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Gender and dating relationship status moderate the association between alcohol use and sex-related alcohol expectancies

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Abstract

Young adulthood can be a period where the development of intimacy and dating relationships coincide with alcohol experimentation. The current study was designed to examine how dating relationship status is associated with drinking behavior. Additionally, although the relationship between sex-related alcohol expectancies and drinking has been established, the current study extends this research by investigating how gender and dating relationship status moderate the association between these expectancies and drinking behavior. A sample of 1,932 college students who were single and not actively dating, single and actively dating, or in a steady relationship were included in analyses. Results revealed that males and females who were actively dating drank significantly more drinks per week than those not dating and those in a relationship. In addition, the association between sex-related alcohol expectancies and drinking behavior was moderated by gender and relationship status. Men with high sex-related alcohol expectancies appeared to be at equal similar risk for greater drinking regardless of relationship status. However, there appears to be unique drinking risk for actively dating women with high sex-related alcohol expectancies.

Keywords

gender differences; alcohol; sex-related alcohol expectancies; dating relationships

During young adulthood, a developmental period marked by intimacy and identity formation, the initiation and development of dating relationships can coincide with alcohol experimentation (Arnett, 2004; Erikson, 1959; Schulenberg & Maggs, 2002). Dating relationships (i.e., exclusive or casual) can often lead to sexual experimentation and activity with one or multiple partners (Cooper, 2002; Paul & Hayes, 2002; Paul & White, 1990) and alcohol use and abuse rises and peaks between ages 18 and 25 (SAMHSA, 2007; Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). Increased social activity, exposure to new people and friends, and decreased parental supervision may contribute to dating and the development of intimacy, as well as drinking and the experience of alcohol-related consequences. A careful examination of how dating relationships impact alcohol use during young adulthood is therefore warranted.

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Limited research has examined the association between dating relationship status and individual drinking behavior in this population. Walters and colleagues (2007) found no difference in heavy drinking risk among dating categories; however, other research suggests alcohol may play a bigger role in dating relationships during the early stages (e.g., first dates) than during the more committed/exclusive stages (Clapp & Shillington, 2001; Miller-Tutzauer, Leonard, & Windle, 1991; Mongeau & Johnson, 1995; Roberts & Kennedy, 2006). The theoretical and research evidence suggests that actively dating individuals may be at more risk for drinking than those not dating or those in a committed relationship. For example, young adults actively seeking romantic partners may place themselves in drinking-focused social interactions where the likelihood of meeting a potential dating partner is greater. Research has frequently cited social motives (e.g., meeting new people) as primary reasons for alcohol use among young adults (e.g., Cooper, 1994; Cronin, 1997; Fromme, Stroot, & Kaplan, 1993). Thus, those not actively pursuing dating relationships may not drink as a means of connecting with new people, and therefore may consume alcohol at rates lower than those seeking new partner relationships (Davies & Windle, 2000). Individuals in steady relationships may engage in activities unrelated to drinking (e.g., movies, romantic dinners) and may therefore be less exposed to the drinking scene frequented by those actively seeking partners.

As dating relationships and sexual activity are generally connected within this population, expectations or beliefs that alcohol will enhance or disinhibit sexual activity may further understanding of the link between alcohol use and dating relationship status. Expectations that alcohol will lead to or enhance sexual activity have been associated with drinking levels for both men and women (Brown, Goldman, Inn, & Anderson, 1980; Fromme et al., 1993; Mongeau & Johnson, 1995; Morr & Mongeau, 2004); with higher sex-related alcohol expectancies (SRAE) reported by men (Dermen & Cooper, 1994; Mongeau & Johnson). While researchers have found that alcohol consumption was the strongest predictor of both sexual expectations and actual sexual intimacy on first dates (Mongeau & Johnson), we were unable to find any research examining the impact of SRAE on alcohol use for young adults in steady relationships.

The current study was designed to further explore the association between alcohol consumption, dating relationship status, and SRAE. Due to the gender differences observed in prior research on SRAE and general alcohol use (e.g., Johnston et al., 2008), gender was incorporated into analyses. We hypothesized students actively dating would drink the most and the relationship between drinking and SRAE would be moderated by gender (stronger for men) and dating relationship status (stronger among actively dating individuals). The three-way interaction between gender, relationship status, and SRAE was also explored with a hypothesis that the moderating effect of dating relationship status on the association between expectancies and drinking behavior would vary as a function of gender.

Method

Participants

Approximately 3,500 undergraduate students were selected at random from a large west coast university and offered a \$25 incentive to complete a brief survey documenting campus drinking norms. Of those invited, 1,935 (55%) completed the online assessment of alcohol use. Three participants did not indicate relationship status and were therefore not included in analyses. Thus, the final sample consisted of 1,932 participants (mean age = 19.96 years ($SD=1.53$); 58% female). Approximately 4% classified themselves as Hispanic/Latino(a) race. Ethnicity varied with 56% Caucasian/White, 29% Asian, 8% Multiracial, and 6% "Other." Three participants chose to not indicate ethnicity.

Design and Procedure

All measures and procedures were approved by the university's human subject review committee. All participants received an email link to an online survey, read an informed consent statement, and electronically provided consent. Next, participants completed questions regarding demographics, typical weekly drinking, and SRAE.

Relationship status—Relationship status was assessed with six options: “single (not dating)” (approximately 40%), “single (dating)” (27%), “in a serious relationship” (31%), “married” (1%), “engaged” (2%), and “divorced” (one participant). Participants classified as “in a serious relationship,” “married,” or “engaged” were combined to form an “in a relationship” category. The “divorced” participant was excluded from analyses because current relationship status was unknown. Analyses included 765 single (not dating) participants, 517 single (dating) participants, and 649 participants in a relationship.

Drinking—Typical weekly drinking in the past month was assessed with the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985; Kivlahan et al., 1990). Participants indicated how many drinks they typically consumed on each night of a typical week in the past month. A *drinks per week* variable was computed by summing the typical amount consumed during each day of the week.

Sex-related alcohol expectancies—Participants completed the four items from the sex expectancy subscale of the Comprehensive Effects of Alcohol questionnaire (CEOA; Fromme et al., 1993). The four items (rated from “1 – disagree” to “4 – agree”) were averaged together to form a composite ($\alpha = .76$) (see Table 1 for items).

Results

Drinking varies by relationship status and gender

A 2 (gender) $\times$ 3 (relationship status) ANOVA revealed main effects for gender, $F(1,1910) = 57.78, p < .001$, and relationship status, $F(2,1910) = 33.69, p < .001$, but no gender $\times$ relationship status interaction, $p = .83$. Males ($M = 6.69, SD = 10.51$) drank significantly more drinks per week than females ($M = 3.98, SD = 5.61$), $t(1915) = 7.31, p < .001, d = .32$. Subsequent one-way ANOVAs revealed differences in means among the three dating categories, $F(2, 1913) = 31.12, p < .001$. Post hoc Tukey tests revealed that single (dating) participants ($M = 7.50, SD = 9.68$) drank more drinks per week than single (not dating) participants ($M = 4.24, SD = 7.78$), $t(1268) = 7.11, p < .001, d = .37$, and participants in a relationship ($M = 4.24, SD = 6.69$), $t(1157) = 6.89, p < .001, d = .39$.

Sex-related alcohol expectancies vary by relationship status within genders

A 2 $\times$ 3 ANOVA revealed no main effect for gender ($p = .79$) and a significant main effect for relationship status, $F(2,1872) = 10.62, p < .001$. There was also a significant interaction effect for gender $\times$ relationship status, $F(2,1872) = 3.41, p < .05$. Subsequent one-way ANOVAs revealed differences in means among the three dating categories for SRAE, $F(2,1875) = 9.38, p < .001$. Post hoc Tukey tests revealed that single (dating) participants ($M = 2.21, SD = 0.73$) had higher SRAE than single (not dating) participants ($M = 2.04, SD = 0.71$), $t(1241) = 4.13, p < .001, d = .24$, and participants in a relationship ($M = 2.06, SD = 0.72$), $t(1135) = 3.46, p < .01, d = .21$. Differences were also observed when relationship status was explored within male and female subgroups. Separate one-way ANOVAs revealed that for both males and females there were differences in mean SRAE among the dating categories; $F(2,776) = 7.51, p < .01$ for males, and $F(2,1096) = 5.64, p < .01$ for females. Tukey's post-hoc tests revealed that single (dating) men ($M = 2.24, SD = 0.72$) held significantly higher SRAE than single (not dating) men ($M = 2.08, SD = 0.69$), $t(574) = 2.73, p < .05, d = .24$, and relationship men ($M = 1.98, SD = 0.66$), $t(403) = 3.85,$

$p < .001$, $d = .38$. Single (dating) women ($M = 2.19$, $SD = 0.73$) held significantly higher SRAE than single (not dating) women ($M = 1.99$, $SD = 0.73$), $t(677) = 3.33$, $p < .001$, $d = .26$. No significant differences emerged between males and females on SRAE within any of the three dating categories.

Relationship status, gender, and sex-related alcohol expectancies predict drinking

Hierarchical regression was used to test the extent to which SRAE predicted drinking behavior, and the extent to which relationship status and gender moderated this relationship (Cohen, Cohen, West, & Aiken, 2003). Gender and relationship status were dummy coded (see Table 1 note). Table 1 summarizes findings from these regression analyses. At Step 1, all predictors uniquely contributed to the model. Single (not dating), being in a relationship, and being female were related to less drinking, while having higher SRAE was related to more drinking. Results at Step 2 indicated a significant two-way interaction between gender and SRAE. Simple slopes analysis revealed that SRAE were significantly associated with drinks per week for men ($\beta = .29$, $p < .001$) and women ($\beta = .15$, $p < .001$), with a stronger relationship for men.

At Step 3, a three-way interaction between relationship status, gender, and expectancies was found. The significant three-way interactions were graphed where high and low values of expectancies were specified as one standard deviation above and below the mean (Aiken & West, 1991). Figure 1 presents the three-way interaction between gender, relationship status (in a relationship versus single [dating]), and expectancies. Simple slope two-way interaction tests within each gender were performed. For men, the two-way interaction between relationship status and SRAE was non-significant, $p = .16$. Conversely, for women there was a two-way interaction between relationship status and SRAE, $t(1868) = 2.41$, $p < .05$. Tests of simple slopes for this interaction are included in Figure 1, revealing a stronger relationship between alcohol use and SRAE among males in a relationship and among single (dating) women.

Discussion

The current study was designed to further elucidate the relationship between gender, drinking, dating relationship status, and SRAE. The findings revealed that participants who were actively dating drank significantly less and had higher expectancies regarding the sexually enhancing and disinhibiting effects of alcohol than those currently in relationships or those who were not actively dating. Consistent with prior research, men drank more than women overall (Johnston et al., 2008); however, contrary to previous research, men and women did not differ on SRAE. When gender was examined by dating relationship status, actively dating males held significantly higher SRAE than men in a relationship or not actively dating. Actively dating women held higher SRAE than women not actively dating. Finally, examining the three-way interaction between gender, SRAE, and dating relationship status, findings revealed men with higher SRAE may be at increased risk for drinking regardless of dating status. For women, actively dating women with higher SRAE may also be at increased risk for drinking.

The link between relationship status and SRAE highlights the role such expectancies may play in young adult dating relationships for men and women. Perhaps the desire to “feel sexier” or “be a better lover” contributes to more drinking regardless of partner type (e.g., new, steady) for men. For women, however, the findings are more specific. It appears that actively dating single women, with beliefs that alcohol may enhance their sexual experience or allow them to be less inhibited, may be at the most risk for drinking. Unfortunately, these beliefs may place them at further risk for sexual assault; a consequences related to drinking and higher SRAE (Abbey, 2002; Benson, Gohm, & Gross, 2007).

Limitations exist in the present study. The dating relationship categories used may have been interpreted differently by participants. Though the measure was intended to differentiate between those individuals who were actively dating, not actively dating, or in a steady relationship, it is possible participants did not interpret the categories this way. Likewise, the categories do not allow for assessment of length of relationship status or reason for not being in a relationship (e.g., failed attempts versus no desire). Finally, the DDQ is a measure of overall weekly drinking and does not fully capture heavy episodic drinking occasions or alcohol-related problems. While SRAE are assessed, it is unknown if and to what extent participants were sexually active. Further work perhaps looking at event level risk for heavy drinking and consequences (e.g., unprotected sex, regretted sexual encounters) during nights with actual sexual experiences among young adults in various dating categories appears to be the next step for this research. Despite these limitations, these findings highlight the variability of SRAE and alcohol use in dating relationships. During interventions, presenting individuals with research evidence to challenge their ideas about the sexual enhancement or disinhibition expectancies regarding alcohol use may assist in the reduction/prevention effort.

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Males *Females*

Figure 1. Three way interaction between gender, sex-related alcohol expectancies, and relationship status predicting drinks per week.

Table 1

Hierarchical regression results evaluating drinks per week as a function of relationship status, gender, and alcohol sex expectancies.

Hierarchical Regression									
	R^2 change	F change	R^2 total	R^2 Adj	F total	b	SE	t	β
<u>Model</u>									
Step 1									
Single (not dating) ¹			.09	.09	(4, 1864) = 46.52**	-3.30	0.45	-7.35**	-0.20
In a relationship ²						-2.74	0.46	-5.94**	-0.16
Gender ³						-2.65	0.37	-7.26**	-0.16
Sex expectancies						1.98	0.25	8.02**	0.18
Step 2									
Single (not dating) × Gender	.01	(5, 1859) = 2.63*	.10	.09	(5, 1859) = .89**	-0.11	0.91	-0.12	-0.01
In a relationship × Gender						-0.18	0.97	-0.19	-0.01
Single (not dating) × Sex expectancies						-1.03	0.62	-1.67	-0.14
In a relationship × Sex expectancies						-0.80	0.64	-1.25	-0.11
Gender × Sex expectancies						-1.64	0.52	-3.18*	-0.24
Step 3									
Single (not dating) × Gender × Sex expectancies	.01	(2, 1857) = 4.01*	.10	.10	(11, 593) = 5.61**	-0.45	1.25	-0.36	-0.05
In a relationship × Gender × Sex expectancies						-3.47	1.36	-2.55*	-0.41

Note: Relationship status was recoded into two dummy variables with single (dating) as the reference group

*
 $p < .05$,

**
 $p < .001$.

¹ Single (not dating): Single (not dating) = 1, single (dating) and relationship = 0

² In a relationship: In a relationship = 1, single (dating) and single (not dating) = 0

³ Gender was coded male = 0, female = 1

Sex expectancy items: (1) I would be a better lover, (2) I would enjoy sex more, (3) I would feel sexier, and (4) It would be easier to act out my fantasies.