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Talk About "Hooking Up": The Influence of College Student Social Networks on Nonrelationship Sex

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This research considers how communication within college student social networks may encourage high-risk sexual relationships. Students ($n = 274$) described sexual scripts for *hooking up* and reported on peer communication, sexual behavior, and sexual attitudes. Students described varied hookup scripts, expressed ambivalent attitudes, and reported moderate participation in hookups overall. However, the most common hookup script, suggesting high-risk sexual activity (i.e., unplanned, inebriated sex), was featured in most accounts of students who themselves participated in hookups. Students overestimated how often others were hooking up, and these estimates were especially inflated by students who frequently talked about hooking up with friends. Among students with strong ties to peers, frequent peer communication about sex predicted participation in hookups and favorable attitudes about hooking up. Peer approval also predicted hookup behavior and attitudes.

The intimate relationships of young individuals have continued to evolve since the sexual revolution in the mid-1960s (Bogle, 2008). Contemporary norms on North American college campuses are partly reflected in the phenomenon of *hooking up*, which has been the subject of much recent commentary and research. *Hooking up* is a phrase used to describe intimate interactions outside of dating or exclusive relationships. While sexual experimentation in late adolescence is hardly unique to the current period, Bogle (2008) suggests that contemporary student culture normalizes and encourages sex outside of romantic relationships. This cultural trend poses health concerns given the way hookups are conceived and enacted. College students describe hookups as spontaneous sexual encounters fueled by alcohol that usually unfold without communication about sexual health and consent or protection against sexually transmitted infections (STIs) (Downing-Matibag & Geisinger, 2009; Paul & Hayes, 2002). Thus, the sexual script for hookups (at least one common script version) poses high risks for STIs and sexual coercion.

Building on the idea that hooking up is a reflection of student culture, we analyze communication about sexual experiences within social and peer networks. Although we reject the notion that there are uniform college sexual norms (i.e., a singular "hooking up culture"), it is plausible that some peer subcultures sanction risky sexual relationships. We approach this idea in two ways. First, the research examines personal definitions and sexual scripts for hooking up to assess consensus among students about the meaning of hookups, identify common elements of hookup scripts, and determine whether student subgroups provide different scripts. Second, the research considers how characteristics of student networks predict sexual behavior and attitudes.

RATIONALE

Sexual Intimacy in the Contemporary College Scene

Bogle (2008) argues that, from the 1960s on, there has been a shift from dating as the dominant model of courtship among

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traditional-age college students, toward one that normalizes spontaneous sexual encounters in uncommitted relationships (*hooking up*). Although the route to marriage is now so diverse that young people lack a concrete definition of the path (Bogle, 2007), the average age of individuals at first marriage (25 years for females, 27 years for males) has risen to the point that it is past the time most people attend college (Bianchi & Casper, 2000). Thus, students may no longer view college as a place to meet future partners but rather as a time to have fun in noncommitted relationships. In Bogle's (2008) study, she found that many college students saw college as a time to *party* or to *let loose* (p. 51). Although some individuals maintain exclusive relationships throughout college, others shy away from commitments that interfere with this *having-fun* mentality (Bogle, 2008).

Recent studies confirm that sexual hookups are common but not necessarily the dominant model of sexual intimacy among college students. While 70–80% of college students in some samples reported sexual hookups (Paul & Hayes, 2002; Paul, McManus, & Hayes, 2000), other studies found moderate participation, with 40–55% of college students reporting hookups (Glenn & Marquardt, 2001, Grello, Welsh, & Harper, 2006; Owen, Rhoades, Stanley, & Fincham, 2010). Moreover, student accounts reveal significant variation in hookup experiences and goals (Epstein, Calzo, Smiler, & Ward, 2009; Paul & Hayes, 2002). Potentially, this points to the importance of peer subculture over campus-wide culture as a reference for student sexual norms.

Hookup Scripts

Irrespective of how many students engage in hookups, casual observation suggests that hookups are a common topic of conversation on the college campus. One function of such conversation is to foster shared *sexual scripts*. Sexual script theory suggests that sexual episodes are influenced by standard expectancies and practices that identify the content, sequence, and boundaries for the sexual act (see Metts & Spitzberg, 1996; Simon & Gagnon, 1984). Hookups, along with the related phenomenon, *friends with benefits* (Hughes, Morrison, & Asada, 2005), reflect recent alternatives to the traditional dating script. Although college students stress the spontaneous nature of hookups (Downing-Matibag & Geisinger, 2009), they may nonetheless evoke a hookup script as an interpretive filter that clarifies meaning (e.g., whether the episode represents recreational or relationship sex), guides sexual improvisation, and explains and justifies action (Metts & Spitzberg, 1996; Simon & Gagnon, 1984). Scripts may also foster misunderstanding, pressure, or coercion when partners operate from different scripts (Metts & Spitzberg, 1996).

According to research by Paul and Hayes (2002), the typical script for hookups involves parties where interactions with potential partners are facilitated by alcohol. In most accounts, the individuals feel aroused or excited during the hookup but have varied emotions afterward; they do not use protection; they do not talk about what is happening during the hookup but talk about it later with friends; and the hookup ends when one person leaves (Paul & Hayes, 2002). However, in contrast to the precisely ordered patterns of the first-date script (Morr Serewicz & Gale, 2008), many aspects of the hookup script are open-ended. For example, the sexual acts that constitute a hookup are ambiguous, perhaps strategically so. As Glenn and Marquardt (2001) observe, "To say 'we hooked up' could mean a couple kissed, or had sex, or had oral sex, but no one will know for sure" (p. 5). Since the phrase may be used to reveal a sexual encounter while concealing details, it serves as a vehicle for disclosure with less risk of disapproval (Glenn & Marquardt, 2001). Hookups are also ambiguous with respect to the relationship between partners. Although some authors define hookups as sex without commitment (Glenn & Marquardt, 2001) involving strangers or acquaintances (Paul et al., 2000), other studies reveal diversity in the kinds of relationships referenced by the phrase. For example, a hookup could be more than a "one night stand," as some students report hooking up multiple times with the same person, the two people involved could be friends, and participants may want something further from the relationship (Bogle, 2008; Epstein et al., 2009; Grello et al., 2006).

Behaving spontaneously seems to be a central feature of hookup scripts. About half of students interviewed by Downing-Matibag and Geisinger (2009) referred to a sense of being "swept away" by spontaneity (as in, "it just happened") to explain why a hookup went as far as it did. Further, alcohol is omnipresent in accounts of hookups (Grello et al., 2006; Littleton, Tabernik, Canales, & Backstrom, 2009; Paul & Hayes, 2002), and intoxication is used to explain and justify spontaneous sex (Downing-Matibag & Geisinger, 2009; Vander Ven & Beck, 2010).

Although we do not wish to problematize all nonrelationship sex, the typical hookup script—involving spontaneous sex, impaired judgment, and little direct communication with partners—is a paradigm of risky sexual behavior. There is little in the script to suggest planning or negotiation to ensure safe and consensual sex. In fact, only a small percentage of students feel consistently prepared for sexual hookups (Downing-Matibag & Geisinger, 2009). Hookups often result in unprotected sex because prophylactics against sexually transmitted infections (STIs) are not available, individuals experience disinhibition from alcohol or arousal, or they feel a loss of control and yield to pressure (Downing-Matibag & Geisinger, 2009). Thus, hookups may place students at high risk for contracting and spreading STIs, which continue to be "hidden epidemics" among young adults despite decades of publicity and health campaigns (CDC, 2009).

Hookups also pose risks of sexual coercion. College women are at greater risk for sexual assault than women

outside the college population, with one in four women experiencing sexual assault during their time attending college (Fisher, Cullen, & Turner, 2000). More generally, individuals experience frequent instances of unwanted or *nonagentic* sex in hookup situations (Crown & Roberts, 2007), which do not necessarily involve physical force but may result from verbal coercion, emotional manipulation, or other pressure (O'Dougherty Wright, Norton, & Matusek, 2010). One study (Flack et al., 2007) found that 78% of unwanted sex reported by college students occurred during a hookup. Hookups commonly result in shame, regret, rumination, and other forms of psychological distress, especially among women (Eshbaugh & Gute, 2008; Fielder & Carey, 2010; Flack et al., 2007). Again, intoxication figures prominently in accounts of unwanted sex and "bad hookups" (Flack et al., 2007; Littleton et al., 2009; Paul & Hayes, 2002).

Although sexual scripts help define and influence sexual episodes, they do not dictate behavior, as individuals select, interpret, and negotiate alternative scripts, especially when cultural scripts are ambiguous (Simon & Gagnon, 1984). To further explore the range of meanings and scripts associated with *hooking up*, our research examines students' personal definitions and accounts of hookups. We evaluate the extent to which there is a dominant script and identify common characteristics, particularly as these relate to sexual risk and peer influence. Potentially, particular types of students might provide different scripts as a reflection of sexual experiences and goals. For example, females may regard hookups differently than males, as suggested by Bogle's interviews. Further, unattached students who engage in hookups might reflect a distinctive student subculture. Thus, we pose the following research questions:

RQ1: How do college students define a hookup?
RQ2: What characteristics are reflected in hookup scripts?
RQ3: Do hookup scripts differ according to student attributes (gender, relationship status, sexual activity)?

When sexual scripts are ambiguous, as seems true for hookups, a greater burden falls to the couple and their network to interpret the script (Metts & Spitzberg, 1996). Peer communication seems especially important, since young adults rely heavily on friends for sexual information (Heisler, 2005) and appear to talk with friends about hookups much more than with sexual partners (Paul & Hayes, 2002). We now consider these network influences.

Network Influence

Although peer influence is known to contribute to health risk behavior by young adults and adolescents (e.g., Dorsey, Scherer, & Real, 1999), social networks may also discourage risk-taking (Heaney & Israel, 1995). Whether student peer networks encourage or discourage risky behavior likely reflects norms within the campus culture. However, the general student culture may contain distinct subgroups. For example, Dorsey et al. (1999) found greater drinking to excess and more talk about drinking among students who were members of Greek organizations. Further, student drinking behavior is more strongly related to the norms of close friends versus the general student body (Campo et al., 2003). Such findings point to the importance of localized norms within peer networks.

Our research follows Dorsey et al. (1999) in focusing on three characteristics of college student networks that may affect health risk behavior: the *frequency of communication* with others about the behavior, the *range* of contacts reflected in these conversations, and the *closeness* of network ties.[1] In addition to these structural characteristics of networks, we consider peer *approval* of hookups, as this likely reflects the content of conversations (i.e., whether messages encourage or discourage hookups).

Some research suggests that frequent communication with peers about risk behavior can sanction the behavior. Dorsey et al. (1999) and Real and Rimal (2007) found an association between peer communication about alcohol and student alcohol consumption, even after controlling for other factors that affect drinking. These results suggest, by extension, that frequent conversation about hookups might encourage the behavior.

Lapinski and Rimal (2005) discuss two ways that frequent communication about risk behavior can encourage the behavior. First, communication can promote misperception of descriptive norms for the prevalence of risk behavior. Students commonly overestimate descriptive norms for how comfortable others are with hooking up and engaging in other health risk behavior (Hines, Saris, & Throckmorton-Belzer, 2002; Lambert, Kahn, & Apple, 2003). Lapinski and Rimal (2005) suggest that talking about such behavior contributes to overestimation of its occurrence, in much the same way that media exposure cultivates misperception of the real world occurrence of media-depicted events (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002). Indeed, Real and Rimal (2007) found that students who had frequent conversations about drinking gave higher estimates of alcohol consumption by others.

Second, communication is the conduit through which injunctive norms (beliefs about what ought to be done) influence behavior (Lapinski & Rimal, 2005). If talk among students mostly portrays hookups in a positive or neutral light (as suggested by the "having fun" and "party" mentality noted by Bogle, 2008), then frequent communication about the topic should support the belief that hookups are sanctioned by peers. Thus, our first two hypotheses are:

[1]Dorsey et al. (1999) were concerned with the cohesiveness of students networks in the sense of interconnectedness of network ties (i.e., the extent to which there are direct ties between various members), whereas we are concerned with psychological closeness between an individual and student peers.

H1: More frequent peer communication about nonrelationship sex is associated with greater participation in sexual hookups.

H2: More frequent peer communication about nonrelationship sex is associated with more favorable attitudes toward sexual hookups.

Network *range* refers to the diversity of individuals with whom one interacts (Burt, 1983). For example, a student network might include friends, family, professors, and so forth. Theoretically, when an individual's network has restricted range, the network exerts a stronger influence due to a lack of diversity in sources of information and opinion (Burt, 1983). Thus, a student who only talks with campus peers about sexual matters should mirror the student culture more closely than someone with more diverse contacts. Although young adults and adolescents typically rely on friends as their main source of sexual information (Heisler, 2005), those who talk with parents about sex tend to engage in less risky sexual practices (Booth-Butterfield & Sidelinger, 1998; Guzmán et al., 2003). Sexual communication with family and others outside the student culture should expose individuals to more diverse information and sexual norms. Based on similar reasoning, Dorsey et al. (1999) predicted that student network range would have a negative association with drinking to excess. Surprisingly, they found the opposite: Students who talked about drinking with more diverse contacts reported *greater* drinking to excess. Since the impact of range in the context of student networks is not clear, we raise it as a question:

RQ4: Is network range associated with participation in and attitudes toward sexual hookups?

In general, we assume that student sexual attitudes and behavior tend to mirror injunctive norms of peers networks. Related studies have found, for example, that peer approval predicts intentions to engage in casual sex (Herold, Maticka-Tyndale, & Mewhinney, 1998) and continuation of friends-with-benefits relationships (Hughes et al., 2005). However, we expect closeness to peers to moderate the strength of this association. Logically, group standards should exert greater influence among those closely connected to peers. This observation reflects the network principle that strong ties exert greater influence over behavior than weak ties (Granovetter, 1973). This is essentially what Manning, Longmore, and Giordano (2005) reported in their study of adolescent sexual behavior. That is, peer approval was associated with nonromantic sex among teens; however, peer approval had a greater effect for teens who felt more warmly toward peers.[2] Thus, we pose these hypotheses:

H3: Perceived peer approval is associated with participation in sexual hookups.

H4: Perceived peer approval is associated with favorable attitudes toward sexual hookups.

H5: Peer closeness moderates the relationship between peer approval and participation in sexual hookups.

H6: Peer closeness moderates the relationship between peer approval and attitudes toward sexual hookups.

Finally, if peers disapprove of hookups, then frequent conversations might have opposite effects from those specified in *H1* and *H2*, as communication could discourage participation in hookups. Since this possibility is speculative, we pose it as a question:

RQ5: Does peer approval moderate the relationship of peer communication to hookup participation and attitudes?

METHODS

Participants

Participants ($n = 274$) were recruited from an introductory communication course at a public university in the northwestern United States. The course fulfills a core general education requirement and is taken by a wide cross section of majors. The participants were, on average, 20.39 years old ($SD = 2.88$), evenly divided between males (49.6%) and females (50.4%), and mostly underclassmen (51% freshmen, 26% sophomores, 15% juniors, 6% seniors, and 3% "other"). The study was conducted in the second semester of the academic year when there are few new admissions, so it can be assumed that the vast majority of students had been at the university at least one semester. The sample was predominantly Caucasian (89%), with 5% Asian, and under 2% in several other ethnic groups. Ninety-seven percent reported heterosexual orientation. Fifty-seven percent were "single," 40% were seriously dating, and 3% were married.

Measures

Participants completed an anonymous online survey. The survey included fixed-response items, Likert-type scales, and open-ended questions eliciting hookup definitions and accounts. Open-ended questions asked participants to provide their personal definition of "hooking up" and to describe one hookup experience that they knew about or participated in. After completing these items, students were given the following definition of *hooking up* to keep in mind when completing the remainder of the survey: "'Hooking up' is used to describe a sexual encounter (vaginal, anal, or oral sex) between two people who are not in a dating or serious relationship and do not expect anything further." This standard definition was provided so that subsequent responses would pertain to nonrelationship sex specifically.

To assess sexual behavior and perceptions of student culture, participants were asked: (a) if the phrase "hooking up" (as defined for participants) was commonly used at

[2]However, the interactions supporting this conclusion were not directly reported in Manning et al. (2005).

their school; (b) if the participant had experienced a sexual hookup since coming to college and, if so, how many times; and (c) how often they believed that a typical student at their school had hooked up in the current school year (responses were zero, 1 time, 2 times, 3 times, 4 times, and 5 or more times).

A measure of normative beliefs about causal sex from Herold et al. (1998) was adapted to assess attitudes toward hookups. For the current study, the phrase "casual sex" was changed to "hookup"; one example is, "I would feel comfortable engaging in a hookup if I just met someone appealing, and he/she wanted to hookup." Three 5-point, Likert-type items were averaged to form a single attitude index ($\alpha = .87$).

Questions used by Dorsey et al. (1999) to assess communication about alcohol were adapted to reflect how often respondents talked to network members about hookups and related phenomena. Students were asked how many times over the past 4 months they talked with different parts of their network (i.e., university friends, nonuniversity friends, family) about five topics related to hookups: (a) people engaging in sexual hookups, (b) unwanted sexual advances, (c) safe sex practices, (d) the connection of alcohol and sexual hookups, and (e) potential consequences of sexual hookups. Responses were measured on a 4-point, ordinal scale (never, 1–2 times, 3–6 times, more than 6 times). Responses were averaged to create indexes measuring frequency of communication about hookups with each of the three social network groups ($\alpha = .79, .73, .78$). Network range was calculated based the number of different networks links students reported (Dorsey et al., 1999). A link existed if the participant reported speaking about the topics with a particular network group at least once in the last 4 months. Range was the sum of these links averaged across five topics. Thus, range could vary from 0 to 3, with 3 indicating that a participant talked to people in all networks categories about all five topics.

A procedure used by Knobloch and Donovan-Kicken (2006) to assess network involvement in romantic relationships was adapted to measure peer approval of nonrelationship sex. In the current study, participants were asked to list three people in their college group who they talked with most and spent the most time with. Next, participants were asked whether they had talked to each of the three people listed about a hookup experience (either their own or that of another person). Last, participants completed a series of 5-point, Likert-type scales (*strongly disagree–strongly agree*) for each person listed. Five items measured closeness with the network member: (a) "This person is influential in my life." (b) "My relationship with this person is very close." (c) "I communicate with this person often." (d) "I care about what this person thinks." (e) "This person's opinion matters to me." The 15 items (5 closeness items for each student peer) were averaged to form a single index for network closeness ($\alpha = .90$). Three additional items, completed for each student peer, measured peer approval of hookups: (a) "This person thinks engaging in a hookup is wrong." (b) "This person discourages me from getting involved in a hookup." (c) "This person chooses not to engage in hookups." (Item scoring was reversed to reflect approval vs. disapproval.) The nine ratings (3 approval ratings per student peer) were averaged to form a single index for peer approval ($\alpha = .81$).

RESULTS

Occurrence and Perception of Hookups

Ninety-four percent of students had heard of the phrase *hooking up* in reference to sexual activities. Eighty-four percent indicated that the phrase, as defined by the researchers (i.e., vaginal, anal, or oral sex outside of ongoing romantic relationships), was commonly used at their school (6% said that the phrase was not common, 10% were unsure). Fifty-four percent of participants reported having participated in a sexual hookup during the school year. A greater number of males (63%) reported engaging in a sexual hookup versus females (45%), $\chi^2(1, n = 269) = 8.90$, $p < .01$. Males expressed more favorable attitudes toward hookups ($M = 3.55$, $SD = 1.15$; 5-point scale) than females ($M = 2.47$, $SD = 1.07$), $t(267) = 7.99$, $p < .001$ (two-tailed). Males also reported greater peer approval for hookups ($M = 3.61$, $SD = .76$; 5-point scale) than females ($M = 3.08$, $SD = .72$), $t(266) = 5.87$, $p < .001$.

When asked how many sexual hookups they had during the school year, students reported far fewer hookups for self than they reported for the "typical student" (see Table 1). For example, 37% of the sample reported two or more sexual hookups, whereas 90% of the sample estimated that the typical student had two or more hookups. Thus, students greatly overestimated the pervasiveness of hookups within the general student culture. Nonetheless, over half of students reported at least one sexual hookup and a third of students reported at least two hookups during the school year, indicating that hookups were common. There was a significant Pearson correlation between the number of

TABLE 1
Frequency of Sexual Hookups Reported for Self and Perceived for the Typical Student

Number of Times Engaging in Hookups	*Percentage of Respondents*	
	Self	*Typical Student*
0 times	45.9%	3.7%
1 time	16.7%	6.3%
2 times	13.7%	26.1%
3 times	7.4%	31.3%
4 times	3.3%	11.6%
5 or more times	13.0%	20.9%

Note. Numbers reflect the percentage of respondents reporting a particular frequency of hookups for self and for the typical student.

hookups reported for self and estimated for the typical student, $r = .35$, $p < .001$, two-tailed, indicating a connection between personal behavior and perceived descriptive norms. The number of hookups estimated for the typical student also correlated with communication about hookups with university peers, $r = .26$, $p < .001$, and nonuniversity peers, $r = .18$, $p < .01$, but not family, $r = .10$, *ns*. These results are consistent with Lapinski and Rimal's (2005) thesis that frequent peer communication about health risk behavior contributes to overestimation of descriptive norms.

Hookup Definitions and Accounts

RQ1 asks how college students define hookups. Students who had heard of the phrase "hooking up" were asked to write what they thought the phrase meant. Again, these personal definitions (along with accounts) were elicited near the beginning of the questionnaire, before students received a standard definition to use when responding to subsequent items. The personal definitions were analyzed through inductive content analysis. Personal definitions were sorted into groups of similar responses, leading to the identification of seven categories. Next, the first author and one research assistant independently coded the full set of definitions. Intercoder reliability was high (percent of agreement = 96, $k = .94$). Table 2 displays frequencies and examples of the categories used to code definitions of hooking up.

As seen in Table 2, slightly more than half of participants defined a hookup as involving sex (i.e., *sexual encounter* and *one-night stand* categories); however, roughly 9% described hookups as *not* sex (i.e., *fooling around* and *kissing*) and about one-third of the sample indicated that the term was ambiguous with respect to sexual activities (*all encompassing*). Thus, definitions varied and were somewhat ambiguous concerning the type of sexual activity involved.

RQ2 asks about the characteristics reflected in hookup scripts. Participants were asked to describe a hookup they experienced or knew about. Participants reported (a) how they knew about the hookup, (b) who was involved, (c) where it took place, and (d) what factors led to the hookup. In 44% of accounts, students described hookups they personally engaged in; the remainder described hookups they witnessed or heard about. Accounts were independently coded by the researcher and assistant for the presence/absence of a direct reference to sex (coder agreement = 95%, $k = .88$). In most (78%) of the accounts, the hookup involved sex, not merely kissing or "fooling around."

To analyze responses further, the researcher and assistant separately composed a list of common themes in the accounts. Next, they compared lists and came to agreement on ten themes. The researcher and assistant then independently coded the presence/absence of each theme. Since the themes are not mutually exclusive, inter-coder reliability was assessed separately for each theme. The ten themes included six identified by Paul and Hayes (2002), *drinking alcohol* (coder agreement = 97%, $k = .94$), *attending parties* (agreement = 92%, $k = .83$), *flirting/attraction* (agreement = 92%, $k = .79$), *hanging out/talking* (agreement = 93%, $k = .82$), *dancing* (agreement = 98%, $k = .91$), and *friend arrangement* (agreement = 97%, $k = .89$). Four additional themes included *friends-with-benefits* (agreement = 98%, $k = .92$), *spontaneous engagement* (agreement = 94%, $k = .75$), *personal network present* (agreement = 97%, $k = .95$), and *texting/calling* (agreement = 99%, $k = .98$). There were three dominant themes: *spontaneous engagement* (present in 96.3% of accounts), *personal network present* (73.4%), and *drinking alcohol* (61.5%). Thus, hookups were nearly always seen as spontaneous encounters and mostly occurred in a context where friends were present and alcohol facilitated the hookup. Other features associated with hookups were more varied. Themes that were present in less than half of the accounts included *attending parties* (27.8%), *hanging out/talking* (25.8%), *flirting/attraction* (20.6%), *friends-with-benefits* (15.5%),

TABLE 2
Categories and Frequencies of "Hooking Up" Definitions

Categories	*n*	*%*	*Definitions*	*Examples*
Sexual encounter	111	42.9%	It specifically refers to sexual activity (oral, anal, or vaginal).	*I believe "hooking up" is oral, or sexual intercourse.*
All encompassing	85	32.8%	It is ambiguous in meaning and refers to a broad range of physical or sexual activities.	*Hooking up in my personal opinion can mean anything from making out to having sex.*
One-night stand	27	10.4%	It only lasts one-night with no further encounter or commitment.	*Having sex with someone for a night and never talking to them again.*
Fooling around	16	6.2%	It explicitly refers to going beyond kissing but not having sex (anal, vaginal, oral).	*Doing physical activities that go beyond kissing, but no sexual activities.*
Kissing	8	3.1%	It only includes kissing or making out.	*I guess to me it means just making out.*
Dating	5	1.9%	It refers to a dating or exclusive relationship.	*Hooking up sounds like what dating is called in high school.*
Other	7	2.6%	Definitions that do not fit into any other category.	

Note. Fifteen participants did not provide a definition.

TABLE 3
Hookup Scripts

	n	%	*Example*
Alcohol Scripts			
Network present Sex	107	44.4%	*A group of my friends and I went to a party. Then I saw her there. We started talking. We both were drinking and I think that made us more relaxed to hookup. After the party was done we went back to her dorm room and had sex.*
Network present No sex	25	10.4%	*First, we met when his friend started dating my roommate. Then we all went to a party together and I had to leave early so he walked me back to my dorm and then we hooked up (no sex though).*
Network absent Sex	20	8.3%	*First, we drank some whiskey. Then we watched some t.v., we started making out, and eventually we had sex.*
Network absent No sex	1	.4%	
Sober Scripts			
Network present Sex	10	11.6%	*Well they met through friends and she thought he was hot. So, the next weekend they hung out and they had sex, and he never talked to her again.*
Network present No sex	10	7.1%	*First the two of them met and a few nights later we were all at the same place again, later that second time they were hanging out he came home with her. They "hooked up" . . . I mean they did everything but sex.*
Network absent Sex	32	13.3%	*They met at the gym while climbing. After flirting and texting over the course of a couple of days, she went to his house and had sex for a couple of nights. Then due to whatever they stopped talking. The whole thing took about a week.*
Network absent No sex	12	4.6%	*She asked for my number and texted me later that day and hooked up, no sex.*

Note. Thirty-three accounts were missing or contained insufficient information to code each distinction.

dancing (9.1%), *texting/calling* (8.4%), and *friend arrangement* (7.5%).

In the next phase of the analysis, dominant themes were combined to identify typical scripts that led to a hookup. Eight scripts were identified based on the combination of alcohol (versus sober), network present (versus absent), and sex (versus no sex) themes (see Table 3). As noted earlier, a very high percentage of all scripts were spontaneous encounters. The most frequent script (44% of respondents) consisted of drinking alcohol with friends that led to sex. Other accounts were somewhat evenly distributed across the remaining script types; the exception was that there were few instances in which the network was absent and the hookup did not involve sex (regardless of alcohol). Further analysis revealed that hookup scripts conflated alcohol and sex: Of the accounts that involved alcohol, 83% led to sex, whereas 68% involved sex when alcohol did not play a role, $\chi^2(1, n = 241) = 7.06, p < .01$.

To address *RQ3*, we considered whether hookup scripts were predicted by student characteristics (gender, relationship status, and sexual activity). There were too few observations in some cells to perform analyses on the full set of eight script categories, so the categories were collapsed across network present/absent. Preliminary analyses indicated that student attributes did not predict the presence of peer networks in hookup scripts. Student attributes did predict alcohol and sex themes. Students who described themselves as "single" provided different scripts than student who were seriously dating or married, $\chi^2(1, n = 241) = 9.28, p < .05$.[3] Based on adjusted standardized residuals, a greater percentage of seriously dating and married students described *no alcohol/no sex* hookup scripts (18.2%) than did single students (6.1%), $p < .01$, two-tailed. Thus, students in monogamous relationships were more likely to describe hookups in the most innocent terms (no alcohol, no sex) than were unattached students. The sexual experiences of students also predicted script type, $\chi^2(1, n = 241) = 8.14, p < .05$. Those who reported sexual hookups within the school year described *alcohol/sex* scripts (59.7%) more often than students who did not report a sexual hookup (43.1%), $p < .01$, two-tailed. Conversely, students who *had not* engaged in a recent sexual hookup described *alcohol/no sex* scripts (15.7%) more often than students who did have recent hookups (7.2%), $p < .05$, two-tailed. These results suggest that individuals who personally engaged in hookups drew a stronger connection between sex and alcohol. The same may be true of males, as fewer males (5.2%) described *alcohol/no sex* hookup scripts by comparison to females (15.9%), $p < .01$, two-tailed. Male–female differences in hookup scripts approached significance, $\chi^2(1, n = 241) = 7.20, p < .10$.

[3]Students who were seriously dating or married were treated as a single category, since there were only seven married students in the sample.

Network Influence

The results confirm that hooking up is a common topic of conversation, as 84% of students reported speaking with university friends about "people engaging in casual sex or hookups" at least once in the previous 4 months (57% discussed hookups 3 or more times, 28% more than 6 times). When asked about the three college peers they talked with most, 74% of students indicated that they had discussed hookups with all three peers (87% discussed hookups with two or more peers, 93% with at least one peer).

The mean for network range ($M = 1.77$, $SD = .74$) indicates that participants discussed each of five topics related to hookups with one or two of three possible network links (university friends, nonuniversity friends, family). As one might expect, participants reported more frequent discussion of hookups with student peers ($M = 1.31$, $SD = .76$) and nonuniversity friends ($M = 1.09$, $SD = .67$) than with family ($M = .44$, $SD = .57$; 0–3 scale, with 0 = *never*, 1 = *1–2 times*, 2 = *2–6 times*, 3 = *more than 6 times*).

Pearson correlations were used to assess the relationship of network range to sexual attitudes and participation (*RQ4*). Network range correlated positively with attitudes toward hookups, $r(268) = .16$, $p < .01$, and the number of sexual hookups reported for self during the school year, $r(268) = .24$, $p < .01$. These results parallel those of Dorsey et al. (1999), who predicted a negative relationship between range and student health risk behavior (i.e., drinking in excess) but found a positive association instead.

Two hierarchical regressions were performed to examine predictors of hookup attitudes and participation. In each regression, control variables (gender, age, relationship status) were entered as a block at the first step, followed by network variables at the second step (network variables were centered). Two-way and three-way interactions of peer communication, peer approval, and peer closeness were entered at two subsequent steps.

Table 4 shows predictors of participation in hookups (number of sexual hookups reported for self). The block of control variables and network variables each contributed a significant increment to R^2. The block of two-way interactions approached significance ($p < .10$) and included one significant interaction; therefore, the block of two-way interactions was retained in the analysis. The three-way interaction had a negligible impact and was dropped from the analysis. Zero-order correlations, reported in the first column of Table 4, indicate that participation in hookups was associated with all network variables and two control variables (gender and relationship status). Regression coefficients indicate that gender, peer approval, closeness to peers, and communication with student peers and family predicted participation in hookups after controlling for other variables. The results support the hypothesized connections of peer communication (*H1*) and peer approval (*H3*) to participation in sexual hookups. Peer approval did not interact with peer closeness as hypothesized (*H5*). Further, peer approval did not moderate the effects of peer communication (*RQ5*). However, peer communication interacted with closeness in predicting hookups. Figure 1 shows the simple slopes for peer communication in predicting sexual hookups at high (+1 *SD*) and low (–1 *SD*) levels of peer closeness (Aiken & West, 1991). Although both slopes were positive, peer communication had a stronger relationship to participation in hookups when individuals were close to student peers.

TABLE 4
Predictors of Sexual Hookups

	r	β	ΔR^2
Block 1: Controls			.09[b]
Gender	.22[b]	.14[a]	
Relationship status	.19[b]	.09	
Age	–.08	–.02	
Block 2: Network variables			.23[b]
Communication with:			
Student peers	.36[b]	.17[a]	
Nonuniversity friends	.26[b]	–.06	
Family	.23[b]	.18[b]	
Peer approval	.44[b]	.35[b]	
Peer closeness	.13[a]	.14[a]	
Block 3: Two-way interactions			.02
Peer communication × peer approval	.14[a]	.08	
Peer communication × peer closeness	.38[b]	.13[a]	
Peer approval × peer closeness	.34[b]	.00	

Note. The first column reports zero-order Pearson correlations between independent variables and the number of sexual hookups reported for self during the school year. The second column reports standardized betas with all variables in blocks 1–3 entered in the regression equation. The third column reports the increment to R^2 for the block of variables at each step. Gender was coded 1 = male, 0 = female. Relationship status was coded 1 = single, 0 = dating seriously or married.
[a]Significant at $p < .01$.
[b]Significant at $p < .01$ (two-tailed).

Table 5 shows predictors of attitudes toward hookups. Again, the block of control variables and network variables both had significant effects. The block of two-way interactions and the three-way interaction of peer communication, approval, and closeness also accounted for a

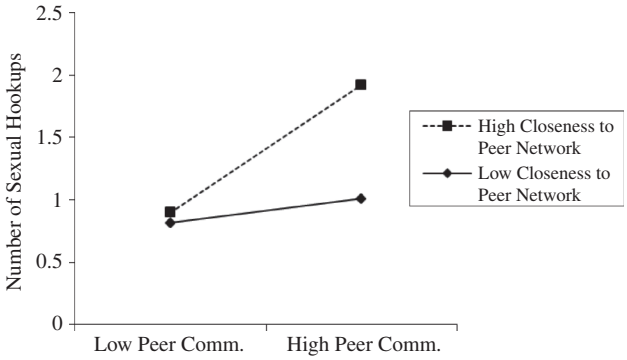

FIGURE 1 The number of sexual hookups in the current school year as a function of peer communication about hookups and closeness to peer networks.

TABLE 5
Predictors of Attitude Toward Sexual Hookups

	r	β	ΔR^2
Block 1: Controls			.22[b]
Gender	.44[b]	.35[b]	
Relationship status	.17[b]	.04	
Age	–.05	–.03	
Block 2: Network variables			.20[b]
Communication with:			
Student peers	.29[b]	.00	
Nonuniversity friends	.25[b]	.07	
Family	.10	.04	
Peer approval	.54[b]	.42[b]	
Peer closeness	.06	.20[b]	
Block 3: Two-way interactions			.02[a]
Peer communication × peer approval	.14[a]	.00	
Peer communication × peer closeness	.38[b]	.17[b]	
Peer approval × peer closeness	.45[b]	.03	
Block 4: Three-way interaction			.01[a]
Peer communication × peer closeness × peer approval	.15[a]	.12[a]	

Note. The first column reports zero-order Pearson correlations between independent variables and participant attitudes toward sexual hookups. The second column reports standardized betas with all variables in blocks 1–4 entered in the regression equation. The third column reports the increment to R^2 for the block of variables at each step. Gender was coded 1 = male, 0 = female. Relationship status was coded 1 = single, 0 = dating seriously or married.
[a]Significant at $p < .01$.
[b]Significant at $p < .01$ (two-tailed).

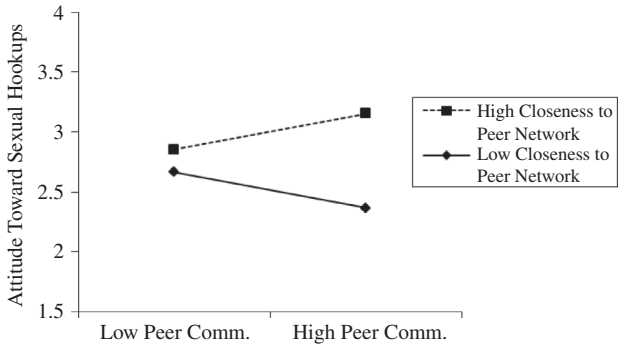

FIGURE 2 Participant attitudes toward sexual hookups a function of peer communication about hookups and closeness to peer networks.

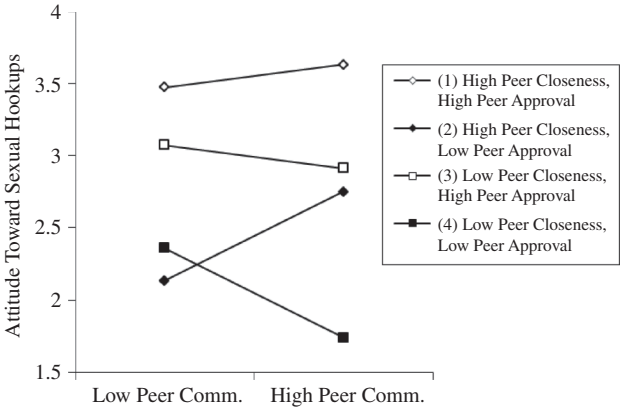

FIGURE 3 Participant attitudes toward sexual hookups a function of peer communication about hookups, closeness to peer networks, and peer approval of hookups.

significant increase in R^2. Zero-order correlations in Table 5 indicate that attitudes were associated with gender, relationship status, peer approval, and communication with student peers and nonuniversity friends. However, only gender, peer approval, and peer closeness predicted attitudes after controlling for other variables. The results do not support the predicted association between peer communication and hookup attitudes (*H2*); rather, peer communication had a more complex association with hookup attitudes, as reflected in the significant two-way interaction of peer communication and peer closeness. The results support *H4* that peer approval is associated with favorable attitudes toward hookups. The results do not support the prediction that peer closeness moderates effects of peer approval (*H6*). Instead, we observed an even more complex pattern of moderation, as reflected in the significant three-way interaction.

Figures 2 and 3 plot the significant interactions. The two-way interaction (Figure 2) is interpretable despite the presence of a significant three-way interaction because the simple slopes trend in the same direction for the two and three-way interactions. Figure 2 shows the simple slopes for peer communication at high (+1 *SD*) and low (–1 *SD*) levels of peer closeness. Notably, the slopes reverse direction—when individuals were close to student peers, more frequent peer communication about hookups was associated with more favorable attitudes. When individuals were not close with peers, peer communication was associated with less favorable attitudes. The same pattern appears in the simple slopes for the three-way interaction (Figure 3); however, peer approval further modified the angle of these slopes. When peers approved of hookups, peer communication had a subtle positive effect on attitudes (slope number 1 in Figure 3) or a slight negative effect (slope number 2), depending on closeness to peers. These two simple slopes were not significantly different, $t(255) = 1.17$, *ns* (see Dawson & Richter, 2006). Thus, the frequency of peer communication had only slight effects on attitudes when peer approval was high. By contrast, when peer approval was low, peer communication had a strong positive effect on attitudes if peers were close (slope number 3) and a strong negative effect when peers were not close (slope number 4). The difference between these slopes was significant, $t(255) = 3.18$, $p < .01$. Note that when peer approval was high, attitudes were relatively favorable regardless of peer communication and closeness to peers. This reflects the strong main effect of peer approval on attitudes. Further, high levels of peer approval appeared to wash out effects of peer communication on attitudes, as reflected in the relatively flat angles of slopes 1 and 2. By

contrast, when peers disapproved of hookups, peer communication had distinct effects on attitudes that reversed direction depending on closeness to peers.

DISCUSSION

This research makes two main contributions. First, the study extends other reports that call attention to the diversity of student sexual goals and experiences (e.g., Epstein et al., 2009; Paul & Hayes, 2002). Rather than observing a uniform hookup culture, we found varied sexual scripts, ambivalent attitudes, and moderate participation in hookups. However, the most common hookup script, which suggests high-risk sexual activity (i.e., unplanned, inebriated sex), was featured in most accounts of students who themselves participated in sexual hookups. Further, hookups were usually initiated in the company of friends, thus emphasizing the role that networks play in cultivating a climate of encouragement toward high risk sexual encounters. The second main contribution of the research is to tease apart the nature of peer influence. Students reported frequent peer conversations about hookups, and these conversations predicted sexual behavior and attitudes among those participants who had strong ties to peers. Peer approval also predicted sexual behavior and attitudes. The research thus highlights the role of peer networks in affecting whether individuals endorse and act upon high risk sexual scripts.

To elaborate on the sexual culture reflected in our results, slightly over half of respondents reported engaging in sexual hookups during the school year in which the study took place. This suggests that hookups were common, but far from a universal part of the student experience. Attitudes about hookups were ambivalent and somewhat gendered, with males being more favorable than unfavorable and females being more unfavorable than favorable, but both sexes averaging close to the theoretical midpoint of the scale. As other studies have suggested (e.g., Lambert et al., 2003), the perception of a campus-wide hookup culture seems partly a figment of the imagination, as estimates of how often others engaged in sexual hookups were inflated relative to reports of actual hookups. Lapinski and Rimal (2005) suggest that interpersonal communication among peers contributes to overestimation of descriptive norms for health risk behaviors. The results lend credence to this possibility, since students who had frequent conversations about hookups gave higher estimates of how often others were hooking up. Further, students who engage in hookups may find encouragement in the belief that that the practice is widespread, as suggested by the observed association between self-reported hookups and estimated hookups for the typical student.

The results are consistent with previous literature suggesting that hooking up is a widely used but ambiguous phrase (e.g., Glenn & Marquardt, 2001). We did not find a high degree of consensus about what constitutes a hookup or how hookups occur. These results affirm the variety and informality said to characterize contemporary sexual scripts (Giordano et al., 2006). Although there was no single dominant script, the most common hookup script suggested high-risk sexual activity—drinking alcohol in a social setting, leading to spontaneous, penetrative sex. The prominence of this script supports concern raised over impacts of hookups on student physical health and emotional well-being (e.g., Downing-Matibag & Geisinger, 2009; Eshbaugh & Gute, 2008). Of particular note is that students who participated in hookups were particularly likely to invoke a script conflating alcohol and unplanned sex. Males were also more likely than females to provide this script. Because there are multiple hookup scripts, the scripts are open-ended, and males hold somewhat different scripts than females; there is significant potential for misunderstanding, sexual regret, and even coercion resulting from the unilateral imposition of a particular script (Metts & Spitzberg, 1996).

In most student accounts, hookups originate in social contexts where friends are present. Since hookups typically occur in a social environment and are discussed with friends afterward (Paul & Hayes, 2001), they represent a relatively public form of sexual behavior. This has a bearing on peer influence, since peer norms primarily affect behavior that is public versus private (Lapinski & Rimal, 2005). However, some aspects of hookups are public (typically, who is hooking up), while many other details are private (how far it went, whether a condom was used, what pressure or resistance occurred). Further, this privacy is reinforced by strategic ambiguity in the semantics of *hooking up*, which could reference any manner of sexual activity. Potentially, this suggests that peers might exercise considerable influence over the occurrence of hookups but less influence over the way hookups are conducted once initiated.

Other results support the premise that peer subculture contributes to the occurrence of hookups. Perceived peer approval was a strong predictor of reported hookups and favorable attitudes about hooking up, even after controlling for other variables. This confirms two predictions (*H3*, *H4*). We also hypothesized that peer communication about hookups would predict reported hookups and favorable attitudes (*H1, H2*). We found partial support; however, the hypothesized effects were contingent on participant relationships with student peers. Frequent peer communication predicted participation in hookups and favorable attitudes primarily among those who felt close to peers.

The three-way interaction of peer communication, closeness, and approval in predicting attitudes is challenging to interpret. Essentially, peer communication had less impact on attitudes when peer approval was high. In this case, student attitudes were neutral to favorable regardless of how often they talked about hookups. When peer approval was low, then peer communication had distinct effects that reversed direction depending on closeness to peers. When peers were disapproving but close, peer communication was

associated with more favorable attitudes. Possibly, this suggests that discussion of hookups with disapproving but close ties reduces the sense that the topic is "taboo." On the other hand, frequent conversation with weak ties who disapprove may reinforce personal disapproval, as students in this category (low peer closeness and approval, but frequent communication) held distinctly negative attitudes. Of course, this is pure conjecture regarding an unexpected, complex effect. Replication is needed to ensure that the effect is not a sampling artifact.

The results did not confirm the expected interaction of peer closeness and approval in predicting hookup behavior and attitudes (*H5, H6*). Rather, peer approval had strong effects regardless of closeness to peers. This might partly reflect limited range for the measure of closeness ($M = 4.05$, $SD = .57$, 5-point scale), since we assessed closeness only with respect to the three individuals named by participants as their closest peers. In any event, the logic underlying *H5* held up in an unexpected way—closeness to peers moderated the effects of peer communication on hookups, as noted above. This affirms the network principle that strong ties have greater direct influence over behavior than weak ties (Granovetter, 1973).

The results replicated the unexpected, positive association between network range and health risk behavior found by Dorsey et al. (1999). This may suggest that talking about high-risk behavior desensitizes individuals to risk and creates a sense of normalcy about the behavior, even when the conversation involves more diverse contacts and opinions. However, research on family sexual communication suggests, to the contrary, that greater sexual communication with parents is associated with less risky sexual behavior (Booth-Butterfield & Sidelinger, 1998; Guzmán et al., 2003). A possible explanation is that family and peer links in our research were not that diverse. That is, students who talked with family members about hookups may have come from families with permissive sexual norms. Manning et al. (2005) found that teens were more likely to engage in nonromantic sex when mothers were more accepting of sexual activity. Further, students may have talked with siblings or cousins rather than parents, since we did not distinguish different family relationships. In any event, conversations with family about hookups were quite infrequent, suggesting that peer conversations are more directly influential.

Limitations and Future Directions

As with any similar study, the data are potentially subject to self-report biases. For example, males reported more hookups than females, which seems unlikely given that the sample was almost exclusively heterosexual. Potentially, males might have overreported sexual hookups and females might have underreported hookups to enhance or protect social status. Similarly, social desirability could help explain the tendency of students to report fewer hookups for self than they estimated for the typical student. Although the anonymity of the online questionnaires should have reduced social desirability pressures, we assume that reporting biases still influenced the results.

A second limitation involves the demographics of the sample. Because the study used college students, most of whom were freshmen, it does not reveal sexual trends among other demographics. Future research might employ more diverse samples that include individuals outside the college community and beyond the age of traditional college students.

To explore health risks of nonrelationship sex in greater detail, future research should include more health-specific questions regarding, for example, the amount of alcohol consumed, protection against STIs, and individual sexual history and health. Future research should also examine the content of communication more directly to help clarify unexpected results (i.e., the association between family communication and participation in hookups).

CONCLUSION

This research examines student sexual behavior from a social network perspective. Although the findings do not reveal a uniform college sexual culture, the results confirm that sexual hookups are a common and potentially high-risk practice, insofar as the sexual scripts of those who engage in hookups feature spontaneous, inebriated sex. The research supports prior observations about the central role of peer communication as a conduit for normative influence on health risk behavior (Lapinski & Rimal, 2005). Peer approval and communication, especially among close peers, predicted reports of sexual hookups. The results raise concern that sexual communication in student peer networks may normalize and sanction high-risk sexual scripts.

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