presented in Table 2, perceptions of *all* drinking norms and confidence in perceptions were significantly correlated with frequency of lesbian bar attendance. In contrast, neither perceived norms nor confidence significantly correlated with frequency of hanging out with lesbian friends, a non-bar-related lesbian social activity.

Discussion

With few differences between age groups, Southern California lesbians ages 18 to 40 overestimated the prevalence of heavy episodic drinking among their peers, as well as the number of drinks consumed on average and peak drinking occasions. Furthermore, elevated perceptions of all lesbian alcohol use behaviors assessed were associated with more frequently visiting lesbian bars and clubs. These findings suggest that lesbian bars as the focal point of lesbian communities may facilitate exaggerated perceptions of heavy alcohol use among lesbian peers. Furthermore, upwards of 90% of the lesbian participants in every age group expressed moderate to high interest in receiving the data typically presented to participants as part of a personalized normative feedback (PNF) intervention (see Figure 2 for an example). This high level of interest in PNF is consistent with speculation by other researchers that due to the smaller, insular nature of LGBT communities, sexual minority adults may be more interested than other groups of adults in peer-group norms and how they compare to others (Heath, Lanoye, & Maisto, 2012; Kuerbis et al., 2014).

Notably, although the smallest age group represented in the LAIS sample, lesbians between ages 30 and 40 years old evidenced the largest discrepancies between perceived and actual alcohol consumption and were the only age group to marginally overestimate frequency of alcohol use by their peers. Furthermore, despite these over estimations, these same women also reported the greatest confidence in their perceptions of lesbian drinking. Additional research with larger samples of women between the ages of 30 and 40 may be needed in order to better understand perceptions of alcohol use norms among lesbians in this age group.

Implications

An extensive literature supporting Social Norms Theory (Berkowitz, 2004; Borsari & Carey, 2003; Perkins, 2003; Perkins & Berkowitz, 1986) as well as research demonstrating lesbian community social norms to be particularly powerful (Boyle & Omoto, 2014; Cogger et al., 2012) suggest that light- and moderate-drinking lesbian community members overestimating the degree to which lesbian peers engage in heavy drinking may be inclined to increase their own drinking over time as a means of approximating the perceived lesbian community normative standard. In addition, heavy-drinking lesbians misperceiving their high-risk drinking to be more normative than it really is may justify their behavior, and continue their

pattern of heavy consumption. Although more research is needed, findings from this preliminary study suggest that PNF stand-alone interventions, or intervention components focused on correcting perceptions of HED prevalence, average, and peak drinks consumed by lesbian peers may be successful in mitigating alcohol-related risks among both young adult and adult lesbians, especially those frequenting lesbian community bars and clubs.

While this is the first study to investigate the potential utility of PNF for lesbian community members, one recent study found PNF to be a viable approach for reducing the alcohol use of treatment-seeking, problem-drinking, adult sexual minority males (i.e., men who have sex with men, or MSM) (Kuerbis et al., 2014). Given the dearth of successful interventions developed to prevent and reduce substance misuse among other sexual minority groups to date, these findings should encourage interventionists to consider social norms strategies for correcting exaggerated perceptions of substance use norms that may result from both sexual minority stress and the structural characteristics of sexual minority communities. The aim of bolstering a true risk-behavior norm when we have knowledge that it exceeds the sexual majority norm may appear unorthodox. However, as demonstrated by this study, perceptions of risk-behavior norms may still be misperceived or over-estimated among members of groups (e.g., lesbians) widely known to engage in particular risk behaviors (e.g., high-risk drinking) to a greater extent than relevant comparison groups (e.g., heterosexual women). Indeed, social norms-based PNF interventions have been found to significantly reduce alcohol use and related risks within a number of other groups marked by disproportionate alcohol consumption and high-risk drinking, including college students (relative to non-college-attending young adults) and military personnel (relative to civilians). In effect, between-group differences (e.g., military versus civilian populations; lesbian versus heterosexual female populations) in the use of alcohol and other substances have the potential to be reduced through social norms interventions targeting and correcting overestimated risk behavior norms within the disproportionately affected group.

Directions for future research

This preliminary study collected data from a small convenience sample of Southern California lesbians recruited via social media sites. As such, findings from this study cannot be generalized beyond the sample. Southern California is known for its liberal social climate and opportunities for lesbian nightlife. Lesbians in more conservative areas with fewer lesbian bars may be much less likely to overestimate drinking norms. Additional research will be required to determine whether larger samples of California lesbians, and lesbians residing in other states, also over-estimate alcohol use norms. In addition, the utility of personalized normative feedback interventions for other groups of sexual minority women, including bisexual women, remain to be determined. As bisexual women have also been known to engage in heavy alcohol use, future research should also explore whether bisexual women overestimate how much both other bisexual women and lesbians drink, and determine which reference group norms are more influential to their drinking behavior.

If findings can be replicated in other lesbian-identified samples, future research should seek to develop culturally appropriate and engaging PNF interventions. In line with recent recommendations for efficacious health promotion efforts targeting specific subgroups of

sexual minority women (Germanos, Deacon, & Mooney-Somers, 2015), these interventions should be carefully crafted to appeal to the demographic and lifestyle characteristics of local lesbians. This is particularly important in the case of PNF interventions where capturing participants' attention and having participants accept PNF norm data as believable and credible are requirements for success (Berkowitz, 2004; Perkins, 2003). Technologically advanced delivery formats found to capture attention and enhance believability in other populations including live, interactive, group-based normative feedback presentations (LaBrie, Hummer, Neighbors, & Pederson, 2008) as well as Web-delivered (Neighbors, Larimer, & Lewis, 2004; Pemberton et al., 2011; Williams et al., 2009) and social media (Ridout & Campbell, 2004) PNF may also hold promise for lesbians. PNF source credibility may also be gained through partnerships with local community-based lesbian organizations viewed as trustworthy sources of health and social information among lesbian community members.

Furthermore, while this study assessed perceptions of alcohol use for "a typical lesbian," a large literature has demonstrated the importance of reference group specificity to PNF efficacy (LaBrie et al., 2013; Larimer et al., 2011; Lewis & Neighbors, 2007). To the extent that subgroups are salient in a given lesbian community, it is possible that the perceived drinking behaviors within such subgroups (e.g., those based on lesbian gender expression [e.g., typical soft butch lesbian, typical femme lesbian, etc.] or race/ethnicity [e.g., typical Black lesbian, typical Latina lesbian]) may be more self-relevant and influential to lesbians, and thus more effective targets for PNF. Finally, lesbians may also overestimate their peers' approval for high-risk drinking behaviors (i.e., injunctive norms), which in turn may also influence their own alcohol use attitudes and behaviors. Future research should examine whether lesbians also overestimate injunctive alcohol use norms, as PNF that corrects both injunctive and descriptive norms may be most efficacious in reducing high-risk drinking.

Conclusion

An initial step in a new direction, this preliminary study found lesbians residing in Southern California to overestimate the prevalence of heavy episodic drinking and the quantity of alcohol consumed by their lesbian peers. In line with predictions, more frequent lesbian bar attendance was associated with perceptions of other lesbians drinking greater quantities of alcohol and greater confidence in these perceptions. Most participants expressed interest in receiving feedback on the accuracy of their normative perceptions and how their own drinking compares to that of other lesbians (i.e., PNF). Thus, although more research is needed, findings suggest that PNF interventions focused on correcting perceptions of quantity of alcohol consumed by lesbian peers may be successful in mitigating alcohol-related risks among both young adult and adult lesbians, especially those frequenting lesbian community bars.

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Figure 1.
Overall pattern for lesbians' perceptions of alcohol use norms compared to actual alcohol use norms.

Figure 2.
Example of hypothetical personalized normative feedback (PNF) for average drinks per occasion and peak drinks.

Table 1

LAIS actual and perceived descriptive drinking norms, confidence in perceptions, and interest in PNF.

	18–23 yrs.	24–29 yrs.	30–40 yrs.
<i>N</i>	113	116	49
<i>Non-Drinker</i>			
Perceived Norm %	17.4 (15.53, 19.26)	14.9 (13.5, 16.4)	17.8 (14.9, 20.6)
Actual Norm %	18.9 (11.5, 26.3)	11.0 (3.8, 16.2) ^a	30.2 (16.8, 44.3) ^a
<i>HED Past Month</i>			
Perceived Norm %	55.9 (58.3, 59.45)	58.3 (54.9, 61.7)	58.1 (53.3, 62.8) [*]
Actual Month %	49.6 (40.1, 59.0) ^b	49.1 (40.0, 58.4)	32.7 (19.0, 46.3) ^b
<i>HED Past Year</i>			
Perceived Norm %	72.06 (68.7, 75.5) [*]	75.5 (72.6, 78.4) [*]	73.31 (68.9, 77.7) [*]
Actual Month %	56.3 (46.2, 66.4)	57.9 (51.7, 64.1)	46.9 (34.8, 59.0)
<i>Drinking Days Per Week</i>			
Perceived Norm <i>M</i> (<i>SD</i>)	1.62 (1.44) ^{bc}	2.16 (1.48) ^c	2.42 (1.81) ^{+, b}
Actual Norm <i>M</i> (<i>SD</i>)	1.67 (1.54) ^a	2.15 (1.82) ^a	1.90 (2.25)
<i>Average Drinks Per Occasion</i>			
Perceived Norm <i>M</i> (<i>SD</i>)	4.07 (1.83) ^{***}	3.87 (1.43) ^{***}	4.15 (2.03) ^{***}
Actual Norm <i>M</i> (<i>SD</i>)	2.66 (2.39)	2.56 (1.97)	2.49 (2.48)
<i>Peak Drinks One Occasion</i>			
Perceived Norm <i>M</i> (<i>SD</i>)	7.10 (2.99) ^{***}	7.02 (2.71) ^{***}	6.52 (2.72) ^{***}
Actual Norm <i>M</i> (<i>SD</i>)	5.13 (4.10) ^b	4.84 (3.56) ^a	3.42 (3.59) ^{ab}
<i>Confidence in Norm Perceptions</i>			
<i>M</i> (<i>SD</i>) Scale 1(not at all) to 5 (very)	3.78 (1.47) ^b	3.87 (1.40) ^a	4.37 (1.11) ^{ab}
Interested in PNF (%)	96.3 ^b	94.5	92.0 ^b

Notes. Differences between perceived and actual group norms within age groups were evaluated by chi-square (non-drinker, past-month, and past-year HED) and one-sample *t*-tests (drinking days, average drinks, peak drinks). Between-age-group differences in continuous actual norms, perceived norms, and confidence were tested by ANOVA, and between-age-group differences in dichotomous norms and PNF interest were tested by chi-square.

^aThe 24- to 29-year-old and 30- to 40-year-old group.

^bThe 18- to 23-year-old and 30- to 40-year-old group.

^cIndicates a significant difference between the 18- to 23-year-old group and the 24- to 29-year-old group.

^{*}*p* < .05.

^{***}*p* < .001.

⁺marginally significant, *p* = .08.

Bivariate correlations between frequency of lesbian community bar-unrelated and bar-related social activities, perceptions of lesbian alcohol use, and own alcohol use ($N = 278$).

Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Frequency of hanging out w/lesbian friends ^b	—												
2. Frequency of going to lesbian bars or clubs ^a	.29***	—											
3. Perceived Lesbian Alcohol Abstinence	-.06	-.14*	—										
4. Perceived Lesbian HED Past Month	.08	.18**	-.34***	—									
5. Perceived Lesbian Weekly Drinking Days	.09	.23**	-.25***	.25***	—								
6. Perceived Lesbian Average Drinks	.09	.16**	-.18**	.34***	.22*	—							
7. Perceived Lesbian Peak Drinks	.09	.12*	-.26***	.37***	.29***	.73***	—						
8. Confidence in Lesbian Drinking Perceptions	.11	.22**	-.10	.21**	.16	.14*	.12*	—					
9. Own Alcohol Abstinence	-.07	-.23***	.15*	-.05	-.13	-.03	-.08	-.08	—				
10. Own HED Past Month	.07	.19**	-.18**	.31	.14	.74***	.57***	.13*	-.09	—			
11. Own Weekly Drinking Days	.01	.28***	-.08	.10	.28	.12*	.13*	.15*	-.48***	.14*	—		
12. Own Average Drinks	.02	.26***	-.05	.15*	.01	.39***	.32***	.07	-.52***	.33***	.45***	—	
13. Own Peak Drinks	.01	.28***	-.09	.18**	.13*	.32***	.41***	.06	-.56***	.28***	.60***	.81***	—

^aBar-unrelated;

^bBar-related.

* $p < .05$.

** $p < .01$.

*** $p < .001$.