



Inter-individual differences in autonomy and autonomy support in relation to alcohol use among university students.

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Background

Autonomy and support of autonomous functioning have been shown to be important determinants of well-being and health related behaviors prospectively and across different domains (Ng et al, 2012). Moreover, understanding the persistence of healthy behaviors is a key issue of every successful prevention activity. This study uses the concept of Self-determination theory and focuses on intrapersonal and environmental factors of autonomous self-regulation and explores their associations with alcohol use among university students.

Method

Sample

A sample of 697 university students (age = 21.25, SD = 1.99; 59.0% women) from Slovakia participated in a larger project focusing on health-related behaviors and completed measures assessing alcohol use, motivation to alcohol use, index of autonomous functioning and perceived autonomy support.

Measures

The Index of Autonomous Functioning (IAF) consists of three sub-scales, namely Authorship / Self-Congruence, Interest-taking and Susceptibility to Control (Weinstein et al 2012). Each sub-scale consists of five items representing each construct and the individual items are rated on a 5-point scale. A higher score represents a higher level of inter-individual differences in autonomous functioning. Cronbach's alpha for individual sub-scales was as follows: Authorship / self-congruence $\alpha = 0.81$, Interest-taking $\alpha = 0.61$ and Susceptibility to control $\alpha = 0.80$.

Autonomy support from parents was measured by three separate sub-scales: promotion of autonomous thought, which consists of six items (Silk et al., 2003), promotion of autonomous decision-making consisting of five items (Grolnick et al., 1997) and a scale assessing pressure to spend time with family consisting of six items ($\alpha=0.70-0.88$) (Manzi et al., 2012).

Motivation of alcohol use was measured by the DMQ-R (Drinking Motivation Questionnaire-Revised version) (Kuntsche, Kuntsche 2009). This measure consists of 20 items and identifies four types of motivation of alcohol use: enhancement, social motivation, conformity and coping ($\alpha=0.70-0.90$).

Alcohol use was assessed by the AUDIT (The Alcohol Use Identification Test) (Barbor et al. 2001) consisting of 10 items which is a standardized screening method for detection of problematic drinking often used in university student samples ($\alpha=0.80$).

Statistical analyses

The data were analyzed using chi-square tests, t-tests and linear regression analyses. All analyses were performed in SPSS 21.

Results

Table 1 Descriptives and gender comparisons in measured variables

	Women		Men		p
	Mean/%	SD	Mean/%	SD	
Living with parents	45%		46%		.903
AUDIT	6.33	5.22	8.74	6.17	.001
AC	3.45	2.20	4.69	2.86	.001
ARC	2.69	3.66	3.70	4.19	.001
ENHC	9.61	4.58	10.27	4.75	.072
SOC	13.24	5.50	14.02	5.49	.073
CONF	7.86	3.86	8.51	4.04	.037
COPE	10.02	4.85	9.62	4.39	.279
AUCOG	19.35	3.22	19.75	3.39	.121
SUSC	15.92	3.33	16.54	3.35	.018
INRST	18.72	3.78	18.71	3.97	.975
AUTGH	27.94	6.23	29.03	6.54	.030
AUDEC	27.25	6.44	26.97	5.94	.574
TRBS	18.05	6.25	16.68	6.07	.005

Note: AUDIT – total score; AC – alcohol consumption; ARC – negative consequences of alcohol use; ENHC – mood enhancement; SOC – social motive; CONF – conformity; COPE – coping; AUCOG – Authorship/congruence; SUSC – susceptibility to control; INRST – interest taking; AUTGH – promotion of autonomous thought; AUDEC – promotion of autonomous decision making TRBS – pressure to spend time together

In the first step, descriptive analysis was conducted and gender differences explored. Men scored generally higher than women in alcohol use but with regard to motivation to drink, differences were observed only in conformity. With regard to autonomy measures differences were found in susceptibility to control, promotion of autonomous thought and family pressure (Table 1).

Table 2 Linear regression analysis with alcohol use and motivation to alcohol use as dependent variables

	AUDIT	AC	ARC	ENHC	SOC	CON	COP
AUCOG	-.174***	-.150***	-.203***	-.187***	-.146**	-.183***	-.234***
SUSC	-.053	.016	-.037	.106*	.201***	.223***	.199***
INRST	.036	-.040	.078	.076	-.029	.024	.023
AUTGH	.029	.035	-.016	-.003	-.012	-.016	-.037
AUDEC	.003	.037	.038	.017	.067	-.096*	-.018
TRBS	.135***	.113**	.124**	.128*	.087*	.197***	.133***
F (9, 686)	6.105***	5.974***	5.388	6.456***	5.873***	15.932***	11.586***
R ²	0.08	0.08	0.07	0.08	0.07	0.18	0.14

Note 1 * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; shown coefficients are standardized β s
Note 2 analysis was controlled for gender, age and type of living
Note 3 AUDIT – total score; AC – alcohol consumption; ARC – negative consequences of alcohol use; ENHC – mood enhancement; SOC – social motive; CONF – conformity; COPE – coping; AUCOG – Authorship/congruence; SUSC – susceptibility to control; INRST – interest taking; AUTGH – promotion of autonomous thought; AUDEC – promotion of autonomous decision making TRBS – pressure to spend time together

Next, linear regression analyses were conducted to explore the relationship between alcohol use, different motivations to alcohol use and measures of autonomous functioning and autonomy support. The results displayed in Table 2 show that after controlling for age and gender, alcohol use was negatively associated with the Authorship/self-congruence ($\beta = -0.174$; $p \leq 0.001$) on the level of inter-individual differences and positively with the pressure to spend time together ($\beta = 0.135$; $p \leq 0.001$) on the level of autonomy support. Other measured aspects of autonomy did not produce significant results. Similar associations were observed with regard to motivations to alcohol use.

Conclusion

Although, the interpretation of the results cannot overcome the limits of the correlational design, the findings of this study show that both levels of autonomy were in its important aspects associated with alcohol use in the expected direction. On the level of inter-personal differences, it was the tendency to integrate one's experiences and on the level of the environment it were the processes undermining individual's autonomy which were shown as significant. The interplay of these factors and their interaction can further improve the understanding of the role of autonomy in the context of prevention science.

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Acknowledgement

This study was supported by the Slovak Research and Development Agency under the contracts no. APVV0253-11 and APVV-15-0662.



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