

# Bystander Intervention Among College Men: The Role of Alcohol and Correlates of Sexual Aggression

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## Abstract

Current efforts to reduce sexual violence in college campuses underscore the role of engaging men in prosocial bystander behavior. The current study implemented an online survey to explore associations between engaging in heavy drinking and attitudes toward bystander intervention among a sample of college men ( $N = 242$ ). Correlates of sexual aggression were also explored as mediators of the hypothesized relationship between engaging in heavy drinking and attitudes toward bystander intervention. Data indicated that men who engaged in two or more episodes of heavy drinking over the past month reported lower prosocial bystander attitudes compared with men who did not engage in such behavior. The association between engaging in heavy drinking and lower prosocial bystander attitudes was mediated by men's perception of their peers' approval for sexual aggression, their own comfort with sexism, and engagement in coercive sexual behavior. Implications for sexual assault prevention are discussed.

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Sexual assault is a serious public health problem that occurs across the life span on a continuum of severity (Koss & White, 2008), with far-reaching consequences (Yuan, Koss, & Stone, 2006). Rates of campus-based sexual assault in the United States are particularly high (Martin, Fisher, Warner, Krebs, & Lindquist, 2011). According to Humphrey and Kahn (2000), rates of sexual assault among women of college age are 4 times higher than rates of assault among women of other age groups. Furthermore, over the course of 1 year, 14% of college men perpetrate sexual aggression (Abbey & McAuslan, 2004).

**Bystander Intervention**

Bystander intervention training is now a common component of sexual assault prevention programs on college campuses (see Orchowski, Gidycz, & Murphy, 2010). The Campus Sexual Violence Elimination Act (Campus SaVE) of 2013 requires that colleges and universities in the United States that receive federal funding educate students on how to safely intervene as a proactive bystander when witnessing risky social situations on campus (Clery Center for Security on Campus, 2014). Bystander approaches encourage individuals to proactively intervene when witnessing potentially risky situations (Banyard, 2011; Banyard, Moynihan, & Grossman, 2009; Burn, 2009; Casey & Ohler, 2012; McMahan & Banyard, 2012; McMahan, Postmus, & Koenick, 2011). Bystander approaches also encourage individuals to express disapproval when misogynistic or inappropriate behavior is displayed by members of their community (Banyard, Plante, & Moynihan, 2004). Acknowledging that the majority of college men are not violent (Katz, 2006), bystander approaches also encourage men to take steps to discourage violence among their peers (Flood, 2005).

There is increasing research evidence to support bystander approaches as a strategy for changing the campus climate that facilitates interpersonal violence and sexual assault. Randomized (i.e., Banyard, Moynihan, & Plante, 2007; Coker et al., 2011) and non-experimental evaluations (i.e., Foubert & Perry, 2007; Hawkins, 2005; Potter, 2012; Potter & Moynihan, 2011; Potter, Moynihan, Stapleton, & Banyard, 2009; Ward, 2001) of sexual assault prevention programs and campaigns that include bystander intervention training and/or messages suggest that participants report increased intentions to intervene in risky situations. One randomized evaluation of a sexual assault

prevention program for college men that included a bystander intervention component suggested that men who received the intervention reported lower rates of sexual aggression at the 4-month follow-up, and greater perceptions that their peers would intervene in inappropriate situations at the 7-month follow-up, compared with men in a control group (Gidycz, Orchowski, & Berkowitz, 2011).

## Factors Associated With Helping

Prosocial attitudes and behavior include a wide array of beliefs and actions that are perceived as generally beneficial to other people (Penner, Dovidio, Piliavin, & Schroeder, 2005). Social psychologists have documented numerous factors related to general helping behavior, including individual factors such as reporting a sense of responsibility, as well as situational factors such as encountering an unambiguous situation (Fischer et al., 2011). Research directed at helping behavior in risky dating situations suggests that individuals are more willing to help when they report a high awareness of interpersonal violence (Banyard, 2008; Banyard & Moynihan, 2011), take on a sense of responsibility for the problem (Burn, 2009), have personal connection to victimization (Banyard, 2008; Burn, 2009; Chabot, Tracy, Manning, & Poisson, 2009), possess the skills to help (Burn, 2009), report a high level of extroversion (Banyard, 2008), and have a high level of confidence in being an active bystander (Banyard, 2008; Burn, 2009; Frye, 2007; McMahan, 2010). Individuals who report more general prosocial attitudes also report fewer barriers to bystander intervention (Bennett, Banyard, & Garnhart, 2014). Factors associated with proclivity to engage in sexual aggression are also associated with college students' willingness to intervene to address interpersonal violence. For example, the likelihood of helping is less probable when an individual endorses rape myths or rape supportive attitudes (Bannon, Brosi, & Foubert, 2013; Banyard, 2008; Banyard & Moynihan, 2011; McMahan, 2010). Lonsway and Fitzgerald (1994) defined rape myths as "attitudes and generally false beliefs about rape that are widely and persistently held that serve to deny and justify male sexual aggression against women" (p. 133). Rape myths are also commonly called rape supportive beliefs (Burgess, 2007).

College students' willingness to intervene is also associated with their perceptions of how their peers might act in similar situations (Banyard & Moynihan 2011; Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003; Stein, 2007). Research grounded in social norms theory suggests that college men tend to overestimate other men's adherence to hyper-masculine norms (Berkowitz, 2011) and underestimate the extent to which their peers feel

uncomfortable with degrading language or behaviors toward women (Kilmartin, Conway, Friedberg, McQuoid, & Tschan, 1999). College men also tend to believe their peers are more sexually active than they actually are (Lynch, Mowrey, Nesbitt, & O'Neil, 2004) and believe that other students endorse more rape myths than they actually do (Boutler, 1998). Taken together, these misperceived peer norms regarding masculinity, attitudes toward women, sexual activity, and the acceptance of violence may discourage men from expressing their discomfort with the inappropriate sexual behaviors of other men (Berkowitz, 2004). In fact, in one study of college men, perceptions of peer attitudes toward sexual aggression were an even more salient predictor of an individual's willingness to intervene than their own attitudes toward sexual aggression (Brown & Messman-Moore, 2010).

## Traditional Masculine Ideologies and Alcohol Use

Beliefs about what is considered acceptable masculine behavior can also influence how men weigh the consequences of engaging in proactive bystander intervention (Carlson, 2008; Tice & Baumeister, 1985). Carlson (2008) reported that college men in the United States were often hesitant to intervene in other men's dating behaviors due to the fear of being perceived as too sensitive or for fear that they were intruding on "another man's territory" (p. 10). Although there are many ways of being masculine (Connell, 1995), *traditional* masculine ideologies frequently emphasize both alcohol use (de Visser & Smith, 2007) and alcohol-related violence (Townsend, Parker, & Chase, 2012). For example, research among university students in the United Kingdom suggests that high levels of alcohol consumption are considered to be a traditionally masculine behavior, (de Visser & McDonnell, 2012). Furthermore, college men in the United States report pressure to consume large amounts of alcohol in social situations in order not to appear weak or "have their masculinity called into question" (Carlson, 2008; p. 9).

Numerous studies document complex associations between alcohol use and the larger constellation of attitudes and beliefs that influence men's potential for sexual aggression. For example, Locke and Mahalik (2005) reported that men who engage in problematic drinking and conform to the traditional masculine norm of being dominant and having power over women also tend to endorse rape myths and engage in sexual aggression. Other studies with college men also suggest that male peer support for sexual violence is associated with alcohol use (Schwartz & Nograd, 1996). Compared with non-sexually aggressive men, sexually aggressive men are also likely to report heavier drinking (Neal & Fromme, 2007) as well as greater daily (Borowsky, Hogan, & Ireland, 1997) and monthly (Zawacki, Abbey, Buck,

McAuslan, & Clinton-Sherrod, 2003) alcohol use. Although the associations between alcohol use and sexual aggression are complex (Abbey, 2008), it is postulated that one way in which alcohol use may facilitate sexually aggressive behavior is by narrowing men's attention to the short-term rewards of risky behavior (Steele & Josephs, 1990) and increasing the likelihood of misinterpreting a partner's cues as a sign of sexual interest (Farris, Treat, Viken, & McFall, 2008). Men may also use alcohol as an excuse for aggression (Abbey, 2008; George & Marlatt, 1986; Weiss, 2009).

## The Present Study

Surprisingly, research has yet to explore how men's alcohol use patterns influence their attitudes toward bystander intervention. At the event level, alcohol myopia theory would posit that alcohol intoxication could serve as event-level barrier to intervening in potentially risky dating situations (Steele & Josephs, 1990) by increasing the likelihood that an individual focuses on the most salient cues in their immediate environment, instead of indicators of a risky situation. Given the role of alcohol use as a part of traditional masculine behavior, it is also possible that men's overall drinking behavior represents one part of a larger interrelated constellation of attitudes associated with traditional notions of masculinity (and sexual aggression) that might deter men from intervening to address other men's risky behavior.

The present study, therefore, sought to explore whether college men's overall level of alcohol use was associated with their prosocial attitudes toward bystander intervention among college men. Analyses also explored whether a series of factors associated with sexual aggression mediated the hypothesized relationship between men's alcohol use and attitudes toward bystander intervention. Men in this study were classified as engaging in "heavy drinking" if they reported consuming five or more drinks in one sitting on more than one occasion in the past month. This classification is consistent with other definitions of heavy drinking (Grzywacz, Quandt, Isom, & Arcury, 2007). As there is no universally agreed upon definition of heavy drinking (Dufour, 1999), this classification was based on the National Institute of Alcohol Abuse and Alcoholism's (2005) definition of *heavy drinking* for men as consuming five or more drinks within a couple hours of each other. Research suggests that men who consume more than four standard drinks in a day are at increased risk for alcohol-related problems (Dawson, Grant, & Li, 2005; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Rape supportive attitudes, perceived peer approval for sexual aggression, personal engagement in sexually coercive behavior, and comfort with sexism were explored as putative mediators of the hypothesized relationship between alcohol use and

bystander intervention attitudes. Comfort with sexism refers to an individual's tolerance of hostility toward women (Glick & Fiske, 1996). Prior research suggests that endorsement of rape supportive attitudes (Suarez & Gadalla, 2010) and perceived peer approval for sexual aggression (Strang & Peterson, 2013) are associated with men's personal engagement in sexual aggression. Furthermore, studies suggest that the likelihood of helping is less probable when an individual reports a high level of rape myths (Banyard, 2008; Banyard & Moynihan, 2011; McMahon, 2010), rape supportive attitudes (Bannon et al., 2013), or perceived peer approval for sexual aggression (Brown & Messman-Moore, 2010). Men's perceived peer support for sexual aggression mediates the association between men's engagement in heavy drinking and sexual aggression (Thompson, Koss, Kingree, Goree, & Rice, 2011).

## Specific Hypotheses

**Hypothesis 1:** Men who reported heavy drinking on more than one occasion in the past month report lower prosocial attitudes toward bystander intervention compared with men without such drinking behavior.

**Hypothesis 2:** Increased comfort with sexism, higher rape supportive attitudes, greater engagement in coercive sexual behavior, and higher perceived peer approval for sexual aggression are associated with lower prosocial bystander intervention attitudes.

**Hypothesis 3:** Each of the factors commonly associated with sexual aggression is associated with meeting our criteria for heavy drinking.

**Hypothesis 4:** The common correlates of sexual aggression mediate the relationship between alcohol use and attitudes toward bystander intervention.

## Method

### *Participants*

Participants included men enrolled at a large Northeastern University in the United States. Using a list of more than 5,000 enrolled students provided by the university registrar, a sample of 2,300 undergraduate men between the age 18 and 22 were randomly selected to receive an e-mail invitation to participate in an online survey. 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, 242 completed it (72.7%) and were included in the study sample. No participants were omitted prior to analyses due to missing data.

The majority of men were 20 or 21 years old (59.4%,  $n = 143$ ), with a mean age of 20.44 years ( $SD = 1.04$ ). Consistent with university demographics, 86.4% of participants self-identified as Caucasian ( $n = 209$ ), 2.1% as African American ( $n = 5$ ), 4.1% as Asian ( $n = 10$ ), 0.4% as Native Hawaiian or Pacific Islander ( $n = 1$ ), 4.1% as “Other” ( $n = 10$ ), and 2.9% declined to answer ( $n = 7$ ). In addition, 4.1% ( $n = 10$ ) reported their ethnicity as Hispanic or Latino, whereas 78.9% identified as not Hispanic or Latino ( $n = 191$ ), and 16.9% ( $n = 41$ ) declined to answer. Approximately 58% of the sample reported living off-campus ( $n = 140$ ).

## Procedure

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

**Demographics.** Participants completed items assessing race, ethnicity, gender, and age.

**Alcohol use.** Participants were asked to indicate how many times in the past 30 days they consumed five or more drinks on one occasion. One drink was defined as one 12 ounce beer, one 5 ounce glass of wine, or one 1.5 ounce shot of 80-proof spirits (National Institute of Alcohol Abuse and Alcoholism, 2005). Men were classified as engaging in heavy drinking if they reported consuming five or more drinks on more than one occasion in the past 30 days (see Grzywacz et al., 2007; National Institute of Alcohol Abuse and Alcoholism, 2005). Of the sample, 50% ( $n = 121$ ) reported consuming five or more drinks in one sitting on more than one occasion in the past month, and were classified as “heavy drinkers.”

**Bystander intervention attitudes.** Prosocial attitudes toward bystander intervention were assessed with the Bystander Attitudes Scale (Banyard et al., 2007), which consists of 51 helping behaviors related to sexual assault and dating violence. Participants are asked to respond on a 5-point scale, to the extent which they would be likely to engage in each behavior. Scores are summed across the items, with higher score reflecting greater prosocial attitudes toward

bystander intervention. The Bystander Attitudes Scale demonstrates good reliability (Banyard, 2008). Cronbach's alpha was .94 in the present sample.

*Perceptions of peer approval for sexual aggression.* The Differential Reinforcement subscale ( $\alpha = .72$ ) of the Social Norms Measure (Boeringer, Shehan, & Akers, 1991) assessed men's perception of peer approval for sexual aggression. For example, men are asked, "How approving do you think your friends would be of you if you got a woman drunk or high to have sex with her?" Three items are scored on a 5-point scale, ranging from "very disapproving" to "very approving," with higher scores representing higher perceived peer approval for sexual aggression. Cronbach's alpha was .71 in the present sample.

*Comfort with sexism, rape supportive attitudes, and engagement in coercive sexual behavior.* The Sexual Social Norms Inventory (Bruner, 2002) assessed men's comfort with sexism, rape supportive attitudes, and engagement in coercive sexual behavior. The scale includes 31 items that are summed to create several subscales, including comfort with sexism ( $\alpha = .84$ ), rape supportive attitudes and behaviors ( $\alpha = .63$ ), and engagement in coercive sexual behavior ( $\alpha = .74$ ). For example, the following item is reverse scored to assess comfort with sexism: "I feel uncomfortable when a friend brags about having sex," such that higher scores represent more comfort with sexism. Furthermore, rape supportive attitudes are represented with the item "If a woman has been drinking, it is her fault if she gets raped." The item "I encourage my date to drink so she will let me have sex with her" represents engagement in sexually coercive behavior. Responses are provided along a 5-point scale ranging from "strongly disagree" to "strongly agree," with higher scores reflecting greater comfort with sexist behavior, rape supportive attitudes, and engagement in coercive sexual behavior. Cronbach's alpha for the subscales assessing comfort with sexism, rape supportive attitudes and behaviors, and coercive sexual behavior were .79, .92, and .77, respectively.

### *Data-Analysis Plan*

A series of *t* tests were conducted to examine whether men who reported engaging in heavy drinking varied in their attitudes toward prosocial bystander intervention behaviors compared with men who did not report such behavior (see Table 1). A series of correlation analyses were next conducted to examine univariate associations between bystander intervention attitudes, engaging in heavy drinking, and common correlates of sexual aggression (see Table 2).

**Table 1.** Variations in Prosocial Bystander Intervention Attitudes as a Function of Alcohol Use.

Bystander Behavior	Non-Heavy Drinkers		Heavy Drinkers		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Call 911 and tell the hospital if I suspect that my friend has been drugged.	4.25	0.95	4.01	1.05	1.86	.06
Call 911 if I hear someone yelling and fighting.	2.98	0.96	2.44	1.10	4.04	<.001***
Try to get help if I suspect a stranger at a party has been drugged.	3.73	0.97	3.44	1.15	2.11	.03*
Call 911 if I hear someone calling for help.	4.07	0.81	3.81	0.94	2.26	.03*
Go investigate if I am awakened at night by someone calling for help.	4.19	0.82	4.39	0.82	-1.88	.06
Call 911 if my friend needs help.	4.71	0.52	4.59	0.71	1.53	.12
Talk to the friends of a drunk person to make sure they aren't left behind.	3.84	1.11	3.91	1.04	-0.48	.63
If I see someone at a party who has had too much to drink, I ask them if they need to be walked home so they can go to sleep.	3.28	1.16	3.17	1.18	0.77	.44
If my friend said they had an unwanted sexual experience but they don't call it "rape," I question them further.	3.75	1.04	3.45	1.12	2.13	.04*
Walk a stranger home from a party who has had too much to drink.	3.05	1.10	3.03	1.13	0.12	.90
Walk a friend home from a party who has had too much to drink.	4.62	0.64	4.48	0.78	1.54	.12
If a woman is being shoved or yelled at by a man, I ask her if she needs help.	4.14	0.83	4.36	0.72	-2.12	.03*
Knock on the door if I hear yelling and fighting through my dormitory walls.	3.26	1.09	3.08	1.00	1.29	.19
Talk with someone if I hear yelling or fighting through my dormitory or apartment walls.	3.54	1.07	3.05	1.20	3.39	.001**
Confront a friend who is grabbing, pushing, or insulting their partner.	4.21	0.79	4.21	0.83	0.00	1.00

(continued)

**Table 1. (continued)**

Bystander Behavior	Non-Heavy Drinkers		Heavy Drinkers		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Get help if I saw a friend grabbing, pushing, or insulting their partner.	3.62	0.98	3.17	1.12	3.30	.001**
If I saw a friend taking a very intoxicated person up the stairs to my friend's room, I would say something.	3.64	1.04	3.58	1.05	0.49	.62
If I saw several strangers dragging a passed out woman up to their room, I would get help and try to intervene.	4.21	0.88	4.44	0.79	-2.07	.03*
If I hear an acquaintance talking about forcing someone to have sex with them, I speak up against it and express concern for the person who was forced.	4.21	0.83	4.25	0.79	-0.32	.75
Tell a person whose drink I saw spiked with a drug even if I didn't know them.	4.56	0.73	4.65	0.64	-1.03	.30
Pour out someone's drink if I saw that someone slipped something into it.	4.16	1.01	4.21	0.92	-0.40	.69
Ask a friend who seems upset if they are okay or need help.	4.54	0.66	4.48	0.66	0.68	.49
Ask an acquaintance who seems upset if they are okay or need help.	4.17	0.82	4.07	0.74	1.07	.28
Ask a stranger who seems upset if they are okay or need help.	3.64	0.90	3.39	0.97	2.13	.03*
Call a rape crisis center or RC <sup>a</sup> if a friend told me they were sexually assaulted.	3.78	0.98	3.58	1.15	1.44	.15
Call a rape crisis center or RC <sup>a</sup> if an acquaintance were sexually assaulted.	3.67	0.99	3.34	1.09	2.41	.01*
Call a rape crisis center or RC <sup>a</sup> if a stranger told me they were sexually assaulted.	3.33	1.08	3.02	1.12	2.16	.03*
Offer support to a friend if I thought they were in an abusive relationship.	4.41	0.69	4.24	0.83	1.69	.09

(continued)

**Table 1. (continued)**

	Non-Heavy Drinkers		Heavy Drinkers		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Bystander Behavior						
Offer support to a friend I suspect has been sexually assaulted.	4.36	0.77	4.30	0.78	0.66	.50
Share information about sexual assault and violence with my friend.	3.75	0.87	3.69	0.96	0.49	.62
Confront friends who make excuses for abusive behavior by others.	4.01	0.83	4.16	0.74	1.47	.14
Speak up against racist jokes.	2.81	1.20	2.47	1.22	2.18	.03*
Speak up against sexist jokes.	2.74	1.17	2.41	1.16	2.16	.03*
Speak up against homophobic jokes.	2.84	1.24	2.76	1.34	0.49	.62
Speak up against commercials that depict violence against women.	3.21	1.21	2.84	1.28	2.27	.02*
Speak up in class if a professor explains that women like to be raped.	4.06	1.11	3.81	1.37	1.49	.13
Speak up if I hear someone say "she deserved to be raped."	4.24	0.99	4.03	1.08	1.55	.12
Watch my drinks and my friends' drinks at parties.	4.22	0.81	3.61	1.16	4.68	<.001***
Make sure I leave the party with the same people I came with.	4.33	0.80	3.79	1.04	4.57	<.001***
Ask for verbal consent when intimate with my partner, even a relationship.	4.13	0.95	3.41	1.15	5.36	<.001***
I won't stop sexual activity when asked to if I am already sexually aroused. <sup>b</sup>	1.65	1.14	1.73	1.10	-0.52	.60
When I hear a sexist comment I indicate my displeasure.	2.98	1.08	2.57	1.07	2.92	.004**
I obtain verbal consent before engaging in sexual behavior.	4.12	0.99	3.60	1.09	3.95	<.001***
If someone has been accused of sexual violence, I keep the information to myself. <sup>b</sup>	2.65	0.96	2.68	0.88	-0.28	.78
Educate myself about sexual violence and what I can do about it.	3.43	1.06	2.96	1.03	3.52	.001**
Call 911 if a stranger needs help.	4.12	0.83	4.05	0.85	0.69	.49

(continued)

**Table 1. (continued)**

Bystander Behavior	Non-Heavy Drinkers		Heavy Drinkers		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
I see a man and his girlfriend whom I know in a heated argument. The man's fist is clenched and his partner looks upset. I ask if everything is ok.	3.74	0.90	3.78	0.79	-0.30	.76
I see a man talking to a woman at a bar. He is sitting very close to her and by the look on her face I can see she is uncomfortable. I ask her if she is ok.	3.50	1.05	3.51	0.96	-0.06	.95
I see a man I don't know and his girlfriend. His fist is clenched and his partner looks upset. I ask if everything is ok.	3.31	1.05	3.42	0.90	-0.85	.39
I encourage people who say they have had unwanted sexual experiences to keep quiet so they don't get others in trouble. <sup>b</sup>	1.77	0.90	1.96	1.07	-1.50	.13
If I know information about an incident of sexual violence, I tell authorities.	3.67	0.95	3.59	0.80	0.66	.51

<sup>a</sup>Resident counselor.

<sup>b</sup>Item is reverse coded.

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

A multiple mediator model was fit to the data to examine the unique contribution of each factor in combination with the other hypothesized mediators (see Table 3). Specifically, the mediational effect of common correlates of sexual aggression on the association between engaging in heavy drinking and bystander intervention attitudes was assessed using the non-parametric bootstrapped multivariate approach to the cross-product of the coefficient test developed by Preacher and Hayes (2004, 2008). An SPSS macro created by Preacher and Hayes for bootstrap analyses with multiple mediators was used to examine the direct and indirect effects. All variables that correlated significantly with both heavy drinking and bystander intervention attitudes were considered as potential mediators (see Table 2).

**Table 2.** Correlations Between Study Variables.

Bystander Intervention Attitudes	1	2	3	4	5
Heavy alcohol use	-.16*	—			
Perceived peer approval of sexual aggression	-.23***	.17**	—		
Engagement in coercive sexual behavior	-.41***	.25***	.54***	—	
Increased comfort with sexism	-.47***	.23***	.23***	.23***	—
Rape supportive attitudes	-.39***	.13	.46***	.62**	-.01

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

**Table 3.** Mediation of the Effect of Heavy Drinking on Bystander Intervention Attitudes Through Men's Comfort With Sexism, Attitudes Toward Sexuality, and Perceived Peer Approval for Sexual Aggression.

	Point Estimate	Product of Coefficients		Bootstrapping	
		SE	Z	BCa 95% CI Lower	Upper
Comfort with sexism	-4.54	1.41	-3.21	-7.83	-1.93
Coercive sexual behavior	-2.88	1.10	-2.62	-5.94	-0.88
Perceived peer approval for sexual aggression	-1.77	0.86	-2.05	-3.97	-0.37
Total	-9.19	2.11	-4.36	-13.99	-4.81
<b>Contrasts</b>					
Comfort with sexism vs. peer approval for SA <sup>a</sup>	-2.77	1.59	-1.74	-6.52	0.54
Comfort with sexism vs. coercive sexual behavior	-1.67	1.73	-0.97	-5.69	2.11
Peer approval for SA <sup>a</sup> vs. coercive sexual behavior	1.10	1.39	0.79	-1.46	4.50

Note. 1,000 bootstrap samples. BCa CI= bias corrected and accelerated bootstrap confidence interval.

<sup>a</sup>Sexual aggression.

The cross-product of the coefficient test for mediation was chosen over the causal path approach (i.e., Baron & Kenny, 1986) based on MacKinnon, Lockwood, Hoffman, West, and Sheets (2002) assertion that the cross-product of the coefficient test is a more robust approach to detecting indirect effects. According to Preacher and Hayes (2008), this method of estimating

direct and indirect effects with multiple mediators tests multiple mediators simultaneously without the assumption of a normal sampling distribution, thereby reducing the number of inferential tests and minimizing Type I error. Specifically, this approach provides a single test between the independent variable, mediators, and outcome by multiplying the coefficients for “path a” and “path b,” and testing the significance of the result. A bootstrapping technique is utilized, such that 1,000 random samples of the original size are taken from the data, replacing each value as it is sampled, and computing the indirect effect (i.e., “a\*b”) in each sample. A point estimate of the indirect effect is calculated by determining the average indirect effect over the samples. Confidence intervals are then computed from the distribution of the indirect effect scores over the sample. The indirect effect is significant if the confidence interval does not contain zero.

## **Results**

### *Do Bystander Attitudes Vary Between Heavy Drinking and Non-Heavy Drinking Men?*

Differences between men who engaged in heavy drinking two or more times in the past month and men who did not report such behavior were indicated on 20 of the bystander attitudes (see Table 1). For example, men who engaged in heavy drinking behavior reported a lower willingness to get help if they suspected a stranger at a party had been drugged compared with men who did not report such behavior. The only two bystander intervention behaviors that men who engaged in heavy drinking were more likely than other men to engage in were attempting to intervene when witnessing a stranger dragging a passed out woman up to their room, and asking a woman who is being shoved or yelled at by a man if she needs help.

### *Correlations Between Heavy Drinking, Correlates of Sexual Aggression, and Prosocial Attitudes Toward Bystander Intervention*

Correlation analyses established that heavy alcohol use was associated with lower prosocial attitudes toward bystander intervention (see Table 2). Men who reported engaging in heavy drinking two or more times over the past month were more likely than men who did not report such behavior to report increased comfort with sexism, more engagement in coercive sexual behavior, and greater perceived peer approval for sexual aggression. Increased comfort with sexism, greater perceived peer approval for sexual aggression,

increased rape supportive attitudes, and greater engagement in coercive sexual behavior were also associated with lower prosocial attitudes toward bystander intervention. Greater comfort with sexism, greater perceived peer approval for sexual aggression, and greater engagement in coercive sexual behavior were also positively correlated with one another. However, rape supportive attitudes were associated only with perceived peer approval of sexual aggression and coercive sexual behavior.

### *Mediation Analyses*

Analyses next tested whether correlates of sexual aggression mediated the association between heavy drinking and attitudes toward bystander intervention (see Table 3). The factors associated with sexual aggression that were significantly correlated with engaging in two or more episodes of heavy drinking and bystander intervention behavior were considered as potential mediators. These factors included (a) comfort with sexism, (b) engagement in sexually coercive behavior, and (c) perceived peer approval for sexual aggression. Rape supportive attitudes were not associated with heavy drinking and were not included in the model.

Indirect effects for multiple mediators were calculated with bootstrapping analyses as described by Preacher and Hayes (2008). The bootstrap results indicated that the total effect of heavy drinking on bystander intervention attitudes (total effect =  $-8.62$ ,  $p = .01$ ) became non-significant when the hypothesized mediators of comfort with sexism, coercive sexual behavior, and peer approval for sexual aggression were included in the model (direct effect of heavy drinking =  $0.57$ ,  $p = .84$ ). The difference between the total and direct effects of engaging heavy drinking on bystander intervention attitudes through the mediator variables (i.e., the total indirect effect through the mediators) revealed a point estimate of  $-9.19$  and a 95% bias corrected and accelerated bootstrap confidence interval (BCa CI) of  $[-14.13, -4.97]$ , suggesting that the mediator variables fully mediated the association between alcohol use and bystander intervention attitudes. The specific indirect effects of each proposed mediator indicated that comfort with sexism, with a point estimate of  $-4.54$  and a 95% BCa CI of  $[-7.98, -1.88]$ , and coercive sexual behavior, with a point estimate of  $-2.88$  and a 95% BCa CI of  $[-5.86, -0.80]$ , and perceived peer approval of sexual aggression, with a point estimate of  $-1.77$  and a 95% BCa CI of  $[-4.16, -0.35]$ , were all unique mediators, as none of the 95% BCa CIs contains zero. Examination of planned contrasts of the specific indirect effects through each mediator revealed that none of the effects were larger than another.

## Discussion

The results from this study advance our knowledge of the relationship between alcohol use and prosocial attitudes toward bystander intervention. To our knowledge, this is the first study to examine engaging in heavy drinking—as defined as consuming 5 or more drinks on more than one occasion in the past 30 days—as a correlate of men's attitudes toward bystander approaches. Several of the study hypotheses were supported. Men who reported engaging in heavy drinking two more times in the past month indicated more comfort with sexism, higher perceived peer approval for sexual aggression, and greater engagement in sexually coercive behavior compared with men who did not engage in such behavior. Furthermore, higher comfort with sexism, greater engagement in sexually coercive behaviors, more rape supportive attitudes, and higher perceptions of peer approval for sexual aggression were associated with lower prosocial attitudes toward bystander intervention (Hypothesis 2).

Men's perceived likelihood to engage in specific bystander intervention behaviors varied as a function of their alcohol use. Furthermore, compared with men who engaged in heavy drinking in the past month, men who did not engage in such behavior reported generally more positive attitudes toward bystander intervention (Hypothesis 1). These data are best interpreted in the context of the mediation analyses. Specifically, mediation analyses supported the interpretation that the lower perceived likelihood to intervene among men who engage in heavy drinking was driven by a set of associated beliefs and attitudes that condone violence against women. Specifically, the association between heavy drinking and bystander intervention attitudes was mediated by men's comfort with sexism, perception of peer approval for sexually aggressive behavior, and men's own engagement in coercive sexual behavior (Hypothesis 4). These findings underscore the importance of acknowledging men's global alcohol use patterns as one *interrelated* component of the larger constellation of attitudes and beliefs that influence men's willingness to take steps to prevent violence among their peers.

### *Implications for Sexual Assault Prevention*

Targeting men who are members of social organizations with traditionally high levels of alcohol use may be a particularly important strategy for ensuring that the individuals most likely to witness risky behavior are equipped with the tools to step in and do something about it. These findings also underscore the importance of ensuring that bystander intervention skills are taught within an ecological framework (Dahlberg & Krug, 2002). It is vital that

interventions not only provide men with strategies to address the inappropriate behavior of their peers but also challenge the rape supportive beliefs, misperceived social norms, and cultural systems of sexism and misogyny that perpetuate violence against women.

Although the present research confirmed previously documented associations between alcohol use and men's comfort with sexism (Schwartz & Nogrady, 1996), it is likely that there is a subset of men who report heavy drinking and who *are uncomfortable* with misogyny and coercive behavior. In actuality, the majority of men are uncomfortable not only with men who commit sexual violence but also with the expectations of what society has deemed "traditionally masculine" (Berkowitz, 2011). Social norms theory proposes that when the actual norm of a peer group is revealed, individuals are more likely to engage in prosocial action (Berkowitz, 2011). Bystander intervention approaches may benefit from incorporating data that reveal the actual norm—that the majority of men do not want to hurt women, feel uncomfortable in situations that perpetuate this standard, and would be willing to take action to prevent violence—to encourage more men to take action when encountering inappropriate speech or behavior.

### *Limitations and Future Directions*

Whereas the present study adds to the research in several ways, some limitations must be noted. Although consistent with the demographics of the university, the present sample was limited in diversity, and as a result, may not be generalizable to other samples. Furthermore, this study assessed attitudes toward bystander intervention, and not actual engagement in helping behavior. Future research can assess whether men actually have the opportunity to engage in helping behaviors, and whether they act proactive when given the opportunity to do so. As Banyard and Moynihan (2011) suggested, bystanders have the opportunity to step in and help, as well as the choice to do nothing, or to even support a perpetrator by facilitating his behavior.

Laboratory, alcohol administration, and analogue studies also represent a promising strategy for broadening our understanding of how alcohol use influences bystander intervention (i.e., Parrott et al., 2012). Even if an intoxicated individual notices a risky dating situation, distortions in judgment may lead the individual to normalize a precarious situation and ignore it. Men who expect to feel "liquid courage" after drinking may also be more likely to intervene when intoxicated; however, it is also possible individuals who take action after noticing a risky situation when intoxicated are less effective in their ability to intervene.

## Conclusion

In sum, although heavy drinking demonstrated an association with reduced willingness to intervene among this sample of college men, this relationship was explained by the concomitant association between heavy drinking and other correlates of sexual aggression that diminished men's own willingness to intervene. Given that bystander approaches represent a promising approach to preventing sexual assault on college campuses, continued research is warranted to understand the factors that serve to both support and inhibit college students' ability to act to reduce rates of violence in their community.

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