



# Satisfaction of basic psychological needs in relation to motivation of alcohol use among university students in Slovakia.

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## Introduction

The integration of existing theories in the context of health related behaviors and Prevention science has been suggested in current research (e.g. Hagger, 2009). In particular, tenets of the Self-determination theory (SDT) have been often applied in combination with other theories to address specific issues of different health related behaviors at different stages of prevention (Hagger, 2009; Ng et al., 2012).

Within this study the Basic psychological needs theory as a partial theory of SDT (Deci & Ryan, 2008) in combination with the Motivation model of alcohol use (Cox & Klinger, 1988) will be used to study alcohol use among university students. According to SDT health risk behaviors such as risky alcohol use is related to coercive aspects of the environment which thwart the fulfillment of basic psychological needs (relatedness, competence and autonomy) (Deci & Ryan, 2008).

On the other hand, it can be argued that alcohol is often accepted if not required at different social events such as parties or gatherings and has a „social role“ (Ham & Hope, 2003). Therefore it is important not only to explore and distinguish between different motivations and their associations with alcohol use but also to explore other variables linked to these motivations. This study will focus on the SDT concept of basic needs satisfaction in relation to motivation to alcohol use among university students.

## Aim

The aim of this study was to address the associations between basic psychological needs and different types of motivation to drink alcohol among university students.

## Methods

The study was a part of the SLiCE study (Student Life Cohort in Europe) (<http://www.slice-study.eu/>).

### Sample

#### 237 university students

- The sample was taken from a larger international study SLiCE (SLiCE study, APVV-0253-11, VEGA 1/1092/12) and consisted of 237 (79% women, mean age 20.8, SD = 3.6) university students studying in Slovakia
- Data collection: online questionnaires 10/2012 (T2)

### Measures

- **The basic needs** were assessed by the **BMPN** (Balanced measure of psychological needs consisting of three subscales measuring satisfaction with basic psychological needs (autonomy, relatedness and competence;  $\alpha = 0.60-0.71$ )

- **Alcohol use** was assessed by **AUDIT** (The Alcohol Use Identification Test) consisting of 10 items forming three subscales addressing: Hazardous alcohol use, Dependence symptoms and Harmful alcohol use.

- **Motivation of alcohol use** was measured by the **DMQ-R** (Drinking Motivation Questionnaire-Revised version). This measure identifies four types of motivation of alcohol use: enhancement, social motivation, conformity and coping ( $\alpha = 0.70-0.90$ ).

### Statistical analysis

- Correlation analysis and linear regressions were used to analyze the associations between basic needs satisfaction, motivation to alcohol use and aspects of alcohol use. Furthermore, t-tests were used to explore differences between respondents showing a risky pattern of behavior regarding their alcohol use.

- The data were analyzed in SPSS 21.

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## Results

Firstly, descriptive statistics was calculated and is shown in Table 1. Then, associations between different motivations to drink alcohol and alcohol use were analyzed. The strongest associations were found between social motivation, mood enhancement motivation and AUDIT. Further, coping motives were also found to be associated with AUDIT. Finally, conformity was found to be the most weakly associated motivational variable with the measured aspects of alcohol use (Table 2).

Table 1 Means and SDs of measured variables

		Mean	SD
AUDIT	Hazardous alcohol use	3.50	2.14
	Dependence symptoms	0.59	1.27
	Harmful alcohol use	1.34	2.17
	AUDIT (total)	5.40	4.88
Motivation	Enhancement	4.81	1.75
	Social	5.34	2.03
	Conformity	3.49	0.93
	Coping	4.15	1.54
Basic Needs	Relatedness	25.39	3.98
	Competence	22.83	3.79
	Autonomy	23.55	3.69

Table 2 Correlations between motivations to alcohol use and AUDIT

		Hazardous	Dependence	Harmful	AUDIT (total)
Motivation	Social	0.54	0.32	0.40	0.51
	Enhancement	0.50	0.33	0.40	0.49
	Conformity	ns	ns	0.16*	ns
	Coping	0.31	0.18	0.26	0.30

\* Significant at  $p < 0.05$ ; all other values significant at  $p < 0.01$ ; ns – not significant

The correlation analysis was followed by linear regression analyses which allowed controlling for the gender and the age of the respondents. Similar results were obtained when the total score of AUDIT was most closely associated with social and mood enhancement motivations ( $R^2 = 0.28$ ;  $\beta = 0.517$ ;  $p < 0.001$ ;  $R^2 = 0.25$ ;  $\beta = 0.488$ ;  $p < 0.001$ ).

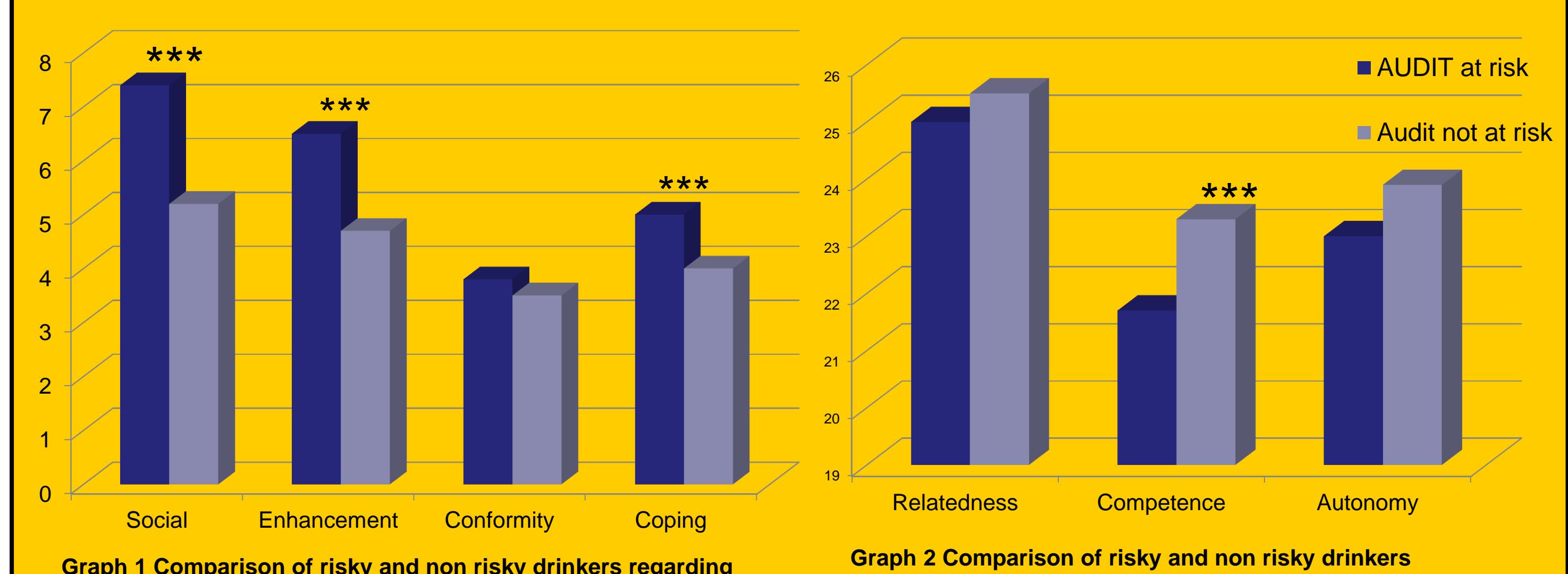
Next, associations between basic psychological needs satisfaction and motivations to alcohol use were explored. Negative associations were found with conformity and coping motivations. Although, these associations were relatively low. No significant associations were found with social and enhancement motivations (Table 2).

Table 2 Correlations between basic needs satisfaction and motivations to alcohol use

		Social	Enhancement	Conformity	Coping
Basic needs	Relatedness	ns	ns	-0.23	-0.17*
	Competence	ns	ns	-0.26	-0.20
	Autonomy	ns	ns	-0.28	-0.18

\* Significant at  $p < 0.05$ ; all other values significant at  $p < 0.01$ ; ns – not significant

Finally, the respondents with a problematic pattern of alcohol use were identified (16.5% of the total sample) according to the overall AUDIT score (recommended cut off score of 8 was used to define problematic alcohol use) (Barbor et al, 2001). Problematic and non problematic drinkers were compared in motivations and basic needs satisfaction using t-tests. These analyses showed that problematic drinkers scored higher on all motivations except for conformity (Graph 1) and showed lower satisfaction with the need competence (Graph 2).



## Conclusions

Social and mood enhancement motivations were found to be most closely associated with alcohol use and its measured aspects in the sample of university students. These motivations explained a considerable variance in AUDIT. Basic needs satisfaction was found to be negatively associated with motivations which were not dominant in this sample but have been found to be related to negative consequences of drinking especially the coping motives (Ham & Hope, 2003). Finally, the risky drinkers showed lower satisfaction with the need competence.

These findings are generally in accordance with the theoretical assumptions and show the importance of personality and motivational aspects in prevention. However, further research is needed to address the causal mechanisms of the associative findings.

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