Alcohol Outcome Expectancies and Regrettable Drinking-Related Social Behaviors

Eugene M. Dunne1,* and Elizabeth C. Katz2

1Department of Clinical and Health Psychology, University of Florida, Gainesville, FL, USA, and 2Department of Psychology, Towson University, Towson, MD, USA

*Corresponding author: Department of Clinical and Health Psychology, College of Public Health and Health Professions, University of Florida, 101 S. Newell Drive, Room 3151, Gainesville, FL 32611, USA. Tel.: +1-732-598-7534; E-mail: emdunne@phhp.ufl.edu

Received 19 August 2014; Revised 2 March 2015; Accepted 3 March 2015

Abstract

Aims: Research has shown that alcohol outcome expectancies are predictive of heavy alcohol consumption, which can lead to risky behavior. The purpose of the present study was to assess the incidence of various low-risk social behaviors while drinking among college students. Such social behaviors may later be regretted (referred to as regrettable social behaviors) and include electronic and in-person communications.

Methods: College students (N = 236) completed measures of alcohol outcome expectancies and regrettable social behaviors.

Results: Regrettable social behaviors were reported by 66.1% of participants, suggesting that they may occur at a much higher rate than more serious drinking-related consequences (e.g., drinking and driving, violence, etc.). Expectancies for social facilitation predicted regrettable social behavior. Further, this relationship was mediated by amount of alcohol consumed.

Conclusion: Given the high incidence, regrettable social behaviors may be effective targets in alcohol prevention programming.

INTRODUCTION

Consequences of college drinking

Despite efforts by college and university policy makers to curb alcohol consumption and subsequent negative consequences, college students continue to drink at dangerous levels—approximately 1 in 4 college freshmen will drop out or have other academic consequences due to alcohol abuse and 1800 college student deaths can be attributed to alcohol-related injuries each year (Hingson et al., 2009). Considerable research has found a positive association between drinking and involvement in high-risk behaviors such as illicit drug use, risky sexual behavior, driving while intoxicated and aggressive behavior (Fromme et al., 1997; Giancola, 2002; Paschall, 2003; Bersamin et al., 2012). The significant attention paid to high-risk behaviors in the literature is well deserved, as these behaviors have serious consequences for the drinker, other individuals and society as a whole.

Research has found that nearly half of college students report experiencing at least one alcohol-related consequence (e.g., missed class, unplanned sexual activity, injury), while nearly 20% report experiencing at least five consequences (Wechsler et al., 2002). While high-risk behaviors can result in serious consequences, research suggests that less serious outcomes tend to be more commonly reported. In fact, the most frequently experienced alcohol-related negative outcome was ‘doing something regrettable’ (Wechsler et al., 2002), rather than drunk driving, violence, or other high-risk behaviors. Another study found that blackouts were the most frequently reported negative consequence, while the second most reported was social and interpersonal problems (Read et al., 2008). Regarding the latter, it is unclear in the current literature what behaviors may lead to social and interpersonal problems.

Intoxicated social interactions may be examples of behaviors that result in social and interpersonal problems. If these interactions were regretted, they would be consistent with literature finding regrettable actions to be highly frequent among college drinkers (Wechsler et al., 2002). These behaviors may involve in-person or electronic communications, such as calling or text messaging a friend or potential sexual
partner while under the influence of alcohol. Because they have the potential to be regretted, these behaviors are referred to herein as 'regrettable social behaviors.' Regrettable social behaviors may have serious implications for interpersonal relationships and mental health among college students. Previous research has shown that having a supportive social network can be a protective factor against mental health issues via increased access to pro-social activities (Kawachi and Berkman, 2001). More specifically, high-quality social relationships have been shown to be negatively associated with depression (Teo et al., 2013) and suicide attempts (Holma et al., 2010). Social isolation has also been found to be associated with depression, anxiety, and substance use (Chou et al., 2011). Research on self-consciousness has found that individuals may be more likely to withdraw from future social situations following an embarrassing situation (Froming, Corley, and Rinker, 1990). If regrettable social behaviors are perceived as embarrassing, they may similarly result in withdrawal from future social events and negatively impact social support and related benefits.

Current mobile technology allows for a continuous stream of social communication, which may further increase susceptibility to engage in regrettable social behaviors while intoxicated. Examples of electronic forms of regrettable social behaviors include the relatively recent phenomena of 'drunk dialing' or 'drunk texting'—both of which are defined on popular internet-based dictionaries (e.g. Wikipedia, Urban Dictionary). Ferris and Hollenbaugh (2011) examined motivations for 'drunk dialing' among college students and found that students often engaged in such behavior for reasons such as entertainment, confusion of emotion and sexuality. While these reasons may serve as a benefit to an individual, such behaviors could also place the individual at risk for experiencing embarrassment, distress or other social consequences (e.g. loss of a friendship or romantic relationship). In addition to phone calls, sending text messages while intoxicated is likely more common, given the relative ease compared to calling. These text messages may take the form of 'sexting'—the transmission of sexually explicit messages or images via cell phone—which has been found to commonly occur among young adults (Drouin and Landgraff, 2012), and is associated with recent substance use and high-risk sexual behavior (Benotsch et al., 2013).

Despite the emerging literature on intoxicated use of electronic communications, less attention has been paid to understanding perceptions or consequences of these social behaviors. Specifically, the studies on 'drunk dialing' and 'sexting' discussed above do not indicate whether young adults experience negative outcomes, such as regret or embarrassment, following these behaviors. Such negative outcomes from in-person (e.g. 'hitting on an attractive person at a bar') and electronic forms of socially risky behaviors have not been well described in the current literature and a better understanding of incidence and perception may be beneficial to prevention and treatment efforts.

### Alcohol outcome expectancies

According to alcohol expectancy theory, vicarious and direct experience with drinking and its consequences shape expectancies for alcohol-related outcomes (Goldman et al., 1987, 1999). Research has examined the association between expectancies and drinking, with studies finding that positive expectancies (the belief that drinking will result in a desirable outcome) are associated with increased levels of drinking, while negative expectancies (the belief that drinking will result in an aversive outcome) are associated with reduced levels of drinking (Cox and Klinger, 1990; Stacy et al., 1990; Fromme et al., 1993). Alcohol expectancies have been found to be especially strong predictors of drinking behavior among college students (Brown, 1985).

The expectancy for social enhancement has been particularly important in understanding college drinking. Students entering college with the expectancy that alcohol facilitates social interactions increased their level of drinking after entering college (LaBrie et al., 2009). Another study found that positive expectancies for sociability and sexuality were the strongest predictors of binge drinking among college students (McBride et al., 2014). Regrettable social behaviors defined in the present study are likely to result from increased social or sexual confidence, if they are directed toward potential sexual partners. Steele and Josephs’ (1990) alcohol myopia theory supports this notion, as their research suggests that alcohol use disinhibits cues that would otherwise guide decision making and potentially prevent regrettable social behaviors.

Positive outcomes of alcohol consumption (e.g. increased sociability; feeling 'buzzed') tend to be immediate and result in positive expectancies that are strongly associated with drinking (Stacy et al., 1990), whereas negative consequences (e.g. hangover; impaired school/work performance) are typically delayed, and thus produce negative expectancies that are more weakly associated with drinking (Rohsenow, 1983). Learning theory suggests that memory for consequences of a behavior (i.e. expectancy) is strengthened when the consequences occur frequently and immediately; associative learning of a behavior and its consequences does not occur, or occurs more weakly, when the consequences are infrequent and/or delayed (Goldman and Berkman, 1987; Stacy et al., 1994). Personal experience with a consequence may also make it more meaningful to the individual (increasing the likelihood that it will be accessible when opportunities to engage in the behavior occur) than consequences learned vicariously or through hearsay (Goldman et al., 1999).

College students may have greater personal experiences with regrettable social behaviors that occur more frequently than high-risk behaviors, thus exerting a stronger influence over future intentions to drink than mere knowledge of more serious negative consequences (i.e. via hearsay). Consistent with this hypothesis, prior research suggests that when recalling a prior drinking occasion, individuals are more likely to report negative affect toward drinking compared to when thinking about a future drinking occasion (Murgraff et al., 1999). Evoking anticipated regret has been found to be an effective strategy in reducing the intention to binge drink (Cooke et al., 2006). Such anticipated regret is the cognitive process of evaluating a future event and concluding that a negative outcome, such as embarrassment, will likely occur.

### Rationale and hypotheses

Current literature indicates alcohol consumption is positively associated with risky behavior, such as driving while intoxicated and unplanned sexual encounters. Less is known about the impact of alcohol consumption on engaging in minimally risky, but potentially regrettable, social behaviors that might result in embarrassment, damaged interpersonal relationships or social isolation. Extant research also provides support for the association between positive outcome expectancies and increased alcohol consumption, especially among college students. Furthermore, as positive expectancies for social facilitation have been found to result in heavier drinking among college students (LaBrie et al., 2009), individuals likely consume alcohol with the belief that drinking will enhance their social interactions. Thus, college students may consume greater quantities of alcohol based on these expectancies and seek out social interactions while intoxicated due to their greater perceived social competence, increasing their risk of engaging in social behavior that would later be regretted.
The primary aim of the present study was to examine rates of regrettable social behaviors (such as texting while intoxicated) among college students. Consistent with previous literature (LaBrie et al., 2009), alcohol outcome expectancies for increased sociability were hypothesized to be associated with higher levels of alcohol consumption among college students. It was also hypothesized that higher levels of alcohol consumption would predict engagement in regrettable social behaviors. Finally, it was hypothesized that quantity of alcohol consumed would mediate the association between alcohol-related expectancies for sociability and participation in regrettable social behaviors.

METHOD

Participants
Undergraduate college students between the ages of 18 and 24 years ($N = 236$, 58.5% female) participated in this study. The sample consisted of 112 participants recruited through the psychology department research pool of a mid-Atlantic university ("university sample") and 124 undergraduate college students recruited through two independent psychology websites ("national sample"). Demographic characteristics of the samples are reported in Table 1. Study procedures were approved by the university’s Institutional Review Board.

Procedure

University sample
Participants who signed up through the university research pool reported to an assigned classroom equipped with computers to complete the questionnaires. A co-investigator described the study and was available to address any questions or concerns. Surveys were completed electronically using the Survey Monkey website (www.surveymonkey.com).

National sample
Participants who were recruited online accessed the link to the study through two independent research websites (http://www.socialpsychology.org and http://psych.hanover.edu/Research/exponent.html). In addition to providing verification of IRB approval, the procedures were independently reviewed and approved by the Social Psychology and Hanover College website staff.

Measures

Demographics
A demographics questionnaire obtained information regarding gender, age, ethnicity and year in school.

Alcohol consumption
An adapted version of the Quantity-Frequency Index (QFI, Midanik et al., 1989) was used to assess typical drinking behavior. Participants were asked to list how many drinks they consumed on each day of a typical week during the past 3 months. While this approach may overlook atypical heavy drinking occasions, it allowed participants to report a general pattern of alcohol consumption. A sum score of the total number of drinks consumed by a participant in a typical week was calculated.

Table 1. Sample characteristics and regrettable behaviors ($N = 236$)

<table>
<thead>
<tr>
<th></th>
<th>All ($N = 236$)</th>
<th>Local sample ($n = 112$)</th>
<th>National sample ($n = 124$)</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>19.8 (1.8)</td>
<td>19.1 (1.4)</td>
<td>20.5 (1.9)</td>
<td>6.34</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Total weekly drinks</td>
<td>16.2 (11.9)</td>
<td>18.5 (16.2)</td>
<td>16.0 (13.4)</td>
<td>−1.33</td>
<td>0.185</td>
</tr>
<tr>
<td>Sociability expectancy</td>
<td>3.40 (0.44)</td>
<td>3.45 (0.38)</td>
<td>3.35 (0.48)</td>
<td>−1.69</td>
<td>0.092</td>
</tr>
<tr>
<td>Gender N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>98 (41.5)</td>
<td>53 (47.3)</td>
<td>45 (36.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>138 (58.5)</td>
<td>59 (52.7)</td>
<td>79 (63.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class standing</td>
<td></td>
<td></td>
<td></td>
<td>26.61</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Freshman</td>
<td>98 (41.5)</td>
<td>66 (58.9)</td>
<td>32 (25.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>62 (26.3)</td>
<td>21 (18.8)</td>
<td>41 (33.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>45 (19.1)</td>
<td>15 (13.4)</td>
<td>30 (24.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>31 (13.1)</td>
<td>10 (8.9)</td>
<td>21 (16.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any social behavior + regret</td>
<td>156 (66.1)</td>
<td>83 (74.1)</td>
<td>73 (58.9)</td>
<td>6.10</td>
<td>0.014</td>
</tr>
<tr>
<td>Text message</td>
<td>201 (89.0)</td>
<td>107 (95.5)</td>
<td>103 (83.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text message + regret</td>
<td>103 (43.6)</td>
<td>56 (50.0)</td>
<td>47 (37.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone call</td>
<td>179 (75.8)</td>
<td>94 (83.9)</td>
<td>85 (68.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone call + regret</td>
<td>79 (33.5)</td>
<td>42 (37.5)</td>
<td>37 (29.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook Post</td>
<td>85 (36.0)</td>
<td>48 (42.9)</td>
<td>37 (29.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook post + regret</td>
<td>21 (8.9)</td>
<td>13 (11.6)</td>
<td>8 (6.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook message</td>
<td>35 (14.8)</td>
<td>21 (18.8)</td>
<td>14 (11.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook message + regret</td>
<td>12 (5.1)</td>
<td>5 (4.5)</td>
<td>7 (5.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td>5 (2.1)</td>
<td>2 (1.8)</td>
<td>3 (2.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email + regret</td>
<td>2 (0.8)</td>
<td>1 (0.9)</td>
<td>1 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Act out of character</td>
<td>176 (74.6)</td>
<td>85 (75.9)</td>
<td>91 (74.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Act out of character + regret</td>
<td>59 (25.0)</td>
<td>27 (24.1)</td>
<td>32 (25.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Say something embarrassing</td>
<td>80 (33.9)</td>
<td>33 (29.5)</td>
<td>47 (38.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Say something embarrassing + regret</td>
<td>58 (24.6)</td>
<td>24 (21.4)</td>
<td>34 (27.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Converse with opposite sex</td>
<td>186 (78.8)</td>
<td>97 (87.4)</td>
<td>89 (71.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Converse with opposite sex + regret</td>
<td>22 (9.3)</td>
<td>10 (8.9)</td>
<td>12 (9.7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcome expectancies
The 76-item Comprehensive Effects of Alcohol (CEOA; Fromme et al., 1993) is a two-part questionnaire designed to assess alcohol outcome expectancies. The authors of this measure have provided information to support strong internal validity, construct validity, criterion validity and temporal stability (Fromme et al., 1993). The first half of this measure uses a 4-point Likert scale to measure whether the individual agrees or disagrees with statements such as ‘I would be outgoing’. The second half uses a 5-point Likert scale to rate whether an individual thinks a particular drinking outcome is good or bad. The items make up four positive factors (sociability, tension reduction, liquid courage and sexuality) and three negative factors (Cognitive and behavioral impairment, risk and aggression, and self-perception). As expectancy for increased sociability, in particular, has been found to predict increases in alcohol consumption among college students (LaBrie et al., 2009), the Sociability subscale (8 items; α = 0.71 in this sample) was utilized. It was anticipated that college students who expected social facilitation from drinking would be more likely to seek out drinking situations where there was a high likelihood of engaging in a regrettable social behavior.

Regrettable social behaviors
A questionnaire developed by the study authors was used to assess the occurrence of regrettable social behaviors while intoxicated in the past 3 months. Mobile device or electronic communication included text messaging (formerly known as SMS message), phone calls, public comments made on social networking websites, private messages sent via social network websites, and emails. Additional behaviors included face-to-face interactions such as acting out of character, saying something potentially embarrassing, or communicating with a potential sexual partner. Participants responded with ‘yes’ or ‘no’ to eight categories of regrettable social behaviors. First, participants were asked if they engaged in the social behaviors in the previous 3 months while drinking. Individuals endorsing participation in the social behaviors were then asked whether they regretted the intoxicated behavior. Variables were dichotomized (i.e. yes/no) to represent (i) whether they engaged in one or more social behaviors and (ii) whether they later regretted any social behavior.

Development of the regrettable behavior measure included a pilot study conducted by the authors to examine feasibility and interpretability. In the present study, internal consistency was deemed to be minimally acceptable (per the standards of measurement explained by DeVellis, 1991) for this measure, Cronbach’s alpha coefficient = 0.653. Convergent validity was assessed using the social-interpersonal consequences domain of the Young Adult Alcohol Consequences Questionnaire (YAACQ, Read et al., 2006), which is a 48-item measure used to assess consequences associated with drinking. Previous research has found the YAACQ to have strong, positive correlations with alcohol consumption and alcohol-related problems (Read et al., 2006). Providing initial support for the convergent validity of the regrettable behavior scale, Pearson correlation revealed significant associations between the measure of regrettable social behaviors and the Social-Interpersonal Consequences scale of the YAACQ, r = 0.48, P < 0.001.

Data analysis
Chi-square and independent samples t-tests were used to examine differences between the university and national samples in terms of baseline demographic characteristics. The main study hypotheses were tested using Preacher and Hayes (2008) multiple mediation macro in SPSS Version 20. This procedure allows for covariates and bootstrapping to obtain point estimates and accelerated/biased corrected confidence intervals. This method of mediation analysis is currently preferred in the literature as it provides a statistical test for the indirect effect of the mediator, which is not available through Baron and Kenny’s (1986) causal steps approach. In addition, bootstrapping is considered a superior method for testing intervening variable effects (Williams and Mackinnon, 2008). Finally, the model provides a significance test for the indirect effect of the mediator, which is considered statistically significant when zero is not included in the 95% confidence interval of the bootstrapped estimate (Preacher and Hayes, 2004, 2008). Figure 1 illustrates the paths of the Preacher and Hayes (2008) mediation model.

RESULTS
Sample differences
Table 1 provides demographic and behavioral data for the local and national samples. Results revealed that the samples differed significantly on several variables. The university sample (M age = 19.1, SD = 1.4) was significantly younger than the national sample (M age = 20.5, SD = 1.9) (unequal t(227.3) = 6.34; P < 0.001). Chi-square analyses showed a significant difference between samples in year in school (X^2(3) = 26.81, P < 0.001), with a greater number of upperclassmen being represented in the national sample. The university sample was also more likely to have engaged in regrettable social behaviors (X^2(1) = 6.10, P = 0.014). However, results showed no significant differences in weekly alcohol consumption (t(1) = −1.33, P = 0.185). Because the samples differed on several baseline characteristics, sample was entered as a covariate in all additional analyses.
Frequency of drinking and regrettable social behavior

Self-reported typical weekly alcohol consumption ranged from 1 to 85 drinks (M = 17.2, SD = 14.9). A square root transformation was used to reduce the effect of outliers and control for positive skew. The highest average reported alcohol consumption occurred on Friday (5.71 drinks) and Saturday (6.28 drinks). In the last 3 months, 156 participants (66.1%) reported engaging in one or more forms of regrettable social behaviors. Furthermore, 122 (51.7%) regretted an electronic communication (i.e. phone call, text, Facebook, etc.) and 98 (41.5%) regretted an in-person communication (i.e. saying something embarrassing, etc.). The most commonly reported regrettable social behavior was sending a text message, with 103 (43.6%) college students endorsing this behavior in the past 3 months.

Mediation analysis

Results of the mediation analyses are presented in Fig. 1. Consistent with previous findings, expectancy for sociability was significantly associated with alcohol consumption among college students, B = 0.35, 95% CI: 0.24, P < 0.001. Furthermore, there was a significant positive relationship between level of alcohol consumption and engagement in regrettable social behaviors, B = 1.34, 95% CI: 1.15-1.57, 95% CI: 0.30, SE = 0.08, P < 0.001. The total effect (c path) of expectancy for sociability on regrettable social behaviors was significant, β = 3.87, 95% CI: 2.09-7.17, 95% CI: 0.98, SE = 0.33, P < 0.001. Consistent with our study hypothesis, alcohol consumption mediated the relationship between expectancy for sociability and regrettable social behaviors. The direct effect (c’ path) of expectancy for sociability on regrettable social behaviors was reduced by including the mediator in the model, though this relationship remained significant, β = 2.66, 95% CI: 1.40-5.06, 95% CI: 0.98, SE = 0.33, P < 0.001. This reduction was found to be significant as the indirect effect of the mediator was significantly different from zero (bias-corrected and accelerated 95% CI: lower limit = 0.176, upper limit = 0.739).

DISCUSSION

Overall, the present study found that two-thirds of college drinkers report engaging in and regretting social behaviors, including in-person interactions and electronic communication. Intoxicated in-person communications were commonly regretted, with one in four college drinkers regretting behaviors or saying something out of character. ‘Drunk dialing’ and ‘drunk texting’ are understudied behaviors, yet this study suggests that nearly 90% of college drinkers engage in these behaviors, with ~40% endorsing subsequent regret. To our knowledge, this is the first study that has assessed the intoxicated use of cell phones and social media sites as potentially regrettable social behaviors.

While previous research has focused primarily on high-risk behaviors and serious consequences (Fromme et al., 1997; Giancola, 2002; Paschall, 2003; Bersamin et al., 2012), the present study suggests that these efforts may be overlooking a significant group of low-risk outcomes. Socially regrettable behaviors, such as intoxicated use of cell phones or acting out of character, may negatively impact a greater number of college students (nearly two-thirds) compared to other high-risk intoxicated behaviors. In contrast, Wechsler et al. (2002) found the most commonly experienced alcohol-related problem to be ‘do something you regret’ (35.0%), ‘miss a class’ (29.5%) and ‘drove after drinking’ (29.0%).

Consistent with past research on predictors of high-risk behavior (Fromme et al., 1997; Corbin and Fromme, 2002; Giancola, 2002; Paschall, 2003), this study found significant associations between expectations for sociability and alcohol consumption. Adding to this literature, the present study found that expectancies for sociability were positively associated with regrettable social behaviors. College drinkers who hold stronger beliefs that alcohol facilitates social interactions drank more heavily and participated more frequently in regrettable social behaviors. Moreover, quantity of alcohol consumed was found to mediate the association between sociability expectancies and regrettable social behaviors, such that higher alcohol consumption increased the likelihood of engaging in regrettable social behaviors and accounted for part of the variance that was explained by expectancies alone. Current literature suggests that increased sociability is viewed as a positive outcome of drinking and is associated with increased alcohol consumption among college students (LaBrie et al., 2009). However, the findings of the present study indicate that disinhibited social interactions often lead to regret. While increased sociability may be desirable, false confidence can lead to inappropriate behaviors. Highlighting this experienced regret may be useful in alcohol reduction interventions.

There are several limitations to this study that deserve consideration. First, the data presented are derived from self-report measures; thus social-desirability may have influenced responses to questions about current drinking and engagement in regrettable social behaviors. The use of a convenience sample of college students is also problematic—though college students are the target population of this research. Further, a possible threat to construct validity is the use of a new measure for regrettable social behaviors that was developed by the authors and not previously validated. However, this measure showed mildly promising internal consistency and the significant correlation with the Social/Interpersonal Consequences Scale of the YAACQ provides preliminary evidence for convergent validity. An additional limitation of the regrettable behavior measure was that it resulted in a dichotomous outcome and future studies would likely benefit from using Likert-type scales. The use of cross-sectional data also limits these findings, as it disallows causal inferences about the association between expectancies, drinking and regrettable social behaviors. However, participants were instructed to consider behaviors that directly resulted from drinking occasions in the last 3 months. Future research would benefit from a prospective design to get a better understanding of the temporal sequencing of these variables.

Despite these limitations, the present study reveals significant implications for college harm reduction programs targeting heavy drinking. Prevention efforts that focus on serious negative consequences of high-risk drinking, such as Social Norming Campaigns, may be ineffective for the majority of college students given their focus on ‘typical’ consumption of the ‘average college student.’ If regrettable social behaviors and their associated consequences (e.g. experiencing embarrassment) occur more frequently than their more serious counterparts (e.g. acquiring an STD from a single instance of unprotected sex), they may become more strongly associated in memory with drinking (Stacy et al., 1994) and therefore have a greater influence over frequency and levels of consumption. Moreover, because these expectancies would be shaped by direct experience, they may exert a stronger influence over behavior than expectancies shaped vicariously or through ‘hearsay’ (i.e. through prevention programming).

The tendency to view future drinking occasions negatively based on memory of a previous drinking episode in which a negative outcome occurred may result from anticipated regret. If the regret experienced leads college drinkers to consider drinking less alcohol in the future, it may be a useful intervention and prevention target. It is plausible that facilitating memory of recent participation in one or
more regrettable social behaviors while drinking, and their associated consequences, may be a more effective way of evoking anticipated regret than by encouraging students to think about more serious consequences (e.g. a car accident) that neither they, nor any of their friends, have experienced. Thus, eliciting personal memories of previous regrettable social behaviors has the potential to motivate reductions in consumption and/or deter drinking and future research should be conducted to address this question.

ACKNOWLEDGEMENTS

E.M.D. is supported by the University of Florida Substance Abuse Training Center in Public Health, funded by the National Institute on Drug Abuse (T32DA035167). The content presented is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

CONFLICT OF INTEREST STATEMENT

None declared.

REFERENCES


