

TIME PERSPECTIVE AND HEALTH-RISK BEHAVIOR AMONG SLOVENIAN YOUTH

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Abstract: Zimbardo and Boyd (1999) defined the time perspective as a construct for organizing one's experiences into (time) frames comprising the past, present and future. Consequently, this construct has an important impact on various aspects of an individual's emotions, thinking and behaviour. Many studies in the past twenty years have reported its association with health, especially in predicting health risk behaviour, such as substance use and abuse.

The present study focuses on applying the time perspective to the general frame of health risk behaviour among Slovenian youth. In accordance with the findings of previous studies that have examined health risk behaviours through time (Mladina 2010, HBSC), we mainly focus on one of the largest health issues in Slovenia: alcohol consumption. To summarize the key findings of the Mladina 2010 study, alcohol consumption is part of Slovenian culture and as such (still) informally allowed and desirable. Accordingly, time perspective could potentially be a significant predictor of health risk behaviour, and one which should be considered in public health prevention programs.

Key words: alcohol consumption, Zimbardo Time Perspective Inventory, present time perspective, future time perspective, social responsibility

ČASOVNA ORIENTIRANOST IN ZDRAVJU TVEGANO VEDENJE MLADIH V SLOVENIJI

Povzetek: Po Zimbardu in Boydu (1999) je konstrukt časovne orientacije povezan z razvrščanjem posameznikovih izkušenj v časovne okvirje preteklosti, sedanjosti in prihodnosti ter ima posledično pomemben vpliv na raznolike vidike občutenja, mišljenja in vedenja posameznika. V zadnjih dvajsetih letih številne raziskave potrjujejo njegovo povezanost z vidiki zdravja, še posebej v napovedovanju zdravju tvegane vedenja in konkretne uživanja zdravju tveganih substanc.

Za namen pričujoče raziskave smo časovno orientacijo vključili v splošen okvir raziskovanja zdravju tveganih vedenj mladih v slovenskem prostoru. Glede na izsledke raziskav, ki so zdravju tvegane vedenja spremljala v perspektivi časovnih primerjav oziroma sprememb (npr. Mladina 2010, HBSC), smo poseben poudarek namenili uživanju alkohola, saj v primerjavi z drugimi zdravju tveganimi vedenji predstavlja enega izmed ključnih javno zdravstvenih problemov v Sloveniji. Če povzamemo sklep raziskave Mladina 2010, je uživanje alkohola del slovenske kulture v smislu (še vedno) neformalno dopustnega in zaželenega. V luči omenjenega je časovna orientacija kot potencialno pomemben napovednik zdravju tvegane vedenja lahko eden izmed ključnih dejavnikov, ki bi jih preventivni javno zdravstveni programi morali upoštevati.

Ključne besede: uživanje alkohola, Zimbardo Time Perspective Inventory, orientiranost na sedanjost, orientiranost v prihodnost, družbena odgovornost

Introduction

At the early stages of development, we learn through socio-cultural context and family environment how to arrange personal experiences in the (usually) nonconscious categories of the past, the present and the future. When tendencies towards one of these time frames are formed and acquire the characteristics of a habit, they constitute an individual's cognitive-temporal bias or orientation. Time perspective theory postulates that our perception of ourselves, the world around us and our relationships is formed in cognitive processes that are based on our perception of time (Zimbardo & Boyd, 1999). Time perspective directs our perception, decision-making and behavior in everyday situations. It also influences memory, decoding and recall of experiences while also forming expectations, possibilities, goals and imaginary scenarios (Keough, Zimbardo, & Boyd, 1999).

Zimbardo and Boyd (1999) represented time perspective as a concept, formed by five factors: Past Positive (PP), Past Negative (PN), Present Fatalistic (PF), Present Hedonistic (PH) and Future (F) (Zimbardo & Holman, 2009).

PN is a negative, aversive attitude towards the past. In contrast, PP reflects warmer, sentimental feelings towards the past and is related to good family relationships. Present orientation is represented by two types: PF is characterized by powerlessness, hopelessness and a fatalistic attitude toward life, while PH reflects a hedonistic view of the temporary joys of life without thinking about future consequences of this behavior. A future time perspective involves long-term objectives, for their realization of behaviors and, consequently, delay of gratification.

Time perspectives and health-risk behavior

In exploring the association between time perspectives and health-risk behavior, previous studies (Rothspan & Read, 1996; Wills et al., 2001; Zimbardo et al., 1997) mostly focused on orientation toward present and future, and found that future-oriented individuals more often engage in behavior planning and monitoring for pursued goals in the future (e.g., exercise, healthy diet), while the present-oriented group is more focused on current situational factors (e.g., peer approval). While studying the correlation of these dimensions with health-risk behavior, it has been shown that present orientation is positively related to consuming health-risk substances (Fieuline & Martinez, 2010; Henson, Carey, Carey, & Maisto, 2006; Keough et al., 1999; Wills et al., 2001).

Keough, Zimbardo and Boyd (1999) found that people, who score higher on the present orientation scale, are more likely to consume health-risk substances, but there is a difference between subscales. A hedonistic orientation predicts multiple health-risk behaviors, while a fatalistic orientation is not as reliable a predictor of such behavior (Henson, et al., 2006; Keough et al., 1999; Wills et al., 2001). Differences among these subscales originate from non-awareness of health-risk behavior consequences. Hedonistic orientation is characterized by consuming health-risk substances because of immediate pleasure (*pleasurable health risk behavior*), and also with awareness of the potential negative consequences of their acts. The opposite goes for people with a higher score on the fatalistic orientation scale; these do not take into consideration potential negative outcomes (*health-damaging risk behavior*) (Henson, et al., 2006).

Individuals with a higher score on the future orientation scale are less likely to engage in health-risk behavior (Wills et al., 2001), and more likely to exercise and eat in a healthy manner (Mahon et al., 1997; in Henson, et al. 2006).

Hedonistic orientation is as good a predictor of health-related behavior as future orientation (Henson, et al., 2006; Keough et al., 1999; Zimbardo et al., 1997). This is demonstrated by correlations with each health-related behavior that has for a contrast weak negative correlation with future orientation. This is a proof of different coding of time perspective types in relation to health-risk behavior.

Health-related behavior – Alcohol and Slovenian youth

Even though the sale of alcoholic beverages in Slovenia is prohibited by law (Uradni list, 2003) to youth below the age of 18, it has been shown in the Mladina 2010 study that alcohol consumption remains an informally allowed and desirable practice.

The ESPAD study (*European School Survey Project on Alcohol and Other Drugs*) from 2011 showed that Slovenian youth are above the European average when it comes to alcohol consumption in the last 30 days, heavy episodic drinking in the last 30 days and amount of alcohol consumed on the last day of drinking (since 2007, this has increased by 5.4%).

According to data from the Statistical office of the Republic of Slovenia, 90% of youth between the ages of 15 and 29 at least occasionally consume alcohol. At the same time the proportion of youth between 15 and 16 who never drink alcohol declined between 1993 and 2010 from 28.6% to 10.1% (Musil, 2011).

Slovenian 15-year olds exceed the international average for drinking beer, wine and spirits and are in the first third of countries with the highest percentages of weekly drinking of these beverages (Koprivnikar, Drev, Bajt, and Jeriček Klanšček, 2012).

A different picture emerges from a recent study by Kirbiš (2013), who reports a decline in the percentages of youth in Slovenia who consume alcohol daily – in 2010, it was 4%, in 2013, 2%.

Also in the same period we can notice an increase in the number of young people who do not drink alcohol. Nevertheless, it is still worrying that 10% of youth in Slovenia drink alcohol a few times per week, and that 51% of youth in Slovenia drink alcohol at least once per week.

Study aim

With the help of current research, we would like to study the link between time perspectives and the incidence of and customs involving the drinking of alcohol among Slovenian youth. Based on previous research, we are presuming that higher alcohol consumption is related to present time orientation, more precisely, to PH. The reverse outcome is expected for future orientation. The occurrence of alcohol consumption and time perspective will also be analyzed according to other demographic and personal variables (age, parent's education, self-perceived family material status and life satisfaction).

Methods

Participants

Among 425 participants in the study, there were 126 males (29.6%) and 299 females (70.4%). The age of participants was between 15 and 29 years ($M = 20.80$, $SD = 3.69$); the average age of the male sample was 21.44 ($SD = 4.26$), and female 20.54 ($SD = 3.40$). In the first age group (15-19 years) there were 154 (36.2%) participants, in the second (20-24 years), 194 (45.6%) and in the third (25-29 years), 77 (18.1%).

27.8% participants had finished primary school, 33.2% high school, 31.5% had higher or university education, 7.1% had a Masters or a PhD. For 6.1%, mother's education level is primary school, for 37.8%, high school, for 37.6%, higher or university education and for 17.7%, Masters or a PhD. In 2.4%, father's education level is primary school, in 49.3%, high school, in 32.6%, higher or university education and in 14.8%, Masters or a PhD.

Most of the participants perceive their family material status as average (67.3%). The majority of the sample is at least averagely satisfied with their life in general (93.7%; 20% are completely satisfied).

Measures

For the purpose of the current research, a questionnaire was used, which included various questions regarding sociodemographic variables (age, gender), socioeconomic status (education, self-perceived family material status; 5-point scale), and indicators regarding alcohol consumption.

Central concept in the questionnaire was the Zimbardo Time Perspective Inventory (ZTPI; 1999). ZPTI includes 56 items, which respondents score using 5-point Likert scale. Exploratory and confirmatory factor analysis confirmed the basic structure, with the exception of five reversely assessed values, which for the purpose of the current study were consequently eliminated from the ZTPI. Inventory has the appropriate metric features. Criterion validity of the ZTPI was confirmed with the correlation among time perspectives and health-risk behavior, which was predicted with a theoretical explanation and empirically demonstrated in previous studies. Reliability of the ZTPI was tested with the Cronbach's alpha coefficient, which proved to be satisfactory for all five time perspectives (α for PN was 0.86; α for PP 0.74, α for PH 0.83, α for PF 0.75, and α for F 0.78). Correlations among subscales and health-risk behavior as shown in Table 1 were as expected and have good theoretical explanation from previous studies (Zimbardo & Boyd, 1999).

Procedure

Data were collected on a convenience sample of young people. Completion of the questionnaire was done online and took 15-20 minutes, on average. We analyzed the data with the statistical program SPSS.

Results and interpretation

Alcohol consumption

59.3% of participants rarely or almost never consume alcohol, 35.5% only on weekends, 4.5% a couple of times a week and 0.7%, daily.

In the last month the majority of participants have most often (six to nine times) consumed wine (9%), beer (6.4%) and spirits (5.5%).

For the whole sample, the average age of first intoxication with alcohol is 13.51 years ($SD = 5.5$). 33.2% of participants have been drunk at least 20 times, and 39.1% less than 5 times (12.9% have never been drunk).

33.2% of participants have been intoxicated with alcohol at least 20 times. These percentages increase in individual age groups. In the first group, the percentage of such young people is 16.2% (in this group 24.7% have never been drunk), in the second group 39.2% (in this group have never been drunk 6.7%) and in the third group 51.9% (5.2% having never been drunk).

Consuming alcohol and cigarettes at the same time is common in 40.9% of participants (14.4%, always). At least occasionally combining of alcohol and medicines is done by 13.2% (1.4%, always), 24.5% combine alcohol and marijuana (1.9%, always) and 2.8% combine alcohol with other drugs (0.7%, always).

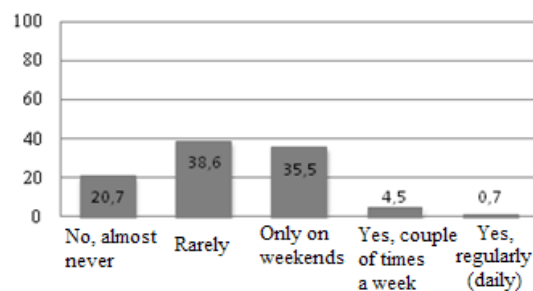


Diagram 1: Incidence of alcohol consumption

Alcohol consumption and ZTPI

Since time perspectives PH and F proved most likely to be related to health-risk behavior in previous studies, we presented these in greater detail. Correlations among variables that are related to relevant and important research variables are shown in Table 1.

As expected, the group of young people that drinks alcohol increases with increasing age. The correlation among variables is positive, but weak ($r = 0.18$; $p < 0.01$).

The correlation between life satisfaction and time perspectives was expected and predicted by previous studies (Boniwell, Osin, Linley, & Ivanchenko, 2010; Drake, Duncan, Sutherland, Abernethy, & Henry, 2008). Life satisfaction is positively related to PP and negatively to PF and PN.

According to these results, we can stress that the correlation between parent's education level and a sentimental attitude towards past (PP) is generally weak.

Table 1: Correlations between alcohol consumption and other variables

	1	2	3	4	5	6	7	8	9	10
Incidence of alcohol consumption										
Age	0.18**									
Mother's education	0.06	-0.01								
Father's education	0.04	0.02	0.66**							
Perceived family material status	-0.03	-0.17**	0.26**	0.13**						
Life satisfaction	0.04	0.02	0.04	0.05	0.08					
Past negative	-0.02	-0.21**	0.00	-0.03	-0.00	-0.34**				
Past positive	0.06	-0.03	0.12*	0.10*	0.07	0.27**	-0.24**			
Present hedonistic	0.21**	-0.17**	0.09	0.11*	0.00	0.04	0.33**	0.21**		
Present fatalistic	0.05	-0.11*	-0.05	-0.05	-0.01	-0.20**	0.55**	-0.03	0.42**	
Future	-0.21**	0.09	0.04	0.07	0.04	0.07	-0.02	0.22**	-0.13**	-0.20**

* $p < 0.05$; ** $p < 0.01$.

In the context of ZTPI, the average score on subscale PN is 2.84 (SD = 0.74), on PP 3.52 (SD = 0.65), PH 3.22 (SD = 0.57), PF 2.61 (SD = 0.64) and F 3.24 (SD = .50). According to the results for time perspectives, we can highlight the characteristics of our sample: in general, they have a sentimental attitude towards the past and are also willing to sacrifice today's pleasure for a distant goal in the future. The higher score on PH can be interpreted as indicating that, even though youth are focused on today's pleasures and joys (like alcohol consumption), they are aware of the potential negative outcomes of their behavior, as described in previous studies (e.g., Henson et al., 2006).

For the purpose of future analysis, we divided our sample into two groups: a group of young people who rarely drink alcohol, and a group where alcohol is regularly consumed. The results of the groups based on time perspectives are shown in Diagram 2. On the basis of the t-test for an independent sample, we highlighted the time perspectives where the difference among sample averages was significant ($p < 0.01$).

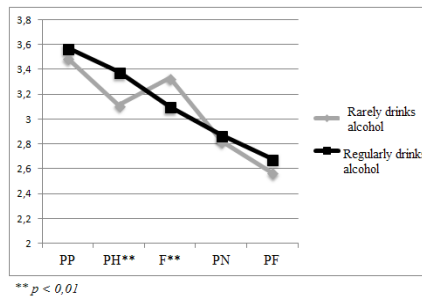


Diagram 2: Comparison of time perspectives based on incidence of alcohol consumption

Analysis has shown that the groups differ significantly on two time perspectives. Among individuals who drink alcohol more often ($N = 173$) and those who do not ($N = 252$), there appears a significant difference for PH ($t(423) = -4.93$, $p > 0.01$) and F ($t(423) = 4.86$, $p > 0.01$). These results are expected and even predicted by previous studies (Henson, et al., 2006; Keough et al., 1999;). Individuals with a higher average score on PH are primarily focused on the joys and pleasures of today, and less on the possible consequences of their behavior in the future. The opposite goes for those higher on F, who project the meaning of today's behavior onto their goals in future. Such individuals usually avoid (or at least do not often engage in) health-risk behaviors, especially because of the potential harm such actions may have in the future (Zimbardo & Boyd, 1999).

Consequences of alcohol consumption

As expected, the significant difference among groups also emerges in the consequences of alcohol consumption: both, positive and negative occur more often in individuals who more often engage in such behavior.

Bigger differences occur among the positive consequences of alcohol consumption (*Having fun / Being more communicative / Feeling more relaxed / Getting to know people is easier / Forgetting about troubles in school and at home*), than for the negative effects (*Having a hangover / Doing something you regret later / Not remembering what you were doing / Vomiting / Hurting yourself / Getting into a fight / Having troubles with parents*). Among the positive consequences, the biggest contrast between groups occurs in the item *Having fun*, where the average result for the group who drink regularly is 3.51 (SD = 0.65) and for the group who drink rarely, 2.67 (SD = 1.02). Among the negative consequences, there is the item *Having troubles with parents*, where the average for the first group is 1.13 (SD = 0.46), and for the second group, 1.33 (SD = 0.67).

Conclusion

In the current study, we estimated the incidence of and customs involving alcohol consumption among Slovenian youth in relation to time perspectives. Our assumption about the link between health-risk behavior and PH and F has been confirmed, an outcome which provides additional support to previous studies in this field. The interpretative value of preceding studies is additionally supported with comparison among groups of young people who drink alcohol regularly/rarely and a comparison of the same group in terms of the consequences of alcohol consumption.

On the basis of previous findings and the results of the current study, we can conclude that time perspectives, as predisposed by Zimbardo and Boyd (1999), are significant factors in health related studies, especially in the field of health prevention and potential intervention programs.

Of special interest in the context of any social issue is future time perspective, which directly addresses someone's capacity for the delay of gratification, but indirectly provides information about someone's self-reliance and trust in other people. Therefore, future time orientation is in relation to both, personal and social responsibility, and thus personally and socially beneficial.

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