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Emotion Regulation Difficulties Moderate the Association Between Heavy Episodic Drinking and Dating Violence Perpetration Among College Men

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Abstract

Because of high rates of heavy drinking and dating violence (psychological or physical aggression toward a dating partner) among college men, we examined whether emotion regulation difficulties moderated the association between heavy drinking and dating violence perpetration. One hundred and fifty-eight men were recruited from a large northwestern US university between April 2014 and August 2014. Participants completed an online survey that assessed their emotion regulation difficulties as well as their past year history of heavy episodic drinking (HED; consuming 5+ drinks in 2 hours) and dating violence perpetration. Generalized linear models revealed that the positive association between HED and dating violence perpetration was stronger for men with greater impulse control difficulties and for those who reported limited access to emotion regulation strategies. In addition to continued efforts to reduce heavy drinking among college men, interventions targeting emotion regulation difficulties should be incorporated into standard dating violence intervention and prevention efforts to further reduce the likelihood of dating violence perpetration in this population.

Keywords

Heavy drinking; emotion regulation; dating violence; college men

Dating violence, defined here as physical and/or psychological aggression toward a dating partner, is a growing public health concern and a significant problem amongst college men. Physical aggression, defined as kicking, pushing, slapping, or throwing an object at one's partner, occurs in approximately 20-37% of dating relationships (Bell & Naugle, 2007; Sears, Byers, & Price, 2007; Silverman, Raj, Mucci, & Hathway, 2001). Psychological aggression typically involves manipulation of the partner through intimidation, threats, or criticism, or verbal attacks including insulting or swearing at one's partner (White & Koss, 1991), and is reported in approximately 70-90% of dating relationships (Neufeld, McNamara, & Ertl, 1999; Shorey, Cornelius, & Bell, 2008).

Rates of heavy drinking are high among college men. Almost half (44%) of college men reported heavy episodic drinking (HED; defined as consuming five or more standard drinks for men in a 2-hour period) in the past two weeks (Johnston, O'Malley, Bachman, & Schulenberg, 2011). Moreover, approximately 48% of college men reported engaging in HED over the past year (Dawson, Grant, Stinson, & Chou, 2004). Alcohol use has

consistently been associated with intimate partner violence (which refers to married and non-married romantic partners more broadly), and although less research has investigated the link between alcohol and dating violence specifically, an increasing number of studies have focused on this association in college samples.

In a comprehensive review, Shorey, Stuart, & Cornelius (2011b) found that alcohol consumption is robustly related to male dating violence perpetration. Men who have been drinking exhibit increased and more severe acts of violence compared to men who have not been drinking (Rothman, Reyes, Johnson, & LaValley, 2012; Testa, Quigley, & Leonard, 2003). Moreover, frequency of men's alcohol consumption is associated with their dating violence perpetration (Hove, Parkhill, Neighbors, McConchie, & Fossos, 2010; Luthra & Gidycz, 2006; Rapoza & Baker, 2008). In recent event-level examinations, greater alcohol consumption was associated with an increased likelihood of perpetrating dating violence on that same day for college men and women (Moore, Elkins, McNulty, Kivisto, & Handsel, 2011; Shorey, Stuart, McNulty, & Moore, 2014; Stappenbeck, Gulati, & Fromme, 2016). Additionally, there is a positive association between HED and dating violence perpetration (Hines & Straus, 2007; Rothman et al., 2012; Walton et al., 2009), and research focusing specifically on college student men has shown that men who engage in HED are more likely to perpetrate physical (Lysova & Hines, 2008) and psychological (Roudsari, Leahy, & Walters, 2009) aggression against a dating partner.

Emotion regulation, defined as the awareness and understanding of emotions in order to accept and control them, and the ability to behave in accordance with goals and maintain situationally appropriate emotion regulation strategies (Gratz & Roemer, 2004; Shorey, Brasfield, Febres, & Stuart, 2011a), may help inform the association between alcohol consumption and dating violence perpetration. Although this study was not designed specifically to test this theory, the I³ theory (for a comprehensive review, see Finkel & Eckhardt, 2013) provides a process model and unifying theoretical framework for understanding the instigating, impelling, and inhibiting forces that serve as risk factors for alcohol-induced violence. Instigating factors include situational events, such as interpersonal provocation, that prompt an individual to aggress, whereas impelling factors consist of dispositional or situational characteristics such as emotion regulation difficulties that drive an individual to aggress at the moment of instigation. Inhibiting forces, or rather disinhibiting forces such as alcohol intoxication, decrease an individual's ability to override an urge to aggress. Alcohol intoxication impairs an individual's ability to exert inhibitory control over aggressive behavior by impeding executive functioning and decreasing one's self-regulatory capacity (Eckhardt, Parrott, & Sprunger, 2015; Giancola, Josephs, Parrott, & Duke, 2010; Maldonado, Watkins, & DiLillo, 2015). According to the perfect storm theory (Finkel, 2007), an individual is likely to aggress under conditions of high instigation, high impellance, and low inhibition. The current study focused on how conditions of high impellance (i.e., emotion regulation difficulties) and low inhibition (i.e., heavy drinking) interact to impact dating violence perpetration but did not include an assessment of potential instigatory factors also included in the I³ theory. Individuals with greater levels of alcohol consumption who have greater emotion regulation difficulties may be at greater risk for perpetrating aggression.

In burgeoning research exploring emotion regulation and dating violence, researchers have hypothesized that aggression may in fact serve as a maladaptive emotion regulation strategy among male perpetrators (Shorey et al., 2011a). For example, men may attempt to control or reduce strong negative emotions by engaging in impulsive aggression (Jakupcak, Lisak, & Roemer, 2002; Shorey et al., 2008). Indeed, increased emotion regulation difficulties were associated with increased psychological (Harper, Austin, Cercone, & Arias, 2005; Shorey et al., 2011a) and physical (Gratz, Paulson, Jakupcak, & Tull, 2009) aggression perpetration among college men. Specifically, the facets of emotion regulation difficulties that were associated with psychological aggression perpetration among college men were impulse control difficulties, limited access to emotion regulation strategies, and the tendency to lack awareness of one's emotional experiences (Shorey et al., 2011a).

Although more studies have investigated the influence of emotion regulation on aggression, far less research has been conducted on how emotion regulation difficulties influence the association between alcohol consumption and dating violence specifically. In one known study, Watkins and colleagues (Watkins, Maldonado, & DiLillo, 2014) examined impulse control difficulties, hazardous alcohol use (a composite of the quantity and frequency of use, symptoms of dependence, and problems associated with use), and dating violence, and found that impulse control difficulties moderated the relationship between hazardous alcohol use and physical aggression severity. For those with less impulse control difficulties, higher levels of hazardous alcohol use were associated with less physical aggression perpetration than lower levels of hazardous alcohol use, whereas for those with greater impulse control difficulties, there was a non-significant trend such that higher levels of hazardous alcohol use were associated with more physical aggression perpetration than lower levels of hazardous alcohol use. Additionally, self-regulation (or the exertion of self-control over one's thoughts, feelings, or behaviors; Muraven & Baumeister, 2000) was found to significantly moderate the event-level association between estimated blood alcohol concentration (eBAC) and dating violence perpetration such that higher self-regulation was associated with a lower probability of perpetrating dating violence for those who had a low average eBAC, whereas self-regulation was not associated with dating violence perpetration among those with a high average eBAC (Stappenbeck et al., 2016). However, these studies focused on either one aspect of emotion regulation difficulties (i.e., impulse control difficulties), or on the broader concept of self-regulation. Therefore, these initial findings suggest the need for additional research exploring how particular facets of emotion regulation (e.g., impulse control, emotional awareness, access to emotion regulation strategies) may impact the association between heavy drinking and dating violence.

Present Study

The purpose of the present study was to extend previous research and examine whether specific facets of emotion regulation difficulties, as assessed by the subscales of the Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004), moderated the association between heavy drinking and dating violence perpetration in a sample of college men. Because of the high rates of HED among college men and the demonstrated association between HED and dating violence perpetration, we focused on HED for this study. We hypothesized that HED would be significantly positively associated with dating

violence perpetration and that difficulties in emotion regulation would moderate the association between HED and dating violence perpetration. Specifically, we expected that the positive association between HED and dating violence perpetration would be stronger for men who had greater nonacceptance of emotional responses, greater difficulties engaging in goal-directed behaviors, greater impulse control difficulties, greater lack of emotional awareness, more limited access to emotion regulation strategies, and a greater lack of emotional clarity. Investigating these specific facets of emotion regulation in the association between HED and dating violence perpetration may help identify risk factors for dating violence perpetration among college men and may help inform targeted intervention and prevention efforts on college campuses.

Method

Participants

One hundred and fifty-eight men were recruited for a project on alcohol and men's sexual experiences from an online subject pool of introductory psychology students at a large northwestern US university between April 2014 and August 2014. The average age of participants was 20.2 years ($SD = 1.8$, Range 18-32). Forty-two percent identified as White, 38% as Asian or Asian American, 3% as African American, 1% as American Indian or Alaskan Native, and 16% as Multiracial or other. Nine percent identified as Hispanic. The majority (96%) were full-time students, and 33% were employed either full- or part-time. Fifty-four percent were not currently in a dating relationship, 42% were currently dating, 2% were married, and 2% indicated 'other' or did not provide a relationship status.

Procedures

Participants were provided with a description of the study on the psychology subject pool website that stated "This online survey involves answering questions related to alcohol consumption and sexual experiences." Participants completed this one-time online survey in exchange for research credit for their introductory psychology class. They were instructed to complete the entire survey all at once and in a private place.

Measures

Demographics—Participants reported their date of birth, employment and student status, as well as their racial, religious, and political identification. They also reported their current relationship status.

Alcohol use—The frequency of heavy episodic drinking (HED) was assessed using the following questions from the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Recommended Alcohol Questions (NIAAA, 2003): "During the last 12 months, how often did you have 5 or more drinks containing any kind of alcohol within a two-hour period?" Responses were provided on a 10 point scale (0 = *Not at all*; 1 = *1 to 2 times in the past year*; 2 = *3 to 11 times in the past year*; 3 = *Once a month*; 4 = *2 to 3 times a month*; 5 = *Once a week*; 6 = *Twice a week*; 7 = *3 to 4 times a week*; 8 = *5 to 6 times a week*; 9 = *Every day*).

Emotion regulation difficulties—Emotion regulation difficulties were assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Participants were asked how often they experienced 36 different reactions to negative or unpleasant events on 5-point scales (1 = *Almost never*; 5 = *Almost always*). The DERS is comprised of six subscales: Nonacceptance of Emotional Responses (e.g., “When I’m upset, I feel like I am weak”; $\alpha = .91$); Difficulties Engaging in Goal-Directed Behaviors (e.g., “When I’m upset I have difficulty getting work done”; $\alpha = .83$); Impulse Control Difficulties (e.g., “When I’m upset, I have difficulty controlling my behaviors”; $\alpha = .85$); Lack of Emotional Awareness (e.g., “I pay attention to how I feel” [reverse coded]); $\alpha = .83$); Limited Access to Emotion Regulation Strategies (e.g., “When I’m upset, I believe that there is nothing I can do to make myself feel better”; $\alpha = .89$); and Lack of Emotional Clarity (e.g., “I have difficulty making sense out of my feelings”; $\alpha = .77$). The items within each subscale were summed such that higher scores indicate more difficulty in regulating emotion.

Dating violence perpetration—Dating violence perpetration was assessed for the past year using the Dating Relationship Violence questionnaire (Swahn, Simon, Arias, & Bossarte, 2008). Participants were instructed to report any aggression that may have occurred with anyone they had gone on a date with in the past 12 months, and only if they did the behavior first (i.e., excluding self-defense). Participants indicated the frequency with which they perpetrated psychological (8 items; e.g., “said things to hurt their feelings on purpose”) and physical (9 items; e.g., “hit or slapped”) aggression toward someone they had ever had a date with in the past year by selecting one of seven responses (0 = *This has never happened*; 1 = *Once in the past year*; 2 = *Twice in the past year*; 3 = *3-5 times in the past year*; 4 = *6-10 times in the past year*; 5 = *11-20 times in the past year*; 6 = *More than 20 times in the past year*). We followed the scoring recommendations outlined by Straus and colleagues (1996) and recoded each response option to the midpoint of the range (e.g., response option 4 was recoded to 8) and used 25 for the midpoint of response option 6. Both psychological and physical violence frequencies were summed to create a single aggregate aggression frequency approximation with excellent internal reliability (Cronbach's alpha = .91).

Data Analytic Strategy

To examine whether emotion regulation difficulties moderated the association between HED and dating violence perpetration we examined generalized linear models (GzLM) in SPSS version 19. The dependent variable was dating violence perpetration and represents count data that was significantly positively skewed. Rather than dichotomize the outcome variable which reduced statistical power (Cohen, 1983) or use transformations to reduce skew, we followed recommendations outlined by Atkins & Gallop (2007) and used negative binomial distributions and log link functions to account for the nonnormality in the dating violence perpetration variable. GzLMs with negative binomial distributions provide incidence rate ratios (IRRs), which are exponentiated regression coefficients and are presented as a standardized effect size.

Because we were interested in examining which facets of emotion regulation difficulties were associated with dating violence perpetration and not necessarily whether each type of

emotion regulation difficulty was a unique predictor of dating violence over and above the others, we conducted separate GzLMs for each of the DERS subscales. In each model, we entered the main effect of HED and the DERS subscale along with their interaction. Prior to creating interaction terms, HED and the DERS subscales were standardized to reduce potential heteroscedasticity.

Results

Means and standard deviations for all study variables are presented in Table 1. Seventy participants (44.3%) perpetrated some form of dating violence in the past year. Forty-one participants reported only psychological aggression, 8 reported only physical aggression, and 21 reported both physical and psychological aggression. Of those that perpetrated dating violence, they reported an average of 4.5 ($SD = 13.9$) instances in the past year. Additionally, 114 participants (72.2%) reported at least one incident of HED in the past year.

Using GzLM we examined whether the DERS subscale of Impulse Control Difficulties was associated dating violence perpetration and whether it moderated the association between HED and dating violence perpetration (Table 2, Model 1). There were significant main effects of both HED and Impulse Control Difficulties on dating violence perpetration frequency that were superseded by a significant interaction between HED and Impulse Control Difficulties. As shown in Figure 1, the positive association between HED and dating violence perpetration frequency was stronger for men with greater impulse control difficulties compared to men with less impulse control difficulties.

For the DERS subscale Limited Access to Emotion Regulation Strategies (Table 2, Model 2), there were significant main effects of HED and Limited Access to Emotion Regulation Strategies that were superseded by a significant interaction between HED and Limited Access to Emotion Regulation Strategies on dating violence perpetration frequency. The positive association between HED and dating violence perpetration frequency was stronger for men who reported limited access to emotion regulation strategies compared to men with greater access to emotion regulation strategies (Figure 2).

Similar patterns were found for the DERS subscales of Difficulties Engaging in Goal-Directed Behaviors (Table 2, Model 3), Lack of Emotional Clarity (Table 2, Model 4), and Nonacceptance of Emotional Responses (Table 2, Model 5) on dating violence perpetration frequency. HED was significantly positively associated with dating violence perpetration in all three models. Additionally, the three DERS subscales of Difficulties Engaging in Goal-Directed Behaviors, Lack of Emotional Clarity, and Nonacceptance of Emotional Responses were all significantly positively associated with dating violence perpetration. Dating violence perpetration was more frequent among men with greater difficulty engaging in goal-directed behaviors, and among those who exhibit a greater lack of emotional clarity and less acceptance of their emotional responses. However, the interactions between HED and these three DERS subscales were all non-significant.

In the model for Lack of Emotional Awareness (Table 2, Model 6), HED was significantly positively associated with dating violence perpetration frequency. However, neither Lack of

Emotional Awareness nor its interaction with HED were significantly associated with dating violence perpetration frequency.

Comment

This study sought to examine the association between HED, difficulties with emotion regulation, and dating violence perpetration among college men. To our knowledge, this is the first study to examine whether particular facets of emotion regulation difficulties moderate the association between heavy drinking and dating violence perpetration in this population. Results highlight the importance of HED and emotion regulation difficulties in college men's perpetration of dating violence. Consistent with previous research and our hypotheses, HED was positively associated with dating violence perpetration. Further, in partial support of our hypotheses, two specific facets of emotion regulation difficulties helped explain the association between HED and dating violence perpetration. The positive association between HED and dating violence perpetration was stronger for men with greater impulse control difficulties and for those who indicated having less access to emotion regulation strategies. That is, men who engaged in HED more frequently and either reported difficulty controlling their behaviors and emotions or believed there was not much they could do to make themselves feel better, perpetrated dating violence more frequently. As suggested by the I³ theory (Finkel & Eckhardt, 2013), alcohol intoxication reduces executive functioning and results in a state of low inhibition. These low levels of inhibition are further exacerbated when individuals have difficulty controlling their impulses and have access to fewer strategies to deal with negative emotions in adaptive ways.

In addition to those that interacted with HED, three facets of emotion regulation difficulties were found to have significant positive associations with dating violence perpetration but did not interact with HED. College men with difficulties engaging in goal directed behaviors, or those who lack emotional clarity or who do not accept their emotional responses reported more frequent dating violence perpetration. Moreover, a lack of emotional awareness was the only aspect of emotion regulation that was not significantly associated with dating violence perpetration frequency among college men in this study. This suggests that although emotion regulation problems more broadly seem to be associated with dating violence perpetration, having trouble paying attention to and acknowledging one's emotions may not be a risk factor for dating violence perpetration. These results are consistent with the research by Shorey and colleagues (2011a) who found that most DERS subscales were significantly associated with dating violence perpetration in their sample of college men with the exception of a lack of emotional awareness and nonacceptance of emotional responses which were not significantly associated with dating violence perpetration.

Clinical Implications

Taken together, results suggest several intervention targets for men who engage in frequent heavy drinking. First, efforts to reduce dating violence perpetration should include strategies to reduce heavy drinking. There are empirically supported brief motivational interventions to reduce heavy drinking among college students (Carey, Carey, Maisto, & Henson, 2006) such as the Brief Alcohol Screening and Intervention for College Students (BASICS; Dimeff,

Baer, Kivlahan, & Marlatt, 1999; White et al., 2006) and personalized normative feedback (Larimer et al., 2007). Additionally, results suggest that it may be important to screen men, especially those who engage in heavy drinking, on emotion regulation in order to provide more specific skills trainings in order to reduce the likelihood of dating violence perpetration. Our results suggest two specific emotion regulation skills deficits that could be incorporated into standard intervention and prevention programming targeting dating violence perpetration. The first involves providing skills that help address impulsivity, such as distress tolerance skills from Dialectical Behavior Therapy (DBT; Linehan, 2015) including learning to pause before acting on an impulse and evaluating the pros and cons of acting on impulsive urges. Secondly, providing a range of skills that bolster self-efficacy regarding a man's ability to reduce negative emotions in more adaptive ways (e.g., using the ABC model; Ellis, 2008) may also help reduce dating violence perpetration among heavy drinking college men.

Limitations and Future Directions

Several limitations of the current study should be noted. First, ours was a convenience sample of college men who participated in the research for course credit. Therefore, it is not known whether results would generalize to all college men. Additionally, there were several limitations related to our design and measurement decisions worth noting. We did not assess relationship length and only assessed current relationship status but not relationship status over the past year; therefore, it is possible that some participants who reported no dating violence in the past year may not have had the opportunity to aggress because they did not have a dating partner during that time frame. However, analyses excluding participants who reported no aggression perpetration and were not currently dating or in a relationship revealed similar results to those that included the full sample lending support to the analyses presented here. Additionally, we limited our assessment of dating violence to behavior the participant did first to exclude aggression perpetrated in self-defense; however, we may have also excluded aggressive behavior perpetrated in response to one's partner for reasons other than self-defense (e.g., retaliation). Further, our design was cross-sectional, and therefore we cannot speak to the antecedents of dating violence perpetration, but rather the correlates of such behavior. Specifically, we examined a pattern of heavy drinking that is associated with more frequent dating violence perpetration; however, we do not know whether men had been drinking at the time they perpetrated violence. Daily diary or other ecological momentary assessment studies are needed to be able to examine the impact of facets of emotion regulation on the association between heavy drinking and dating violence at the event-level.

Due to low endorsement of physical dating violence, we used a composite of psychological and physical dating violence perpetration. Future research should examine whether different facets of emotion regulation difficulties are associated with psychological rather than physical dating violence. Additionally, the I³ theory provided a theoretical framework for understanding factors associated with dating violence; however, our study was not specifically designed to test this theory and did not include an assessment of instigatory factors that may increase risk for dating violence perpetration. An important next step is to examine potential instigatory factors that may influence the associations between emotion regulation difficulties and heavy drinking on dating violence perpetration. Finally, our study

was focused on understanding men's dating violence perpetration; however, women also perpetrate dating violence at rates similar to men (Luthra & Gidycz, 2006; Stappenbeck & Fromme, 2010). Therefore, future research should examine whether the same facets of emotion regulation difficulties moderate the association between women's drinking and dating violence perpetration as they do men's.

Conclusions

Given the prevalence of HED and dating violence among college men, this study attempted to determine specific intervention targets to reduce dating violence in this population. Consistent with previous research, this study found that HED was a strong predictor of dating violence perpetration among college men. Further, specific facets of emotion regulation difficulties – impulse control difficulties and limited access to emotion regulation strategies – help explain the association between HED and dating violence perpetration in this population. This suggests that interventions aimed at reducing dating violence among college men who are heavy drinkers should incorporate skills targeting emotion regulation strategies as well as empirically validated skills for reducing alcohol use. Specifically, emotion regulation training for college men should focus on improving their ability to control emotional and behavioral impulses, providing access to a variety of emotion regulation strategies, as well as improving their self-efficacy to enact these skills. Additionally, dating violence intervention and prevention programs administered to college men more broadly (i.e., not only to those who are heavy drinkers) would likely benefit from incorporating strategies to help men engage in goal directed behaviors, obtain greater emotional clarity, and accept their emotional responses to upsetting situations.

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Figure 1.

Heavy episodic drinking and impulse control difficulties interact to predict dating violence perpetration frequency. Estimated values of the DERS subscale Impulse Control Difficulties are plotted at ± 1 standard deviation from the mean. Heavy episodic drinking is standardized such that it has a mean of 0 and a standard deviation of 1.

Figure 2.

Heavy episodic drinking and one's access to emotion regulation strategies interact to predict dating violence perpetration frequency. Estimated values of the DERS subscale Limited Access to Emotion Regulation Strategies are plotted at ± 1 standard deviation from the mean. Heavy episodic drinking is standardized such that it has a mean of 0 and a standard deviation of 1.

Correlations and descriptive statistics of heavy episodic drinking, dating violence perpetration and emotion regulation difficulties subscales ($N = 158$).

Table 1

	1.	2.	3.	4.	5.	6.	7.	8.
1. HED frequency, past year	--							
2. Dating violence perpetration frequency, past year	.28***	--						
3. DERS Nonacceptance of emotional responses	.02	.17*	--					
4. DERS Difficulties engaging in goal-directed behaviors	.04	.06	.50***	--				
5. DERS Impulse control difficulties	-.02	.15	.48***	.37***	--			
6. DERS Lack of emotional awareness	-.16*	-.05	.02	.01	-.06	--		
7. DERS Limited access to emotion regulation strategies	.01	.24**	.74***	.51***	.70***	.08	--	
8. DERS Lack of emotional clarity	-.05	.10	.38***	.38***	.32***	.46***	.38***	--
<i>M</i>	2.2	4.5	12.9	13.5	10.3	15.4	15.4	11.1
<i>(SD)</i>	(2.2)	(13.9)	(5.3)	(4.4)	(4.1)	(4.9)	(6.1)	(3.7)

Note. HED = heavy episodic drinking; DERS = Difficulties in Emotion Regulation Scale.

Table 2

Results of the GzLM models examining whether the DERS subscales moderated the association between HED and dating violence perpetration.

	<i>b</i>	IRR	95% CI
Model 1			
HED	.55***	1.73	1.41, 2.11
DERS Impulse control difficulties	.32**	1.37	1.12, 1.68
HED × DERS	.24*	1.27	1.03, 1.58
Model 2			
HED	.49***	1.3	1.32, 2.02
DERS Limited access to emotion regulation strategies	.25**	1.28	1.09, 1.50
HED × DERS	.18*	1.20	1.02, 1.40
Model 3			
HED	.68***	1.97	1.64, 2.36
DERS Difficulties engaging in goal-directed behaviors	.20*	1.23	1.01, 1.49
HED × DERS	-.05	0.95	0.77, 1.18
Model 4			
HED	.68***	1.97	1.63, 2.39
DERS Lack of emotional clarity	.40***	1.49	1.22, 1.83
HED × DERS	.09	1.09	0.85, 1.40
Model 5			
HED	.67***	1.95	1.62, 2.36
DERS Lack of emotional awareness	.02	1.02	0.85, 1.24
HED × DERS	-.03	0.97	0.79, 1.20
Model 6			
HED	.57***	1.76	1.44, 2.17
DERS Nonacceptance of emotional responses	.29**	1.34	1.12, 1.59
HED × DERS	.13	1.14	0.95, 1.37

Note. IRR = incidence rate ratio; CI = confidence interval; HED = heavy episodic drinking; DERS = Difficulties in Emotion Regulation Scale.

*
 $p < .05$.

**
 $p < .01$.

 $p < .001$.