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Initial Development of a Measure of Expectancies for Combinations of Alcohol and Caffeine: The Caffeine+Alcohol Combined Effects Questionnaire (CACEQ)

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Abstract

Caffeinated alcoholic beverage (CAB) consumption is widespread among young adults in the United States and is associated with increased negative consequences from alcohol. In addition to the direct pharmacological effects of adding caffeine to alcohol, another possible risk mechanism is via socially-learned expectancies, which has received very little consideration. The current study conducted an initial psychometric validation of a measure of CAB expectancies to facilitate research in this area. Participants were 409 undergraduate regular drinkers (71% female) who were assessed for alcohol and CAB use, alcohol use/misuse, and expectancies about CABs. The majority (62%) of participants reported CAB experience and 48% reported CAB use in the past month. Participants primarily consumed spontaneously prepared as opposed to pre-mixed CABs. More frequent CAB use was significantly positively correlated with levels of alcohol use and misuse. For the expectancy items, exploratory factor analysis revealed two factors that were labeled “Intoxication Enhancement” and “Avoid Negative Consequences.” The patterns of expectancies reflected beliefs that CABs enhanced intoxication, but did not protect against negative consequences. The measure was titled the Caffeine+Alcohol Combined Effects Questionnaire (CACEQ). Intoxication enhancement scores were significantly associated with frequency of CAB use, even after adjusting for the role of weekly drinking and alcohol misuse, supporting the convergent validity of the CACEQ. These data provide initial support for the CACEQ and suggest it may be useful for clarifying the role of expectancies in CAB use. Applications for studying the risks associated with CAB use and methodological considerations are discussed.

Keywords

Alcohol; Caffeine; Caffeinated Alcoholic Beverages; Expectancies; College Drinking

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Alcohol misuse among young adults, in particular college students, remains a major public health problem in the United States (Task Force on College Drinking, 2002; Hingson, Zha, & Weitzman, 2009). Recent epidemiological evidence indicates that alcohol misuse continues to escalate and is associated with drinking and driving, injuries, and both physical and sexual assaults (Hingson et al., 2009). Moreover, collegiate alcohol misuse is substantially associated with alcohol use disorders (AUDs). Among college drinkers, AUDs are highly prevalent, with 24% of males and 13% of females meeting diagnostic criteria for either alcohol abuse or dependence (Slutske, 2005) and heavy drinking in college students significantly predicts the development of an AUD up to a decade later (Dick et al., 2010; Merline et al., 2008; O'Neill et al., 2001).

One trend that may contribute to alcohol-related risk is the increasing consumption of caffeinated alcoholic beverages (CABs). These include both prepackaged beverages, premixed to contain both substances, and beverages that are spontaneously prepared (ad hoc) within a drinking episode (e.g., Red Bull® and vodka, "Yager Bombs"). Recent estimates suggest approximately one quarter of college students consume CABs on a regular basis (O'Brien, McCoy, Rhodes, Wagoner, & Wolfson, 2008). Moreover, although CAB use has not been widely studied, recent survey studies have revealed significant incremental risks associated with CAB use. In a sample of over 4,000 college students, O'Brien et al. (2008) found that CAB use was associated with more frequent heavy drinking episodes and an array of negative consequences. Specifically, CAB use was associated with substantially greater risk of riding with an intoxicated driver (38.9% among CAB drinkers vs. 22.5% among non-CAB drinkers), injury (12.3% vs. 5.9%), being taken advantage of sexually (6.4% vs. 3.7%), and requiring medical treatment (2.6% vs. 1.2%) as a result of drinking (O'Brien et al., 2008). More recently, in an event-related analysis of individuals leaving bars, Thombs et al. (2010) found CAB consumption was associated with a threefold increase in probability of intoxication (BrAC ≥.08) and a fourfold increase in the intention of driving after leaving the bar. Interestingly, independent of adding alcohol, energy drink consumptionin general has been found to be associated with alcohol dependence, even after adjusting for an array of other risk factors (Arria, Caldeira, Kasperski, Vincent, Griffiths, & O'Grady, 2011). Thus, although the literature is by no means exhaustive, there is increasing evidence suggesting that CAB consumption may be a significant health problem (Howland, Rohsenow, Calise, MacKillop, & Metrik, 2011; Reissig, Strain, & Griffiths, 2009) and this has prompted increasing regulatory intervention to minimize CAB-related harm. As a result, the United States Food and Drug Administration (FDA) has issued warning letters to producers of pre-mixed CABs (FDA, 2010) and the Attorneys General of a number of US states have banned pre-mixed CABs (e.g., Maryland Office of the Attorney General, 2010; Washington State Office of the Attorney General, 2010), although these steps cannot influence consumption of spontaneously prepared alcohol and energy drink combinations.

Beyond descriptive studies, a number of studies have experimentally examined the mechanisms of risk from CAB consumption. In two early controlled human laboratory studies, CAB consumption was found to reduce subjective intoxication compared to alcohol alone but not impairment (Ferreira, de Mello, Pompeia, & de Souza-Formigoni, 2006; Marczinski et al., 2006). More recently, Howland et al. (2011) found caffeine did not reduce alcohol-induced impairment, but also found no differences in self-perceived intoxication.

Similarly, Marczinski et al. (2011) found no differences in subjective intoxication but found that alcohol and energy drink co-administration led to a significant increase in subjective stimulation. This effect on stimulation is particularly important both because it suggests greater behavioral activity during intoxication and in turn greater risk, but also because the ascending-limb stimulant properties of alcohol are known to motivate subsequent drinking (Corbin, Gearhardt, & Fromme, 2008; de Wit, Uhlenhuth, Pierri, & Johanson, 1987). Thus, CABs may potentiate the stimulant effects of alcohol, augmenting alcohol-related reinforcement, increasing motivation for more alcohol, and, ultimately, increasing the probability a person will further drink to even higher levels of intoxication.

Importantly, independent of exclusively pharmacological interactions, it is equally plausible that social learning factors play a role in CAB consumption. In particular, outcome expectancies, or cognitive representations of the consequences of a behavior, may contribute to the increasing CAB use and associated negative consequences. Expectancies are well known to play substantial roles in drinking behavior (Goldman, 2002; Rohsenow, 1983; Rohsenow & Lawson, 1982; Rohsenow & Marlatt, 1981) and caffeine-related behavior (Fillmore, Mulvihill, & Vogel-Sprott, 1994; Harrell & Juliano, 2009; Heinz, Kassel, & Smith, 2009). Thus, given clear evidence of a substantial role of expectancies for these drugs separately, it is highly likely that expectancies also play an important role in terms of their combination. Of particular relevance, even with little or no experience with a drug or a combination of drugs, social learning creates an embedded anticipatory cognitive template for behaviors expected to follow drug consumption (Smith, Goldman, Greenbaum, & Christiansen, 1995). Then, in a consumption situation, the beliefs that individuals have about drug content, or stimulus expectancy, activate the individual's outcome expectancies about the effects that drug is likely to have, producing an anticipatory behavioral response to a drug or to a placebo (Goldman, 2002). Thus, cognitive expectancies about drug experiences that are transmitted via social learning can become self-fulfilling prophecies during actual consumption. Expectancy effects are particularly influential in the context of ambiguous situations (Rohsenow & Marlatt, 1981), such as low doses of a drug or combinations of active substances (e.g., CABs).

In the context of CABs, the role of expectancies may be particularly important because extensive marketing campaigns have been undertaken to communicate the enhancing effects of both premixed CABs and the nonalcoholic high-caffeine “energy drinks” that are typically used in ad hoc CABs. These advertising campaigns may serve to foster expectancies of augmented intoxication or improved performance during intoxication and, in turn, lead to heavier drinking, higher intoxication, or false beliefs of diminished impairment. Alternatively, expectancies may lead to compensatory effects for CABs. For example, in a laboratory study, social drinkers who were led to expect that caffeine would counteract alcohol-induced impairment actually displayed greater alcohol-induced impairment at an intoxicating dose than those informed that caffeine had no such effect (Fillmore, Roach, & Rice, 2002). Thus, CAB expectancies promoted by marketing could lead to significant behavioral consequences but only a small number of empirical studies have examined the role of CABs to date and none (to our knowledge) have examined the role of expectancies. This is in part because of the absence of any validated measures assessing CAB expectancies and, toward this end, the objective of the current study was to develop and conduct an initial psychometric validation of a measure of CAB expectancies.

METHODS

Participants

Participants were undergraduate students (18 or older, no upper limit) at the University of Georgia in open-enrollment psychology courses who completed paper-based questionnaires in a group setting for extra credit or received research credit in the psychology department research pool. Only individuals who reported drinking alcohol at least monthly were included in the current study (422 out of 496) because of the irrelevance of the questionnaire content for infrequent drinkers or non-drinkers. Of the 422 drinkers, 13 participants were excluded because of failure to complete the primary study measure (i.e., the CAB expectancies measures). The final sample of409 participants is described in Table 1 and can be broadly characterized as young adult, regular-to-heavy drinkers of European ancestry. The majority of participants were under 21 (59%), the legal age of alcohol consumption.

Procedure

All procedures were approved by the University of Georgia's Institutional Review Board. Participants were given packets of questionnaires, oral instructions, and an informed consent form. Participants were informed that no data would be linked to their identifying information.

General Assessment

A demographics measure assessed age, race, Hispanic ethnicity, educational level, and university class. Quantity and frequency of alcohol use were assessed using the Drinking Days Questionnaire (DDQ)(Collins, Parks, & Marlatt, 1985), which assessed typical consumption of standard drinks on each day of the week. Alcohol misuse was assessed using the Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Maristela, 2001). The AUDIT generates a total score, but also has two subscales, quantity-frequency and hazardous drinking (Donovan, Kivlahan, Doyle, Longabaugh, & Greenfield, 2006); the latter reflects negative consequences from drinking. To avoid redundancy with drinks/week on the DDQ, only the hazardous drinking scale was used. Thus, alcohol use was defined as drinks/week and alcohol misuse was defined as AUDIT-HZD. Participants were asked whether they drank CABs (separately for premixed or mixed ad hoc) and the frequency of premixed and ad hoc CAB consumption in the past 30 days.

Expectancies for CABs

Expectancies for CAB effects were assessed using the following instructional set: *"Compared to equal amounts of non-energy alcoholic beverages, please mark the extent to which you agree that alcoholic beverages mixed with energy drinks allow one to:"* followed by the item. Items were rated on a scale from 1–5 (strongly disagree to strongly agree). The nine items were: 1) Stay alert longer; 2) Have more energy to party; 3) Get high or "buzzed" quicker; 4)Drink more without feeling drunk; 5) Feel better in the morning; 6) Avoid unintended sexual encounters; 7) Spend less money; 8) Be in control; and 9) Drive safer.

The items were developed based on advertising claims and risks identified in previous studies (e.g., Ferreira et al., 2006; Marczinski et al., 2006; O'Brien et al., 2008).

Data Analysis

Descriptive percentages were calculated for all CAB-related items, both for the overall sample of drinkers (N = 409) and the individuals who reported drinking CABs (n = 251). To identify aggregations of items into conceptually related subscales, an exploratory factor analysis (EFA) using principal axis factoring was conducted on the nine items for the entire sample and also for the subset of individuals who self-reported CAB experience. Specifically, the EFA used direct oblimin rotation (permitting separate factors to be correlated) and identified factors via scree plot discontinuity examination and parallel analysis of a 1000 bootstrapped random datasets with identical parameters (subjects, items) (Horn, 1965; O'Connor, 2000). For the latter, factors were defined as those with eigenvalues greater than the 95th percentile from the bootstrapped datasets. Items were considered to significantly load on a factor based on a pattern matrix loading of .30.Internal reliability was examined using Cronbach'sα. Pearson's product-moment correlations (r) and partial correlations were examined between the resulting scales, and between the scales and frequency of CAB consumption and alcohol-related variables. Statistical significance was defined as $p \leq .05$. All analyses were conducted using SPSS 16.0 and 17.0.

The dataset was initially examined for missing data and, among the alcohol-related variables, distribution abnormality, and the presence of extreme values (outliers) using a conservative criterion of Z = 4. Preliminary analyses determined a small proportion of data were missing for the following measures: sex (2.6%), DDQ (.7%), race (.7%), academic class (.7%), ethnicity (.4%), typical CAB consumption (.7%). One participant failed to answer item five on the CAB expectancies measure, which was imputed using mean imputation. Drinking variable distributions were approximately normal. Three outliers were identified on the DDQ and two outliers were present for the frequency of premixed CABs, which were iteratively recoded as the highest no- outlying value.

RESULTS

Caffeinated Alcoholic Beverage Consumption and Alcohol Use/Misuse

In terms of any previous experience, 62% reported either premixed or ad hoc CAB use and 48% reported drinking CABs in the past month. Rates of CAB use by modality are shown in Table 2. Within CAB drinkers, 42% did not use premixed CABs and those who did only consumed them occasionally. In contrast, almost all of CAB drinkers reported experience with mixing ad hoc CABs (91%), with typically occasional use over the previous month (1–5 days: 55%). Only 5% reported experience with pre-mixed CABs but not ad hoc CABs in the last month. Frequency of premixed CAB consumption was significantly correlated with frequency of ad hoc CAB consumption (r = .42, p<.001).Given the small percentage of individuals reporting premixed CAB use and no ad hoc CAB use, a combined CAB frequency score was created by computing the mean frequency of premixed CABs and ad-hoc CABs. The composite score was significantly correlated with both alcohol use (r = .43, p<.001) and misuse (r = .30, p<.001). Furthermore, CAB frequency was significant correlated with alcohol misuse even after controlling for drinks per week (partial $r = .14$, $p<.01$). Compared to males, females reported significantly lower CAB frequency ($F = 12.17$, $p<.01$, $\eta_p^2 = .03$), albeit a difference of modest effect size. However, as expected, females also reported significantly fewer drinks/week ($F = 44.93$, $p<.001$, $\eta_p^2 = .10$) and, after covarying drinks/week, no sex difference in CAB consumption frequency was present ($F = .59$, $p > .40$), suggesting the differences were attributable to drinking practices rather than sex-specific CAB preferences.

Caffeinated Alcoholic Beverage Expectancies

General expectancies of the effects of CABs for all drinkers and for individuals who drink CABs are presented in Table 3. Participants generally tended to expect augmented and faster stimulant effects, but did not expect CABs to mitigate hangovers, avoid unintended sexual encounters, save money, remain in control or drive more safely. Endorsement tended to be slightly more definitive for individuals with CAB experience, with fewer undecided choices. For the entire sample, the EFA scree plot revealed a clear two-factor structure that accounted for 30.89% and 16.40% of the variance, respectively (47.28% in total). This was also evident via parallel analysis: the eigenvalues for the two factors (2.78 and 1.50, respectively) were higher than the 95th percentile of eigenvalues for the bootstrapped datasets (1.23 and 1.13, respectively), but the third factor was not (.42vs. 1.09, respectively). In the subsample of individuals with CAB experience, a virtually identical two-factor structure emerged (26.41% for factor 1, 14.32% for factor 2; total = 40.74%). The eigenvalues for the two factors (2.38 and 1.29, respectively) were higher than the 95th percentile of eigenvalues for the bootstrapped datasets (1.30 and 1.20, respectively), but, again, the third factor was not (.50 vs. 1.12). The two factors were interpreted as “Avoid Negative Consequences” (i.e., factor 1) and “Intoxication Enhancement” (i.e., factor 2) and the factor loadings are presented in Table 3. All items loaded on one factor or the other. Given the high degree of overlap in the factor structures generated across samples, all subsequent analyses utilized the factors extracted from the EFA on the entire sample. The factors exhibited a statistically significant modest correlation with each other ($r = .11$, $p < .05$). The subscale internal reliability was good for Negative Consequences ($\alpha = .82$), but suboptimal for Intoxication Enhancement ($\alpha = .66$), which was likely a function of the small number of items.

Convergent Validity between CAB Expectancies and CAB Use

The 9-item CAB expectancies measure, titled the Caffeine+Alcohol Combined Effects Questionnaire (CACEQ), was scored by computing the mean of the ratings within each factor. Means were used instead of empirically generated factor scores to prevent sample-specific results. Intoxication Enhancement was significantly correlated with CAB frequency ($r = .25$, $p<.001$), whereas the Avoid Negative Consequences subscale was not significantly correlated with frequency of CAB use ($r = .01$, $p>.50$). Furthermore, Intoxication Enhancement remained moderately associated with CAB frequency even after incorporating drinks per week and AUDIT-HZD in partial correlations (partial $r = .21$, $p<.001$). Partial correlations did not reveal substantively different findings for Avoid Negative Consequences (partial $r = .05$, $p>.50$).

DISCUSSION

Toward understanding the role of expectancies in CAB consumption, the goal of the current study was the initial psychometric validation of a measure of expectancies for caffeine alcohol combinations, the CACEQ. The items revealed that college students have relatively clear expectancies for the effects of CABs, regardless of their CAB experience. Participants generally reported that CABs would augment alertness and energy during intoxication and would result in quicker intoxication, which clearly suggests one of the motivational bases for CAB use. In addition, participants reported that CABs would not reduce the risks of drinking, which, from a public heath standpoint, is a positive pattern of responses. These patterns were reflected in the EFA, which revealed a binary structure to the data. The two factors were termed “Avoid Negative Consequences” and “Intoxication Enhancement,” reflecting the item level patterns. Notably, the internal reliability for the Intoxication Enhancement subscale was slightly below the traditionally acceptable α level of .70, which was likely a function of the small number of items loading on this factor. Furthermore, Intoxication Enhancement was significantly associated with frequency of CAB consumption, suggesting that expectancies about the increased intoxicating effects from CABs play a significant role in college students’ decision to consume CABs. Generally, this suggests that expectancies surrounding the increased intoxication effects from CABs may be a unique risk factor for the consumption of CABs and, in turn, this may lead to increased risk for alcohol use and misuse. Also notable, however, was the lack of a relationship between the Avoid Negative Consequences subscale and both CAB consumption and alcohol use/misuse. This suggests that, although participants generally do not believe that CABs reduce negative consequences, this does not appear to influence drinking behavior.

The study also addressed similar questions to several previous investigations with regard to the consequences of CAB use. Frequency of CAB use was significantly correlated with alcohol use and misuse. Furthermore, CAB frequency was significantly related to alcohol misuse even after controlling for average drinks/ week. These findings replicate earlier studies demonstrating that CAB use is an indicator of greater alcohol misuse (O'Brien et al., 2008). Of note, however, the magnitude of association between CAB frequency and alcohol use was substantially larger than that of CAB frequency and alcohol misuse (i.e., r = .43 vs. .30).

A potentially important contribution of the current study was the explicit distinction between pre-mixed and ad hoc CAB use. Substantial differences in prevalence were evident among CAB users, with more than double the prevalence of ad hoc CAB use versus pre-mixed CAB use in the past month (68% vs. 29%). This suggests that ad hoc CAB consumption is much more common and may in fact play a larger role in increased risk compared to pre-mixed CABs. If this is the case, an implication is that it is unlikely that federal or state regulation of pre-mixed CABs will substantially decrease the consumption of CABs in general or incremental risk from CABs. Importantly, as a result of greater regulatory oversight, some manufacturers of pre-mixed CABs have already discontinued their products (e.g., Moonshot caffeinated beer) or removed caffeine from their products (e.g., Four Loko; Phusion Projects, 2010), which further increases the probability that CAB use in the future will primarily be in the form of ad hoc CAB consumption. In addition, it is also possible that

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these changes contributed to the differences in frequencies between CAB modalities in this sample

A second potential contribution of the study is that it offers a different perspective on prevention efforts in this domain. For example, although it may appear warranted to warn young adult drinkers that CABs lead to greater intoxication, this may inadvertently have the effect of stimulating greater CAB use. Equally, informing students that CAB won't attenuate risk from alcohol would not be expected to affect consumption according to these findings. This is necessarily conjecture, but the results nonetheless suggest that CAB expectancies be considered in the context of prevention messages that might have counterintuitive effects.

Importantly, the current study represents an initial development of a measure of CAB expectancies and a number of considerations should be taken into account in interpreting the results. First, as with any novel measure, the findings require replication, confirmation of the factor structure, and further psychometric validation. Second, caution should be exercised with regard to these findings because the generalizability of the patterns observed in this sample to young adult drinkers as a whole is not clear. These findings should be recognized as largely pertaining to regular drinkers who were racially white and female. Future studies will need to use samples that are more diverse and have larger proportions of males to determine whether these patterns robustly generalize. Third, it is important to recognize this represents the first step in the development of a measure of CAB, not the final one, and not all content domains were necessarily present. For example, in future studies, it may be useful to expand the content domain of positive expectancies, to examine the role of negative expectancies about CABs (e.g., "CABs increase risk for unintended (risky) sex relative to non-energy alcoholic drinks"), and to incorporate more general alcohol expectancies. In addition, expectancies for caffeine alone have been found to be associated with CAB use (Huntley &Juliano, in press), further suggesting that additive or interactive relationships among types of expectancies may be useful future target.

A final consideration is that although CAB use was associated with alcohol use and misuse, directional causality cannot be unraveled in cross-sectional studies. While one conclusion is that CAB use causes greater alcohol-related problems, increased CAB use may also increase as a function heavier drinking. For example, heavy drinkers consume alcohol across a greater variety of situations and may be more likely to be exposed to CAB consumption or regular CAB drinkers. In other words, CAB consumption may be a cause of alcohol-related negative consequences, but it may also itself be an associated outcome of heavy drinking. Similar caution should be exercised with regard to the relationship between expectancies about the intoxicating effects of CABs and CAB consumption. Furthermore, there has been relatively little consideration of associations between general risk factors for alcohol misuse, such as impulsivity or risk-taking propensity, in relation to CAB use, which could serve as further confounding factors (Verster et al., 2012). Disentangling the causal relationships among general risk factors, CAB expectancies, CAB use, and negative alcohol-related consequencesis an important priority for the future, but will require prospective studies.

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Table 1

Participant characteristics.

Variable	%/ Mean (SD; Range)
Sex	29% Male, 71% Female
Age	20.13 (1.88; 18–31)
Education (Years)	13.79 (1.55; 11–20)
University Class	Freshman 32%, Sophomore 14%, Junior 22%, Senior 32%
Race	85% White, 7% African American, 4% Asian, 2% Mixed Race, 2% Another Race, <1% American Indian or Alaskan Native
Hispanic Ethnicity	5% Hispanic, 95% Non-Hispanic
Drinks/Week	10.00 (9.04; 0–54)
AUDIT[a]	7.86 (5.03; 1–24)
AUDIT-HZD	2.99 (3.38; 0–16)

[a]AUDIT = Alcohol Use Disorders Identification Test; AUDIT-HZD = AUDIT Hazardous Drinking subscale;

Table 2

Use of caffeinated alcoholic beverages (CABs), either premixed or mixed ad hoc, in the past 30 days by collegiate drinkers. Values on the left reflect percentages in the total sample (*N*=409) and values on the right reflect percentages in the subsample of individuals reporting any CAB use (*n*=251). Non-100% totals reflect rounding error.

Frequency	Premixed CABs	Ad hoc CABs
Never	64%/42%	44%/9%
Ever, But Not Past Month	18%/29%	14%/23%
1–2 Days	13%/20%	24%/39%
3–5 Days	3%/6%	10%/16%
6–9 Days	1%/2%	5%/8%
10–14 Days	1%/1%	3%/4%
15–19 Days	0%/0%	1%/1%

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Table 3

Proportionate responses of expected effects of caffeinated alcoholic beverages (CABs). Proportions on the left reflect response within the total sample of collegiate regular drinkers (*N* = 409) and responses on the right reflect responses from individuals who drink CABs (*n* = 251). The largest proportion for an item within a sample is in boldface. Columns F1 and F2 reflect the factor loadings from the exploratory factor analysis (EFA); significant factor loadings (i.e., >.30) are in boldface and left/right values pertain to the total sample and subsample. Note: SD =Strongly Disagree; D = Disagree; Un = Undecided; A = Agree; SA = Strongly Agree.

	Drinkers (*N* = 409)					CAB Drinkers (*n* = 251)					EFA	
Item	**SD**	**D**	**Un**	**A**	**SA**	**SD**	**D**	**Un**	**A**	**SA**	**F1**	**F2**
1. Stay alert longer	4%	17%	39%	**34%**	6%	3%	17%	30%	**42%**	8%	.08/−.01	**.73/.72**
2. More energy to party	3%	11%	32%	**46%**	8%	3%	10%	24%	**53%**	10%	.03/.01	**.88/.86**
3. Get high or "buzzed" quicker	3%	9%	35%	**42%**	10%	3%	10%	28%	**47%**	12%	−.05/−.01	**.34/.30**
4. Drink more without feeling drunk	11%	37%	**38%**	11%	2%	12%	**43%**	31%	12%	3%	**.42/.37**	.21/.23
5. Feel better in the morning	25%	**38%**	34%	2%	1%	25%	**44%**	28%	3%	0%	**.74/.62**	.01/.01
6. Avoid unintended sex	22%	32%	**42%**	3%	2%	21%	31%	**41%**	4%	2%	**.74/.68**	.03/.03
7. Spend less money	21%	32%	**34%**	11%	2%	24%	**33%**	28%	14%	2%	**.56/.52**	−.02/.01
8. Be more in control	23%	**39%**	31%	6%	1%	24%	**41%**	28%	7%	1%	**.80/.74**	−.01 /−.01
9. Drive safer	**57%**	21%	21%	1%	1%	**63%**	20%	16%	1%	0%	**.70/.65**	−.19/−.17