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The road to drink is paved with high intentions: Expectancies, refusal self-efficacy, and intentions among heavy drinking college students

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Abstract

Background—The present study examined the effects of drinking intentions (DI) on alcohol expectancies (AE) and drink refusal self-efficacy (DRSE) in regards to alcohol consumption among heavy drinking undergraduates. Research shows that DRSE buffers against drinking (Young et al., 2007) and interacts with AE to predict alcohol consumption (Oei & Burrow, 2000). Studies further show that DI is predicted by DRSE (Norman, 2011) and AE (Fleming et al., 2004). However, additional research is needed to understand DI's influence on both DRSE and AE among heavy college drinkers.

Method—This research included 344 heavy drinking college students (M age = 23.06, SD = 5.61, 74.71% female) from a large southern university who completed study material as part of a larger intervention.

Results—Findings showed that DI, DRSE, and AE interacted with respect to heavy drinking such that DRSE was negatively associated with alcohol consumption, particularly among those low in positive AE and high in negative AE. This relationship was stronger among individuals low in DI relative to those high in DI.

Discussion—DI seems to be an important factor influencing heavy drinking among undergraduate students. Present findings further support DI's associations with heavy drinking, regardless of an individual's DRSE or AE. Implications of this research suggest that it may be beneficial for interventions to target specific aspects of AE, including anxious drinking.

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Author Disclosure

Conflict of Interest

The authors declare no conflicts of interest.

Human Subjects

This study was approved by the institutional review board at the data collection site.

Contributors

The lead author designed the study and collected data. All authors supported the development of this manuscript and revisions thereof.

Keywords

intent; drink refusal self-efficacy; heavy episodic drinking; alcohol-related expectancies

Reducing alcohol use among college students remains a public health objective (U.S. Department of Health and Human Services, 2009). Undergraduates report drinking heavily more frequently relative to non-college peers (Johnston, O'Malley, Bachman, & Schulenberg, 2012). Almost 80% of students report consuming alcohol (Johnston et al., 2006), and about 44% meet heavy drinking criteria (consuming 5+ drinks on one occasion; Substance Abuse and Mental Health Services Administration [SAMHSA], 2009; Wechsler, Lee, Kuo, & Lee, 2000). Heavy drinking students may be more likely to experience problems with the law (e.g., driving while intoxicated), psychological or psychosocial problems (e.g., depression), impaired cognitive ability, health consequences (e.g., hangovers, poor general health, injuries, eating disorders), and are at increased risk for sexual assault and sexually transmitted disease (Abbey, Buck, Zawacki, & Saenz, 2003; Dunn, Larimer, & Neighbors, 2002; Geisner, Larimer, & Neighbors, 2004; Hingson, 2010; Hingson, Heeren, Winter, & Wechsler, 2005; Kaysen, Neighbors, Martell, Fossos, & Larimer, 2006; Koss & Gaines, 1993; Wechsler, Kuo, Lee, & Dowdall, 2000). Thus, further work is needed to better understand factors that may buffer against problem drinking among college students.

Drink refusal self-efficacy

Drink refusal self-efficacy (DRSE) refers to the belief that one is able to refuse or resist alcohol. DRSE buffers against heavy alcohol use among young adults (e.g., Foster, Yeung, & Neighbors, under review; Young, Hasking, Oei, & Loveday, 2007) and is associated with abstinence following treatment (Maisto, Connors, & Zywiak, 2000). DRSE is a useful predictor of drinking (e.g., Cho, 2006; Collins, Witkiewitz, & Larimer, 2011; Morawska & Oei, 2005) and reliably predicts proximal risk (Adamson, Sellman, & Frampton, 2009; Gullo, Dawe, Kambouropoulos, Stalger, & Jackson, 2010). There is consistent support for DRSE's protective effects on drinking (e.g., Connor, George, Gullo, Kelly, & Young, 2011; Foster, Neighbors, & Young, 2014; Oei & Jardim, 2007). DRSE has been used to distinguish social from problem drinkers (Oei & Morawska, 2004), and is inversely linked with severity of misuse (Skutle, 1999). Further, depressed mood and DRSE influence hazardous drinking (Ralston & Palfai, 2010), as do self-monitoring and goal-setting (Cho, 2007). Taken together, the literature shows that the buffering relationship between DRSE and drinking is an important research avenue. It is important to understand factors that influence DRSE's effect on drinking, and thus, moderators of this relationship are examined.

Alcohol expectancies

Alcohol expectancies (AE) refer to anticipated consequences from drinking and have been studied in combination with DRSE in predicting college drinking (e.g., Young, Connor, Ricciardelli, & Saunders, 2006). Domains of AE include enhanced socialization, altered cognition, relaxation, assertion, sexual enhancement, and changes in affect, and are shown to predict alcohol consumption (see Kieffer, Cronin, & Fister, 2004 for a meta-analysis).

Behavioral scientists generally agree that AE do not act independently but rather act in combination with DRSE to influence drinking outcomes, including initiation and continuation of drinking, problems, and recovery (Christiansen, Smith, Roehling, & Goldman, 1989; Oei & Burrow, 2000; Solomon & Annis, 1990; Young & Oei, 1993). AE and DRSE are conceptually distinct, and each explains unique variance in models predicting drinking (Brown et al., 1998; Williams et al., 1998; Young & Oei, 1996). Research suggests joint effects of AE and DRSE on alcohol behavior (e.g., Hasking & Oei, 2002; Morawska & Oei, 2005; Oei & Jardim, 2007; Oei & Morawska, 2004). Oei and Baldwin's (1994) two-process model suggests that DRSE affects the decision to drink and actual consumption whereas AE affects assessment of expected benefits and costs of drinking (Baldwin et al., 1993; Lee & Oei, 1993; Morawska & Oei, 2005). DRSE mediates AE's effect on drinking (Gullo, Dawe, Kambouropoulos, Staiger, & Jackson, 2010), and both AE and DRSE mediate reductions in drinking (Black et al., 2012). Thus, it is clear that AE and DRSE play important and intertwining roles in drinking, and additional work is needed to understand for whom and under what conditions predictive validity increases.

Intent to drink

Drinking intention (DI) may influence associations among AE, DRSE, and drinking. Widely applied models of decision-making include the theory of reasoned action (Ajzen & Fishbein, 1973; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the subsequent extension, theory of planned behavior (Ajzen, 1988; Ajzen, 1991). The notion that internal and external factors influence intention to engage in behavior has been empirically supported (e.g., Northcote, 2011). Studies suggest that intentions are robust predictors of alcohol consumption among undergraduate students (McMillan & Conner, 2003; Sher & Rutledge, 2007; Shim & Maggs, 2005). Further, DI predicts drinking in varying populations including: middle-school students (Yarnell, Brown, Pasch, Perry, & Komro, 2013), college students regarding their 21st birthday (Neighbors, Lee, Lewis, Fossos, & Walter, 2009), females entering college (Testa, Kearns-Bodkin, & Livingston, 2009), and non-college adults regarding partying/pre-gaming (drinking alcohol prior to bar attendance; Reed, Clapp, Weber, Trim, Lange, & Shillington, 2011). Moreover, the relationship between DI and alcohol consumption is mediated by contextual factors of the environment such as private versus public settings and few versus many intoxicated people (Trim, Clapp, Reed, Audrey, & Thombs, 2011). The DI and alcohol consumption link is also moderated by social norms and pressure to drink (Testa et al., 2009).

Taken together, the DI literature suggests that intention to drink is positively associated with consumption in varying contexts, and this can be influenced by individual and contextual factors. Evaluation of DI's role with respect to DRSE shows that DRSE predicts DI, and DI predicts binge drinking (Norman, 2011). Additionally, explorations of the link between DI and AE suggest that positive AE predicts DI and consumption (Fleming, Thorson, & Atkin, 2004), and has been documented among young girls (ages 8–10; Hipwell, White, Loeber, Stouthamer-Loeber, Chung, & Sembower, 2005), but to our knowledge, no such examinations exist among young adult drinkers.

It stands to reason that relationships between DRSE and AE with respect to heavy drinking may differ depending on whether an individual has high versus low intentions to consume alcohol. For example, an individual with high DRSE (“I strongly believe that I can resist drinking”) but also believes that alcohol reduces stress (tension reduction AE) and intends to drink will likely exhibit higher drinking levels relative to an individual low in AE or DI. In other words, confidence in one’s ability to refuse alcohol and an understanding that drinking may have negative consequences may not necessarily translate to a reduction in drinking levels, particularly if one remains intent on engaging in drinking behavior or has positive expectancies regarding alcohol consumption. Studies of DI’s moderating influence on DRSE and AE among heavy college drinkers are needed in order to more fully understand possible points to intervene. It may be that individuals high in DI are at increased risk for heavier drinking, regardless of their AE or DRSE levels. Thus, the present study was designed to examine the effects of DI on the relationships among AE, DRSE, and alcohol use among heavy drinking undergraduates. Given the evidence for the interactive effects of AE and DRSE on drinking and their links to DI, DI might have a moderating role on these relationships, thereby evinced in a three-way interaction between AE, DRSE, and DI with respect to heavy drinking.

Method

Participants and procedure

Participants for this study recruited via announcements in classrooms and informational flyers placed around campus. Participants were eligible for inclusion if they were at least 18 years of age, were enrolled at the university, and provided informed consent. Participants received extra credit in exchange for their participation. The present study included 344 heavy drinking college students (M age = 23.06, SD = 5.61, 74.71% female) from a large southern university (total student body N = 39,820 in 2011) who completed study material as part of a larger intervention. Individuals indicating having consumed five (if male) or four (if female) drinks on one occasion within the past month were included in the present analyses. Data were evaluated at the baseline assessment of the longitudinal experiment. According to self-report, the racial/ethnic composition of the sample was: 54.44% Caucasian, 12.43% Black/African American, 14.5% Asian/Pacific Islander, 6.80% Multi-Ethnic, 0.59% Native American/American Indian, and 11.24% Other, with 30.68% of participants of Hispanic/Latino ethnicity. Participants further reported their class standing as follows: 11.70% Freshman, 25.15% Sophomore, 32.16% Junior, and 30.99% Senior.

Measures

Demographics—In addition to racial/ethnic background, participants reported age, gender, and year in school.

Alcohol use and problems—Alcohol use was measured using two consumption measures and one problems measure. The *Quantity/Frequency Scale* (QF; Baer, 1993; Marlatt et al., 1995) was used to assess drinking behaviors. The QF is a 5-item scale with responses ranging from 0–6. The QF assesses the number of drinks and the number of hours spent drinking on a peak drinking occasion within the past month and asks participants to

report the number of days when alcohol was consumed in the past month (0 = I do not drink at all, 1 = about once per month, 2 = two to three times a month, 3 = once or twice per week, 4 = three to four times per week, 5 = almost every day, or 6 = I drink once daily or more). Participants indicating having consumed four (if female) or five (if male) drinks on one occasion in the past month were included in the present analyses. The *Daily Drinking Questionnaire* (DDQ; Collins et al., 1985; Kivlahan et al., 1990) was used to assess the number of standard drinks consumed on each day of the week within the past 90 days. Scores represent the average number of alcoholic beverages consumed each week. The *Rutgers Alcohol Problem Index* (RAPI; White & Labouvie, 1989) was used to assess alcohol-related problem severity (White & Labouvie, 1989). The RAPI consists of 25 items that assess undesired alcohol-related consequences (e.g., “Went to school high or drunk”; White & Labouvie, 1989) in the past month. Responses range from *Never* (0) to *10 times or more* (4).

Drink refusal self-efficacy—The Drink Refusal Self-Efficacy (DRSE) questionnaire is a 19-item measure that assesses self-efficacy related to resisting or refusing drinking (Young & Oei, 1996). Participants were provided with a list of situations in which they might find themselves drinking. They were then asked to rate their confidence in their ability to resist or refuse drinking on a 6-point Likert scale ranging from 1 = *I am very sure I could NOT resist drinking* to 6 = *I am very sure I could resist drinking*. Item scores were averaged to yield a composite score ranging from 1 to 6. The DRSEQ demonstrates good psychometric properties (Young & Knight, 1989; $\alpha = .95$).

Alcohol-related expectancies—The Comprehensive Effects of Alcohol Questionnaire (CEOA; Fromme et al., 1993) was used to assess expectancies related to alcohol. The CEOA asks participants to rate agreement with 38 statements related to the effects of alcohol on a 4-point scale ranging from 1 (*Disagree*) to 4 (*Agree*), as well as subjective evaluations of alcohol's effects on a 5-point scale ranging from 1 (*Bad*) to 5 (*Good*). The CEOA contains positive-expectancy ($\alpha = .94$) and negative-expectancy ($\alpha = .87$) subscales. The positive-expectancy subscales include sociability (SOC; e.g., “After a few drinks of alcohol, I would be more likely to act sociable,” $\alpha = .89$), tension reduction (TEN; e.g., “After a few drinks of alcohol, I would be more likely to feel peaceful,” $\alpha = .83$), liquid courage (LIQ; e.g., “After a few drinks of alcohol, I would be more likely to be courageous,” $\alpha = .85$), and sexuality (CSE; e.g., “After a few drinks of alcohol, I would be more likely to be a better lover,” $\alpha = .82$). The negative-expectancy subscales include cognitive and behavioral impairment (IMP; e.g., “After a few drinks of alcohol, I would be more likely to feel dizzy,” $\alpha = .87$) risk and aggression (RIS; e.g., “After a few drinks of alcohol, I would be more likely to take risks,” $\alpha = .71$), and self-perception (SELF; e.g., I would feel self-critical; $\alpha = .74$).

Intention to drink—A modified Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985; Dimeff et al., 1999) asked participants to report the number of alcoholic beverages they intended to consume on each day of the week over the following month. Participants were also asked to report the period of time in which they intended to consume alcohol for each of the 7 days. Intended number of drinks was assessed by the number of standard drinks participants reported intending to consume. Scores represent the average

number of alcoholic beverages participants intended to consume per week over the next month.

Results

Means, standard deviations, and correlations for all of the variables are presented in Table 1. To replicate previous research suggesting an interaction between AE and DRSE, multiple hierarchical regressions were conducted to evaluate associations between AE and DRSE in regards to drinking. AE and DRSE were included in the model as independent variables and heavy drinking the dependent variable. Independent variables were entered at Step 1 to evaluate main effects. DRSE evidenced negative main effects on drinking outcomes when controlling for positive ($t = -5.18, p < .001$) and negative AE ($t = -4.58, p < .001$). Positive AE was marginally associated with increases in the number of drinks consumed per week ($t = 1.66, p < .10$; Table 2).

Hierarchical regressions were used to evaluate associations between AE, DRSE, DI, and drinking (Table 3). Regression models included AE, DRSE, and DI as independent variables and number of drinks consumed per week as the dependent variable. Main effects were evaluated at Step 1. DRSE was negatively associated with weekly alcohol consumption when controlling for positive ($t = -3.00, p < .01$) and negative AE ($t = -2.91, p < .01$). DI was positively associated with heavy drinking when positive AE ($t = 11.65, p < .001$) and negative AE ($t = 11.56, p < .001$) were controlled. Two-way product terms among AE, DRSE, and DI were evaluated at Step 2, however, no significant two-way interactions emerged.

Three-way interactions among AE, DRSE, and DI were evaluated at Step 3. A three-way interaction emerged between DRSE, DI, and negative AE with respect to heavy drinking ($t = 2.67, p < .01$). The interactions were graphed using SAS (Figure 1). Parameter estimates from the regression equation were used such that low and high values were specified as one standard deviation below and above their respective means (Cohen, Cohen, West, & Aiken, 2003).

Discussion

This study sought to extend previous research by considering DI in the relationship between AE and DRSE with respect to heavy alcohol use. An individual's confidence in their ability to refuse alcohol and an understanding that drinking may have negative consequences may not necessarily translate to a reduction in drinking levels if the individual remains intent on drinking. Such an individual may represent an at-risk sub-group of college drinkers yet to be identified. Research shows that DRSE buffers against drinking (e.g., Foster, Nelson, & Neighbors, under review; Young, Hasking, Oei, & Loveday, 2007), and consistent with previous work, findings from the present study showed inverse relationships between DRSE and drinking outcomes. Previous studies have demonstrated interactions between DRSE and AE when predicting drinking (e.g., Oei & Burrow, 2000). The present study sought to replicate this by considering positive and negative AE as moderators of the relationship between DRSE and drinking. The literature suggests that DI is predicted by DRSE (Norman,

2011) and AE (Fleming, Thorson, & Atkin, 2004), and the present research sought to extend this by also considering DI's influence on these associations in a sample of heavy drinking college students.

Findings supported the hypothesis that DI would moderate the associations between DRSE and AE with respect heavy drinking. Results demonstrated that DRSE and drinking were negatively associated, particularly among individuals high in negative AE, and this was particularly evident among individuals high in drinking intentions. Among individuals high in DI, the opposite was true such that DRSE was negatively associated with drinking, and this was more evident among individuals low in AE.

These findings indicate that individuals may be at highest risk for problematic drinking levels if they are low in DRSE *and* high in DI. This is consistent with theoretically-based approaches evaluating intentions as predictors of drinking (e.g., McMillan & Conner, 2003; Northcote, 2011; Sher & Rutledge, 2007; Shim & Maggs, 2005) and belief in one's ability to resist drinking as a protective factor against drinking (Connor, George, Gullo, Kelly, & Young, 2011; Oei & Jardim, 2007). These findings further indicate that individuals with low DI (low intentions to drink) may be least likely to engage in problematic drinking relative to individuals who are high in DI, suggesting that there may be unique benefits of decreasing DI among heavy college drinkers.

DI in particular appears to be a major contributor to heavy drinking among college students. These findings support the contention that DI predicts heavy drinking, regardless of an individual's DRSE or AE. Individuals high in DI appear to be at increased risk for problematic drinking behavior, even if they also have confidence in their ability to resist or refuse alcohol. This further indicates that belief in one's ability to resist alcohol may not necessarily translate to reductions in drinking. It is possible that either one's perception of his or her own drink refusal skills is inaccurate or they are not actually trying to resist drinking.

It is worth noting that the prototype willingness model (Gibbons, et al., 1998; Gibbons & Gerrard, 1995), a dual process model consisting of reasoned and heuristic pathways, suggests that intentions play a larger role in drinking among those more experienced with alcohol, whereas willingness and expectancies may play a larger role in drinking among those with less experience (Norman, Armitage, & Quigley, 2007; Todd & Mullan, 2011). The present sample was older on average relative to typical college samples (mean age 23 years), and mostly comprised of upper-classmen (32.16% were in their junior year and 30.99% in their senior year). It is possible that upper-classmen are more experienced with alcohol and thus willingness to engage in alcohol behaviors may play more of a role in their alcohol consumption compared to lower-classmen.

As noted by the theory of reasoned action (Ajzen & Fishbein, 1973; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and theory of planned behavior (Ajzen, 1988; Ajzen, 1991), both internal and external factors influence intentions (Northcote, 2011) which in turn influence behaviors (e.g., Neighbors et al., 2009). It is plausible that internal processes important in manifesting DRSE as actual reductions in drinking might be overridden by

contextual or social influences common to the college environment that act to increase DI. These might include, for example, heavy drinking contexts associated with college parties during which individuals might be vulnerable to social pressures to engage in heavy drinking. Attendance and participation in events such as these may invariably increase an individual's intention to consume alcohol, even if that individual would otherwise report high ability to resist alcohol use. Therefore, the efficacy of interventions might be improved by decreasing DI, particularly among students at risk for heavy drinking. A recent study targeting intentions to binge drink among college students found that an intervention consisting of anti-alcohol health messages and peer-led conversations about binge drinking was effective in reducing students' intention to engage in binge drinking (Hendriks, de Bruijn, & van den Putte, 2012). Future interventions might target the intersection between DI and DRSE in particular in decreasing risk for problematic alcohol use among heavy drinking college students.

Limitations and future directions

The strengths of this study should be considered in light of the weaknesses. Causal inferences and generalizability beyond heavy drinking college students are mitigated due to the cross-sectional design of this study. Additionally, as the present analyses were conducted on a heavy drinking sub-set of individuals, there may be reduced variability for evaluating relationships between drinking and constructs of interest. Moreover, the present analyses utilized a prospectively assessed construct (DI) to statistically predict retrospective alcohol consumption. However, given the stability of drinking intentions among heavy drinking college students (Broadwater, Curtin, Martz, & Zrull, 2006; Cronin, 1996; Larimer & Cronce, 2002), it is unlikely that the use of a short-term future timeframe versus a retrospective report (which would be less reliable due to the influence of drinking behavior) substantially impacted the major study findings.

Future research incorporating multiple assessment points as part of a longitudinal evaluation of DI, DRSE, and AE among heavy drinking college students may allow for causal interpretations to be made. Future directions might include application of intervention strategies designed to decrease DI among high risk samples. Additionally, evaluations of intentions to *not* drink might be interesting directions for future research to consider in light of DRSE and AE. Moreover, it is possible that heavy alcohol users may already be aware of negative effects associated with drinking, as suggested by findings from the cognitive impairment subscale of AE. However, it may be beneficial for interventions to specifically target anxious drinking as it relates to the tension reduction aspect of AE.

Conclusions

This study sought to extend previous work by considering DI in the relationship between AE and DRSE with respect to heavy alcohol use. Findings supported the hypothesis that DI, DRSE, and AE would interact in regards to heavy drinking, showing that DRSE and drinking were negatively associated, particularly among individuals high in AE, but this was only evident among individuals low in DI. Among individuals high in DI, the opposite was true such that DRSE was negatively associated with drinking, and this was more evident among individuals low in AE. This indicates that college students may be at highest risk for

problematic drinking if they are low in DRSE and high in DI, and DI in particular seems to be an important factor leading to heavy drinking among college students.

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Figure 1.

A three three-way interaction emerged between drink refusal self-efficacy, intention to drink, and negative alcohol expectancies with respect to drink per week.

Table 1

Means, Standard Deviations, and Correlations among Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Peak Drinks	--								
2. Drinking Frequency	0.11*	--							
3. Drinks per Week	0.40***	0.49***	--						
4. Alcohol Problems	0.26***	0.17**	0.44***	--					
5. Positive Expectancies	0.05	0.07	0.08	-0.04	--				
6. Negative Expectancies	0.13*	0.01	0.14**	0.44***	0.11*	--			
7. Drink Refusal Self-Efficacy	-0.18***	-0.17**	-0.27***	-0.43***	0.02	-0.26***	--		
8. Drinking Intentions	0.34***	0.34***	0.57***	0.33***	0.04	0.21***	-0.25***	--	
9. Gender	0.34***	0.08	0.17**	0.20***	0.03	0.20***	-0.11*	0.28***	--
Mean	7.40	5.29	8.94	32.36	80.56	32.62	4.83	8.77	0.25
Std Dev	3.70	1.91	7.31	10.08	13.39	9.50	0.93	7.80	0.44
Min	4.00	0.00	0.00	25.00	20.00	17.00	1.00	0.00	0.00
Max	25.00	11.00	63.00	97.00	100.00	85.00	6.00	70.00	1.00

Note. N = 344

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

Table 2

Hierarchical regression analysis for variables predicting drinks per week from drink refusal self-efficacy (DRSE), positive alcohol expectancies (PAE), and negative alcohol expectancies (NAE).

Criterion	Predictor	B	SE B	t	β	R ²	F	Adj R ²
Step 1	PAE	0.05	0.03	1.66	0.09 [†]	0.00662	14.62***	0.0736
	DRSE	-2.11	0.41	-5.18	-0.27***	0.07896		0.0736
Step 2	PAE* DRSE	-0.02	0.02	-0.98	-0.30	0.08153	10.06***	0.0734
Drinks per Week								
Step 1	NAE	0.06	0.04	1.47	0.08	0.02052	14.29***	0.0719
	DRSE	-1.94	0.42	-4.58	-0.25***	0.07733		
Step 2	NAE* DRSE	0.09	0.04	1.61	0.37	0.08433	10.44***	0.0763

Note. N = 344

 $p < .001$

**
 $p < .01$

*
 $p < .05$.

[†]
 $p < .10$

Table 3

Hierarchical regression analysis for variables predicting drinks per week from drink refusal self-efficacy (DRSE), intention to drink (DI), positive alcohol expectancies (PAE), and negative alcohol expectancies (NAE).

Criterion	Predictor	B	SE B	t	β	R ²	F	Adj R ²
Step 1	PAE	0.03	0.02	1.42	0.06	0.00662	0.3416	58.80***
	DRSE	-1.07	0.36	-3.00	-0.14**	0.07896		
	DI	0.50	0.04	11.65	0.53***	0.34160		
Step 2	PAE* DRSE	-0.03	0.02	-1.42	-0.39	0.34444	0.3496	30.19***
	PAE* DI	-0.003	0.003	-0.89	-0.25	0.34486		
	DRSE * DI	0.07	0.04	1.56	0.30	0.34957		
Step 3	PAE* DRSE * DI	-0.001	0.003	-0.26	-0.31	0.34970	0.3597	25.81***
Drinks per Week								
Step 1	NAE	-0.004	0.04	-0.12	-0.01	0.02052	0.3377	57.79***
	DRSE	-1.07	0.37	-2.91	-0.14**	0.07733		
	DI	0.50	0.04	11.56	0.53***	0.33772		
Step 2	NAE* DRSE	0.04	0.03	1.37	0.28	0.34452	0.3477	29.94***
	NAE* DI	-0.002	0.003	-0.59	-0.10	0.34659		
	DRSE * DI	0.04	0.05	0.76	0.16	0.34770		
Step 3	NAE* DRSE * DI	0.01	0.003	2.67	1.62**	0.36126	0.3613	27.15***

Note. N = 344

 $p < .001$

**
 $p < .01$

*
 $p < .05$.

†
 $p < .10$