

Sociosexuality and Sex With New Partners: Indirect Effects Via Drinking at Parties and Bars

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ABSTRACT. Objective: The desire for many novel, concurrent, uncommitted sex partners (i.e., unrestricted sociosexuality) may encourage individuals to seek out contexts that facilitate casual sex. We tested a model in which the effects of sociosexuality on sex with new partners were mediated via drinking in specific contexts. We hypothesized that drinking at parties and bars, which are known to facilitate casual sex (but not drinking at home), would contribute to sex with new (but not with previous) partners. **Method:** Participants were 427 male freshmen from a large, public northeastern university. They completed a baseline survey in their first semester followed by 56 days of daily reports on drinking and sexual activity during their second semester. **Results:** As predicted, sociosexuality measured at baseline positively predicted occasions of

sex with a new partner, but not sex with a previous partner. In support of the model, effects were partially mediated by frequency of drinking at parties and bars across the 56-day reporting period, but not by drinking at home. **Conclusions:** Previous research has demonstrated associations among sociosexuality, drinking, and casual sex. Our study is unique in suggesting that drinking in specific contexts—that is, drinking at parties and bars, but not drinking at home—partially mediates the effects of sociosexuality on sex with new partners. This pathway suggests that men with a desire for many novel, concurrent, uncommitted sex partners seek out drinking contexts as a way of facilitating these encounters. (*J. Stud. Alcohol Drugs*, 81, 624–630, 2020)

SOME INDIVIDUALS EXHIBIT a desire for uncommitted sex with many different, concurrent partners. This orientation, labeled *unrestricted sociosexuality*, has implications for several health-related behaviors and outcomes (Simpson & Gangestad, 1991; Snyder et al., 1986; Vrangalova & Ong, 2014). For example, sociosexuality has been positively associated with number of sex partners (Penke & Asendorpf, 2008), unprotected sex (Seal & Agostinelli, 1994), sexual aggression (Davis et al., 2018), and alcohol use (Corbin et al., 2016).

Alcohol use is commonly believed to facilitate casual sex (Dermen et al., 1998; Lindgren et al., 2009; Vander Ven & Beck, 2009) and hookups (i.e., a single sexual occasion involving strangers or brief acquaintances; Paul et al., 2000). Indeed, drinking is a well-established predictor of the types of uncommitted casual sex exhibited by those with unrestricted sociosexual orientations (Claxton et al., 2015; Cooper, 2006; Goldstein et al., 2007). For example, 65% of drinkers, compared with 26% of nondrinkers, reported hooking up in the past year, and two thirds of hookups occurred after drinking (LaBrie et al., 2014). Furthermore, drinking is more likely to occur before occasions of sex with a new partner than sex with a previous partner (Goldstein et al., 2007). Likewise, prior analyses of data reported here re-

vealed that alcohol was used in approximately 50% of sexual events involving new partners, but just 10% of sexual events involving previous partners, and that drinking occasions increased the likelihood of sex with new partners in the next few hours, but not with previous partners (Testa et al., 2015).

The desire for many novel, concurrent, uncommitted sex partners may encourage individuals with unrestricted sociosexual orientations to seek out drinking contexts that facilitate casual sex. For example, men high in sociosexuality participate in drinking games more frequently and consume more alcohol while they are playing than do their peers (Hone et al., 2013). Furthermore, men's sexual motivations for participating in drinking games—including "I like to play drinking games that give me an opportunity to have fun with people I'd like to have sex with," "I like to play drinking games that loosen people up for fooling around or having sex later," and "I like to play drinking games that give me an opportunity to hit on people I'm interested in"—partially mediate the relationship between sociosexuality and drinking game participation. Thus, it seems that sociosexuality predicts participating in (and consuming alcohol during) drinking games precisely because they provide opportunities for casual sex (Hone et al., 2013).

Corbin and colleagues (2016) have also suggested that the link between sociosexuality and drinking may be due in part to individuals with unrestricted sociosexual orientations engaging in alcohol use as a way to meet potential new sex partners and facilitate hookups. In support of their hypothesis, they found that attitudes reflecting sociosexuality (e.g., "sex without love is OK") predicted behaviors associated with sociosexuality (e.g., number of one-night stands), which in turn predicted higher levels of drinking. Corbin and colleagues' (2016) findings are supportive of the

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notion that sociosexuality contributes to drinking; however, they are limited by the cross-sectional nature of the data. More recently, in two separate samples of college women, sociosexuality assessed at the beginning of the semester predicted frequency of drinking later in the semester (Testa & Hone, 2019). These prior studies all support—but do not directly test—the notion that sociosexuality predicts drinking because unrestricted individuals seek out drinking contexts that facilitate casual sex.

Some drinking contexts may be particularly attractive for individuals high in sociosexuality. For example, sexual advances and activity are normalized at parties and bars (Norris et al., 1996; Thompson & Cracco, 2008), which are viewed as contexts that facilitate casual sex (Lindgren et al., 2009). Accordingly, individuals seeking hookups are likely to frequent parties and bars as a way of meeting new sex partners (Kuperberg & Padgett, 2017). Indeed, frequency of attendance at fraternity/sorority parties, residence-hall parties, and off-campus parties are strongly and positively associated with alcohol-related sex with a stranger (Bersamin et al., 2012). Similarly, men higher in sociosexuality drink more frequently at parties and bars, which predicts later perpetration of sexual aggression (Cleveland et al., 2019).

The present study allowed us to test an indirect effects model of sociosexuality's effects on sex with new partners as mediated via drinking in contexts that facilitate these encounters (i.e., parties and bars). We predicted that (1) men high in sociosexuality at baseline would report more occasions of sex with new partners over a subsequent daily report period. We also predicted that (2) men high in sociosexuality would report more occasions of drinking at parties and bars during a daily report period and that (3) these drinking occasions at parties and bars would partially mediate the relationship between sociosexuality and sex with new partners. To establish the specificity of the drinking context effect, drinking occasions that occurred at home or in a dorm were also considered. Although we expected men high in sociosexuality to engage in more drinking at parties and bars, no hypothesis regarding drinking at home—a context less associated with sex with new partners—was offered.

Method

Participants

The study was approved by an institutional review board, and a Certificate of Confidentiality was obtained from the National Institutes of Health. Participants ($N = 427$) were men selected from a larger sample of freshmen who were 18 or 19 years of age and who entered a large, public, north-eastern university in the fall of 2011 or 2012. The present study included data from men who completed a baseline assessment in the fall and participated in a daily report study during the spring (Testa et al., 2015).

Eligibility criteria for the daily report study were designed to yield a sample of men likely to engage in drinking and sexual activity during a 56-day reporting period and hence at risk of perpetrating sexual aggression toward women (Testa et al., 2015). Baseline assessment responses were used to identify men who (a) had a “hookup” or sexual intercourse with a woman at least once in the first semester and (b) drank five or more drinks on one occasion at least twice per month (or drank weekly). A few men who failed to meet these criteria but who reported (c) at least one sexual aggression item on the Sexual Experiences Survey (Abbey et al., 2007) or the Sexual Strategies Survey (Strang et al., 2013) during the first semester were also invited. We did not limit our sample to exclusively heterosexual males; however, the focus of this study was on sexual activity with women. Four hundred and twenty-seven men responded to email invitations sent early in the spring semester and completed the daily report study. Men who did not participate in the daily report study did not differ from those who did participate on race, frequency of drinking, hookups, sexual aggression, or involvement in a relationship (Brown et al., 2018).

Procedures

Participants provided online consent before completing assessments. Every day, participants received email reminders at 9:00 A.M. containing a link to the daily report. If they missed one day of reporting, they were allowed to complete an abbreviated make-up report for that day after completing the current day's report. Missing more than one day of reporting triggered a phone call by project staff to encourage continued reporting. Daily surveys took no more than 5 minutes to complete. Participants were compensated with \$10 for each complete week (6/7 reports) and a \$40 bonus for completing all 8 weeks (maximum \$120).

Measures

Sociosexuality. Sociosexuality was assessed at baseline via three attitude items on 9-point scales from 0 (*strongly disagree*) to 8 (*strongly agree*): “Sex without love is OK,” “I can imagine myself being comfortable and enjoying casual sex with different partners,” and “I would have to be closely attached to someone before I could feel comfortable and fully enjoy having sex with that person” [reversed]. We also included four behavioral items: “How often do you fantasize about having sex with someone (other than your current dating partner if you have one)?” rated on a 7-point scale from 0 (*never*) to 6 (*at least once a day*), lifetime number of sex partners, number of partners with whom the participant had sex on only one occasion, and number of sex partners desired in the next 5 years. The latter three items were assessed using open-ended responses and then Winsorized to the 95th percentile to reduce outliers (Reifman & Keyton, 2010).

TABLE 1. Descriptive statistics

Variable	<i>N</i>	Min.	Max.	<i>M</i>	<i>SD</i>
Drinking at home or dorm	427	0	19	1.59	2.61
Drinking at parties and bars	427	0	19	2.39	2.73
Sex with previous partners	427	0	47	4.18	8.27
Sex with new partners	427	0	17	0.72	1.43
Hookups	396	0	5+	2.79	1.89
Relationship status	427	0	1	0.33	0.47

Notes: Min. = minimum; max. = maximum.

Items were standardized, and a mean score was calculated (Testa & Cleveland, 2017). Reliability was acceptable ($\alpha = .68$).

Daily drinking events. Each day, men were asked, “Since this time yesterday have you consumed any alcoholic beverages?” Positive responses were followed by the questions: “Did this drinking episode take place . . . at a party?” “. . . at a bar or other public place?” and “. . . in your dorm or your home?” (some participants also had the option to select, “. . . on a date or private interaction with a woman”). Responses to these questions were used to categorize each drinking event as occurring either at a party or bar, at home, or missing (either because the participant chose not to report the context, the context was a date, or the participant completed a make-up report that did not contain questions about the drinking context). Events that took place at a party or bar, regardless of whether the event also included drinking at home, were classified as *drinking at a party and bar* because they include exposure to social contexts. Events that took place only at home were classified as *drinking at home*. Total occasions of drinking events at parties and bars, and separately, at home over 56 days of reports were summed.

Daily sexual events. Each day, men were also asked, “Since this time yesterday, have you hooked up, engaged in any sexual activity, or tried to engage in any sexual activity with a woman (including flirting, kissing, touching, or intercourse)?” Positive responses were followed by the question, “Would you describe the woman involved as a previous partner, that is, someone you have been sexually intimate with in the past?” Responses to this question were used to categorize sexual events as involving either previous or new partners. Total occasions of each over 56 days of reports were also summed.

Number of hookups. Immediately after completing the final daily report, men completed a follow-up survey assessment that included the following question: “A hookup is a romantic or sexual encounter (usually lasting only one night) between two people who are strangers, friends, or acquaintances. Some physical interaction is typical, but it may or may not involve sexual intercourse. During the past semester, how many ‘hookups’ have you had?” This item was assessed on a scale from 0 (*zero*) to 5 (*five or more*).

Relationship status. On the first day of the daily study, men were asked, “Are you currently in a relationship with a woman (i.e., have a girlfriend)?” with 1 (*yes*) and 0 (*no*)

as the response options. Effects of relationship status were controlled for in the models described below on the premise that the prevalence of sexual activity differs by relationship context (Manning et al., 2005).

Results

Descriptive statistics. Participants ($N = 427$) aged 18.03–19.92 ($M = 18.68$, $SD = 0.33$) years completed a total of 20,366 daily reports over 56 days (85.2% of all possible 23,912 days). Men reported 2,284 days of drinking, ranging from 0 to 31 drinking days per man ($M = 5.35$, $SD = 5.40$; $Mdn = 4$), with an average of 6.88 ($SD = 4.32$; range: 1–15; Winsorized to the 92nd percentile) drinks per occasion. Men reported 1,022 days of drinking out at parties and bars, of which 329 days also involved drinking at home, and 681 days of drinking only at home. The remaining events took place on a date or had no context information ($n = 222$) or had missing data ($n = 359$); these were not used. Men reported 2,092 days of sexual activity with a woman (including flirting, kissing, touching, or intercourse), ranging from 0 to 47 sexual event days per man ($M = 4.90$, $SD = 8.28$), with 37.2% of men reporting at least one day of sexual activity with a new partner and 54.3% of men reporting at least one day of sexual activity with a previous partner. They reported 1,783 days of sexual activity with previous partners, ranging from 0 to 47 previous partner event days per man ($M = 4.18$, $SD = 8.26$). They also reported 309 days of sexual activity with new partners, ranging from 0 to 17 new partner event days per man ($M = 0.72$, $SD = 1.43$). See Table 1 for descriptive statistics and Table 2 for correlations between key variables.

Test of indirect effects model. A negative binomial model of sociosexuality’s indirect effects on sex with new versus previous partners as mediated by drinking at parties and bars versus at home was tested using Mplus Version 8.2 (Muthén & Muthén, 2017; Figure 1), using maximum likelihood estimation with robust standard errors. Being in a relationship (reported by 142/427 men) was more likely to be associated with sex with previous partners, $t(425) = -9.582$, $p < .001$ ($M = 9.11$, $SD = 11.23$ vs. $M = 1.72$, $SD = 4.66$) and less likely to be associated with sex with new partners, $t(425) = 5.475$, $p < .001$ ($M = 0.20$, $SD = 0.53$ vs. $M = 0.98$, $SD = 1.65$), as expected. Thus, relationship status, and the interaction between relationship status and sociosexuality, were controlled for in the model. Results obtained without controlling for relationship status were identical.

As shown in Figure 1 and consistent with Hypothesis 1, sociosexuality positively predicted sex with new partners ($b = 0.224$ [$SE = 0.094$], $p = .017$) but did not predict sex with previous partners ($b = 0.130$ [0.159], $p = .414$). Consistent with Hypothesis 2, sociosexuality positively predicted drinking at parties and bars ($b = 0.397$ [0.173], $p = .022$). Furthermore, a positive correlation between drinking at parties and bars and sex with new partners ($b = 0.185$ [0.016], $p < .001$)

TABLE 2. Correlations between key variables

Variable	Sociosexuality	Drinking at home or dorm	Drinking at parties or bars	Sex with previous partners	Sex with new partners	Hookups
Drinking at home or dorm	.037					
Drinking at parties and bars	.118*	.221**				
Sex with previous partners	-.044	.254**	.132**			
Sex with new partners	.193**	.107*	.534**	-.071		
Hookups	.251**	.033	.292**	-.001	.327**	
Relationship status	-.245**	-.029	-.113*	.421**	-.257**	-.191**

* $p < .01$; ** $p < .001$.

was found. Sociosexuality did not predict drinking at home ($b = 0.120$ [0.149], $p = .423$). Unexpectedly, both drinking at parties and bars ($b = 0.125$ [0.027], $p < .001$) and drinking at home ($b = 0.154$ [0.036], $p < .001$) predicted sex with previous partners.

We also found support for Hypothesis 3: an indirect effect of sociosexuality on sex with new partner via drinking at parties and bars ($b = 0.073$ [0.032], $p = .022$). A 95% bootstrap confidence interval using 50,000 bootstrap draws did not include zero (0.010, 0.136; Hayes, 2013; MacKinnon et al., 2004). As hypothesized, we did not find a corresponding indirect effect of sociosexuality on sex with new partners via drinking at home ($p = .465$). In addition, we observed an indirect effect from sociosexuality to sex with previous partners via drinking at parties and bars ($b = 0.050$ [0.025], $p = .047$), but this indirect effect did not reach the significant level using 95% bootstrap confidence intervals using 50,000 bootstrap draws (-0.001, 0.100).

As an alternative way of testing the model, we considered the prospective, mediated effect of sociosexuality on hook-

ups, reported at the follow-up assessment, in place of sex with new partners using a Poisson model (Figure 2). Number of hookups was positively correlated with sex with new partners ($r = .327$, $p < .001$) but not sex with previous partners ($r = -.001$, $p = .989$; Table 2). In support of the hypothesized model, there was a direct effect of sociosexuality on hookups ($b = 0.121$ [0.048], $p = .012$) and a direct effect of drinking at parties and bars (but not at home, $p = .648$) on hookups ($b = 0.052$ [0.009], $p < .001$). As in the previous model, there was an indirect effect of sociosexuality on hookups that was partially mediated by drinking at parties and bars ($b = 0.021$ [0.009], $p = .023$), and 95% bootstrap confidence intervals did not include zero (0.003, 0.039; Hayes, 2013; MacKinnon et al., 2004). This consistency of findings increases confidence in the pattern of results.

Discussion

Consistent with hypotheses, college men higher in sociosexuality reported more occasions of sex with new

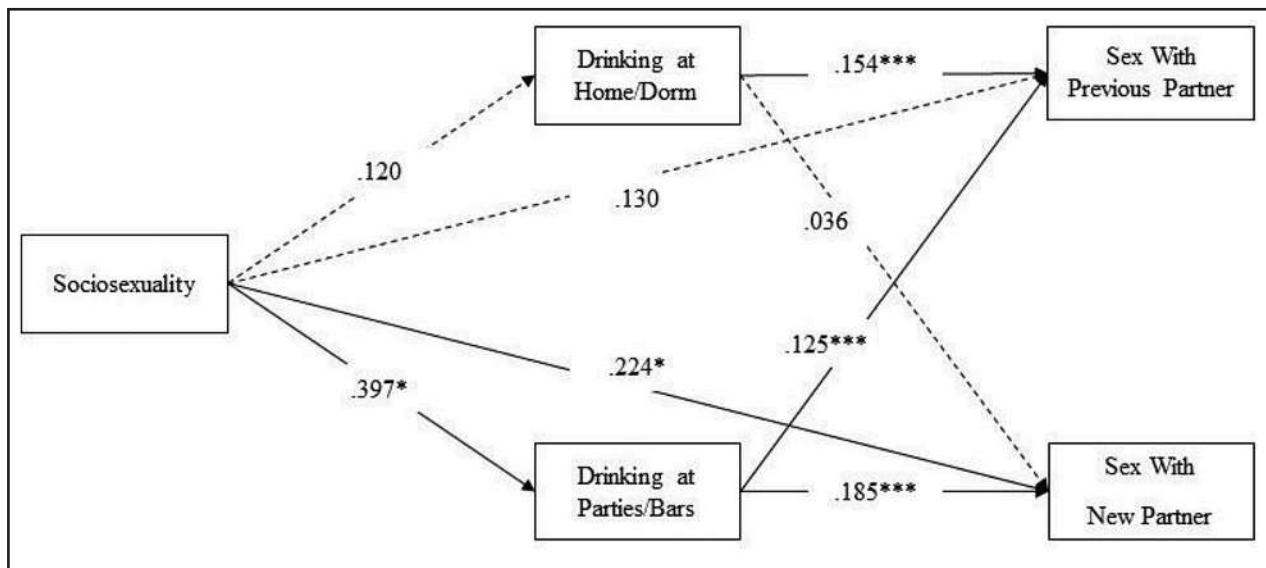


FIGURE 1. Sociosexuality's effects on sex with previous and new partners mediated by drinking at home and at parties and bars. Path coefficients are unstandardized. Not pictured: Paths specified from relationship status and the relationship status by sociosexuality interaction to number of days with sexual activity with new and previous partners.

* $p < .05$; *** $p < .001$.

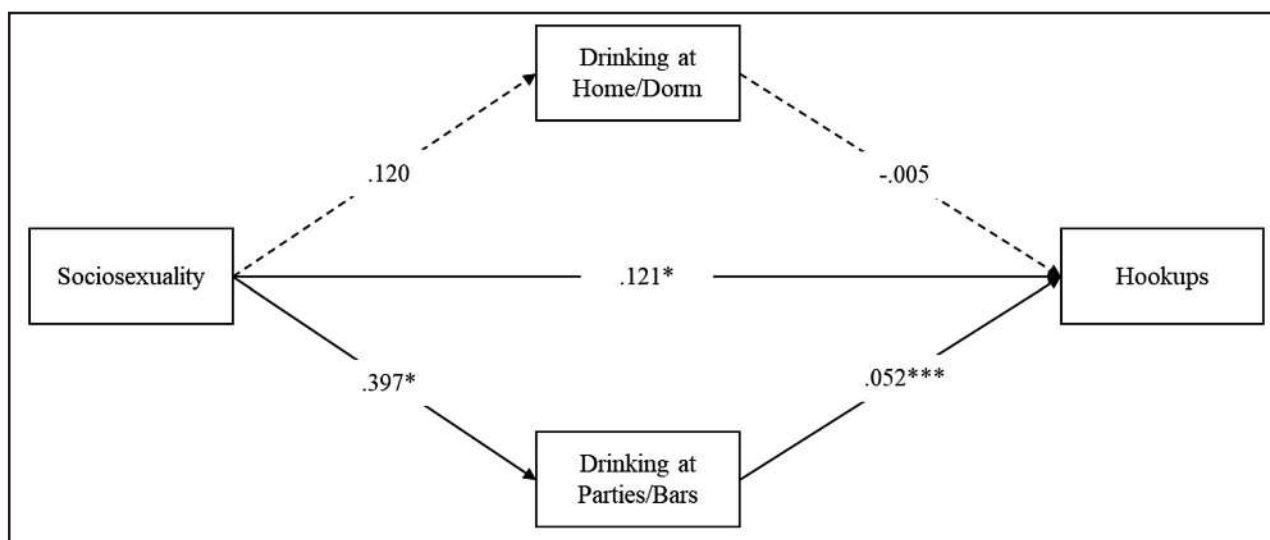


FIGURE 2. Sociosexuality's effects on hookups mediated by drinking at home and at parties and bars. Path coefficients are unstandardized. Not pictured: Paths specified from relationship status and the relationship status by sociosexuality interaction to number of hookups.

* $p < .05$; *** $p < .001$.

partners—but not more occasions of sex with previous partners—over a 56-day period. We proposed that this relationship would be mediated via more frequent occasions of drinking at parties and bars, a context that provides opportunities to meet new sexual partners. Recent studies have suggested that sociosexuality predicts drinking frequency because individuals with unrestricted sociosexual orientations seek out drinking contexts that facilitate casual sex (Cleveland et al., 2019; Hone et al., 2013; Testa & Hone, 2019). However, to date, no study has directly tested whether specific drinking contexts mediate the relationship between sociosexuality and sex with new partners. Using aggregated daily reports from more than 400 male college freshmen, the model was supported: Men high in sociosexuality at baseline assessment engaged in more occasions of drinking at parties and bars over a subsequent 56-day daily reporting period, which positively predicted engaging in sex with new (but not previous) partners during that period. The present study is unique in showing that the effect is specific to drinking at parties and bars. Sociosexuality did not predict more drinking at home, a context that presumably provides less access to new sex partners, and drinking at home did not mediate the effect of sociosexuality on sex with new partners. Although not expected, men who reported more occasions of drinking at home reported more occasions of sex with previous partners. It is possible that this relationship reflects event-specific use of alcohol as an aphrodisiac or facilitator of intimacy within established relationships (George & Stoner, 2000).

The study adds to a growing body of literature on the importance of considering specific drinking contexts—and not just drinking—in understanding sexual outcomes (Bersamin et al., 2012; Cleveland et al., 2019; Mair et al., 2016; Testa

& Cleveland, 2017). For example, frequency of attendance at parties and bars has been shown to mediate the relationship between sociosexuality and perpetration of sexual aggression (Cleveland et al., 2019). Our findings suggest that the desire to have sex with new partners among men high in sociosexuality may drive this relationship, as sexual events involving new partners include more sexually aggressive tactics than do events with previous partners (Testa et al., 2015). Party and bar drinking contexts may function as “hotspots” contributing to sexually aggressive activity and hence as a worthy target for prevention efforts.

It follows that men high in sociosexuality are a worthy target for alcohol and sexual aggression intervention efforts given their motivation to drink in social contexts and to engage in sex with new partners. However, it is important for college drinking intervention efforts to recognize these important sexual motivations, which may interfere with efforts to limit drinking (Hone et al., 2013). For example, drinking interventions that highlight risky sexual activity as a “negative” consequence of drinking may inadvertently increase drinking among men high in sociosexuality who seek out drinking venues because these locales provide opportunities to drink with potential sex partners (Hone et al., 2013).

Although it is tempting to infer relationships among these variables at the event level (e.g., drinking at parties and bars increases the likelihood of sex with new partner later that day), our model tests between-participant relationships. Our findings indicate that men who are high in sociosexuality and motivated to have sex with new partners indeed do report more sexual events with new partners, and that the relationship is at least partially explained by a greater number of occasions of drinking at parties and bars. Earlier multilevel analyses of these data at the daily event level revealed that at

the within-person level, drinking events (context unspecified) increased the likelihood of sex with a new partner in the next 4 hours but not the likelihood of sex with a previous partner (Testa et al., 2015). However, these effects were obtained after accounting for the positive between-participant effects of number of drinking events on both sex with both new and previous partners: That is, men who drank more frequently also had more sex.

Limitations

The results should be interpreted in light of several limitations. First, eligibility criteria resulted in sociosexuality scores within this subsample that were higher than mean scores for the full sample (Testa et al., 2015). However, because this truncation of range may have made results more conservative, this may be viewed as a strength. Second, measures of key constructs were crude. For example, we were able to distinguish new partners from partners with whom there had been any sexual intimacy in the past, but we could not consider the impact of drinking contexts on sex with more specific types of sexual partners. Similarly, drinking context measures were limited (i.e., home/dorm vs. party/bar), permitting only a crude distinction between types of venues. Some contexts—for example, fraternity/sorority parties—are known to predict alcohol-related sex with strangers (Bersamin et al., 2012) and may be particularly important to examine. Additional aspects of drinking venues—including motivations for attendance, people present in these contexts, and even the specific patterning (e.g., pregameing)—may also be relevant contributors to sexual outcomes.

Third, findings were derived from a sample of male freshmen at a single university who were selected based on their higher-than-average drinking and sexual activity. Additional research is needed to determine whether the model is generalizable to same-sex activity and to other samples. Within college communities, drinking venues provide a well-known means of meeting new sexual partners and facilitating hookups (Vander Ven & Beck, 2009), and drinking may be particularly important among freshmen as a means of socializing with peers who are establishing social networks (Schulenberg & Maggs, 2002). Thus, findings may be unique, or particularly robust, for college samples relative to noncollege or older samples in which patterns of drinking and socializing may differ. We view these findings as an initial step in understanding the process by which individual difference variables, such as sociosexuality, influence participation in drinking venues, which, in turn, influences sexual outcomes.

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