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Authors

Norona, Jerika C
Borsari, Brian
Oesterle, Daniel W
[et al.](#)

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**Jerika C. Norona, PhD,^{1,2} Brian Borsari, PhD,^{1,2}
Daniel W. Oesterle, BS,³
and Lindsay M. Orchowski, PhD^{3,4}**

Abstract

The present study examined the ways alcohol use and risk factors for sexual assault perpetration vary by relationship status. Participants included 242 college men (age = 18–22 years) from a northeastern university who identified as being single or in a casual or committed dating relationship with a female partner. ANCOVAs and paired *t* tests compared individuals who were single, casually dating, and in committed relationships on self-reported alcohol use during sexual situations, beliefs about sexual communication, behavior associated with sexual aggression, and peer approval of sexual aggression. Differences in alcohol use during sexual situations and behavior associated with sexual aggression according to relationship status emerged. Post hoc analyses examining whether alcohol use during sexual situations moderated significant associations between relationship status and behavior associated with sexual aggression suggested that men in committed relationships who

¹San Francisco VA Health Care System, CA, USA

²University of California, San Francisco, USA

³Rhode Island Hospital, Providence, USA

⁴Alpert Medical School of Brown University, Providence, RI, USA

Corresponding Author:

Jerika C. Norona, San Francisco VA Health Care System, 4150 Clement Street, San Francisco, CA 94121, USA.

Email: Jerika.Norona@va.gov

endorsed more frequent alcohol use during sexual situations also endorsed more behavior associated with sexual aggression. Findings suggest that individuals in committed relationships who often use alcohol during sexual situations may be at increased risk of sexually aggressive behavior.

Keywords

relationship status, dating, alcohol use, sexual aggression, health education

Rates of sexual violence—which include attempted or completed sexual contact or penetration, whether through threats of force, force, pressure, or the administration of alcohol or drugs (Basile, Smith, Breiding, Black, & Mahendra, 2014)—are particularly high among college students (Krebs et al., 2016). In fact, approximately a third of college men have endorsed perpetrating some form of sexual violence against women since the age of 14, with most acts of sexual aggression perpetrated against someone they know, including committed and casual partners (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004). In fact, in a study of male college students who admitted to committing an act of sexual aggression since the age of 14, 58% reported that the victim was a steady dating partner (Abbey, McAuslan, Zawacki, Clinton, & Buck, 2001).

Whereas numerous sexual violence prevention programs have been developed and implemented for college students, there are currently no prevention programs for college men that show efficacy in producing long-term reductions in rates of sexual aggression (DeGue et al., 2014). One potential reason for the lack of effective prevention programs to address men's perpetration of sexual aggression is that the mechanisms through which sexual aggression occurs are multifaceted (Tharp et al., 2013), and programs can rarely target the multiple individual-, interpersonal-, community-, and societal-level risk factors for engagement in violence concurrently (Centers for Disease Control and Prevention, 2004). The development of effective strategies for preventing sexual aggression has also been hampered by a lack of research identifying how risk factors for sexual aggression vary among men. Notably, perpetrators of sexual aggression are a heterogeneous group (Centers for Disease Control and Prevention, 2004; Gidycz, Warkentin, & Orchowski, 2007; Tharp et al., 2013) who perpetrate at different times in their adolescent and adult development (Abbey, Wegner, Pierce, & Jacques-Tiura, 2012; Swartout et al., 2015; M. P. Thompson, Swartout, & Koss, 2013). For these reasons, research aimed at classifying men who are particularly high risk at demonstrating sexual aggression is warranted. Given that sexual aggression

among college students is most often perpetrated against an acquaintance or dating partner (Lam & Roman, 2009), it is feasible that risks of sexual aggression vary as a function of relationship status.

Theoretical Framework for the Present Study

The integrated model of sexual aggression (Berkowitz, 1994, 2003) suggests that risk factors for sexual aggression include a variety of individual characteristics as well as peer influences. Sexually aggressive men tend to exhibit hostile attitudes toward women (Locke & Mahalik, 2005), and men who hold these unhealthy attitudes toward relationships with women may fail to stop sexual activity when a partner says “no,” or use coercion, threats, or force to pursue sexual activity with an unwilling partner (Alegría-Flores, Raker, Pleasants, Weaver, & Weinberger, 2017; Gidycz et al., 2007). In addition, men who engage in sexual aggression tend to exhibit traits of psychopathy, endorse myths about sexual violence (e.g., if a woman and a man go home together, it means that the woman wants to have sex), and often report multiple sexual partners (DeGue, DiLillo, & Scalora, 2010; Zinzow & Thompson, 2015). Perception of peer norms also appears to play a role in sexual aggression, such that men who engage in sexually aggressive behavior tend to report their peers also accept rape myths (Bohner, Siebler, & Schmelcher, 2006), their peers support violence against women (Stotzer & MacCartney, 2016), and that their peers do not support engaging in proactive bystander intervention to thwart sexual violence (Brown & Messman-Moore, 2010).

According to the integrated model of sexual aggression (Berkowitz, 1994, 2003), situational factors—such as alcohol use—can also increase proclivity for sexual aggression among men. Numerous studies document an association between alcohol use and perpetration of sexual aggression among men (Abbey, Wegner, Woerner, Pegram, & Pierce, 2014). This is concerning, as more than 50% of college students report consuming alcohol within the past 30 days, with most students also reporting heavy drinking (defined as five or more drinks in one sitting or 15 drinks or more in 1 week for men, and four drinks in one sitting or eight drinks over 1 week for women; Center for Behavioral Health Statistics and Quality, 2015). Although the pathways through which alcohol can increase risk of sexual aggression are multifaceted (see Abbey, 2017, for a review); when intoxicated, men are more likely to misinterpret women’s verbal and nonverbal cues as invitations for sexual contact (Abbey, Jacques-Tiura, & LeBreton, 2011). Alcohol use may also be utilized as a way to justify engaging in aggressive or sexually coercive behavior (Abbey et al., 2014). Men who engage in sexual aggression also report deliberately intoxicating women to decrease their ability to resist against an

unwanted sexual advance (Abbey, 2002; Abbey et al., 2004; Kanin, 1985; Mosher & Anderson, 1986). Men's alcohol use also demonstrates association with the larger constellation of personal characteristics commonly associated with sexual aggression, including adherence to traditional masculine norms, acceptance of rape myths, and perceived peer support for violence (Locke & Mahalik, 2005; Schwartz & Nograd, 1996).

Although perceptions of peer norms are important correlates of college student alcohol use (Borsari & Carey, 2003; M. A. Lewis & Neighbors, 2006) as well as sexual aggression (Bohner et al., 2006; Brown & Messman-Moore, 2010; Stotzer & MacCartney, 2016), surprisingly little is known as to how these risk factors for sexual aggression vary as a function of relationship status. Given that college men most often engage in sexual aggression toward acquaintances, casual partners, and steady dating partners, and alcohol use is often involved in such acts of sexual violence (Abbey et al., 2014; Abbey et al., 2004), it would be useful to understand how common correlates of sexual aggression—such as alcohol use and perceptions of peer norms—vary as a function of relationship status.

There is reason to suggest that committed relationships might serve as a protective factor against risky behavior, such as sexual aggression. For example, studies on adult relationships suggest that relationship involvement generally serves as a protective factor against maladaptive behaviors (e.g., alcohol use, ineffective conflict resolution tactics). Compared with their single counterparts, college students involved in committed dating relationships tend to engage in problematic drinking less often (Whitton, Weitbrecht, Kuryluk, & Bruner, 2013), and a national study found that committed individuals were 3 times less likely than single individuals to consume alcohol prior to sex (R. G. Thompson, Eaton, Hu, Grant, & Hasin, 2014). The mechanisms through which committed relationships serve as a protective factor against risky behavior may, in part, be due to how individuals select a partner. For example, generally healthier individuals might gravitate toward and choose to be in a committed relationship with other generally healthy individuals (Lamb, Lee, & DeMaris, 2003; Lewis et al., 2006). However, a socialization effect may also occur, such that romantic partners can also motivate each other to engage in healthy behaviors, particularly those that can benefit the relationship. For instance, risky drug and alcohol use can negatively affect interactions between romantic partners, perhaps motivating each to reduce unhealthy behaviors to improve their relationship quality (Duncan, Wilkerson, & England, 2006; Khaddouma et al., 2016; Lewis & Butterfield, 2007). High-quality romantic relationships in and of themselves also provide mutual intimacy and support, which are vital to well adjustment in individual development particularly for emerging adults—the developmental period between 18 and 25 years (Arnett, 2004). Thus, although speculative, it is

possible that risk of sexual aggression may be lower in relationships where other health risk behavior that increases risk of violence—such as alcohol use—is also low. However, sexual aggression may be more likely to occur in the context of relationships where men report engaging in a high level of alcohol use; especially if alcohol use occurs prior to sexual activity.

It is also possible that risk of sexual aggression in relationships may also vary according to men's ability to communicate with a partner. In addition to promoting healthy behaviors, involvement in romantic relationships can help young people build effective communication skills, emotion regulation abilities, and social cognitive maturity (Connolly & McIsaac, 2011; Norona, Roberson, & Welsh, 2017; Shulman, Davila, & Shachar-Shapira, 2011). Effective communication skills are directly relevant to consent and its communication prior to sexual activity. For example, individuals in romantic relationships are more familiar with their romantic partners, and thus feel safer and are more passive in their communication of consent (Jozkowski & Wiersma, 2015). Verbal communication of consent also varies as a function of alcohol use and relationship status. Specifically, single individuals report *lower* feelings of internal safety and comfort when engaging in sexual activity after drinking, and tend to communicate consent through nonverbal behaviors (e.g., increasing physical contact, removing clothing, engaging in foreplay) less often (Jozkowski & Wiersma, 2015). In contrast, individuals in romantic relationships who report *higher* feelings of safety and comfort in sexual activity after drinking tend to communicate consent through nonverbal behaviors as well as passive behaviors (e.g., allowing sexual activity to continue, not resisting sexual activity), regardless of drinking prior to sexual activity. Taken together, given that romantic involvement with a partner can promote safety and affect the ways individuals communicate consent, it is possible that understanding relationship status is a key contextual factor for risk of sexual aggression among college men.

Summary and Purpose of the Present Study

In sum, research indicates that college men generally perpetrate sexual aggression against someone they know, often a romantic partner (Abbey et al., 2001). Alcohol use is also frequently involved in sexual violence (Abbey, 2017). Given that relationships tend to buffer against engagement in high risk behavior—such as alcohol use—among college students (R. G. Thompson et al., 2014; Whitton et al., 2013), research is warranted to explore how risk of sexual aggression varies as a function of relationship status among men, and understand the contextual factors that moderate risk of sexual aggression among college men in relationships.

Problematically, to date, the vast majority of research examining the role of relationship status in college student health has focused primarily on differences between students who identify as single compared with students in committed relationships. However, it is common for young people to engage in relationships that include casual sex (Claxton & van Dulmen, 2013), and it is assumed that their partners are engaging in casual sexual experiences with others. Casual sex can involve one-night stands, hook-ups, or “friends with benefits” relationships, which can occur from once to several times, and can be experienced with individuals on a range of closeness from strangers to friends (Claxton & van Dulmen, 2013). It is estimated that about 60% to 80% of college students report having ever engaged in casual sex (Bisson & Levine, 2009; Claxton & van Dulmen, 2013; Gute & Eshbaugh, 2008; Jonason, Li, & Cason, 2009; Lambert, Kahn, & Apple, 2003).

With the aforementioned research in mind, the present study sought to advance the literature by examining how common risk factors for sexual aggression—including personal alcohol use during sexual situations, beliefs about sexual communication and consent, behaviors associated with sexual aggression, and perceived peer approval for sexual aggression—vary as a function of relationship status. Relationship status was categorized as (a) a committed romantic relationship (defined as a romantic and monogamous relationship), (b) casual dating relationships (defined as a relationship in which the participant has engaged in some form of sexual activity with at least one partner one or more times, and the participant has the understanding that the partner[s] may be sexually active with other people), and (c) not currently in a committed or casual relationship (i.e., single). Using a sample of college men who are single and those who are in casual or committed relationships with women, we first examine whether there are differences in personal alcohol use in sexual situations according to relationship status. Second, we examine whether there are differences in beliefs about sexual communication and consent as a function of relationship status. Third, we examine whether there are differences in behaviors commonly associated with sexual aggression according to relationship status. Finally, we examine whether perceived peer approval of sexual aggression varies according to relationship status. We hypothesize the following:

Hypothesis 1: Men who are in committed romantic relationships will report less alcohol use in sexual situations compared with those who are in casual dating relationships, who will report less alcohol use in sexual situations than single individuals.

Hypothesis 2: Men who are in committed romantic relationships will report more collaborative forms of sexual communication and seeking consent compared with those who are in casual dating relationships, who will report more collaborative forms of sexual communication and seeking consent compared with single individuals.

Hypothesis 3: Men who are in committed romantic relationships will report engaging in fewer behaviors associated with sexual aggression compared with those who are in casual dating relationships, who will report fewer behaviors associated with sexual aggression compared with single individuals.

Hypothesis 4: Men in committed relationships would report lower levels of perceived peer approval of sexual aggression compared with men in casual relationships, who will report lower levels of perceived peer approval of sexual aggression compared with single individuals.

Finally, exploratory moderation analyses will be conducted to explore any significant associations among relationship status, beliefs about sexual communication and consent, behaviors associated with sexual aggression, and perceived peer approval of sexual aggression.

Method

Study Participants and Procedure

Participants included men enrolled at a large northeastern university in the United States. Using a list of students provided by the university registrar, a random sample of 2,300 undergraduate men between the age 18 and 22 years were sent email invitations to participate in an online survey addressing social and dating behaviors. Individuals who did not submit a completed survey were considered to have withdrawn from the study, and no partially completed surveys were retained. Of the 333 men who visited the survey site, 242 submitted a completed survey (72.7%). Four men who did not report their relationship status were excluded from the present study.

The majority of men in the present sample were approximately 20 years of age ($M = 20.44$ years, $SD = 1.04$ years). Sample characteristics were consistent with the demographics of the university, with 86% participants self-identifying as Caucasian ($n = 209$), 2.1% as African American ($n = 5$), 4.1% as Asian ($n = 10$), and 0.4% self-identified as Native Hawaiian or Pacific Islander ($n = 1$). In addition, 4.1% reported their race as "Other" ($n = 10$), and 2.9% declined to answer when prompted to report their race ($n = 7$). Approximately 58% of the sample reported living off campus ($n = 140$).

All procedures were approved by the institutional review board. Participants agreed to an electronic consent statement prior to enrolling in the study. The survey took approximately 15 min to complete. For every 50 participants who enrolled in the study, one participant was randomly selected to receive a US\$50 gift card.

Measures

The survey was created to inform development of an integrated alcohol use and sexual assault prevention program (Orchowski, Barnett, Berkowitz, Borsari, Oesterle, & Zlotnick, 2018). The survey included established measures, as well as constructs of interest for the design and development of the intervention.

Demographics. Participants completed a brief questionnaire to assess demographic characteristics, including race, relationship status, living arrangements (i.e., on or off campus), and age.

Relationship status. Following other studies of sexual activity among young adult men (Raj et al., 2006; Santana, Raj, Decker, La Marche, & Silverman, 2006; Scott-Sheldon, Carey, & Carey, 2010), participants were asked to indicate their relationship status over the past 3 months. Specifically, participants were asked to identify the item that best described their relationship status from the following options: “I am currently in a steady relationship (i.e., romantic, committed, and monogamous) that has lasted for at least 3 months”; “I am currently in a steady relationship (i.e., romantic, committed, and monogamous), but it has been for less than 3 months”; “I am currently in a casual relationship with one person (i.e., relationship in which you have engaged in some form of sexual activity one or more times, and you have the understanding that they may be sexually active with other people)”; “I am currently in a casual relationship with more than one person (i.e., relationship in which you have engaged in some form of sexual activity one or more times, and you have the understanding that they may be sexually active with other people)”; and “I am not currently in a steady or casual relationship with anyone.” Of the final sample, 42.9% ($n = 103$) were single, 15% ($n = 36$) were in a casual relationship, and 42% ($n = 101$) were in a committed relationship.

Alcohol use in sexual situations. Participants were asked to respond to a series of questions regarding their alcohol use and sexual behaviors, which was developed for use in the original survey. Three items assessed the number of

sexual experiences within the past year that involved personal heavy drinking (e.g., *In the past year, what percent of your sexual encounters with women involved you drinking five or more drinks?*). Possible responses ranged from 0% to 100% in 10% increments. In addition, three items assessed the number of sexual experiences within the past year that involved personal alcohol use (e.g., *In the past year, please estimate what percent of your sexual encounters with women involved any personal use of alcohol?*).

Beliefs about sexual communication and consent. Beliefs about sexual communication and consent were measured by participants' responses to eight items. Five items were drawn from a scale developed for the present study to assess alcohol and sexual beliefs, and asked participants to indicate their degree of agreement with the statement on a Likert-type scale of 1 to 5 (1 = *strongly disagree*, 5 = *strongly agree*). These items included "*When I am sober, I am confident that I am on the same page with my sexual partner (i.e., understand what they want, understand what they don't want).*" In addition, three items from the Bystander Attitudes Scale (Banyard, Plante, & Moynihan, 2005) asked participants to indicate the likelihood that they would engage in various behaviors. The full scale included 51 items scored on a Likert-type scale from 1 to 5 (1 = *not at all likely*, 5 = *extremely likely*). The items chosen from this measure included "*Ask for verbal consent when I am intimate with my partner, even we are in a long-term relationship*" and "*I won't stop sexual activity when asked to if I am already sexually aroused.*" Alpha for the five items including the three items from the Bystander Attitudes Scale was .76.

Behaviors associated with sexual aggression. The College Date Rape Attitude and Behavior Survey (CDRABS; Lanier & Elliott, 1997) is a 27-item scale that assesses attitudes and behaviors associated with sexual aggression. Given the present study's focus on behavioral outcomes, participants' responses on the seven items assessing engagement in behaviors associated with sexual aggression were examined. Participants were asked to rate each item on a scale from 1 to 5 (1 = *strongly agree*, 5 = *strongly disagree*). Sample items include the following: "*When I want to touch someone sexually, I try it and see how they react,*" "*I won't stop sexual activity when asked to if I am sexually aroused.*" Some items were reverse coded so that higher scores reflected greater engagement in sexually aggressive behavior. For example, another item includes "*I stop the first time my date says 'no' to sexual activity.*" Responses were summed and averaged to create the total score. Alpha for this subscale was .64.

Peer approval of sexual aggression. The Differential Reinforcement subscale of the Social Norms Measure (Boeringer, Shehan, & Akers, 1991) was implemented to assess men's perception that their peers would approve of sexual aggression. The subscale includes three items, "*How approving do you think your friends would be of you if you got a woman drunk or high to have sex with her?*" "*How approving do you think your friends would be of you if you convinced a woman to have sex with you, after she had expressed sexual interest in you and then refused to have sex?*" and "*How approving do you think your friends would be of you if you forced a woman to have sex with you, after she had expressed sexual interest in you and then refused to have sex?*" These sexually aggressive behaviors align well with items assessed on the Sexual Experiences Survey–Short Form Perpetration (Koss et al., 2007). Items are rated on a scale from 1 to 5 (1 = *very approving*, 5 = *very disapproving*). Lower scores indicate greater perceived peer approval for engaging in sexual aggression. Cronbach's alpha for the subscale was .71.

Analysis Plan

To examine differences in relationship status for alcohol use during sexual situations, beliefs about sexual communication and consent, sexually aggressive behavior, and peer approval of sexual aggression, a series of ANCOVAs were conducted controlling for campus living status and age on personal alcohol use during sexual situations, beliefs about sexual communication and consent, and behavior associated with sexual aggression as the outcome variables. Welch's *t* tests were conducted when models were significant to compare committed, casual, and single individuals. Post hoc regression models examined whether personal alcohol use and heavy episodic drinking during sexual situations moderated the relationship between relationship status and the significant outcome variables of interest.

Results

Preliminary Analyses

Demographic variables of living status (1 = *on campus*, 2 = *off campus*) and age (18-22 years) were significantly correlated with nearly all variables, and were thus, controlled for in subsequent analyses in examining differences in relationship status. In addition, there were no significant differences of perceptions of beliefs about sexual communication and consent or peer approval of sexual aggression according to relationship status. Table 1 displays the means and standard deviations for the study variables.

Table 1. Means and Standard Deviations for Risk Factors of Sexual Aggression According to Relationship Status.

Variable	Committed	Casual	Single	F
Heavy episodic drinking	1.10 (3.57) ^{a, b}	1.34 (1.85) ^a	0.38 (1.34) ^b	4.82 ^{**}
Any alcohol use	2.61 (1.44) ^a	5.11 (3.10) ^b	3.86 (3.69) ^b	3.28 [*]
Beliefs about sexual communication and consent	28.51 (4.52)	27.53 (4.97)	28.10 (3.60)	0.83
Behavior associated with sexual aggression	2.82 (0.66) ^a	2.95 (0.41) ^a	2.60 (0.59) ^b	3.42 [*]
Peer approval for sexual aggression	11.59 (2.43) ^a	10.83 (2.73) ^a	11.40 (2.70) ^a	0.78

Note. Different superscripts a, b, and c indicate significant differences of $p < .017$.

^{*} $p < .05$. ^{**} $p < .01$.

Differences in Alcohol Use During Sexual Situations, Beliefs About Sexual Communication and Consent, Behavior Associated With Sexual Aggression, and Peer Approval for Sexual Aggression by Relationship Status

Results of the ANCOVAs indicated no significant differences in heavy drinking during sexual situations or beliefs about sexual communication and consent as a function of relationship status. Results of the ANCOVAs indicated that the percent of sexual situations that involved any personal alcohol use varied as a function of relationship status, $F(3, 236) = 3.28, p = .002$. To determine which groups were significantly different, a series of Welch's t tests were conducted along with Bonferroni corrections to account for multiple comparisons (reference $p = .017, p = .05/3$ comparisons). Those involved in casual relationships reported a higher percentage of personal alcohol use during sexual situations than those in committed relationships, $t(40.48) = -4.66, p < .001$. Single individuals reported a higher percentage of personal alcohol use during sexual situations than those in committed relationships, $t(132.73) = -3.20, p = .0017$.

Results of the ANCOVAs indicated that behavior associated with sexual aggression varied as a function of relationship status, $F(3, 236) = 3.42, p = .009$. Those involved in committed relationships endorsed more behaviors associated with sexual aggression compared with single individuals, $t(198.60) = 2.62, p = .0096$. Those in casual relationships also endorsed more behavior associated with sexual aggression compared with single individuals, $t(87.04) = 3.96, p = .0002$. There were no other significant differences in alcohol use during sexual situations, beliefs about sexual communication and consent, behavior

associated with sexual aggression, or approval for sexual aggression as a function of relationship status.

Post Hoc Moderation Analyses

To determine whether heavy drinking during sexual situations moderated the relationship between relationship status and behavior associated with sexual aggression, we conducted a similar regression analysis with age and campus living in the first step of the regression, relationship status as the second step, heavy drinking during sexual situations as the third step, and the interaction term between relationship status and personal heavy drinking during sexual situations. Results were not significant, indicating that heavy drinking during sexual situations was not a moderator between relationship status and behavior associated with sexual aggression. An identical set of analyses was conducted to determine whether personal alcohol use during sexual situations moderated the relationship between relationship status and behavior associated with sexual aggression. In this series of regression analyses, the interaction term between relationship status and personal alcohol use during sexual situations explained a significant increase in variance in behavior associated with sexual aggression, $\Delta R^2 = .062$, $F(5, 234) = 13.32$, $p < .001$. Thus, personal alcohol use during sexual situations significantly moderated the link between relationship status and behavior associated with sexual aggression (see Table 2). As can be seen in Figure 1, individuals in committed relationships who drank alcohol during sexual situations also endorsed engaging in more behaviors associated with sexual aggression compared with those in casual relationships and those who were single. However, as there were significant differences between individuals who were in a committed romantic relationship compared with those who were single and in casual relationships, we decided to rerun the model with the interaction including a dichotomous (committed vs. single and casual) relationship term. This model indicated that individuals in committed relationships who reported a higher percentage of alcohol during sexual situations also endorsed engaging in more behaviors associated with sexual aggression compared with those who are single or in casual relationships.

Discussion

To our knowledge, this study is the first to examine the role of relationship status, specifically single individuals, those in casual relationships, and those in committed relationships, on alcohol use during sexual situations, beliefs about sexual communication and consent, and sexually aggressive behavior.

Table 2. Moderation Regression Models of Engagement in Behavior Associated With Sexual Aggression.

	R^2	ΔR^2	t	β
Behavior associated with sexual aggression	.000	—	—	—
Age, campus living	.013	.013	1.07	0.074
Relationship status ^a	.042	.029	-2.63**	-0.168
Personal heavy drinking	.111	.070	4.15***	0.266
Relationship status $\times$ Personal heavy drinking	.114	.002	0.76	0.1052
Behavior associated with sexual aggression	.000	—	—	—
Age, campus living	.013	.013	1.07	0.074
Relationship status ^a	.042	.029	-2.63**	-0.168
Personal alcohol use	.160	.118	5.75***	0.351
Relationship status $\times$ Personal alcohol use	.221	.062	-4.31***	-1.115
Behavior associated with sexual aggression	.000	—	—	—
Age, campus living	.013	.013	1.07	0.074
Relationship status ^b	.023	.010	1.57	0.101
Personal alcohol use	.141	.118	5.70***	0.357
Relationship status $\times$ Personal alcohol use	.211	.093	4.57***	0.485

^aRelationship status was coded as follows: 1 = committed, 2 = casual, 3 = single.

^bRelationship status was coded as follows: 1 = committed relationship, 0 = no committed relationship.

* $p < .05$. ** $p \leq .01$. *** $p < .001$.

Results indicated that single individuals and those in casual relationships reported a higher percentage of personal alcohol use during sexual situations within the past year compared with those in committed relationships. These findings converge with previous research that suggests that involvement in committed relationships serves as a protective factor against maladaptive health behaviors, such as alcohol use (e.g., Khaddouma et al., 2016; R. G. Thompson et al., 2014; Whitton et al., 2013). These findings should be understood in the context in which this study was conducted. Specifically, the majority of participants in this study were Caucasian, male college students from the Northeastern area of the United States. Thus, the findings of the present study might only be generalizable to other individuals with these identities. This is largely a heterogeneous sample in terms of race, nationality, and geography, and we strongly encourage future research to include individuals from multiple diverse backgrounds to better capture the associations across relationship status, alcohol use, and behavior associated with sexual aggression. Given literature on adult relationships, in general, suggests that

Figure 1. Sexual encounters involving alcohol use and behavior associated with sexual aggression according to relationship status.

Note. Interaction effect of relationship status and percentage of sexual encounters involving personal alcohol use on behavior associated with sexual aggression.

relationship engagement is often associated with decreased engagement in risky behavior (Whitton et al., 2013), it was somewhat surprising that men in committed and casual relationships endorsed engaging in more behavior associated with sexual aggression compared with single individuals. Nonetheless, sexual violence often occurs in the context of a casual or committed relationship (Smith, Thornton, DeVellis, Earp, & Coker, 2002). We did not find differences in peer approval for sexual aggression, or beliefs about sexual communication and consent according to relationship status. However, when it comes to sexual *behavior*, single individuals might be more cautious when becoming involved with partners, whereas those in committed or casual relationships have established some degree of comfort and familiarity with their partners (see Jozkowski & Wiersma, 2015). Thus, a single individual might approach sexual activity with a partner in a tentative manner with an unfamiliar partner—and be more receptive to her requests to stop—whereas those who have developed relational and sexual patterns with partners might try to persuade their partners to continue, or feel entitled to sexual activity despite hearing “no” from a partner. Notably, college men

tend to endorse the belief that once partners consent to sexual activity once, they are also consenting to sexual activity in the future (Bay-Cheng & Eliseo-Arras, 2008; Muehlenhard, Humphreys, Jozkowski, & Peterson, 2016).

The association between behaviors associated with sexual aggression and relationship status is perhaps best interpreted in light of the moderation analyses, which suggested that men in committed relationships who more frequently engaged in alcohol use prior to sexual activity reported the highest levels of behavior associated with sexual aggression. Whereas the present research did not specifically assess men's perpetration of sexual aggression, the behaviors associated with sexual aggression assessed in the present study included actions such as "*When I want to touch someone sexually, I try it and see how they react,*" and "*I won't stop sexual activity when asked to if I am sexually aroused.*" These findings underscore the importance of working with college men to dismantle the attitudes and beliefs that normalize the coercive or aggressive pursuit of sexual activity in the context of a relationship. It may also be useful to ensure that prevention efforts among college women attend to risks of sexual violence perpetrated by an intimate partner.

There are several pathways through which alcohol use may increase engagement in sexually aggressive behavior among men in the context of a relationship. It is well documented that alcohol is associated with reduced inhibitions (Farris, Treat, Viken, & McFall, 2008). It is possible that the pharmacological effects of alcohol increase risk of sexual aggression among individuals in committed relationships who tend to consume alcohol prior to sexual activity. However, men in committed relationships who tend to drink prior to sexual activity, and engage in behavior associated with sexual aggression, may also endorse attitudes and beliefs commonly associated with both alcohol use and sexual aggression, such as hostility toward women, stereotypes regarding sexual violence, or acceptance of violence against women (Locke & Mahalik, 2005). It is also possible that the combination of familiarity with a romantic partner and alcohol consumption can increase the likelihood that men utilize sexually coercive strategies to obtain sexual activity with a partner, despite their wishes (see Jozkowski & Wiersma, 2015).

Our findings have important implications. First, it may be useful to provide more specific and targeted intervention regarding alcohol use and sexual violence to individuals in various types of relationships. Whereas some college students may envision sexual violence occurring with a stranger or acquaintance, our results suggest that it is equally important to discuss the risks of sexual violence in romantic relationships, especially in the context of alcohol use. Second, programs that include women can encourage more explicit conversations with their romantic partners, emphasizing that being in a committed relationship does not preclude risk of sexual violence.

Limitations, Future Directions, and Diversity Concerns

Several limitations are important to note. First, the present study focused on men's relationships with a female partner. As the study did not assess sexual orientation, it is possible that men in the present study may have engaged in sexual activity with women without identifying as heterosexual, or may have identified as bisexual, curious, questioning, or pansexual. Sexual violence can also occur in the context of same-sex experiences (Ristock, 2011), and additional research is needed to examine the intersection of alcohol use and sexual violence among men in relationships with other men. As the present research did not thoroughly assess for whether men were also involved with male sexual partners, it is possible that men in the present research could have also had sexual encounters with men. We encourage future studies to assess sexual orientation and gender identity in addition to sex assigned at birth to better characterize the study sample. Relatedly, the present study did not assess participants' ethnicity and/or nationality. Beliefs and behaviors in the context relationships, alcohol use, and violence against women can vary according to individuals' identities and cultural backgrounds (Holleran, Taylor-Seehafer, Pomeroy, & Neff, 2005; Krause & Kowalski, 2013; Ozaki & Otis, 2017; Room et al., 2012). Thus, our findings should not be generalized outside this specific college student sample.

Second, it is also important to note that the duration of the relationship for those in committed relationships was not assessed. It is possible that the protective role of relationship involvement takes time to build, which might help explain our nonsignificant findings between relationship status and beliefs in sexual communication and consent. Future research should consider relationship length and its impact on alcohol use and other health behaviors. Third, the measures of alcohol use in sexual situations and beliefs about sexual communication and consent were developed for the purpose of informing a sexual assault prevention program for college men. Furthermore, the assessment of beliefs about sexual communication and consent was measured by a limited series of items, which may limit variability in the scale, and the potential to identify significant associations with other constructs. It will be important for future studies to include validated measures to assess sexual communication and consent. Fourth, it is important to note that men were asked to estimate their alcohol use in sexual situations over the past year, and relationship status was assessed over the past 3 months. Although significant changes in drinking are uncommon among college students, even after adverse events, during college years (see Mallett, Lee, Neighbors, Larimer, & Turrisi, 2006; Park & Grant, 2005; Vik, Carrello, Tate, & Field, 2000), future studies would benefit from utilizing the same frame of measurement for both alcohol use and relationship status.

Conclusion

Continued research is needed to refine and tailor sexual violence prevention efforts on college campuses. Although it has long been recognized that sexual violence can occur in the context of committed relationships (Koss, Gidycz, & Wisniewski, 1987), the present findings underscore the continued importance of ensuring that college students in committed romantic relationships are aware of risks of sexual violence in the context of their relationship. Men in a committed relationship who are apt to engage in alcohol use prior to sexual activity may be especially important to target in prevention efforts. Whereas the majority of evidence-based prevention programs pay some attention to the role of alcohol use in sexual assault (Student Affairs Administrators in Higher Education, 2016), very few sexual assault prevention programs for men (Orchowski et al., 2018) or women (Gilmore, Lewis, & George, 2015) maintain a rigorous focus on both alcohol use and sexual violence. Relatedly, relationship education programs such as the Prevention and Relationship Education Program (PREP) for nonmarried individuals (Markman, Rhoades, Stanley, & Peterson, 2013) or the Relationship Skills Training (Davila & Lashman, 2016) could be expanded to include information regarding behaviors associated with sexual aggression. Such psychoeducation can help individuals both in and out of relationships recognize the risk of having their sexual boundaries crossed, particularly when alcohol is involved.

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ORCID iD

Lindsay Orchowski <https://orcid.org/0000-0001-9048-3576>

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Author Biographies

Jerika C. Norona received her PhD in clinical psychology from the University of California, Santa Cruz. She is a psychology fellow in the Addictions Research Program of the VISN 21 Mental Illness Research, Education, and Clinical Centers (MIRECC) at the San Francisco VA Health Care System and the University of California, San Francisco. Her research and clinical work focus on romantic relationships and couples therapy processes.

Brian Borsari received his PhD in clinical psychology from Syracuse University in 2003. Dr. Borsari is currently a Health Behavior Consultant and Clinician Researcher at the San Francisco Veterans Affairs Medical Center. His research interests there involve the assessment and treatment of addictive behaviors, training VA staff in motivational interviewing and other client-centered communication to facilitate behavior change. He is also Professor in Residence in the Department of Psychiatry at the University of California, San Francisco.

Daniel W. Oesterle, BS, is a graduate of the University of Massachusetts Boston and is a Research Program Coordinator within the College of Nursing at the Medical University of South Carolina.

Lindsay M. Orchowski, PhD, is an associate professor (Research) in the Department of Psychiatry and Human Behavior at the Alpert Medical School of Brown University, and a Staff Psychologist at Rhode Island Hospital. Her research focuses on the development and evaluation of sexual assault prevention programs.