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# Hooking Up in the College Context: The Event-Level Effects of Alcohol Use and Partner Familiarity on Hookup Behaviors and Contentment

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# Abstract

The current study examined hooking up experiences through event-level analyses, including the connections involving alcohol use, the extent of physical contact, and postevaluations of the hookup event. Participants were 828 college students (67.0% female). Of students who reported hooking up sometime within the past year (54.8%), chi-square analyses revealed that they were more likely to have been drinking when they met their partners the night of the hookup. Females who were drinking beforehand and females who met their partners that night were more likely to feel discontent with their hookup decisions. Among participants who consumed alcohol prior to their last hookup, a notable 30.7% of females and 27.9% of males indicated that they would likely not have hooked up with their partners had alcohol not been involved. Further, 34.4% of females and 27.9% of males indicated that they would not have gone as far physically if they had not been drinking. Among participants who reported both drinking beforehand and hooking up with unfamiliar partners, greater number of drinks consumed was associated with more advanced sexual behaviors. The current findings highlight the potential risks associated with alcohol use in the hooking up culture.

The transition to college constitutes a developmental period characterized by greater levels of autonomy, adaptation to a new social environment, and greater responsibility for managing daily life (Brown et al., 2008). Identity and behavioral exploration among emerging adults during this period is not only normative but expected (Arnett, 2000). Similarly, exploring one's sexuality has been categorized as an important developmental task during the period of adolescence to young adulthood (Stinson, 2010). As emerging adults navigate the college environment with greater personal freedom and less adult oversight, they may also have increased opportunities to engage in sexual behavior (Fromme, Corbin, & Kruse, 2008).

Most research examining the sexual behaviors of college students has focused on sexual risk taking and sexual aggression, or has examined consensual penetrative sex (Brown & Vanable, 2007; Cooper, 2002; Fielder & Carey, 2010a; Scott-Sheldon, Carey, & Carey,

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2010). Past research has also investigated casual sexual behavior (Bersamin, Paschall, Saltz, & Zamboanga, 2011; Fielder & Carey, 2010b; Regan & Dreyer, 1999), in addition to "friends with benefits" or nonrelational sexual experiences (Epstein, Calzo, Smiler, & Ward, 2009). Relatively few studies, however, have conducted an in-depth exploration of the range of consensual intimate and sexual behaviors among young adults known as *hooking up*. The present research examined various dimensions of hooking up behavior among college students and included documentation of prevalence rates and physical behaviors involved in hookup events, as well as associations between hooking up and alcohol use (both general and event specific), partner familiarity, and retrospective evaluations of the hookup.

# **Hooking Up Definition and Prevalence Rates**

Hooking up, a widely used expression in today's collegiate nomenclature, is unique in that it not only varies in the meaning that different individuals assign to it (Bogle, 2008) but also permits users of the term to remain relatively ambiguous when describing sexual interactions (Glenn & Marquardt, 2001; Paul & Hayes, 2002). The few studies expressly examining hooking up reveal that it encompasses a range of sexual behaviors, spanning from kissing to sexual intercourse, between two people who are not in a committed relationship and do not expect the hookup to extend into a romantic relationship (Garcia & Reiber, 2008; Owen, Rhoades, Stanley, & Fincham, 2010; Paul & Hayes, 2002). Underscoring the importance of examining hookups as a continuum of sexual behaviors, Fielder and Carey's (2010b) event-level study found that while almost all of the hookups described by their sample of first-semester college women involved kissing (98%), less than one-third (27%) involved penetrative sex. Given the current understanding of the array of activities that constitute hooking up, for the purposes of this study *hooking up* was defined as "engaging in behaviors ranging from kissing to sexual intercourse with someone with whom you do not have a committed relationship."

Prevalence rates for hooking up vary depending on time period of assessment, sample demographics, behaviors included, and subtle nuances in hookup definitions. Previous studies have reported lifetime prevalence rates among students ranging from approximately 65% to 78% (Fielder & Carey, 2010b; Garcia & Reiber, 2008; Paul, McManus, & Hayes, 2000) and 40% to 72% for past-year (Glenn & Marquardt, 2001; Owen et al., 2010; Paul & Hayes, 2002) engagement in hooking up behaviors. While actual hookup frequency between males and females does not differ (Garcia & Reiber, 2008; Owen et al., 2010; Paul & Hayes, 2002; Regan & Dreyer, 1999), evidence suggests that significantly more men than women report initiating hookups, engaging in hookups involving sexual intercourse, and having sex with strangers (Garcia & Reiber, 2008; Paul et al., 2000). These prevalence rates indicate that hooking up is a common experience for college students, and hence a nuanced understanding of the repertoire of behaviors that constitute hooking up is needed. Therefore, in addition to adding to the body of literature documenting gender-specific prevalence rates, the present study aimed to assess the behaviors involved in typical hookups among a representative sample of college students.

# Hooking Up and Alcohol

Evidence suggests that among college students, alcohol consumption and sexual behaviors are deeply intertwined, and several researchers have noted the need for examining this relationship in greater detail (Bersamin et al., 2011; Lindgren, Pantalone, Lewis, & George, 2009). Hookups most often occur in situations where the individuals involved are consuming alcohol (Glenn & Marquardt, 2001; Fielder & Carey, 2010b; Lindgren et al., 2009; Paul & Hayes, 2002). For example, Fielder and Carey (2010b) found that 64% of a first-semester female sample reported drinking at least one alcoholic drink prior to hooking up, and on average, participants reported consuming three drinks prior to hooking up. In a recent study of college men, greater past-month alcohol use was associated with increased likelihood of hooking up (Olmstead, Pasley, & Fincham, 2012). In evaluating the association between alcohol use and hooking up in the current study, we anticipated that heavier alcohol consumption (both in general and at the event level) would be associated with a greater likelihood of hooking up among collegiate men and women.

Further, several studies have found that college students not only tend to perceive alcohol as facilitating sexual interaction but often attribute being under the influence of alcohol as their reason for hooking up (Fielder & Carey, 2010b; Glenn & Marquardt, 2001; Lindgren et al., 2009; Paul & Hayes, 2002). In one qualitative study, Lindgren and colleagues (2009) observed that participants consistently reported college students often sought out drinking scenarios to find a sexual partner, which points to the particular role of alcohol in hookups involving relatively unfamiliar partners. Students interacting sexually with nonsteady partners tend to be more likely to drink—and to drink more compared to those engaging in sexual behaviors with steady or romantic partners (Brown & Vanable, 2007; Fielder & Carey, 2010b; LaBrie, Earleywine, Schiffman, Pedersen, & Marriot, 2005).

Alcohol use prior to hooking up is expected to be associated with how far the hookup progresses in terms of sexual interaction. Although recent research suggests a lower likelihood of vaginal sex during a hookup when the partners are strangers, casual acquaintances, or friends (Lewis, Granato, Blayney, Lostutter, & Kilmer, 2011), and a higher likelihood of oral and vaginal sex with romantic partners than during a hookup (Fielder & Carey, 2010b), limited research has examined whether this behavioral pattern changes in the presence of alcohol. Studies suggest that alcohol may play a more important role in some collegiate hookup behaviors than others. Patrick and Maggs (2009), for example, found that although number of drinks consumed was predictive of oral sex, it was not similarly predictive of penetrative sex, whereas Lewis and colleagues (2011) reported that greater levels of typical weekly drinking were predictive of both oral and vaginal sex during participants' most recent hookup. Further, at the event level, greater alcohol consumption was associated with increased likelihood of sex with a casual partner (Leigh & Schafer, 1993; Parks, Hsieh, Collins, & Levonyan-Radloff, 2011; Temple, Leigh, & Schafer, 1993), although these three studies did not examine college students specifically. The current study builds on previous research by assessing the role of drinking on both the decision to hook up with familiar or unfamiliar partners (i.e., whether they met that night or had met beforehand) and on how far the hookup progressed physically, as well as whether these outcomes differed by gender.

# **Reactions to Hooking Up**

Relatively little research has examined participants' psychological and emotional reactions to having hooked up. Therefore, another primary aim of the current study was to investigate postevent evaluations of hooking up. Recent findings indicate that college students report more positive than negative affect after hooking up (Lewis et al., 2011), although interestingly, the same study also found that students experienced a variety of emotional and social consequences following their most recent hookup, including a loss of respect for themselves (20.8%), feeling embarrassed (27.1%), emotional difficulties (24.7%), and problems with a steady partner (10.8%). More specifically, research indicates that women commonly report a range of emotional reactions such as feeling desirable, confused, or awkward (Glenn & Marquardt, 2001; Owen et al., 2010), as well as sexual regret (Eshbaugh & Gute, 2008), and are at greater risk than men for negative affect posthookup (Lewis et al., 2011; Owen & Fincham, 2011). Women also report enjoying hookups less and regretting them more than sexual interactions with a romantic partner (Fielder & Carey, 2010b). In addition, not only is alcohol use a frequently cited reason for sexual regret (Caron & Moskey, 2002; Oswalt, Cameron, & Koob, 2005) but it also appears to be more commonly present in college students' self-reported worst hookup experiences (Paul & Hayes, 2002). Although it is normative for young adults to explore and experiment with sexual intimacy (Manning, Longmore, & Giordano, 2005), it is unclear whether their reactions after hooking up are related to specific aspects of the hooking up encounter. The present study therefore examined whether feeling content with the decision to hook up varied as a function of alcohol use prior to hooking up and familiarity with hookup partners. We anticipated that alcohol use prior to hooking up, as well as hooking up with unfamiliar partners, would be associated with greater posthookup discontentment, especially among females.

# The Current Study

The current study sought to extend current research through general and event-level analyses. First, we were interested in evaluating how typical patterns of alcohol consumption were linked to a greater likelihood of hooking up. Given that risky behaviors in general tend to be positively related, along with the propensity of these specific behaviors to co-occur (Fielder & Carey, 2010b; Lindgren et al., 2009; Olmstead et al., 2012), we expected that heavier patterns of typical drinking would be related to a greater likelihood of hooking up. For each gender, this study used event-level analyses to explore associations of alcohol involvement and aspects of the hooking up experience, including partner familiarity; whether the hookup partners were also drinking; the extent of physical interaction; and retrospective reaction to the hookup. It was anticipated that hooking up would be fairly prevalent and that both general and event-specific alcohol use would be associated with an increased likelihood of hooking up. We hypothesized that drinking prior to hooking up would be associated with a higher likelihood of meeting their partners for the first time that night, their partners drinking prior to hooking up, further physical extent of hookup behaviors, and posthookup discontentment (especially among females). In addition, we expected females to report that they would not have hooked up with their partners or have gone as far if alcohol had not been involved.

Moreover, the study assessed associations between each of these categorical variables and whether participants met their partners for the first time on the night of the hookup. It was hypothesized that individuals who reported having met their partners on the night of the hookup would not only be more likely to report that their partners were also drinking alcohol prior to the hookup but also indicate that they engaged in more overtly sexual behaviors and felt less content with their decision to hook up.

Finally, we were interested in more fully capturing the extent of hooking up behavior among participants who concurrently consumed alcohol the night of the hookup and met their partners for the first time that night. We anticipated that as the amount of drinking increased, students would also progress further physically during the hookup.

#### Method

#### Participants

In the spring 2010 semester, a random sample of 1,600 undergraduate students from a private, midsized, West Coast university in the United States, stratified across class year, was invited via e-mail to participate in a brief health behavior survey. In total, 845 students (52.8% response rate) completed the online assessment, with 828 students (98.0% of responders) providing complete, nonmissing data and thus comprising the final sample used in all analyses. Participants reported a mean age of 20.08 years (SD = 1.59) and the sample was primarily female (67.0%). The racial composition of the participant pool was 58.8% Caucasian, 19.4% Latino, 6.3% Multiracial, 10.3% Asian/Pacific Islander, 5.22% African American/Black, and 0.0% Native American. According to the office of the registrar, the demographic characteristics for the student body during the semester in which the survey was conducted were as follows: 59% female, 52% Caucasian, 21% Latino, 8% Multiracial, 10% Asian/Pacific Islander, 6% African American/Black, and 3% Native American. Chisquare goodness-of-fit tests comparing sample and population characteristics showed a significant difference in gender,  $X^2(1) = 22.34$ , p < .001, and race  $X^2(5) = 37.19$ , p < .001. Participants' class years held approximately equal representation: 23.4% (n = 198) first-year students, 25% (n = 211) sophomores, 30.7% (n = 259) juniors, and 20.9% (n = 177) seniors.

#### Procedure

Participants were recruited over a two-week span using a series of three reminders sent to students' university e-mail addresses. All data were collected within three weeks. A URL to the Web-based survey was contained within the text of the e-mailed invitation. Upon clicking the link, students were directed to an informed consent form detailing the purpose of the study, confidentiality protocols, and the incentive offered. Providing electronic consent allowed participants to proceed to the online survey. The incentive for participation included eligibility to be entered into a drawing for one of ten \$100 Visa gift cards. All measures, procedures, and forms were approved by the university's institutional review board.

#### Measures

Demographics-Participants were asked to report age, gender, race, and class standing.

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Alcohol consumption—Before answering questions related to drinking behavior, a standard drink was defined as a drink containing one-half ounce of ethyl alcohol: one 12-ounce beer, one 4-ounce glass of wine, or one 1.25-ounce shot of 80-proof liquor. Pictures of standard drinks accompanied these descriptions. Weekly drinking was assessed using the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985; Dimeff, Baer, Kivlahan, & Marlatt, 1999). Participants were asked to consider a typical week in the last month and indicate "How much alcohol, on average (measured in number of drinks), did you drink on each day of a typical week?" Participants indicated the typical number of drinks they consumed on each day of the week. These were summed to create a total weekly drinks variable. The DDQ has been used in previous research exploring college student drinking and has demonstrated good convergent validity and test-retest reliability (Larimer et al., 2001; Marlatt et al., 1998).

**Hooking up**—Participants' hooking up experiences were examined using a researchergenerated questionnaire. Prior to answering any questions, the term *hooking up* was defined for participants as "engaging in behaviors ranging from kissing to sexual intercourse with someone with whom you do not have a committed relationship." Participants were first asked to choose the time period best representative of when they had last hooked up with someone (*Past week, Past month, Past three months, Past year*, and *I have not hooked up with someone within these time points*). They were then asked to consider their last hookup experience in answering all subsequent questions.

**Event-specific hooking up behavioral assessment:** First, to measure level of familiarity, participants were asked how often they had interacted with their partners prior to hooking up (*Daily, Weekly, Monthly, Less than monthly,* and *Met that night*). This variable was binary coded for use in analyses such that 0 = Interacted prior and 1 = Met that night.

Participants were then asked, "What behaviors did you engage in with your partner on that occasion?" Respondents then specified the types of intimate behaviors involved in the hookup by checking all that applied from a list provided (*Kissing, Touching above the waist, Touching below the waist, Receiving/giving oral sex, Vaginal sex*, and *Anal sex*). Because only 1.2% of participants reported engaging in anal sex during the hookup, this category was combined with vaginal sex for analytic purposes to yield a measure of penetrative sex. The behavioral assessment question was recoded to indicate the furthest level of physical activity that the person engaged in during the hookup. For example, if a participant checked both *Kissing* and *Touching below the waist*, the furthest activity was coded as *Touching below the waist*.

Finally, contentment with decision to hook up was assessed with the following question: "Looking back, how content are you with your decision to hook up with your partner that night?" Responses options were coded as *Discontent*, *Neutral*, and *Content*.

**Event-specific hooking up and alcohol involvement:** Participants responded to separate questions regarding whether they and their partners had been drinking prior to hooking up (*Yes* or *No*). If respondents indicated personal drinking prior to hooking up, they then estimated the number of drinks consumed ("How many drinks did you consume prior to

hooking up with your partner?"). Participants also reported whether they would have hooked up with their partners if alcohol had not been involved (*No, Yes*, or *I don't know*) and if they would have changed how far they went with their partners if alcohol had not been involved (*I would not have gone as far, I would not have changed my behavior*, or *I would have gone farther*).

## Results

### Analytic Strategy

Using participants in the entire sample, initial analyses determined the percentage distribution of when participants last hooked up as a function of their gender. A two-factor ANOVA then examined mean differences in total weekly drinks as a function of both their gender and the temporal interval of when they last hooked up.

The next set of analyses, which included only those participants reporting a past-year hookup, examined the extent of physical intimacy participants reported engaging in during their hookup as a function of gender. Also examined was the number of event-specific drinks consumed by those who drank alcohol prior to their hookup, assessed separately for each gender. One set of chi-square analyses determined the link between drinking immediately prior to the hookup and each of several categorical variables: whether they met their partners for the very first time on the night of the hookup, whether their partners were drinking prior to the hookup, the extent of physical interaction during the hookup, and contentment with the decision to hook up. A second set of chi-square analyses assessed associations between whether participants met their partners for the first time on the night of the hookup and each of the hookup and each of the hookup and each of the infinite partners for the first time on the night of the hookup.

Additional analyses focused exclusively on the sub-sample of participants who not only drank immediately prior to hooking up but also met their partners for the first time that night. To address hooking up characteristics of this cohort, a two-factor ANOVA evaluated mean drinks consumed prior to hooking up as a function of both participant gender and the extent of physical intimacy during the hookup.

#### **Initial Analyses**

All participants (N = 828) were used in the initial analyses. For males, options for their most recent hookup experience included past week (21.7%, n = 60), past month (15.2%, n = 42), past three months (10.9%, n = 30), past year (12.3%, n = 34), or not within these time points (39.9%, n = 110). Females also indicated the last time they had hooked up with someone, which included the options of past week (15.0%, n = 83), past month (12.3%, n = 68), past three months (10.5%, n = 58), past year (14.3%, n = 79), or not within these time points (47.8%, n = 264). A chi-square test revealed no significant proportional differences between males and females in terms of the time interval of when they last hooked up,  $X^2(4, N = 828) = 9.10$ , *ns*. Binary classification of respondents, however, into whether or not they had hooked up during any period within the past year revealed that 60.1% (n = 166) of males had hooked up within this interval but a significantly lower percentage of females (52.2%, n = 288) reported doing so during this same period,  $X^2(1, N = 828) = 4.72$ , p < .05.

In offering insight into how overall patterns of alcohol consumption may be linked to greater likelihood of hooking up, a 2 (gender) × 5 (when participants last hooked up) ANOVA was performed on total weekly drinks from the DDQ. Results are graphed in Figure 1. A significant main effect was shown for gender such that males typically consumed more total drinks per week than females, F(1, 804) = 50.81, p < .001. A significant main effect also was found for the time interval when participants had last hooked up with a partner, F(4, 804) = 42.55, p < .001, revealing that greater total weekly drinks was related to having hooked up more recently. The interaction effect between gender and last hookup event was not significant, F(4, 804) = .69, *ns*.

Further examination of responses from the DDQ measure showed that 29.2% (n = 240) of the participants did not drink at all during a typical week. Participants were also binary classified in terms of total weekly drinks (0 = Nondrinkers, 1 = Drinkers) and whether they had hooked up in the past year (0 = No, 1 = Yes), with results of the chi-square analysis showing that only 25.9% of nondrinkers hooked up but a significantly higher 65.0% of drinkers hooked up,  $X^2$  (1, N = 804), p < .001.

#### **Extent of Physical Contact and Gender**

Participants who hooked up within the past year (n = 454) were asked to provide more detailed information regarding the extent of physical intimacy during their last hookup experience. Among males, 18.3% (n = 30) reported only kissing, 9.1% (n = 15) reported touching above the waist, 25.6% (n = 42) reported touching below the waist, 17.7% (n = 29) reported giving/receiving oral sex, and 29.3% (n = 48) reported engaging in vaginal/anal sex. Among females, 34.7% (n = 99) reported only kissing, 11.2% (n = 32) reported touching above the waist, 16.8% (n = 48) reported touching below the waist, 8.8% (n = 25) reported giving/receiving oral sex, and 28.4% (n = 81) reported engaging in vaginal/anal sex. A chi-square test revealed a significant difference between males and females on extent of physical intimacy during the hookup event,  $X^2(4, N = 448) = 21.47, p < .001$ . Furthermore, tests of independent proportions, as a function of gender, for each of the hooking up behaviors provided clarification that a significantly greater proportion of females than males progressed only as far as kissing, whereas a significantly greater proportion of sex.

#### Associations with Drinking Prior to Hooking Up

Continuing with the investigation of participants who had hooked up within the past year (n = 454), analyses evaluated whether this sample was drinking immediately prior to the hookup, and if so, the average number of these event-specific drinks they consumed. Among the 67.5% (n = 112) of males who drank prior to hooking up, they averaged 6.67 (SD = 2.84) drinks. Among the 64.9% (n = 187) of females who drank prior to hooking up, they averaged 4.82 (SD = 2.10) drinks. Chi-square tests involving whether participants were drinking prior to the hookup and each of the other categorical variables are presented in Table 1. As shown for both males and females, drinking alcohol prior to hooking up was associated with a significantly greater likelihood of having met their partners for the first time that night. Also regardless of gender, if participants were consuming alcohol prior to

hooking up, their partners correspondingly were more likely to have been drinking as well. The extent of male participants' physical contact during the hookup did not differ significantly as a function of whether they were drinking, but female participants' hookups tended to be less physical (i.e., kissing) when they were drinking. For males, having consumed alcohol prior to the hookup was not significantly related to the level of contentment with their hookup decision, but females who consumed alcohol beforehand tended to be less inclined to feel content with their hookup encounter. An additional analysis indicated that even among respondents (n = 147) who had not been drinking prior to hooking up, 68.7% (n = 101) of them typically consumed at least one alcoholic beverage or more per week (as assessed with the DDQ).

To better understand retrospective reactions to the role of alcohol on hooking up, only participants who indicated that they had been drinking prior to hooking up (n = 300) were asked, "Had alcohol not been involved, do you still think you would have hooked up with your partner?" Among females who were drinking prior to their hookup (65.3%; n = 188), 30.7% replied *No*, 42.9% replied *Yes*, and 26.5% stated *I don't know*. Among males who were drinking prior to the last hookup (66.9%; n = 111), 27.9% replied *No*, 50.5% replied *Yes*, and 21.6% stated *I don't know*. No significant difference emerged on this item between males and females,  $X^2(2, N = 299) = 1.66$ , *ns*.

The same participants were also asked, "Had alcohol not been involved, would you have changed how far you were willing to go physically?" Among females, 34.4% *Would not have gone as far*, 64.6% *Would not have changed my behavior*, and 1.1% *Would have gone farther*. Among males, 27.9% *Would not have gone as far*, 61.3% *Would not have changed my behavior*, and 10.8% *Would have gone farther*. A significantly greater proportion of females than males reported that they would not have gone as far, but males were more likely than females to indicate that they would have gone further,  $X^2(2, N = 300) = 15.26$ , p < .001.

#### Associations with Familiarity of Partners

To offer a more thorough evaluation of the cohort of respondents (n = 454) who had hooked up within the past year, additional chi-square tests determined associations involving whether they met their hookup partners for the first time that night and other categorical variables. Results are summarized in Table 2. Regardless of gender, meeting their hookup partners for the first time that night was significantly related to their partners having consumed alcohol beforehand. Among males who did not meet their partners for the first time that night, the furthest physical extent of vaginal/anal sex was the most common response; but if they met their hookup partners that night, the furthest extent of touching below the waist was most common. The most endorsed response of furthest physical contact for females was vaginal/anal sex, but the most endorsed response for females who met their partners for the first time that night was kissing. For males, no significant connection emerged between whether they met their partners for the first time that night and contentment with the decision to hookup. Females who met their partners that night, however, were less likely than those more familiar with their partners to feel content with their hookup decision.

# Analyses Examining Participants Who Consumed Alcohol the Night of the Hookup and

Met Their Partners for the First Time

For the purpose of investigating the subsample of respondents who concurrently consumed alcohol the night of the hookup and met their partners for the first time that night (females, n = 57; males, n = 40), a 2 (gender) × 5 (extent of hookup) ANOVA was performed. This analysis was used to determine group mean differences on the open-ended question of how many event-specific drinks these participants consumed prior to the hookup. Results are illustrated in Figure 2. No main effect was found for gender, F(1, 87) = 1.32, *ns*. The main effect for extent of physical contact was significant, revealing that the physicality of the hooking up encounter corresponded generally with an increase in drinks consumed prior to the hookup, F(1, 87) = 2.64, p < .05. No significant interaction between these two factors emerged, F(4, 87) = .81, *ns*.

# Discussion

The current event-level study advances the emerging research on hooking up among college students by exploring variables associated with students' most recent hookup encounters. Overall, two-thirds of participants reported drinking prior to their most recent hookup event and nearly one-quarter hooked up with partners they had met that night. Consistent with prior research highlighting the prominent role that alcohol appears to play in the likelihood of hooking up (Fielder & Carey, 2010b; Olmstead et al., 2012), total weekly drinking was associated with more recent engagement in hooking up. Moreover, this study responds to the call for detailed exploration of the role that alcohol plays in normative sexual behaviors (Bersamin et al., 2011; Lindgren et al., 2009) by further examining the relationships between prehookup drinking and both partner type and hookup behaviors. Drinking prior to hookup events, for example, was associated with hooking up with unfamiliar partners: 36.0% of males and 30.2% of females reporting drinking prior to hookups (compared to only 9.4% of males and 5.1% of females not drinking prior to hookups) met their partners on the night of the hookup event. Regardless of gender, prehookup drinking was mutual; when one partner was drinking, the other was also highly likely to be drinking. Taken together, the current findings support the notion that collegiate drinking contexts do indeed promote/help facilitate hookup encounters with unfamiliar partners who are likely under the influence of alcohol.

## Prehookup Drinking, Partner Familiarity, and Extent of Hookup Behaviors

Both males and females who had been drinking prior to the hookup were also more likely to report having met their partners that night, which aligns with previous findings that college students often perceive alcohol as both facilitating and even motivating sexual interaction (Fielder & Carey, 2010b; Glenn & Marquardt, 2001; Lindgren et al., 2009). However, females who consumed alcohol prior to hooking up engaged in less serious physical behaviors during the hookup (e.g., kissing versus penetrative sex) than when they were not drinking. Interestingly, this contradicts previous findings that in general young adult samples, alcohol consumption is associated with greater likelihood of having sex with casual partners for both men and women (Leigh & Schafer, 1993; Parks et al., 2011; Temple et al., 1993). The gender differences in the current results may be reflective of women desiring

more intimacy; that is, if they know their partners better (did not meet that night) then they may feel more comfortable and emotionally connected to the partners, and therefore willing to go further. Importantly, however, supplemental analyses restricted to participants reporting *both* prehookup drinking and hooking up with unfamiliar partners revealed an overall trend in which total drinks consumed that night was related to more advanced hookup behaviors for both men and women. Although the current study did not assess the number of hours over which these drinks were consumed, it seems likely that participants were under the influence during their hookups. This novel finding extends current hookup-based research by highlighting how hookup behavioral patterns may change in the presence of alcohol and, more specifically, with unfamiliar partners. This finding also raises the important question of whether participants were able to fully consent to hooking up behavior if under the influence of alcohol, especially when hooking up with unfamiliar partners.

#### **Posthookup Evaluations**

The present study also extends the scarce research examining posthookup evaluations by exploring level of contentment as a function of both drinking behaviors and partner familiarity. Results illustrate that females, but not males, tended to be significantly less content with hookup events when either alcohol or unfamiliar partners whom they had met for the first time that night were involved. These findings are consistent with previous research highlighting the salience of alcohol in experiencing sexual regret (Oswalt et al., 2005), as well as previous findings that women are less likely to enjoy hookups than sexual interactions with romantic partners (Fielder & Carey, 2010b). Further, in the current study, twice as many female participants felt discontent with their decision to hook up when they drank (as opposed to those who did not drink) prior to the encounter, and nearly twice as many females felt discontent when hookup partners were unfamiliar (as opposed to familiar). In fact, less than half of women hooking up in contexts involving prior drinking, and only about one-third of women hooking up with unfamiliar partners, were content with their decision to hook up. Strikingly, among participants drinking prior to hooking up, only 42.9% of females and 50.5% of males responded affirmatively when asked if they would still have hooked up with their partners had alcohol not been involved. Due to the phrasing of the question, however, it cannot be confirmed that participants were referring to their own alcohol use when queried about their decision to hook up if alcohol had not been involved. Making this distinction would be advantageous for future research to explore, as the ambiguity of the current item may belie important implications for risks associated with drinking and hooking up. Hookup contexts involving alcohol and/or unfamiliar partners increase the likelihood for sexual coercion and decrease the capacity to reject sexual advances, both of which heighten the risk for regrettable sexual encounters (Flack et. al, 2007; Oswalt et al., 2005). It is of note that in the current study males reported consuming an average of 6.7 drinks and women consumed an average of 4.8 drinks prior to hooking up, both of which fall within the values designated as heavy episodic drinking (defined as four or more drinks for women and five or more drinks for men on a drinking occasion), a wellestablished marker for risk (Weitzman & Nelson, 2004).

Although the current study did not assess pre-event intentions, when interpreted in light of consistent prior findings that students perceive drinking and hooking up as intertwined and

even seek out drinking scenarios in order to hook up (Abbey, McAuslan, Ross, & Zawacki, 1999; Lindgren et al., 2009), the present results indicate a potential contradiction between prehookup expectations and posthookup realities in campus drinking cultures. In fact, despite the high occurrence of hooking up, these findings highlight significant negative posthookup appraisals, especially among women, and shed light on why women may be susceptible to adverse psychosocial outcomes (e.g., regret, disappointment, shame, confusion, depressive symptomatology) following casual sexual encounters (Eshbaugh & Gute, 2008; Grello, Welsh, & Harper, 2006; Owen et al., 2010; Paul & Hayes, 2002). Lack of relational intimacy and/or engagement in unintended sexual behaviors may be especially distressing for some women who, despite the very noncommittal nature of hooking up, may be seeking to fulfill needs for intimacy and connection (Eshbaugh & Gute, 2008; Stepp, 2007) or who confront social reprobation due to a sexual double standard that discredits women (but rewards men) for casual sexual behavior (for review, see Crawford & Popp, 2003).

#### Implications

The results of the current study hold considerable implications for campus programming efforts aimed at enhancing the health and well-being of college students. Including anecdotal or normative information about students' postevent evaluations of their hookup experiences and associated psychoemotional consequences may assist incoming students in making better informed choices around their sexual behavior. Marketing campaigns using posters to challenge expectancies could reflect university-specific social norms regarding hooking up experiences (e.g., "More than half of X University women report that they would not have hooked up with their partners if alcohol was not involved" or "X University women were twice as likely to feel discontent with their decision to hook up if they had been drinking").

Further, messaging targeted to naturalistic drinking contexts, such as bars or fraternities, may be particularly beneficial. Alcohol myopia theory (AMT; Steele & Josephs, 1990) may shed some light on students' cognitive functioning in these common drinking contexts by positing that intoxicated individuals tend to focus on immediate cues (e.g., sexual desire, opportunity) even at the expense of potential risks associated with sexual activity with unfamiliar partners (e.g., later regrets, sexually transmitted infections, sexual assault) (Cooper, 2002; Corbin, Bernat, Calhoun, McNair, & Seals, 2001; Dermen & Cooper, 2000). Especially in sexually charged settings (Abbey, Saenz, & Buck, 2005; Cooper, 2002), intoxicated students may engage in atypical and risky sexual behaviors (e.g., drinking and hooking up with a stranger and going further than if drinking was not involved). Thus, visible messaging (e.g., posters) may diffuse alcohol's myopic effects by providing salient cues that highlight behavioral risks and lead to safer-sex intentions (MacDonald, Fong, Zanna, & Martineau, 2000).

Resources geared toward creating or extending support structures for students as they navigate the collegiate hookup culture may also be beneficial. For example, a hooking up component could be easily incorporated into alcohol-related preemptive harm reduction interventions that college administrators may already be employing. Such initiatives may be especially valuable when offered within the first-year orientation setting, when incoming

students may have positive preconceived hookup-related expectancies but may not yet have been exposed to some of the negative hookup outcomes. Incoming students may benefit from informational sessions that review not only the risks associated with combining drinking and hooking up contexts but the legal and moral importance of providing/gaining explicit (not intoxicated) sexual consent in these situations.

Although the current results indicate that both males and females would likely benefit from such initiatives, given that females appear to be at greater risk for encountering negative consequences of hooking up, targeting high-risk women-only groups such as incoming first-year females and sororities might be particularly valuable. Interventions should educate students about the potential risks of having strongly positive sex-related expectancies and challenge the misconception (especially for women) that college drinking environments provide a safe place to explore sexual opportunities. Similar to previous efficacious female-specific alcohol harm-reduction interventions (e.g., Clinton-Sherrod, Morgan-Lopez, Brown, McMillen, & Cowells, 2011; LaBrie et al., 2008, 2009), these targeted initiatives may benefit from including discussion components in which women share their personal reasons for hooking up as well as associated challenges and risks they face in collegiate hooking up contexts. In addition, facilitators may encourage students to discuss broader issues, for instance, how hookup cultures may align or conflict with young women's developmental needs (e.g., sexual identity, empowerment, relational fulfillment).

Finally, psychological support structures should be made available for those women who experience psychological or physical consequences following hookup encounters. Although the current study is limited in its exploration of psychological risks, the relatively low percentages of both contentment with the hookup and affirmative responses when asked if students would still have hooked up with their partners had alcohol not been involved confirm previous research showing that such risks exist (e.g., Lewis et al., 2011). Additional research is needed to shed further light on what psychological risks are conferred, particularly as coping with these negative feelings may be especially difficult for women embedded in environments in which hooking up is accepted, if not glorified.

#### **Limitations and Future Directions**

Although the current study extends extant research on the culture of hooking up in college, it is not without limitations that provide important directions for future research. First, while the use of event-level data allowed for detailed evaluations of the study's primary aims, the data were drawn from a cross-sectional survey using primarily categorical data and nonparametric tests, and thus causal inferences may not be unambiguously established. For example, it is possible that alcohol acts as an excuse, enabling students to blame alcohol for their sexual behaviors (Fielder & Carey, 2010b; Glenn & Marquardt, 2001; Lindgren et al., 2009). Future research would benefit from longitudinal assessments and the use of more advanced multivariate approaches to verify causality and obtain a better understanding of how alcohol use contributes to behavioral decisions concerning hooking up.

Second, although the survey provided a generally agreed-upon definition of hooking up from the research literature, the questions were researcher generated. Despite the good face validity of these questions and considering the dearth of established hooking up measures,

future research would benefit from cross-validating the findings obtained from using our measures and the creation of psychometrically validated instruments for assessment. Third, the study was primarily concerned with exploring the noted interpersonal relationships within the past year and was therefore unable to address two other meaningful aspects of hooking up: lifetime prevalence rates and age of initiation.

A fourth limitation of the study was the lack of information about familiar hooking up partners. How, for example, do participants who have friends with benefits (regular hookup partners) or strong emotional connections with their hookup partners (committed relationships excluded) differ from first-time hookups with familiar (as opposed to unfamiliar) partners? Understanding the nuances of hooking up with more familiar partners could help practitioners better tailor programming dedicated to promoting healthy sexual identity formation while reducing sexual risk. On a related note, it would also be advantageous for future research to assess how an individual's overall sexual experience (i.e., lifetime and recent number of sexual partners) and sexual orientation relates to how often the student reports hooking up, with whom, and how far the hookup progresses physically.

Next, while the study did assess posthookup evaluations and regret, it stopped short of exploring other mental, emotional, and physical health outcomes related to hooking up. It is possible that hooking up confers distinct health risks compared to other types of sexual activity. For example, it would be of interest to draw comparisons between condom use while hooking up and condom use while engaging in other forms of casual sexual behavior, especially when alcohol is involved. Although there is evidence to suggest that among general adult populations (Leigh, 1993; Parks et al., 2011) and college students (Cooper, 2002; Lewis et al., 2011), alcohol use is not independently associated with decreased condom use, other event-level research focusing on college men has found that alcohol use is indeed related to decreased condom use, especially in sexual events involving casual partners (LaBrie et al., 2005). These somewhat divergent findings, combined with college students' low rates of consistent condom use during sexual intercourse (Certain, Harahan, Saewyc, & Fleming, 2009), indicate that for some students hooking up while under the influence of alcohol may be associated with increased risk. Condom use does not only hold implications for physical risks such as sexually transmitted infections but also may be related to posthookup evaluations of regret. More fully understanding the nature of these relationships is an important focus area for future research. In addition to exploring healthrisk factors pertaining to hooking up, its increasing prevalence on college campuses indicates that it is also associated with positive outcomes. What are the instances in which the perceived benefits (e.g., feelings of attractiveness, increased interpersonal connections or social status, feelings of autonomy, acquiring sexual experience) outweigh the risks, and how are they justified?

#### Conclusion

The current findings not only corroborate that hooking up is a normative behavior closely tied to drinking cultures on college campuses but suggest that, despite its normative role, hooking up in the collegiate context may carry risks as well. Particularly for women, the

intersection of drinking and hookup cultures may heighten physical and psychological risks, especially when encounters are spontaneous, partners unknown, and relational expectations minimal. Using event-level data, these findings assess hookup-specific sexual behaviors and contentment as a function of two hookup-related risk factors: drinking prior to hooking up and hooking up with unfamiliar partners (i.e., met the night of the hookup). Among respondents reporting drinking prior to hooking up (66.4%), one-third hooked up with unfamiliar partners on their most recent hookup event. The combination of alcohol and unfamiliar partners was associated with engaging in advanced sexual behaviors as well as greater levels of retrospective discontentment and regret. Overall, findings present a depiction of a collegiate hookup culture that appears to pose considerable risk for sexual and emotional consequences, and one that necessitates increased harm-reduction efforts.

### Acknowledgments

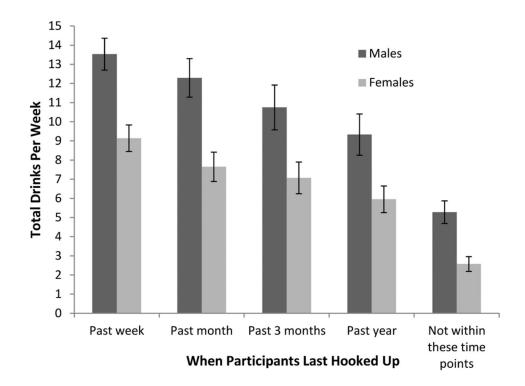
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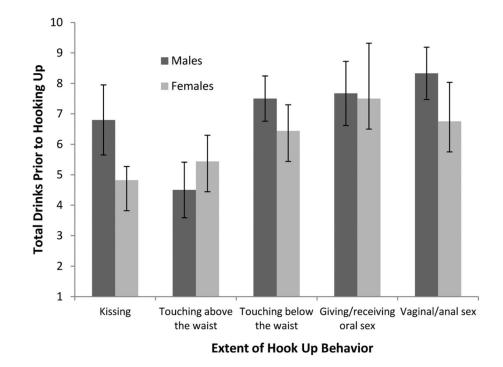
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#### Figure 1.

Mean differences in total drinks per week as a function of gender and when participants last hooked up (all participants). Standard errors around the means are presented.



#### Figure 2.

Mean differences in drinks prior to hookup as a function of gender and extent of hookup for participants who consumed alcohol prior to hooking up and met their partners for the first time that night. Standard errors around the means are presented.

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Table 1

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Chi-Square Tests Involving Drinking Prior to Hooking Up and Categorical Variables, by Gender

J Sex Res. Author manuscript; available in PMC 2014 November 05.

Note. These participants indicated they had hooked up within the past year. Within each gender, percentages in same column for a variable sum to 100%.

 $14.05^{***}$ 

46 53 89

24.5% 28.2% 47.3%

12 17 69

12.2% 17.3%

70.4%

22

69

62.2%

37

69.8%

20

18.0% 19.8%

10 6

11.3% 18.9%

13

43

12.2% 38.8%

1.36

32

30 19 28

19

 $\frac{12}{2}$ 

21

19.1% 10.9% 27.3% 17.3% 25.5%

9 8 12

17.0% 5.7% 22.6% 18.9% 35.8%

23

 $\dot{\tau}_{p < .06.}$ 

*p* < .05.

\*

p < .01.

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

Pearson X<sup>2</sup>

u

z

%

Pearson X<sup>2</sup>

u

Ľ

Yes %

°N %

12.75\*\*\*

Yes %

ů

Drinking prior to hooking up

Drinking prior to hooking up

Males

Females

24.25<sup>\*\*\*</sup>

132 57

69.8% 30.2%

94 5

94.9% 5.1%  $188.58^{***}$ 

14 175

7.4% 92.6%

11 88

88.9% 11.1%

~

6.3%

3 3

94.3% 5.7%

105

93.8%

 $123.46^{***}$ 

40

Ś

71

64.0% 36.0%

48

90.6% 9.4%  $13.73^{**}$ 

76

40.6% 12.3% 17.1% 7.0% 23.0%

23 9 116 12 38 38

23.5% 9.2% 16.3%

2.85

Table 2

Chi-Square Tests between Met for the First Time That Night and Categorical Variables by Gender

Met for first time that nig     No   Yes     %   n   %     %   n   %     king up    %   %     44.2%   53   8.9%     55.8%   67   91.1%     or   21.0%   25   11.1%     5.9%   7   17.8%		for first ti No	Met for first time that night No Yes	빏ㅣ	
No   Yes     % n   % n     % n   % n     9% n   % n     44.2% 53   8.9% 4     55.8% 67   91.1% 41     21.0% 25   11.1% 5     5.9% 7   17.8% 8		No	Yes	Ι	
%   n   %   n     44.2%   53   8.9%   4     55.8%   67   91.1%   41     21.0%   25   11.1%   5     5.9%   7   17.8%   8					
44.2% 53 8.9% 4 55.8% 67 91.1% 41 21.0% 25 11.1% 5 5.9% 7 17.8% 8	01***	u	%	<i>n</i> Pe	Pearson X <sup>2</sup>
44.2% 53 8.9% 4   55.8% 67 91.1% 41   21.0% 25 11.1% 5   5.9% 7 17.8% 8				5	22.88 <sup>***</sup>
55.8% 67 91.1% 41 21.0% 25 11.1% 5 5.9% 7 17.8% 8	42.5%	% 96	9.7%	9	
21.0% 25 11.1% 5 5.9% 7 17.8% 8	57.5%	% 130	90.3%	56	
21.0% 25 11.1% g above the waist 5.9% 7 17.8%	.46†			2	27.33***
5.9% 7 17.8%	28.7%	% 64	56.5%	35	
	9.6%	6 22	16.1%	10	
I ouching below the waist 22.1% 21 33.3% 12	17.0%	% 38	16.1%	10	
Giving/receiving oral sex 18.5% 22 15.6% 7	9.6%	6 22	4.8%	3	
Vaginal/anal sex 31.9% 38 22.2% 10	34.5%	77 %	6.5%	4	
Contentment with decision 2.17	2.17			1	$14.66^{***}$
Discontent 15.8% 19 15.6% 7	17.4%	% 39	30.6%	19	
Neither 16.7% 20 26.7% 12	21.4%	% 48	35.5%	22	
	100 10	LC1	32 00/	10	

ble sum to 100%.

p < .05.p < .01.p < .001.p < .001.