

Resilience, Authenticity, Emotionality, and Vulnerability to Alcohol Dependence among Slovak University Students

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Citation | Gajdošová, B., Orosová, O., Benka, J. (2018). Resilience, Authenticity, Emotionality, and Vulnerability to Alcohol Dependence among Slovak University Students. *Adiktologie*, 18(3–4), 163–171.

AIM: The aim of this study was to explore direct and indirect relationships between resilience, authenticity (authentic living, self-alienation, accepting external influences), following and ignoring positive and negative emotions and vulnerability to alcohol dependence of university students. **METHODS:** AUDIT (The Alcohol Use Disorder Identification Test) (Barbor et al. 2001), The Connor-Davidson resilience scale (Connor, Davidson, 2003), The Following Affective States Test, Gasper, Bramesfeld, 2006), The Authenticity scale (Wood et al., 2008). **SAMPLE:** 334 of university students from Slovakia participated (mean age = 22.15; SD = 1.41; 35.5% women, 64.5% men). **RESULTS:** Direct positive

relationships of vulnerability to alcohol dependence and following of positive emotions and self-alienation were found. Negative relationships of vulnerability to alcohol dependence with authentic living were found. Indirect effect of resilience (mediated by authentic living, self-alienation, accepting external influences, ignoring of negative emotions) as well as an indirect effect of authentic living (mediated by following of positive and negative emotions) and indirect effect of ignoring of positive emotions (mediated by self-alienation) was detected. **CONCLUSION:** Highlighting the significant role of authenticity, resilience and emotional states in relation to vulnerability to alcohol dependence.

Keywords | Resilience – Authenticity – Emotionality – Vulnerability to alcohol – Slovak university students

Submitted | 15 January 2019

Accepted | 8 April 2019

Grant affiliation | This study was supported by APVV-0253-11 and APVV-15-0662.

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● 1 INTRODUCTION

University students have been shown to engage in drinking more frequently than their working peers (Mekonen et al., 2017). Furthermore, their drinking typically shows a riskier pattern, such as bingeing, which is often followed by negative consequences and problems (Petruželka et al., 2018). These problems have a negative effect on their mental and physical health and may cause problems in their personal development and hinder their personal growth (Davoren et al., 2018). Recreational drug use in the previous adolescent stage may, in some individuals, be replaced by alcohol use as a coping strategy for dealing with difficult life tasks, situations, or negative emotions. This type of alcohol use is often heavy and directly linked to emotional problems with potentially serious consequences, such as developing an addiction. Alcohol dependency is a risk factor for serious disability or premature death among young people. It has been estimated that approx. 14–20% of university students fulfil the criteria for alcohol use disorder, with a certain variability across different continents and countries (Mekonen et al., 2017; Podstawski, Wesołowska, & Choszcz, 2017). Understanding the inner mechanisms of alcohol use in relation to selected variables – resilience, authenticity, and emotionality – can contribute to reducing the risks and enhance the potential for the healthy development of young adults. Thus, the main goal of this study is to explore the relationship between vulnerability to alcohol dependence and selected intrapersonal factors: resilience, authenticity (authentic living, self-alienation, and acceptance of external influence), and following or ignoring emotional states.

● 2 THEORETICAL BACKGROUND

Resilience, authenticity, and subjective emotional state were selected as relevant intrapersonal factors in relation to alcohol use among university students.

The psychological constructs of resilience, authenticity, and emotional state used in this study are understood in terms of a capacity that is important for the development of healthy behaviours which may be protective with regard to alcohol use and enhance personal development.

Resilience as a complex and dynamic multidimensional construct is based on the interaction between neurobiological, social, and personality factors (Southwick et al., 2014). It is usually understood in terms of a trait or a capacity to cope or bounce back after facing a complicated situation, particularly if it threatens one's stability, vitality, or growth. Resilience is also understood in terms of positive adaptation when overcoming difficulties or facing adversity or risks. Despite this considerable variety in terminology, it is important to emphasize not the restrictive parts of the process but the potential resources and focus on the opportunities to use internal and external resources and personal strengths in everyday functioning. The significant protective character of resilience in relation to vulnerability to alcohol dependence among adolescents has been supported

by many authors, e.g. Long et al. (2017), Martz et al. (2018), Schulenberg et al. (2017), and Rudzinski et al. (2017). For example, it was found that the protective effect was not linear, but the highest risk was still predicted by a low level of resilience. Furthermore, resilience was found to produce significant relationships with other constructs of positive psychology such as life satisfaction, emotional well-being, self-esteem, autonomy, self-efficacy, and positive relationships as well as positive emotionality, and an inverse relationship with negative emotionality was found (Robinson, Larson, & Cahill, 2014). At the same time the interactive effect of protective and risk factors (on the level of an individual and the environment) plays a crucial role in the process of resilience (Mansfield et al., 2016). In particular, it has been suggested that resilience may mediate or moderate the sensitivity of unfavourable factors from the environment.

Authenticity is a result of satisfaction of important psychological needs, e.g. autonomy, competence, and relationships, and is closely related to living in line with one's values and experiencing a feeling of meaningfulness (Smallenbroek, Zelenski, & Whelan, 2017). Authenticity is an integral part of well-being, especially in relation to the eudaimonic aspects of well-being, such as one's ideals (Schmader & Sedikides, 2018). In general, people usually report the feeling of being authentic (experiencing a state of authenticity) in situations in which they feel competent, and in situations which are interesting, engaging, fun, safe, and filled with positive emotions, relaxation, compassion, pride, and excitement. On the contrary, inauthenticity tends to be connected more with the context of unpleasant situations, problems, pressure to conform to the standards and expectations of others, failing to adhere to one's personal norms or the norms of significant others, and situations of loneliness and isolation connected to experiencing fear, apprehension, sadness, and anxiety (Sedikides et al., 2018).

In Western culture, authenticity is connected to expressing both the positive and the negative. According to humanistic psychology, authenticity as a trait reflects the congruence between three levels of personality (Wood et al., 2008). The first aspect of authenticity, self-alienation, is the congruence between the first level, consisting of ongoing internal experiences, and the second level, consisting of the symbolization of these experiences; conscious processing. This process is never perfect because some experiences can be suppressed, biased, altered, unprocessed consciously, or processed in a biased way leading to psychopathology. The second level is authentic living, which concerns the congruence between the conscious level of the processed experience and the third level, the actual behaviour. Authentic living reflects the contact with the authentic true self in its unbiased symbolic form. Life in most situations is experienced in line with one's own values, ideas, and feelings. The third level of authenticity is accepting external influences. The influence of significant others is expressed by accepting some experiences and situations in the form of introjected material. Sedikides et al. (2018) showed that there is an association between authentic living and self-esteem, autonomy, self-efficacy, personal strength, resilience,

meaningfulness, and positive affectivity. On the other hand, self-alienation and acceptance of external influence have been connected with a higher level of anxiety and a higher level of negative affectivity. According to Bryan and Baker (2017), authenticity helps to level the negative influence of loneliness on the problems related to alcohol, physical symptoms, depressive symptoms, and anxiety symptoms. The significance of authenticity and a lower level of alcohol use or abstinence was found by Conroy de Visser (2015).

Following one's own emotional states and bringing them into awareness constitutes an important part of the process of self-regulation (Gross, 2014). Gasper and Bramesfeld (2006) identified different causes for the tendency to monitor one's own emotional states. On the basis of two basic motivational principles, the behavioural activation system and the behavioural inhibition system, as functions of the central nervous system of organisms (Pinto et al., 2011), following positive emotional states is related to identifying the presence of something rewarding, while the tendency to follow one's own negative emotional states is related to identifying signals of threats and a consequent effort to avoid the threatening situation. Gasper and Bramesfeld (2006) outline four independent dimensions when addressing the following of one's affective state. They found that following one's own positive feelings intensifies the search for situations related to experiencing positive emotions and following one's negative feelings centres the focus of the individual on his/her negative affective experiences. These tendencies develop over long-term periods. While in some situations following one's negative emotions can serve as a good defence strategy, following positive emotions may be harmful. The strategies of ignoring one's emotional states predict distancing oneself from sensitive stimuli (Gasper & Bramesfeld, 2006). The relationship between emotional states and alcohol use is complex (Bresin, Mekawi, & Verona, 2018). Kashdan et al. (2015) found that experiencing, following, and describing negative emotions was related to lower consumption of alcohol. Bowker and Rubin (2009), on the other hand, demonstrated that there are positive relationships between emotional self-awareness and alcohol use and at the same time showed that the internalized problems of people with a tendency to self-exploration (self-awareness) showed associations of self-awareness with anxiety, depressive states, and sensitivity to social rejection. The explanation can be found in the work of Burnkarant and Page (1984), who distinguish between two processes of self-awareness with experiencing different emotions and different levels of adaptation and maladaptation. These two processes differ in their relation to psychological health. Monitoring as a process of self-awareness when one's emotional state comes into awareness without being evaluated is credited with a certain neutrality and accompanied by a feeling of well-being and good mood (Creswell, 20017), which corresponds with the construct of mindfulness. However, in contrast self-reflection, pondering, and self-exploration which contains an evaluative component are often accompanied by experiencing feelings of guilt.

The goal of this study was to explore the direct and indirect relationships between alcohol dependence, resilience, authenticity (authentic living, self-alienation, and acceptance of external influence), and the following or ignoring of emotional states.

● 3 METHOD

3.1 Sample

In this study, 334 third-year university students from Slovakia participated (mean age = 22.15; SD = 1.41; 35.5% women, 64.5% men) studying at the Technical University in Košice (76.7%) and at Pavol Jozef Šafárik University (23.3%). Prior to the data collection, posters inviting students to participate in a prevention programme for university students were advertised on web pages and via online university information systems, as well as on campus information boards. They signed an informed consent regarding their participation in the research. The data was collected via an online questionnaire. The participation was voluntary and anonymous and the project was approved by the Ethics Committee of UPJŠ.

3.2 Measures

The measures used in the online survey which were not already available in the Slovak language were translated by following the procedure of back-translation (Squires, 2013).

Alcohol use was measured by the AUDIT (the Alcohol Use Disorder Identification Test; Babor et al., 2001). This is a 10-item measure consisting of three factors. The first three items assess alcohol consumption, the next three items assess dependence symptoms, and the remaining items assess problems related to alcohol use. For the purposes of this study only the items assessing alcohol dependence (AD) were used. Each item was rated on a five-point scale with a maximum score of 12. A total score of four or more (AD-4) suggests a possible problem with alcohol dependence. The Cronbach's alpha for AD was 0.71.

The Connor-Davidson resilience scale Resilience (Connor & Davidson, 2003)) consists of 10 items and individual items are evaluated on a five-point scale, with a higher score indicating a higher level of resilience. A single factor structure was confirmed in our sample ($\chi^2 = 95.278$; d.f.=35; $p=0.000$; RMSEA=0.074; GFI=0.941; AGFI=0.908; RMR=0.041; CFI=0.932). The Cronbach's alpha was 0.83.

The Authenticity scale (Wood et al., 2008) consists of three subscales: Self-alienation (SA), Authentic Living (AU), and Acceptance of External Influence (EX). Individual statements are evaluated on a seven-point Likert type scale, with a higher score indicating higher self-alienation, authentic living, and external influence, respectively. The original three-factor structure of the measure was explored by a confirmation factor analysis and this structure was sup-

ported in the study sample ($\chi^2 = 94.191$; d.f.=51; $p=0.000$; RMSEA=0.052; GFI=0.953; AGFI=0.926; NFI=0.9303; CFI=0.966. The Cronbach's alphas were SA=0.81, AU=0.68, and EX=0.83.

The FAST measure of following one's affective state (the Following Affective States Test; Gasper & Bramesfeld, 2006) consists of four individual sub-scales: Following Positive Emotions (FPE), Following Negative Emotions (FNE), Ignoring Positive Emotions (IPE), and finally Ignoring Negative Emotions (INE). All 16 items are answered on a seven-point scale, with a higher score indicating a higher level of the measured construct on each sub-scale. In the sample the original four-factor structure was supported by a confirmatory factor analysis ($\chi^2 = 190.305$; d.f.=98; $p=0.000$; RMSEA=0.055; GFI=0.928; AGFI=0.900; CFI=0.924, CMIN/DF=1.042.). The Cronbach's alphas were FPE=0.74, FNE=0.79, IPE=0.68, and INE=0.65.

3.3 Statistical analysis

Prior to the statistical analysis, confirmation factor analysis of the main methods had been carried out to confirm the theoretical factor structure of each measure in AMOS 21. Descriptive statistics and group comparisons were performed in SPSS 21 by using t-tests and chi-square tests. The associations between the variables were analysed by using Pearson correlation analysis. Structural equation modelling (SEM) was performed in AMOS 21. Students with more than 40% of their data missing were excluded from the analysis (4.8%). The final sample consisted of 318 university students (mean age = 22.15; SD = 1.41; 35.2% women). SEM analysis was conducted by using the entire sample. The total sample size was lower than 400 and the criteria used followed the recommended thresholds for indexes SRMR (Standardized Root mean Square Residual) ≤ 0.08 ; GFI (Goodness of Fit Index) ≥ 0.90 ; AGFI (Adjusted Goodness of Fit Index) ≥ 0.90 ; CFI (Comparative Fit index) ≥ 0.95 ; RMSEA (the Root Mean Square Error of Approximation) < 0.08 , PCLOSE (Closeness of fit tests) ≥ 0.50 (Byrne, 2010). The statistical significance of the indirect effects within the models was tested by the bootstrap resampling method.

● 4 RESULTS

The descriptive statistics (*Table 1*) show significant statistical differences between the men and women in the alcohol dependence factor, with the men getting significantly higher scores. The percentage of respondents reaching the threshold for dependence was higher among the men (11.2%) when compared with the women (3.6%). Gender differences were further observed in following positive emotions, with women scoring higher, and in ignoring positive emotions, which was higher among men. In the other variables, no significant differences were found.

The correlation analysis conducted between all the variables that were measured is displayed in *Table 2*. The high-

est positive association with alcohol dependence was found with self-alienation and with external influence. Negative correlations were found with authentic living and resilience.

In line with the theoretical assumptions, a structural model was designed and tested. A direct effect of all the variables that were measured – resilience, components of authenticity (authentic living, self-alienation, and acceptance of external influence), and following or ignoring positive and negative emotional states in relation to alcohol dependence – was expected.

The model (*Figure 1*) consisted of nine latent variables, of which one was exogenous (resilience) and eight were endogenous variables. Alcohol dependence (AD) had the role of an outcome variable. Covariances were added to the model and allowed only within factors. A chi-square test did not show sufficient representativeness of the model ($\chi^2 = 1325.945$, df.=758; $p=0.000$). However, other indexes suggested a good fit of the model CMIN/DF (χ^2 test/ degrees of freedom) =1.75, PCFI= 0.796, RMSEA=0.049, PCLOSE= 0.696, SRMR=0.083, reaching an acceptable level. The modified model explained 21.7% of the variance in AD.

Statistically significant regression coefficients in the modified structural model which included all the variables that were studied showed positive associations of alcohol dependence with self-alienation ($\beta=0.103$; S.E.=0.033; $p=0.002$) and with following positive emotions ($\beta=0.214$; S.E.=0.077; $p=0.005$) and significant negative associations with authentic living ($\beta=-0.138$; S.E.=0.062; $p=0.027$). Further significant associations in the model were: a positive association between resilience and authentic living ($\beta=2.150$; S.E.=0.401; $p=0.000$); a negative association between resilience and self-alienation ($\beta=-1.695$; S.E.=0.033; $p=0.000$); a negative association of resilience with external influence ($\beta=-1.287$; S.E.=0.320; $p=0.000$); positive associations between resilience and ignoring negative emotions ($\beta=1.074$; S.E.=0.290; $p=0.000$); a negative association between following negative emotions and authentic living ($\beta=-0.421$; S.E.=0.073; $p=0.000$); a positive association between following positive emotions and authentic living ($\beta=0.375$; S.E.=0.064; $p=0.000$), and positive associations between ignoring positive emotions and self-alienation ($\beta=0.441$; S.E.=0.115; $p=0.000$).

On the basis of the findings, indirect effects were tested: the mediating role of authenticity (AU, SA, EX) and INE in the relationship between RES and AD, the mediating role of following positive and negative emotional states (FNE, FPE) in the AU-AD relationship, and the mediating role of self-alienation in the IPE-AD relationship. An indirect effect of resilience on alcohol dependence (mediators) $p=0.37$ (lower 95% CI = -0.709; higher 95% CI = -0.092) was found with a decreasing level of the total effect. An indirect effect of authentic living in relationship with alcohol dependence (mediators SNE, SPE) $p=0.005$ (lower 95% CI = 0.018; higher 95% CI = 0.217) was found with a decreasing total effect. An indirect effect of ignoring positive emotions in relationship with alcohol dependence (mediator self-alienation) $p=0.001$

	Women (N=112)		Men (N=206)		t	df	sig.
	Mean/%	SD	Mean/%	SD			
AD	0.60	1.52	1.13	1.81	-2.760	263	0.009
AD-4	3.6%		11.2%				0.020
AU	22.79	3.87	21.96	3.94	1.812	231	0.072
SA	10.34	5.13	11.45	5.74	-1.762	251	0.089
EX	11.74	5.05	12.05	5.29	-.510	237	0.616
FPE	17.19	3.88	15.94	4.30	2.643	248	0.011
FNE	9.29	5.42	8.83	5.10	.739	216	0.453
IPE	7.13	4.81	9.08	4.39	-3.584	210	0.000
INE	14.94	4.82	15.64	4.59	-1.256	218	0.204
RES	25.81	6.09	26.76	6.27	-1.314	233	0.193

AD – AUDIT, AD – alcohol dependence, AD-4 – threshold for alcohol dependence (reaching a score of 4 or higher), AU – authentic living, SA – self-alienation, EX – external influence, FPE – following positive emotions, FNE – following negative emotions, IPE – ignoring positive emotions, INE – ignoring negative emotions, RES – resilience

Table 1 | Descriptive statistics and gender comparisons in measured variables

	AD	AU	EX	SA	FNE	FPE	INE	IPE	RES
AD	1								
AU	-.209**	1							
EX	.112*	-.298**	1						
SA	.244**	-.304**	.491**	1					
FNE	.105	-.258**	.380**	.454**	1				
FPE	.039	.346**	-.038	-.184**	-.359**	1			
INE	-.074	.237**	-.125*	-.158**	-.227**	.463**	1		
IPE	.075	-.107	.014	.237**	.231**	-.325**	-.171**	1	
RES	-.127*	.422**	-.211**	-.289**	-.374**	.297**	.255**	-.062	1

*p<0.05; **p<0.01

AD – AUDIT, AD – alcohol dependence, AD-4 – threshold for alcohol dependence (reaching a score of 4 or higher), AU – authentic living, SA – self-alienation, EX – external influence, FPE – following positive emotions, FNE – following negative emotions, IPE – ignoring positive emotions, INE – ignoring negative emotions, RES – resilience

Table 2 | Correlation analysis between alcohol dependence and the factors of authenticity, following emotions and resilience

(lower 95% CI = 0.023; higher 95% CI = 0.128) was found with an increasing total effect.

● 5 DISCUSSION

The goal of this study was to explore the direct and indirect effects between vulnerability to alcohol dependence and selected psychological variables. The percentage of respondents reaching the threshold score for vulnerability to alcohol dependence in the whole sample reached 7.4%. The findings from the first and third waves of the longitudinal study SLICE (Students Life Cohort in Europe) conducted in the years 2011/2014 regarding vulnerability to addiction conducted on a sample of 2939 first-year university students from five different countries showed that the highest prevalence of alcohol dependence among university students at the baseline was found among the Czech,

Lithuanian, and Slovak students, followed by Germany and Hungary. The prevalence of alcohol dependence two years after the baseline collection showed a decreasing tendency. The order of the individual countries was similar, with the highest rates being among the Czech (27.9%), Lithuanian (29.1%), and Slovak university students (24.7%) (Orosova et al., 2015). Our findings correspond with the findings of other studies (Eze et al., 2017; Podstawski, Wesołowska, & Choszcz, 2017).

In this study, statistically significant relationships were found between following positive emotions and alcohol dependence. Similarly, Ashton et al. (2017) found in a sample of 29,836 participants from 21 countries that the capacity of alcohol to reduce negative emotions and increase positive emotions was the main reason for alcohol consumption. This was demonstrated across different age groups, regardless of gender, education, or cultural context. They found

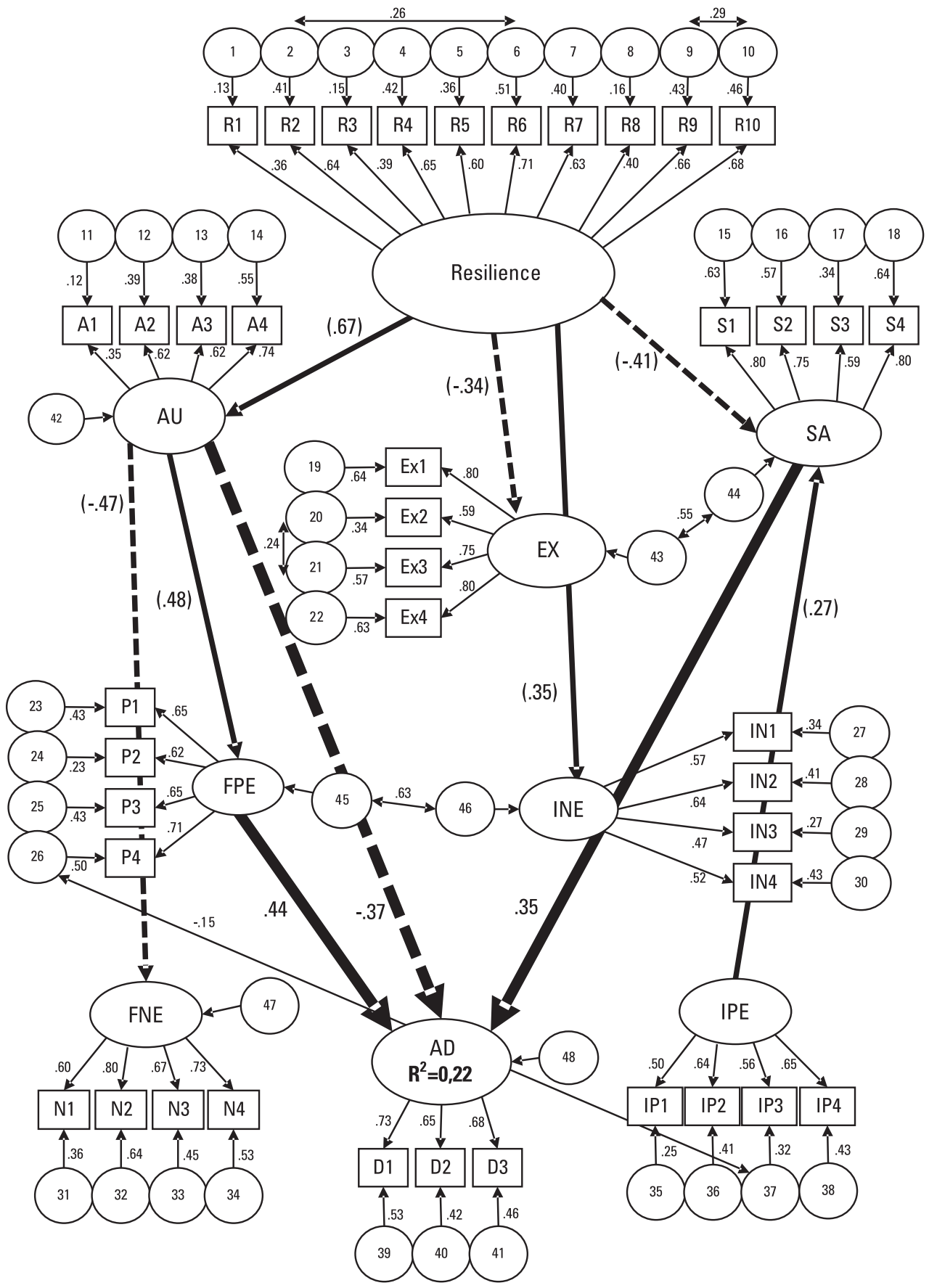


Figure 1 | Path diagram for the model (N=334)

that with an increasing consumption of alcohol, the intensity of experiencing positive as well as negative emotions increased as well. For those individuals who belonged in the category of alcohol dependence, it was found that they showed a tendency to experience a higher level of energy, confidence, and sexual attraction, regardless of the type of alcohol consumed, and a six-times more intensive presence of aggressive states or crying bouts (Ashton et al., 2017). There was a lower level of tiredness after alcohol use among those with dependence symptoms in comparison to a low-risk group. This is in line with the developing tolerance to the sedative effect of alcohol. Choosing alcohol to elicit negative emotions (hard liquor) may be done in the hope that it might help to fill an emotional void. Alternatively, alcohol may reduce the strength of defence mechanisms and induce a superficial quasi-authentic contact with one's real emotional life (Hollet et al., 2017).

In this study, the level of authenticity in authentic living was found to be both directly as well as indirectly negatively related to alcohol dependence. Vulnerability to alcohol dependence is largely determined by genetic and environmental factors. It has been estimated to be about 50% (Almli et al., 2013) and in the case of alcohol consumption it plays a strong role in the strengthening of automatisms and habits. Focusing on the ongoing processes may help to stop impulsive behaviours, habits, and automatisms and strengthen willpower mechanisms, as well as conscious decision-making processes, which could constitute a starting point for triggering self-regulation (Creswell, 2017).

This study showed a trend whereby a higher level of authentic living as an expression of individuality, independence, and freedom from outside pressure was related to low alcohol consumption or abstinence (Thomaes et al., 2017; Sedikides et al., 2018). In our research a direct and positive relationship, as well as a mediating role of self-alienation, was found in relation to alcohol dependence. A weak or defensive contact with one's inner psychological processes can help to explain the mechanism of filling an emotional void by using alcohol, which is usually very accessible and triggers emotions instantly.

Furthermore, an indirect relationship was found between resilience and alcohol dependence in which the individual dimensions of authenticity (authentic living, self-alienation, and external influence), as well as ignoring negative emotions, played mediating roles. This finding provides support for resilience as a variable which may reduce the risk of developing alcohol dependence (Joyce et al., 2018). However, ignoring the negative, on the one hand, can be related to alcohol dependence in the event that an individual does not, or does not want to, register (or suppresses) signals indicating danger, risks, or unpleasantness. By suppressing negative experiences, positive experiences may also become suppressed or unregistered. This may be the reason why individuals may start focusing on emotional experiences elicited by alcohol use, which has a relaxing effect, relieves stress, and elicits feelings which the individual accepts. On the other hand, the strategy of ignoring one's feelings may

signify a deeper strategy of distancing oneself from sensitive material. In this study, a higher level of authentic living, a lower level of self-alienation, a lower acceptance of external influence, and ignoring negative emotion solidify the structure of resilience and serve as a protective umbrella by using authenticity as its source.

This study presents direct and indirect relationships between resilience, authenticity (authentic living, self-alienation, and accepting external influences), the following of positive and negative emotions, and alcohol dependence. Direct positive relationships with alcohol dependence were found with the following of positive emotions and self-alienation. Negative relationships with authentic living were found and an indirect effect of resilience was detected (mediated by authentic living, self-alienation, accepting external influences, and ignoring negative emotions), as well as an indirect effect of authentic living (mediated by following positive and negative emotions) and an indirect effect of ignoring positive emotions (mediated by self-alienation).

The fact that the model explained 21.7% of the variance in AD can be attributed to the inclusion of intrapersonal variables only. Future research could benefit from the inclusion of intrapersonal as well as environmental factors, such as the accessibility of alcohol, living conditions, and relationships, which might increase the percentage of the explained variance.

The limitations of this study lie in its using a university sample, which is inevitably a limiting factor with regard to the generalizability of the findings. Furthermore, only self-reported data was used, and this limitation has to be acknowledged in the interpretation.

In future research, the authors intend to use the data from the follow-up measurements to address the problem further. A final limitation of this study is the focus on vulnerability to alcohol dependence rather than addiction.

● 5 CONCLUSION

To sum up, this study has identified both the aspects which are related to vulnerability to alcohol addiction and those which are potentially protective and require the individual to be motivated. Vulnerability factors can be seen in self-alienation and distancing oneself from one's own experiences, which are suppressed, distorted, and unprocessed on the conscious level, leading to poor contact with one's inner experience and resulting in a lack of sources supplying positive experience. One of the problems discussed in this paper is that emotionality may be filled by the emotions elicited by alcohol use. In some cases, this can be seen in alienation from one's own values, ideas, and feelings, accompanied by a lack of perceived control over one's own life and generally poor authentic living. Resilience may provide an important source of authenticity (authentic living, low self-alienation, and low external influence). Resilience (at the most general level), authenticity (medium level), and

emotional states (the most specific level) are perceived in terms of interconnected resources of human potential.

Prevention focused on resilience and its sources of authenticity and emotionality can contribute to protecting individuals from vulnerability to alcohol dependence by activating their controlling and inhibiting self-regulation processes and helping them to live their life in accordance with their own ideas and needs and boosting their personal growth.

Authors' contribution: Beata Gajdošová designed the study and proposed the design of the manuscript, conducted a literature review, prepared a summary of related work on the topic and wrote the initial version of the manuscript. Beata Gajdošová and Jozef Benka performed statistical analyses and provided the interpretation of the results. Jozef Benka participated in the translation of the

measures used in the study and contributed to the writing of the manuscript. Olga Orosová contributed to the writing of the manuscript. All the authors contributed to the article and approved the final version of the manuscript.

Declaration of interest: No conflict of interest.

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