

Expectancy Outcomes and Self-Reported Alcohol Involvement in Educated Albanian Young Adults

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Abstract: *The World Health Organization (2004) has estimated that two billion people worldwide are alcohol consumers. Data from Albania indicate that at least 20% of Albanian adults fall into this category and an additional 1.5% of young people are alcohol dependent. Research has shown that people's beliefs and expectations about the effects of alcohol play a role in drinking behavior. We assessed the role of expectancies on the effects of alcohol as predictors of self-reported involvement in drinking behavior. It was expected that both positive and negative expectancies would predict alcohol involvement, over and above demographic variables. For the purpose of the study we recruited a non-probabilistic stratified sample of 450 Albanian students from three Albanian universities. The measures used were Leigh and Stacy's Alcohol Outcome Expectancies Scale and Mac Neill's Index of Alcohol Involvement. Regression analyses separately conducted for those classifying themselves as drinkers vs. nondrinkers. Thus, demographic variables were introduced in the first step, positive expectancies in the second step and negative expectancies in the third. Results suggested that positive expectancies related to entertainment or sexual behavior were significantly explaining alcohol involvement among the drinkers group. On the other hand, only gender was significantly explaining drinking behavior among the non-drinkers group. Implications for practice were discussed.*

Keywords: *Alcohol involvement, Alcohol index, Expectancy theory, Albanian young adults*

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1. Introduction

1.1. Alcohol drinking: The extent of the problem

Consumption of alcohol among adolescents and young adults is a widely spread phenomenon in almost every society worldwide (World Health Organization, 2004). Indeed, drinking behavior has been associated with several consequences, which involve not only the individual, but also the family and society as a whole. It has been estimated that about two billion people worldwide are involved in alcohol consumption and 76.3 million of them have a diagnosable alcohol use disorder (WHO, 2004). In Europe alone, about 55 million adults drink at harmful levels (more than 40 g of alcohol, i.e., four drinks per day for men, and over 20 g, i.e., two drinks a day for women). The European Union (EU) countries therefore are considered as the heaviest drinking region of the world (WHO, 2011). Total alcohol consumption in the EU amounts to an average of 11 liters of pure alcohol consumed per adult each year. These high rates of consumption have clear consequences, as evident in alcohol-related death rates (195,000/year due to accidents, cancers, liver disease, etc.) (Rehm et al., 2004). Evidence related to health and social problems stemming from alcohol consumption among young people are also concerning. Alcohol consumption has been identified as the main cause for over 55 000 deaths in adolescents and young adults (Rehm & Eschmann, 2002). Other findings link alcohol consumption with unsafe sexual practices (Boyd & McCabe, 2005; Cooper, 2002). However, empirically testing the existing theoretical explanations in uncharted cases helps both with a reality check of these theories and our understanding of the causal complexity of alcohol consumption in society and how to tackle the problem.

1.2. Drinking behavior: Introducing the theoretical frameworks

The numerous theoretical approaches explaining drinking behavior can be grouped in three main categories including socio-cultural perspectives, behavioral, and cognitive approaches. Socio-cultural theorists argue that people are most likely to develop patterns of alcohol involvement when they live under stressful socioeconomic conditions. In fact, studies have found that regions with higher levels of unemployment have higher rates of alcoholism. Similarly, lower socioeconomic classes have substance abuse rates that are higher than those of the other classes (Franklin & Markarian, 2005; Khan, Murray, & Barnes, 2002). Other sociocultural theorists argue that substance abuse and dependence are more likely to appear in families and social environments where alcohol use is valued, or at least accepted. Researchers have found that problem drinking is more common among teenagers whose parents and peers drink, as well as among teenagers whose family environments are stressful and unsupportive (Kiser et al., 2008; Lieb et al., 2002). Nonetheless, while socio-cultural approaches are useful in explaining the behavior, they are less so when it comes to actual prevention or intervention efforts. In this aspect the behavioral and cognitive approaches provide further insight.

The behavioral approach for instance, places the focus on *operant conditioning*, and the role that the learning process may play in alcohol involvement (Ksir et al., 2008; Higgins et al., 2004). According to behaviorists, the temporary reduction of tension or rising of spirits produced by alcohol use has a rewarding effect, thus increasing the likelihood that the user will seek this reaction again. Furthermore, other rewards in the form of social approval also have a reinforcing effect on drinking behavior (Bosari & Carey, 2001). From a practical perspective, this approach suggests that if drinking behavior is not reinforced, it will disappear. Nonetheless, the pure behavioral perspective considers exclusively the creation of a stimulus-response association without taking into account the cognitive elements involved in the process (Comer, 2010).

The cognitive approach on the other hand, moves a step further by arguing that the rewards related to alcohol drinking, might act in increasing the frequency of this behavior by eventually producing the *expectancy* that alcohol will be rewarding. It is this expectation in turn, which motivates individuals to increase

alcohol use at times of tension (Chassin et al., 2001). These claims are incorporated in the Alcohol Expectancy Theory, which assumes that cognitive activities such as anticipation, expectancy, memory about history of alcohol use, and modeling, play a primary role in determining behavior (Abrams & Niaura, 1987; Oei & Baldwin, 1994).

The expectancy approach views alcohol drinking not only as related to physiological effects, but rather as a function of the beliefs one holds regarding these effects. Positive expectancies about alcohol, which are likely to encourage people to drink, are especially influential in predicting involvement in drinking behavior (Ham & Hope, 2003). Negative expectancies (i.e., about harmful effects of alcohol drinking) are also associated with the extent of alcohol involvement but seem to be less powerful (Yeide, 2009). Thus, several studies have shown that alcohol users identify alcohol as an integral part of having fun, in both physical and psychological terms (Burke & Stephens, 1999; Steele & Josephs, 1990). Research has found that many adolescents hold strong beliefs about the effects of alcohol long before they take their first drink (Agrawal et al., 2008). According to longitudinal research, adolescents who are just beginning to experiment with alcohol and who initially have the most positive expectations about its' effects will consume greater amounts of alcoholic beverages in the following years (Smith et al., 1995). Moreover, follow-up studies have demonstrated that expectations about the effects of alcohol are useful in predicting which individuals will later develop drinking problems (Jones, Corbin, & Fromm, 2001). Finally, the usefulness of expectancy theory extends beyond the prediction of alcohol involvement, towards the suggestion of prevention/intervention strategies at the cognitive level (Oei & Morawska, 2004). Prevention programs focusing on 'adjusting' or changing alcohol related expectancies of adolescents and young adults might be especially important in this context.

1.3. Introducing the context of the study

As evident in the socio-cultural approach to alcohol involvement, stressful socio-economic situations and social acceptability of alcohol involvement represent two useful aspects in describing patterns of drinking behavior; hence it is quite important to conduct research on alcohol involvement in societies that are going through considerable social change. Balkan countries represent a good example in this context. The lack of research in general and alcohol related studies in particular highlights the importance of examining the specific behavior in this context. The present study has been conducted in one of the Balkan countries with probably the scarcest evidence in alcohol-related research. Even the studies conducted have an epidemiological character; for instance, research conducted by the Institute of Public Health for alcohol consumption in Albania, found that one in five people is a regular consumer (Institute of Public Health, 2002a). This study also suggests an increased use of alcohol by the young generation (Institute of Public Health, 2002b). Despite the epidemiological nature of the research, findings highlight the extent of the alcohol problem in Albania and the need for further research.

1.4. Research hypotheses

The present study used the Expectancy Theory to understand alcohol involvement among Albanian young adults. The Expectancy Theory maintains that positive and negative expectancies about the effects of alcohol would significantly predict the index of alcohol involvement. Hence, people who expect positive physical, cognitive, emotional, and sexual outcomes from alcohol drinking will report a higher index of alcohol involvement (i.e., higher frequency and quantity of drinking). On the other hand people who expect negative outcomes in all four of these domains will report a lower index of alcohol involvement. Finally, the Expectancy model would significantly explain involvement in alcohol behavior over and above demographic variables, i.e., age and gender

2. Methodology

2.1 Research Design

The present study was a self-report survey design. The self-reported measure was considered to be appropriate because it is the best way of assessing perceptions, beliefs, and behaviors of individuals (Brenner, Billy, & Grady, 2011).

2.2 Study Sample

We employ a non-probability stratified sampling for some reasons. First, conventional sampling methods are inappropriate for this specific research question. Young Albanians live geographically and culturally isolated to a greater degree than found in other societies. Therefore, a random national sample would not provide adequate sample variations, and stratification method is necessary (Peshkopia & Voss, 2008). Second, there are no established survey institutes in Albania, while private polling of random sampling often charge at levels that few research questions would justify. Third, telephone access and internet use are not systematically distributed across the population so random digit dialing is not possible (Peshkopia & Voss, 2008).

Our interviewers asked 450 undergraduate Albanian students selected from three public Universities; Tirana University, Agricultural University of Tirana and Polytechnic University of Tirana. During data entry 19 questionnaires were discarded for inappropriate procedure fulfillment. We defined each Faculty of these Universities as proportionate strata of the population of our study. The sample's strata percentage were Economics (9%), Law (9%), Medical (11%), Nursing (8%), Social Science (10%), Civil Engineering (4%), Electrical Engineering (5%), Mechanical Engineering (7%), Geology (3%), Information Technology (5%), Forest Science (2%), Biotechnology (3%), Veterinary (6%), Natural Science (9%) and Fine Arts (9%).

The sample consisted of 184 men and 232 women. The age of participants ranged between 18 and 35 ($M = 20.5$, $SD = 2$). The sample contains 219 self-reported not drinkers and 209 drinkers.

2.3 Measures

2.3.1. The translation process

Two measures were used, the Alcohol Outcome Expectancies Scale and the Index of Alcohol Involvement. The measures were translated into Albanian and back-translated in English by four independent translators (two from English to Albanian and the other two from Albanian to English). The two translated versions were compared to examine any differences in language expressions and a final single version of the questionnaire was produced.

However, after piloting the instruments on fifteen students, we found problems in answering the Alcohol Outcome Expectancies Scale for those who do not drink alcohol. Hence, the wording of the scale was modified so that it referred to a hypothetical situation (e.g., "If you drank alcohol..."). Reports of students showed that this version was more comprehensive for those who do not drink, so we decided to include both versions of the questionnaire (the original and the adapted one) in the study. Therefore participants were free to choose which version they wanted to complete based on whether they classified themselves as drinking or not drinking. The following section describes each measure in detail.

2.3.2 Alcohol Outcome Expectancies Scale (AOES)

The Alcohol Outcome Expectancies Scale (AOES; Leigh, & Stacy, 1993) is a 34-item scale designed to

measure alcohol expectancies. This instrument measures the beliefs that people hold about the effects of alcohol on their behavior, moods and emotion. On this instrument, participants are asked to rate each of the statements on a 6 points Liker scale (1= no chance to 6= certain to happen). Both positive and negative expectancies were assessed. Positive expectancies included four factors: social facilitation, fun, sex, and tension reduction. Negative expectancies also included four factors: social, emotional, physical and cognitive consequences. The drinkers' version had good internal consistency for both positive and negative expectancies, $\alpha_{\text{positive}} = .89$, $\alpha_{\text{negative}} = .87$. The version for non-drinkers also showed good internal consistency, $\alpha_{\text{positive}} = \alpha_{\text{negative}} = .85$. The scale is scored by summing up the scores within each of the subscales.

2.3.3 Index of Alcohol Involvement (IAI)

Index of Alcohol Involvement (MacNeil, 1991) is a 25-items instrument designed to measure the degree of alcohol use. On this instrument, participants are asked to rate each of the statements on a 7 points Liker scale (1= never to 7= always). Reliability analysis revealed that the IAI had good internal consistency, with an alpha of 0.88. We scored the measure following instructions by MacNeil (1991). The procedure starts by first reversing items; 3, 4, 6, 9, 10, 12-15, 17, 19, 21, 24 and summing this and the remaining scores. The number of completed items is subtracted from this sum and the figure is multiplied by 100, and divided by the number of items completed times 4. The resulting scores range from 0 to 100 with higher scores showing greater alcohol involvement.

3. Statistical analyses

The analyses were conducted in two parts. First, data were filtered to include only participants who reported to engage in drinking behavior. Therefore, the first part of the analysis included a stepwise regression to test the hypotheses of the study. We relied on this type of analysis in order to sort out the specific contribution of each category of variables. Demographic variables were entered in the first step, positive expectancies in the second step and negative expectancies in the third.

The second part of the analysis focuses on participants who reported to be nondrinkers. Frequency and descriptive analyses revealed that despite classifying themselves in this category, the index of alcohol involvement was different from 0 (i.e., there was variability in reports of the index of alcohol involvement). Again, we conducted a three steps hierarchical regression within this group.

4. Results

4.1 Analyses among self-reported drinkers

Results produced a significant model, $F(10,151) = 6.25$, $p < .01$, explaining 31% of the variance. Positive and negative expectancies significantly contributed in explaining the index of alcohol involvement over and above demographic variables (see Table 2). However, not all variables had a significant contribution. From the positive expectancies block, there were two significant predictors 'fun' and 'sex', with $\beta_{\text{fun}} = .25$, and $\beta_{\text{sex}} = .21$, both with $p < .05$. Therefore, participants who reported stronger expectations that alcohol would help them have a good time, or would improve their sexual performance were also reporting a higher index of alcohol involvement. The only significant predictor in the block of negative expectancies was the social factor, $\beta = .35$, $p < .01$. However, the relationship was in the opposite direction to our expectation; participants who reported stronger expectations of negative social consequences also reported a higher index of alcohol involvement.

The two tables below show the first order correlations and the stepwise regression analyses conducted.

Table 1: Correlations of Index of Alcohol Involvement onto Demographic Variables, Positive Expectancies, and Negative Expectancies among Drinkers

Variables	2	3	4	5	6	7	8	9
1.IAI Final	.267**	.364**	.365**	.335**	.336**	.155	.295**	-.125
2.Social Facilitation	1.00	.653**	.661**	.646**	.101	.097	.162*	.215
3. Fun		1.00	.567**	.574**	.015	-.049	.141	.428
4. Sex			1.00	.532**	.130	.146	.192*	-.157
5. Tension Reduction				1.00	.302**	.261**	.372**	.216
6. Social Negative					1.00	.679**	.588**	-.110
7.Emotional Negative						1.00	.535**	.158
8.Cognitive Negative							1.00	.521
9.Social Facilitation								1.00

Note: ** $p < .01$, * $p < .05$

Table 2: Hierarchical Regression of Index of Alcohol Involvement onto Demographic Variables, Positive Expectancies, and Negative Expectancies among Drinkers

Steps/Models:	1	2	3
Age	-.07	-.07	-.10
Gender	-.19*	-.11	-.11
Social Facilitation		-.15*	-.10
Fun		.22*	.25*
Sex		.22*	.21*
Tension Reduction		.18	.01
Social Negative			.35*
Emotional Negative			-.15
Physical Negative			.04
Cognitive negative			.10
ΔR^2	.04*	.17**	.10**
R^2	.04*	.21**	.31**

Note: ** $p < .01$, * $p < .05$

4.2. Analyses among self-reported nondrinkers

Regression analyses for non-drinkers produced a significant model, $F(10,153) = 3.25$, $p < .01$, explaining 19% of the variance ($R^2 = .19$). Positive and negative expectancies did not significantly explain the index of alcohol involvement. The only significant contribution was made by gender, $\beta = -.29$, $p < .01$. Hence, men who

classified themselves as non-drinkers were significantly more likely to report a higher alcohol index involvement than women. The two tables below show the first order correlations and the regression analyses conducted.

Table 3: Correlations of Index of Alcohol Involvement onto Demographic Variables, Positive Expectancies, and Negative Expectancies among Nondrinkers

	2	3	4	5	6	7	8	9
1. IAI Final	.226**	.194*	.190*	.020	.064	.052	.040	-.052
2. Social Facilitation	1.00	.541**	.612**	.480**	.042	.108	.264**	.106
3. Fun		1.00	.526**	.254**	-.088	-.095	.001	-.086
4. Sex			1.00	.381**	-.012	.017	.229**	.034
5. Tension Reduction				1.00	.155*	.057	.468**	.304**
6. Social Negative					1.00	.577**	.363**	.624**
7. Emotional Negative						1.00	.397**	.645**
8. Physical Negative							1.00	.610**
9. Cognitive Negative								1.00

Note: ** $p < .01$, * $p < .05$

Table 4: Hierarchical Regression of Index of Alcohol Involvement onto Demographic Variables, Positive Expectancies, and Negative Expectancies among Non-Drinkers.

Steps/Models:	1	2	3
Gender	-.14	-.12	-.12
Social facilitation	-.29**	-.28**	-.29**
Fun		.22	.19
Sex		.08	.11
Tension Reduction		-.02	-.04
Social Negative		-.10	-.08
Emotional Negative			.10
Physical Negative			.15
Cognitive Negative			.09
ΔR^2	.10*	.06	.03
R^2	.10**	.16**	.19**

Note: ** $p < .01$, * $p < .05$

5. Discussion

Our results supported the hypotheses so that expectancies were associated with and predictive of the index of alcohol involvement. However, results varied based on whether participants classified themselves as drinkers or non-drinkers. Thus, for drinkers, higher positive expectancies of 'fun' and 'sex' were associated with a higher index of alcohol involvement. Quite paradoxically, the findings suggested that higher expectancies of socially negative consequences were also associated with a higher index of alcohol involvement. On the other hand, findings for participants who classified themselves as non-drinkers showed that the Expectancy Theory is not relevant in explaining their involvement in drinking behavior. Gender on the other hand, was the only factor having a significant role, so that men reported a significantly higher index of alcohol involvement as compared to women.

In line with existing scholarship, our findings suggest the relevance of positive expectancies such as fun or sex in explaining alcohol consumption among youngsters. Hence, young people who consider alcohol drinking as an integral part of having fun and as a facilitator of sexual behavior tend to drink more. This finding has important practical implications especially when considering studies that relate alcohol drinking and unsafe sexual behavior. On the other hand, participants who reported a higher involvement in drinking behavior, probably also have experienced more negative social outcomes of this behavior, which in turn modify their future expectations (Goldman, 1999). The source of such behavior might rest with socio-economic and cultural factors, and further research that might take into account a wider range of aggregate data would help to clarify this point.

As regards participants who classified themselves as non-drinkers, the findings were quite unexpected. Indeed, students who classified themselves within this category had nonetheless an index of alcohol involvement that was different from 0. The present finding could be explained in terms of the sensitivity that this category might have towards being categorized as 'drinkers', although they report engaging in this behavior on several occasions. Surprisingly, in this case, expectations of positive or negative effects of alcohol resulted unrelated to the index of alcohol involvement. Hence, the reports on thoughts and behavior within this specific group were apparently not connected. The same inconsistency appearing in the categorization by drinking behavior also appeared in reports of expectancies. A possible explanation is that this group of participants did not put much thought on drinking behavior (i.e., do they consider it as positive or negative etc.). Indeed cognitive-behavioral theories assume that individuals hold specific attitudes or have expectancies which are both conscious and strong enough to guide behavior. Nonetheless, if the individuals do not admit to engage in the specific behavior in the first place, the usefulness of these models becomes questionable.

Even so, our results as regards gender support previous findings on alcohol consumption gender gap with women reporting lower levels of drinking than men (Gill, 2002; Kypri, Langley, McGee, Saunders, Williams, 2002; Roche & Watt, 1999) perhaps due to gender-appropriate behavior, social roles and stigmatization (Wechsler, Lee, Kuo, Seibring, Nelson, & Lee, 2002). The higher involvement of men in drinking behavior suggests both the importance of considering them as future targets for prevention/intervention programs, and the possible involvement of variables such as gender role identity.

The present study has several limitations that should be recognized. For instance, caution should be taken in the generalization of the findings since the sample of the study included only university students in Tirana. Future research should aim towards the inclusion of other target groups, e.g., unemployed or working young people. Furthermore, the measures were not standardized in Albania, an issue that should be considered in future studies too. Despite its' limitations the present study provided a good basis for future research into understanding alcohol drinking behavior in Albania.

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