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IN KOŠICE

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**Emigration intentions
and risk behaviour
among
university students**

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Faculty of Arts

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Emigration intentions and risk behaviour among university students

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Emigration intentions and risk behaviour among university students
Research monograph

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Pavol Jozef Šafárik University in Košice
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Emigration intentions and risk behaviour among university students

Introduction and Chapter Overview

The research project Student Life Cohort in Europe (SLiCE) has been carried out with the support of scientific grant agencies VEGA and APVV. The SLiCE project consists of individual sub-projects (SLiCE 1 and SLiCE 2): “Intrapersonal and interpersonal factors related to changes in risk behaviour of university students and their intentions to emigrate” (SLiCE 2 - VEGA 1/0713/15) “Drug use among adolescents and university students. Data-based drug use prevention.”(APVV-0253-11) and "Psychological mechanism of risk behaviour change of schoolchildren and university students. Risk behaviour and migration/emigration intentions" (APVV-15-0662). These projects have been lead by the principal investigator Prof. Oľga Orosová, PhD and the research team from the Department of Educational Psychology and Health Psychology as well as the Department of Psychology at the Faculty of Arts of the University of Pavol Jozef Safarik in Košice. Furthermore, the SLiCE project (SLiCE 2- APVV-15-0662) has been carried out in collaboration with numerous international partners from the following universities: Uzhorod National University in Ukraine, Sofia University in Bulgaria, Charles University in Prague, Czech Republic, University of Miskolc in Hungary, Lithuanian University of Health Sciences and University of Antwerp in Belgium. Individual sub-projects of SLiCE (SLiCE 1 and SLiCE 2) are complementary and strive to build and elaborate on previous findings with the general aim to further develop and increase the quality of data-based risk behaviour prevention for university students in European countries as well as to contribute to constructing effective models for risk prevention.

Intrapersonal and interpersonal factors associated with changes of health-risk behaviour among university students. SLiCE 1

AIMS

1. To analyse changes in the life perspective and risk behaviour of undergraduates in selected EU countries through the

longitudinal design of the project (Chapter 11 A. Janovská: Intrapersonal and interpersonal factors associated with changes of health-risk behaviour among university students)

2. To analyse the differences in risk behaviour and relationships of intrapersonal and interpersonal factors between participants and dropouts participating only in the first vs. more waves of data collection (SLiCE 1) (Chapter 10 J. Bavoľár and M. Bačíková Attrition in SLiCE study – comparison of respondents and non-respondents)

SAMPLE

The research of risk behaviour of university students (SLiCE 1) was carried out with the consent of the Ethics Committee of the Faculty of Arts, University of Pavol Jozef Safarik in Košice.

The analyses were conducted on the data collected within SLiCE 1 and focused exclusively on the 1st and the 4th (final) wave (individual waves were collected annually) which were collected among first year university students in five European countries (Slovakia, Lithuania, Hungary, Czech Republic, Germany). The first wave was collected in 2011 and each following wave of data collection was carried out during the following year of study. Students were contacted via their personal e-mails which they provided at the beginning. The final sample used in the analysis consisted of students attending universities in five countries: Slovakia, Czech Republic, Hungary, Lithuania and Germany. In total, 2961 respondents completed the first wave, 554 (18.7%) completed the first two waves, 476 (16.1%) completed three waves and finally 139 (4.7%) respondents completed all four waves of data collection. The mean age of the respondents at the first wave was 20.8 (SD 3.14).

Numerous findings addressing various topics of risk behaviour of university students based on the data from SLiCE 1 have been published by members of the research team during the duration of the project. Nevertheless, two chapters of this monograph are still dedicated to this part of the SLiCE project and focus on the risk behaviour of university students. It aims to add to the critical overview of the international longitudinal online investigation carried out within SLiCE 1 (Chapter 10, Chapter 11).

Intrapersonal and interpersonal factors of emigration intentions and plans. SLiCE 2

AIMS	<ol style="list-style-type: none"> 1. To explore the relationships between selected intrapersonal and interpersonal factors of attitudes of university students towards life, education and work in Slovakia and other EU countries and emigration intentions, plans (Chapter 1 A. Onufrák Migration theories. Socio-economic and Political science perspectives, Chapter 2 M. Kulanová: Psychological concepts of emigration intentions, Chapter 3 O. Orosová, M. Kulanová: Push and Pull factors of emigration intentions among Slovak university students, Chapter 4 J. Benka: Psychological contexts of students' migration from the perspective of Self-determination theory, Chapter 5 M. Bačíková: Individualism and collectivism in the context of students' migration, Chapter 6 B. Gajdošová: Intrapersonal and interpersonal factors favouring and hindering plans for long-term migration abroad of university students after finishing university, Chapter 7 L. Hricová: Mediational analyses related to emigration intentions, rootedness factors and autonomy among slovak university students Chapter 8 J. Bavoľár: The role of personality factors and risk characteristics in migration tendencies of university students). 2. To explore the associations of variables related to emigration (intentions to emigrate, attitudes and deliberations regarding emigration, emigration self-efficacy and normative beliefs towards emigration) with health risk behaviour (alcohol use, smoking and sexual risk behaviour) (Chapter 9 O. Kalina: An analysis of the relationship between health risk behaviour and emigration tendencies among university students from Slovakia.)
PROCEDURE	<p>The research was conducted with the consent of the Ethics Committee of the Faculty of Arts, University of Pavol Jozef Safarik in Košice. Data collection proceeded as follows:</p> <ul style="list-style-type: none"> • In the first step, all universities in Slovakia were invited to join the research project. 20 public universities, 3 state universities and 13 private universities were invited to participate in the study, a total of 36 institutions with university status in Slovakia. Out of all invited institutions, 18 universities agreed to participate (51.4%, 13 public, 2 state and

3 private universities); 18 universities did not respond to the official invitation, one university refused to participate and one private university ceased to exist during the duration of data collection. These universities published information about the project with a link to the online questionnaire on their websites, information systems, and / or through official university Facebook sites.

- In the second step, an official Facebook page 'Slice Study 2016' was created to promote the project on unofficial Facebook pages of student groups (especially dormitory fan pages and student communities and societies).
- Students were asked to fill in the SLiCE online questionnaire, voluntarily and anonymously.

SAMPLE

During the progression of the project two databases have been used. The first sample was downloaded while the data collection was still running to provide preliminary findings and the second or final database. The first analyses of the data were conducted while data collection was still in process on the so-called incomplete sample (375 students completed the questionnaire). For this reason, some research chapters in this publication used only the incomplete sample (Chapters 3, 6, 7). As the data collection continued, the final sample of respondents was acquired and used in the rest of the chapters (Chapters 4, 5, 8, 9). For this reason, each research chapter describes the appropriate sample (incomplete or final) which has been analysed.

The final sample: A total of 1091 students reacted to the invitation. The whole questionnaire was completed in full by 489 respondents (response rate of 44.8%), 374 (76.5%) were women; mean age 22.8 (SD=2.97), 22.6 (SD=2.84) for women and 23.4 (3.28) for men.

All years and study levels were represented in the sample: 50.7% of students were in the first (bachelor) level of study, 38.9% of students were in the second (master) level of study and 5.3% of the sample were PhD students.

All Slovak regions were represented in the sample as well, namely the Bratislava Region (12.1%), the Trnava region (4.9%), the Trenčín region (5.7%), the Nitra region (6.5%), the Žilina region (6.5 %), the Banská Bystrica region (12.3%), the Prešov region (22.5%) and Košice (29.4%). 18.2% of the respondents were students of the teaching programmes.

METHODS

Methods for assessing emigration intentions

Two separate indicators were used to address different aspects of emigration intentions among university students. Some chapters focused on a sole indicator while other chapters used and compared both aspects of emigration intentions:

- The first approach to measuring emigration intentions treated this variable as continuous and was measured by the Intention to Emigrate Scale (Leong & Soon, 2011). This scale essentially concerns individual's thoughts about living abroad. This 5-item scale requires respondents to rate the frequency with which they think of working or living in another country for the following reasons: (1) overseas education; (2) better job prospects, (3) setting up a business, (4) to work and live in another country for an extended period of time, and (5) emigrating to another country to live there permanently. Each of the five items is scored on a 5-item Likert scale of 1 (never) to 5 (all the time). Higher scores represent a greater desire to move abroad ($C\alpha = 0.86$). When this scale was used within this monograph the term emigration intention was used.
- The second approach to measuring emigration intentions was via a categorical variable, measured by a single item: „Are you planning to leave Slovakia after completing university?“ with possible answers: No, I am not planning to leave (1); I don't know, I have not thought about it (2); I don't know, I have not decided (3); Yes, I am planning to leave for a period up to 6 months (4); Yes, I am planning to leave for a period from 6 to 12 months (5); Yes, I am planning to leave for a period longer than a year (6); Yes, I am planning to leave for a period longer than 5 years (7); Yes, I am planning to leave permanently (8). This variable is referred to as emigration plan in this publication.

PRELIMINARY
RESULTSEmigration intentions and plans
among Slovak university students

In the following part, a basic description of emigration intentions and plans of Slovak university students is presented with respect to several demographic indicators. Emigration intentions and plans and their relationships with other socio-psychological variables are described in more detail in the individual chapters of this publication.

With respect to the first indicator (emigration intentions as a continuous variable), emigration intentions of Slovak university students are slightly below average. Men and women do not differ significantly in emigration intentions. The results are presented in the Table 1.

Table 1 Emigration intentions among Slovak university students (first indicator)

	Theoretical range	Mean among sample (n=489)	Mean among women (n=374)	Mean among men (n=115)	t-test
Emigration intentions (5 items)	5-25	12.95 (SD=5.14)	12.77 (SD=5.17)	13.53 (SD=5.00)	-1.384 (p>0.05)

With respect to the second indicator (emigration intentions as a categorical variable, i.e. emigration plans), it was found that 23% of Slovak university graduates do not plan to leave Slovakia, 36% of undergraduates have not yet made the decision and 5% of respondents have not yet considered this idea, 12% plan to leave for a shorter period with the prospect of returning within a year, and almost 24% of undergraduates intend to leave Slovakia for a period longer than 1 year (10% for more than a year and 13.4% for more than 5 years or permanently).

In order to present the initial results concisely, students have been categorized into 4 categories based on their responses to emigration plans: 1) those who do not plan to leave Slovakia (they answered: I do not plan to leave); 2) undecided (they answered: I have not even thought about it yet, or I have not decided yet); 3) planning a short-term departure (responded: I plan to leave for up to 6 months or plan to leave for 6-12 months); and 4) planning a long-term departure (responded: I plan to leave for more than a year, more than 5 years or permanently). Although women do not plan to leave Slovakia more than men and men plan long-term stays more than women, these differences are not statistically significant. The results of the emigration plans among Slovak university students with respect to gender and the region of permanent residence are presented in Table 2 and Table 3.

Table 2 Emigration plans (second indicator) among Slovak university students

Emigration plan (item number)	Entire sample (n=489)	Women (n=374)	Men (n=115)
Not planning to leave (1)	110 (22.5%)	90 (24.1%)	20 (17.4%)
Undecided (2, 3)	203 (41.5%)	158 (42.2%)	45 (39.1%)
Planning short-term stay abroad (4, 5)	60 (12.3%)	47 (12.6%)	13 (11.3%)
Planning long-term stay abroad (6, 7, 8)	116 (23.7%)	79 (21.1%)	37 (32.2%)

Table 3 Emigration plans (among Slovak university students with respect to the region of permanent residence

Permanent residence (region) ¹	BA (n=59)	TT (n=24)	TN (n=28)	NR (n=32)	ZA (n=32)	BB (n=60)	PO (n=110)	KE (n=144)
Do not plan to leave	20.3%	25%	21.4%	15.6%	21.9%	23.3%	16.4%	29.2%
Undecided	45.8%	25%	42.9%	46.9%	40.6%	41.7%	45.5%	38.2%
Plan short-term leaving	15.3%	12.5%	3.6%	6.3%	9.4%	10%	18.2%	12.5%
Plan long-term leaving	18.7%	37.5%	32.2%	31.3%	34.4%	25%	20%	20.1%

The comparison of emigration intentions among students from Slovakia and other European countries

The availability of data from the four European countries taking part in SLiCE allows us to make a basic comparison of the emigration intentions and plans of Slovak students and their counterparts in Belgium, Bulgaria, Lithuania and Hungary. Emigration intentions were measured in the same way in all these countries.

Table 4 Comparisons of emigration intentions among Slovak students and students in four European countries

	Theoretical range	Slovakia (n=489)	Belgium (n=214)	Bulgaria (n=397)	Lithuania (n=160)	Hungary (n=116)
Emigration intentions	5-25	M=12.95 (SD=5.14)	M=11.42 (SD=4.64)	M=11.50 (SD=5.18)	M=12.44 (SD=4.84)	M=12.74 (SD=5.48)
Value of t-test (Slovakia vs other country)			t=3.74***	t=4.16***	t=1.11	t=0.39

These results are consistent with the second indicator as well. The proportion of students planning a short-term stay or a long-term stay abroad was found to be greater among Slovak students when compared to students in Belgium and Bulgaria. In Lithuania and Hungary however, there was a similar or even greater proportion of students who were planning a long-term stay abroad when compared to Slovak university students. These results are presented in Table 5.

A more detailed intercultural comparison is not the goal of this publication but will be the subject of further analysis of data acquired within SLICE 2.

Table 5 Comparison of emigration plans among Slovak students and students from four European countries

Emigration plan within the country (answer)	Slovakia (n=489)	Belgium (n=214)	Bulgaria (n=397)	Lithuania (n=160)	Hungary (n=116)
Not planning to leave (1)	110 (22.5%)	51 (23.8%)	140 (34.1%)	15 (9.4%)	35 (28.9%)
Undecided (2, 3)	203 (41.5%)	120 (56.1%)	154 (37.5%)	89 (55.6%)	41 (33.9%)
Planning short-term stay abroad (4, 5)	60 (12.3%)	16 (7.5%)	38 (9.2%)	16 (10.0%)	10 (8.3%)
Planning long-term stay abroad (6, 7, 8)	116 (23.7%)	27 (12.6%)	79 (19.2%)	40 (25.0%)	35 (28.9%)

Chapter overview

A. ONUFRÁK The first chapter ‘*Migration theories: socio-economic and political science perspectives*’ introduces a sociological approach to migration and consists of three subchapters. In subchapter 1.1, the author focuses on current migration trends and flows on a global scale, addresses the terminology used in the context of migration as well as the classification, causes and impacts of migration at the macro-economic and macro-sociological level. In subchapter 1.2, migration theories at the macro and mezzo levels are discussed. In connection with migration theories at the macro-level, most attention is paid to the Gravity Model, Neoclassical Macro-migration Theory, Theory of Rural-Urban Migration, Dual Labour Market Theory, World-systems Theory and Migration as System Theories. With regard to migration

theories at the mezzo-level, the New Economic of Labour Migration Theory, Network Theory and Institutional Theory are presented. Finally, subchapter 1.3 focuses specifically on migration trends of the citizens of Ukraine, the EU as well as the Slovak Republic. The official statistics presented in the chapter have been adopted from the European and Slovak authorities.

M.KULANOVÁ The second chapter '*Psychological concepts of emigration intentions*' provides a closer look at the psychological approaches to emigration intentions. In this chapter, intentions are defined and the importance for a more complex and more detailed approach is argued. The author briefly describes two main psychological approaches to emigration intentions, which in her opinion, are commonly used for the explanation or prediction of intentions as well as emigration intentions. These are the theories of motivation and theories of behavioural intentions. In these two approaches, seminal theories adapted for the research of emigration intentions are presented such as Maslow's hierarchy of needs and the McClelland theory of motives (theories of motivation), followed by the Theory of Reasoned Action and its elaboration, the Theory of Planned Behaviour and concludes by the relatively new theory adapted in migration research – the Health Belief Model (theories of behavioural intentions). Finally, efficiency and the practical value of making predictions based on studying intentions is addressed and discussed.

O. OROSOVÁ
M.KULANOVÁ The third chapter '*Push and Pull factors of emigration plans among Slovak university students*' presents interesting research about the factors which are related to students' intentions to leave their home. In this chapter, the concept of push and pull factors is used and applied in the context of emigration intentions of university students. The pull factors, in the context of migration, represent forces which make migration attractive and encourage individuals to make the decision to emigrate. On the other hand, push factors are represented by the forces which discourage students from migrating and encourage them to stay in their homeland. The main aim is thus to investigate the pre-migration phase. This is carried out by the exploration of the role of push and pull factor, gender, socio-economic factors, importance of religion and personality variables in explaining emigration intentions. Based on the obtained results, the authors attempt to formulate profiles of so called stayers (those who do not want to leave their country), undecided (those who are not yet decided about leaving) and leavers (those who plan to leave their country).

after finishing their studies for more than 1 year) and study the differences between them by making comparisons.

J. BENKA

The fourth chapter *'Psychological contexts of students' migration from the perspective of the Self-determination theory'* firstly provides a brief overview of the psychological variables and constructs which have been used to study migration. It is argued that even though migration is a very complex phenomenon which requires a multidisciplinary approach, the psychological context of migration possesses an important and irreplaceable role in understanding migration at the individual level and especially with regard to emigration plans, intentions and decisions to move and live in another region or country. Most of the theories which have been used to study migration (presented in other chapters in this monograph) put considerable emphasis implicitly or explicitly on the motivational variables and social influence variables. Self-determination theory (SDT) as a macro-theory of human motivation and personality is also briefly presented as a theory which can provide a theoretical platform for integrating relevant variables studied in the context of migration. Special attention is paid to the concept of autonomy and autonomous functioning as the key variable for understanding individual's functioning in society. The SDT is then used as the main conceptual basis and focuses on the role of autonomy and autonomous functioning in relation to emigration plans and the "content" of these plans.

M. BAČÍKOVÁ

The fifth chapter *'Individualism and collectivism in the context of emigration of university students'* focuses on the two-dimensional model of individualism and collectivism: horizontal and vertical dimensions. The chapter has several aims. Firstly, the level of individualism and collectivism of Slovak university students and its connection with several personality characteristics is described. Secondly, the main aim of the chapter is to explore the associations between individualism and collectivism and the desire to emigrate and emigration intentions of university students. Thirdly, emigration self-efficacy is considered as a possible mediator of these relationships.

B. GAJDOŠOVÁ

The sixth chapter *'Intrapersonal and Interpersonal factors favouring and hindering plans for long-term migration abroad of university students after finishing university'* presents the findings regarding the relationships between plans for long-term migration abroad of university students after finishing university and psychological

variables which favour it (self-efficacy, feasibility – access to resources, need for a change). Furthermore, the chapter also describes the relationships between plans for long-term migration abroad of university students after finishing university and psychological variables which potentially hinder this process (satisfaction with life, satisfaction with home and family, religiosity).

- L. HRICOVÁ The seventh chapter '*Mediational analyses related to emigration intentions, rootedness factors and autonomy among Slovak university students*' aims to explore which psycho-social factors might be relevant in the association (1) between emigration intentions and rootedness (especially Home and Family Satisfaction factor) as well as (2) between autonomy support and emigration intentions. A mediation moderated by gender between Home and Family Satisfaction and emigration intentions through the desire for change is tested. Similarly, a moderated mediation between autonomy support and emigration intentions through rootedness factors separately is explored.
- J. BAVOLÁR The eighth chapter '*The role of personality factors and risk characteristics in migration tendencies of university students*' tries to verify the results of foreign studies on a Slovak sample. In particular, it addresses the following issues of if and how general personality factors and risk characteristics can explain the migration tendencies of Slovak students. The personality factors are operationalized via the widely used and generally accepted Big Five factor model which includes extraversion, agreeableness, conscientiousness, neuroticism and openness to experience as well as by specific personality factors related to risk characteristics such as risk perception and risk propensity (tendency to take risks). The migration tendencies of students can be observed through emigration intentions, emigration self-efficacy and emigration plans. As risk characteristics have been found to be related to personality factors, linear regression is used to assess whether risk perception or risk propensity is effective in explaining migration tendencies in addition to the Big Five factors. The interaction of risk characteristics with the most similar factor – openness to experience – is also investigated.
- O. KALINA The ninth chapter '*An analysis of relationship between health risk behaviour and emigration tendencies among university students from Slovakia*' deals with university students' tendencies to leave their home country and their health risky behaviour. Specifically, it

explores whether risky consumption of alcohol, high level of smoking and sexual risky behaviour could be associated with intentions to leave the home country. Previous research has confirmed that young adults with higher levels of health risk behaviour (particularly sexual risk behaviour and alcohol use) tend to report higher intentions to leave. However, those studies are rare and most of them are not from the European region. In this research chapter, students' migration tendencies are defined as outcome variables and a set of five variables is used to cover this concept: (1) Having a plan to leave the country; (2) Attitudes to migrate; (3) Intentions to migrate; (4) Emigration self-efficacy; (5) Normative belief toward migration. In general, the association between health risky behaviour and students' migration tendencies is expected and explored.

J. BAVOLÁR

M. BAČÍKOVÁ

The tenth chapter '*Attrition in SLiCE study - comparison of respondents and non-respondents*' data from the online based four wave international longitudinal study SLiCE 1. This exploration has been conducted to investigate health indicators and health-related behaviour of university students. In particular, it focuses on the individual, intrapersonal and interpersonal predictors of health-related behaviour by using data from five European countries (Slovakia, Czech Republic, Germany, Lithuania, Hungary). Longitudinal studies, and especially those conducted online, often face a serious attrition problem. Thus, the examination of respondents' attrition is needed to assess the expected generalisability of the SLiCE study results. In this chapter, a comparison of participants (at a different number of waves) and drop-outs is conducted with regard to several risk behaviour indicators, psychological health indicators and several intrapersonal characteristics.

A. JANOVSÁ

The last eleventh chapter '*Intrapersonal and interpersonal factors associated to changes of health-risk behaviour among university students*' provides a closer look at health-risk behaviour itself and its changes over time. The aim of this research chapter is to describe the changes of the selected types of health-risk behaviour (smoking, alcohol consumption, marihuana use, problematic internet use, risky sexual behaviour) over four years among university students in five European countries (Slovak Republic, Czech Republic, Hungary, Lithuania and Germany). The study also aims to explore the associations between intrapersonal (Big Five personality traits, optimism, well-being, depressive symptoms) and interpersonal factors (support relationships -

family, friends) as well as to explore changes of the health-risk behaviour over the studied period.

This publication enables us to present a great amount of findings thanks to grant support of The Scientific Grant Agency of The Ministry of Education of Slovak Republic (VEGA) and The Slovak Research and Development Agency (APVV).

Emigračné zámery a rizikové správanie študentov vysokých škôl

Úvod a prehľad kapitol

Výskumný projekt Student Life Cohort in Europe (SLiCE) bol finančne podporený agentúrami VEGA a APVV. Projekt SLiCE pozostáva z dvoch častí (SLiCE1 a SLiCE2): "Intrapersonálne a interpersonálne faktory zmien rizikového správania vysokoškolákov a emigračných zámerov vysokoškolákov." (SLiCE2 – VEGA 1/0713/15) "Užívanie drog medzi dospelými a vysokoškolákmi. Na výskumných dátach založená prevencia užívania drog." (APVV-0253-11) a "Psychologický mechanizmus zmien rizikového správania študentov a vysokoškolákov. Rizikové správanie a emigračné, migračné zámery." (APVV-15-0662).

Zodpovedná riešiteľka projektov je Prof. Oľga Orosová, CSc. v spolupráci s výskumným tímom z Katedry pedagogickej psychológie a psychológie zdravia a Katedry psychológie Filozofickej fakulty Univerzity Pavla Jozefa Šafárika v Košiciach. Výskum SLiCE (SLiCE2 a APVV-15-0662) sa realizuje v spolupráci s Uzhorod National University na Ukrajine, Sofia University v Bulharsku, Charles University v Prahe, Českej republike, University of Miskolc v Maďarsku, Lithuanian University of Health Sciences a University of Antwerp v Belgicku. Jednotlivé čiastkové projekty výskumu SLiCE (SLiCE1 a SLiCE2) sa navzájom dopĺňajú a usilujú nadväzovať na predchádzajúce zistenia s cieľom zvýšiť kvalitu na výskumných dátach založenej prevencie rizikového správania pre študentov Európskych vysokých škôl, ako aj prispievať k vytvoreniu efektívnych modelov prevencie rizikového správania.

Intrapersonálne a interpersonálne faktory súvisiace so zmenami rizikového správania u študentov vysokých škôl. SLiCE 1

CIELE

1. Analyzovať zmeny v životnej perspektíve a rizikovom správaní študentov vo vybraných krajinách EÚ prostredníctvom longitudinálnej koncepcie projektu (kapitola 11 A. Janovská: Intrapersonálne a interpersonálne faktory

súvisiace so zmenami rizikového správania študentov vysokých škôl)

2. Analyzovať rozdiely v rizikovom správaní a intrapersonálnych a interpersonálnych faktoroch medzi respondentmi, ktorí sa zúčastnili len prvej alebo viacerých vln zberu údajov (štúdia SLiCE) (kapitola 10 J. Bavoľár, M. Bačíková Experimentálna mortalita v štúdií SLICE.)

VÝSKUMNÝ SÚBOR

Výskumný súbor a postup zberu údajov

Súhlas s realizáciou výskumu rizikového správania študentov vysokých škôl (SLiCE 1) vydala Etická komisia Filozofickej fakulty Univerzity Pavla Jozefa Šafárika v Košiciach.

Zo štúdie SLiCE 1 boli v monografii analyzované iba údaje z 1. a 4. vlny zberu dát (jednotlivé vlny boli zbierané každoročne) zbierané medzi prvákmi vysokých škôl z piatich európskych krajín (Slovensko, Litva, Maďarsko, Česká republika, Nemecko). Údaje pre prvú vlnu boli zozbierané v roku 2011 a každá ďalšia vlna zberu údajov sa uskutočnila v ďalšom roku štúdia. Študenti boli oslovení prostredníctvom e-mailov, ktoré poskytli v úvode štúdie. Konečná výskumná vzorka pozostáva zo študentov navštevujúcich univerzity v piatich krajinách: Slovensko, Česká republika, Maďarsko, Litva a Nemecko. Celkovo 2961 respondentov dokončilo prvú vlnu štúdie. 554 (18,7%) sa zúčastnilo dvoch vln, 476 (16,1%) troch vln a 139 (4,7%) respondentov dokončilo všetky štyri vlny zberu údajov. Priemerný vek respondentov v prvej vlne bol 20,8 (SD 3,14).

Niektoré výsledky o rizikovom správaní vysokoškolákov z výskumu SLiCE 1 boli publikované členmi výskumného tímu počas trvania projektu. Napriek tomu sú dve kapitoly tejto monografie sa stále venované tejto časti projektu SLiCE a zameriavajú sa na prevenciu rizikového správania u vysokoškolákov. Ich cieľom je prispievať ku kritickému prehľadu o medzinárodnom longitudinálnom online skúmaní tejto témy v projekte SLiCE 1 (kapitola 10, kapitola 11).

Intrapersonálne a interpersonálne faktory emigračných zámerov, plánov. SLiCE 2

CIELE

1. Preskúmať vzťahy medzi vybranými intrapersonálnymi a interpersonálnymi faktormi postojov vysokoškolských študentov k životu, vzdelávaniu a práci na Slovensku a v iných

krajinách EÚ a emigračnými zámermi, plánmi (kapitola 1 A. Onufrák Migračné teórie, Sociálno-ekonomické a politické perspektívy, kapitola 2 M. Kulanová: Psychologické koncepty emigračných zámerov, kapitola 3 O. Orosová, M. Kulanová: Push a pull faktory emigračných zámerov medzi slovenskými študentmi vysokých škôl, kapitola 4 J. Benka: Psychologické kontexty migrácie študentov z pohľadu seba-determinačnej teórie, kapitola 5 M. Bačíková: Individualizmus a kolektivismus v kontexte migrácie študentov, kapitola 6 B. Gajdošová: Intrapersonálne a interpersonálne faktory podporujúce a brzdiace plány dlhodobej migrácie študentov vysokých škôl po ukončení vysokej školy, kapitola 7 L. Hricová: Mediačné analýzy súvisiace s emigračnými zámermi, faktormi zakorenenosti a autonómiou medzi slovenskými vysokoškolskými študentmi, Kapitola 8 J. Bavoľár: Rola osobnostných faktorov a rizikových charakteristík v migračných tendenciách vysokoškolských študentov).

2. Preskúmať asociácie medzi premennými súvisiacimi s emigráciou (záмеры emigrovať, postoje a úvahy o emigrácii, emigračná sebaúčinnosť a normatívne presvedčenia o emigrácii) a rizikovým správaním (užívanie alkoholu, fajčenie a sexuálne rizikové správanie) (kapitola 9 O. Kalina: Analýza vzťahov medzi zdravotne rizikovým správaním a emigračnými tendenciami u študentov vysokých škôl zo Slovenska).

Postup realizácie

Súhlas s realizáciou výskumu udelila Etická komisia Filozofickej fakulty Univerzity Pavla Jozefa Šafárika v Košiciach. Zhromažďovanie údajov prebiehalo nasledovne:

- V prvom kroku boli všetky univerzity na Slovensku vyzvané, aby sa zapojili do výskumného projektu. Bolo pozvaných 20 verejných vysokých škôl, 3 štátne univerzity a 13 súkromných univerzít. Celkovo bolo teda pozvaných 36 inštitúcií s vysokoškolským statusom na Slovensku. Zo všetkých pozvaných inštitúcií sa výskumu zúčastnilo 18 univerzít (51,4%, 13 verejných, 2 štátnych a 3 súkromných univerzít); 18 univerzít nereagovalo na oficiálne pozvanie, jedna univerzita sa odmietla zúčastniť a jedna súkromná univerzita zanikla počas doby zhromažďovania údajov. Tieto univerzity zverejnili informácie o projekte s odkazom na online dotazník

na svojich webových stránkach, v informačných systémoch a/alebo na oficiálnych Facebookových stránkach univerzít.

- V druhom kroku bola vytvorená oficiálna Facebooková stránka "SliceStudy 2016", za účelom zviditeľnenia výskumu na neoficiálnych Facebookovských stránkach študentských skupín (najmä študentské fanúšikovské stránky a komunity).
- Študenti boli požiadaní, aby dobrovoľne a anonymne vyplnili online dotazník.

VÝSKUMNÝ SÚBOR

Počas realizovania projektu boli použité dve databázy. Prvá databáza bola stiahnutá, zatiaľ čo zber údajov stále prebiehal, aby poskytl predbežné zistenia; druhá databáza bola finálna.

Prvé analýzy teda boli realizované, zatiaľ čo zber údajov stále prebiehal na nekompletnej vzorke (375 študentov vyplnilo dotazník). Z tohto dôvodu niektoré kapitoly v tejto publikácii aplikovali svoje analýzy iba na tejto nekompletnej vzorke (kapitoly 3, 6, 7). Keďže zber dát pokračoval, získala sa konečná vzorka respondentov, z ktorej sa čerpalo v ďalších kapitolách (kapitoly 4, 5, 8, 9). Z tohto dôvodu každá výskumná kapitola opisuje svoju výskumnú vzorku (nekompletnú alebo konečnú), s ktorou pracovala.

Konečná vzorka: Na pozvanie reagovalo celkovo 1091 študentov. Celý dotazník vyplnilo 489 z nich (návratnosť 44,8%), 374 (76,5%) boli ženy; priemerný vek bol 22,8 (SD=2,97), 22,6 (SD=2,84) u žien a 23,4 (SD=3,28) u mužov.

Vo vzorke boli zastúpené všetky ročníky a študijné stupne: 50,7% študentov bolo v prvom (bakalárskom) stupni štúdia, 38,9% študentov bolo v druhom (magisterskom) stupni štúdia a 5,3% vzorky tvorili študenti doktorandského stupňa.

Vo vzorke boli zastúpené aj všetky regióny Slovenska, a to Bratislavský kraj (12,1%), Trnavský kraj (4,9%), Trenčiansky kraj (5,7%), Nitriansky kraj (6,5%), Žilinský kraj (6,5%), Banskobystrický kraj (12,3%), Prešovský kraj (22,5%) a Košický kraj (29,4%). 18,2% respondentov tvorili študenti učiteľstva.

METODIKY

Metodiky na identifikáciu emigračných zámerov

V tejto publikácii boli na identifikovanie emigračných zámerov medzi vysokoškolskými študentmi použité dva rozličné ukazovatele. Niektoré výskumné kapitoly si vybrali jeden z ukazovateľov, iné použili a porovnávali obidva ukazovatele:

- Najprv boli emigračné zámery identifikované ako kontinuálna premenná, meraná škálou emigračných zámerov (Leong & Soon, 2011). Táto škála sa týka myšlienok jednotlivca o živote v zahraničí. Na 5-položkovej škále respondenti hodnotia, ako často premýšľajú o práci alebo živote v inej krajine z nasledujúcich dôvodov: 1. vzdelávanie v zahraničí; (2) lepšie pracovné výhliadky, (3) možnosť podnikáť, (4) pracovať a žiť v inej krajine na dlhšie časové obdobie, (5) emigrovať do inej krajiny, aby tam žili natrvalo. Každá z piatich položiek je skórovaná na 5-položkovej Likertovej škále od 1 (nikdy) do 5 (vždy). Vyššie skóre znamená väčšiu túžbu emigrovať. $\alpha = 0,86$. Táto premenná sama o sebe je v tejto publikácii označená ako emigračný zámer.
- Druhý prístup k meraniu emigračných zámerov identifikoval túto premennú ako kategorickú, meranú jedinou položkou: „Plánujete opustiť Slovensko po dokončení vysokej školy?“ s možnými odpoveďami: Nie, nechystám sa odísť (1); Neviem, ešte som o tom nepremýšľal (2); Neviem, ešte som sanerozhodol (3); Áno, plánujem odísť na obdobie do 6 mesiacov (4); Áno, plánujem odísť na obdobie od 6 do 12 mesiacov (5); Áno, plánujem odísť na obdobie dlhšie ako jeden rok (6); Áno, plánujem odísť na obdobie dlhšie ako 5 rokov (7); Áno, plánujem odísť natrvalo (8). Táto premenná je v tejto publikácii označená ako emigračný plán.

Predbežné výsledky: Emigračné zámery a plány medzi slovenskými vysokoškólakmi

V nasledujúcej časti je prezentovaný základný popis údajov o emigračných zámeroch a plánoch slovenských vysokoškólakov s ohľadom na niekoľko demografických ukazovateľov. Emigračné zámery a plány a ich vzťahy s inými sociálno-psychologickými premennými sú podrobnejšie opísané v jednotlivých kapitolách publikácie.

Pokiaľ ide o prvý ukazovateľ (emigračné zámery ako kontinuálna premenná), emigračné zámery slovenských vysokoškólakov sú mierne pod priemerom. Muži a ženy sa v emigračných zámeroch významne nelíšia. Výsledky sú uvedené v tabuľke 1.

Tabuľka 1 Emigračné zámery medzi slovenskými vysokoškolákmi (prvý ukazovateľ)

	Teoretický rozsah	Priemer vzorky (n=489)	Priemer u žien (n=374)	Priemer u mužov (n=115)	t-test
Emigračné zámery (5 položiek)	5-25	12.95 (SD=5.14)	12.77 (SD=5.17)	13.53 (SD=5.00)	-1.384 (p>0.05)

Pokiaľ ide o druhý ukazovateľ (emigračné zámery ako kategorická premenná, t.j. emigračné plány), zistilo sa, že 23% absolventov slovenských vysokých škôl nemá v pláne opustiť Slovensko, 36% študentov sa ešte nerozhodlo, 5% respondentov túto myšlienku ešte nezvažovalo, 12% plánuje odísť na kratšie obdobie s perspektívou návratu do jedného roka a takmer 24% študentov má v úmysle opustiť Slovensko na obdobie dlhšie ako 1 rok (10% na viac než rok a 13,4% na viac ako 5 rokov alebo natrvalo).

S cieľom stručnejšie prezentovať pôvodné výsledky, boli študenti zaradení do 4 kategórií na základe odpovedí týkajúcich sa ich emigračného plánu: 1) tí, ktorí neplánujú opustiť Slovensko (odpovedali: nemám v pláne odísť); 2) nerozhodnutí (odpovedali: ešte som o tom nepremýšľal, alebo som sa ešte nerozhodol); 3) tí, ktorí plánujú krátkodobý odchod (odpovedali: plánujem odísť na obdobie do 6 mesiacov alebo plánujem odchod na 6-12 mesiacov); a 4) tí, ktorí plánujú dlhodobý odchod (odpoveď: plánujem odísť na viac ako rok, viac ako 5 rokov alebo natrvalo). Napriek tomu, že ženy plánujú zostať na Slovensku častejšie ako muži a muži plánujú dlhodobý pobyt častejšie ako ženy, tieto rozdiely nie sú štatisticky významné. Výsledky emigračných plánov medzi slovenskými študentmi vysokých škôl s ohľadom na pohlavie a región trvalého pobytu sú uvedené v tabuľke 2 a tabuľke 3.

Tabuľka 2 Emigračné plány (druhý ukazovateľ) u slovenských vysokoškolákov

Emigračný plán (číslo položky)	V celej vzorke (n=489)	Ženy (n=374)	Muži (n=115)
Neplánujú odísť (1)	110 (22.5%)	90 (24.1%)	20 (17.4%)
Nerozhodnutí (2, 3)	203 (41.5%)	158 (42.2%)	45 (39.1%)
Plánujú odchod na kratšie obdobie (4, 5)	60 (12.3%)	47 (12.6%)	13 (11.3%)
Plánujú dlhodobý odchod (6, 7, 8)	116 (23.7%)	79 (21.1%)	37 (32.2%)

Tabuľka 3 Emigračné plány (medzi slovenskými vysokoškolákmi s ohľadom na kraj trvalého pobytu

Trvalý pobyt (kraj)	BA (n=59)	TT (n=24)	TN (n=28)	NR (n=32)	ZA (n=32)	BB (n=60)	PO (n=110)	KE (n=144)
Neplánujú odísť	20.3%	25%	21.4%	15.6%	21.9%	23.3%	16.4%	29.2%
Nerozhodnutí	45.8%	25%	42.9%	46.9%	40.6%	41.7%	45.5%	38.2%
Plánujú odchod na kratšie obdobie	15.3%	12.5%	3.6%	6.3%	9.4%	10%	18.2%	12.5%
Plánujú dlhodobý odchod	18.7%	37.5%	32.2%	31.3%	34.4%	25%	20%	20.1%

Porovnanie emigračných zámerov medzi študentmi zo Slovenska a iných európskych krajín

Dostupnosť údajov zo štyroch európskych krajín zapojených v projekte SLICE umožňuje základné porovnanie emigračných zámerov a plánov slovenských študentov a študentov z Belgicka, Bulharska, Litvy a Maďarska. Emigračné zámery boli v týchto krajinách identifikované rovnakým spôsobom.

Pokiaľ ide o prvý ukazovateľ, slovenskí študenti uvádzali výrazne vyššie emigračné zámery v porovnaní so študentmi z Belgicka a Bulharska a porovnateľnú úroveň emigračných zámerov uvádzajú študenti z Litvy a Maďarska. Výsledky sú uvedené v tabuľke 4.

Tabuľka 4 Porovnanie emigračných zámerov medzi slovenskými študentmi a študentmi zo štyroch európskych krajín

	Teoretický rozsah	Slovensko (n=489)	Belgicko (n=214)	Bulharsko (n=397)	Litva (n=160)	Maďarsko (n=116)
Emigračné zámery	5-25	M=12.95 (SD=5.14)	M=11.42 (SD=4.64)	M=11.50 (SD=5.18)	M=12.44 (SD=4.84)	M=12.74 (SD=5.48)
t-test (Slovensko vs ostatné krajiny)			t=3.74***	t=4.16***	t=1.11	t=0.39

Tieto výsledky sú takisto v súlade s druhým ukazovateľom. Podiel študentov, ktorí plánujú krátkodobý alebo dlhodobý pobyt v zahraničí, je vyšší medzi slovenskými študentmi v porovnaní so študentmi z Belgicka a Bulharska. V Litve a Maďarsku existuje

podobný alebo dokonca väčší podiel plánovania dlhodobého pobytu v zahraničí v porovnaní so slovenskými vysokoškólákmi. Výsledky sú uvedené v tabuľke 5.

Podrobnejšie interkultúrne porovnanie nie je cieľom tejto publikácie, ale bude predmetom ďalšej analýzy a následného výskumu v rámci štúdie SLICE 2.

Tabuľka 5 Porovnanie emigračných plánov medzi slovenskými študentmi a študentmi zo štyroch európskych krajín

Emigračný plán (odpoveď)	Slovensko (n=489)	Belgicko (n=214)	Bulharsko (n=397)	Litva (n=160)	Maďarsko (n=116)
Neplánujú odísť (1)	110 (22.5%)	51 (23.8%)	140 (34.1%)	15 (9.4%)	35 (28.9%)
Nerozhodnutí (2, 3)	203 (41.5%)	120 (56.1%)	154 (37.5%)	89 (55.6%)	41 (33.9%)
Plánujú odchod na kratšie obdobie (4, 5)	60 (12.3%)	16 (7.5%)	38 (9.2%)	16 (10.0%)	10 (8.3%)
Plánujú dlhodobý odchod (6, 7, 8)	116 (23.7%)	27 (12.6%)	79 (19.2%)	40 (25.0%)	35 (28.9%)

Prehľad kapitol

A. ONUFRÁK

Prvá kapitola *‘Migračné teórie: sociálno-ekonomické a politologické perspektívy’* pojednáva o sociologickom prístupe k migrácii, pričom pozostáva z troch podkapitol. V podkapitole 1.1 sa autor venuje súčasným migračným trendom a tokom v globálnom meradle, zaoberá sa migračnou terminológiou, ale tiež klasifikáciou, príčinami a dopadmi migrácie na makroekonomickej a makrosociologickej úrovni. Podkapitola 1.2. sú diskutované migračné teórie na makro a mezzo úrovniach. V súvislosti s teóriami migrácie na makro úrovni je najväčšia pozornosť venovaná Gravitačnej teórii, Neoklasickej migračnej teórii na makro úrovni, Migračnej teórii vidiek-mesto, Teórii duálneho pracovného trhu, Teórii svetového systému a Teórii migrácie ako systému. Z migračných teórií na mezzo úrovni sú rozobrané Teória novej ekonómie pracovnej migrácie, Teória siete a Inštitucionálna teória. Špecifickým obsahom podkapitoly 1.3 migračné trendy obyvateľov Ukrajiny v rámci EÚ a taktiež v Slovenskej republike. Oficiálne štatistiky prezentované v kapitole sú prevzaté od európskych a slovenských úradov.

M.KULANOVÁ Druhá kapitola *‘Psychologické koncepty emigračných zámerov’* poskytuje bližší pohľad na psychologické prístupy k emigračným zámerom. V tejto kapitole sú definované zámary ako také a kapitola poukazuje na dôležitosť komplexnejšieho a detailnejšieho prístupu. Kapitola v stručnosti popisuje dva hlavné psychologické prístupy, ktoré sú z pohľadu autorky najviac využívané pri vysvetľovaní a predikcii zámerov, ako aj emigračných zámerov. Patria sem teórie motivácie a teórie behaviorálnych zámerov. V týchto dvoch prístupoch sú prezentované známe teórie prispôbené pre účely výskumu emigračných zámerov, ako sú Maslowova hierarchia potrieb a McClellandova tória motívov (teórie motivácie), nasledované Teóriou odôvodneného konania a jej rozpracovaním- Teóriou plánovaného správania. Ako posledná je rozoberaná relatívne nová teória prispôbená pre výskum migrácie – Model presvedčení o zdraví (teórie behaviorálnych zámerov). V závere kapitoly je prezentovaná a argumentovaná praktická užitočnosť predikcie založenej na zámeroch.

O. OROSOVÁ
M.KULANOVÁ Tretia kapitola *‘Push a Pull faktory emigračných plánov u vysokoškolských študentov na Slovensku’* prezentuje výskum faktorov týkajúcich sa túžby študentov opustiť svoj domov. Kapitola aplikuje koncept push a pull faktorov do výskumu emigračných zámerov. Práve Pull faktory, v kontexte migrácie, reprezentujú faktory, ktoré sú spúšťačom migračného správania študentov a posilňujú ich v rozhodnutí migrovať. Push faktory naopak odrádzajú študentov od migrácie a podporujú ich v rozhodnutí ostať v domovskej krajine. Cieľom tejto výskumnej kapitoly je prekúmať pre-migračnú fázu migrácie, push a pull faktory emigrácie, ako aj podiel rodu, socioekonomických faktorov, dôležitosti náboženstva a osobnosti na vysvetľovaní emigračných zámerov. Na základe týchto výsledkov dochádza ku generovaniu profilov “stayerov” (vysokoškolákov, ktorí nechcú opustiť svoju krajinu), “undecided/ nerozhodnutých” (vysokoškolákov, ktorí ešte nie sú rozhodnutí o svojom odchode) a “leaverov” (vysokoškolákov, ktorí plánujú odpustiť svoju krajinu po skončení štúdia na viac ako 1 rok) a reflektovať rozdiely na základe porovnávania týchto profilov.

J. BENKA Štvrtá kapitola *‘Psychologické kontexty migrácie študentov z hľadiska seba-determinačnej teórie’* poskytuje stručný prehľad psychologických premenných a konštruktov, ktoré boli použité pre štúdium migrácie. Argumentuje sa, že hoci migrácia je veľmi zložitý jav, ktorý si vyžaduje multidisciplinárny prístup,

psychologické kontexty migrácie majú dôležitú a nezastupiteľnú rolu v chápaní migrácie na individuálnej úrovni, a to najmä s ohľadom na emigračné plány, zámary a rozhodnutia odšťahovať sa a žiť v inom regióne alebo krajine. Väčšina teórií, ktoré boli použité na štúdium migrácie (prezentované v iných kapitolách tejto monografie), implicitne alebo explicitne zdôrazňujú motivačné premenné a premenné sociálneho vplyvu. Teória sebaurčenia (SDT) ako makro-teória ľudskej motivácie a osobnosti je tiež stručne prezentovaná ako teória, ktorá môže poskytnúť teoretickú platformu pre integráciu relevantných premenných študovaných v kontexte migrácie. Osobitná pozornosť je venovaná koncepcii autonómie a autonómneho fungovania ako kľúčovej premennej pre pochopenie fungovania jednotlivca v spoločnosti. SDT sa potom využíva ako hlavný koncepčný základ a zameriava sa na úlohu autonómie a autonómneho fungovania v súvislosti s emigračnými plánmi a "obsahom" týchto plánov.

M. BAČÍKOVÁ Piata kapitola *‘Individualizmus a kolektivismus v kontexte migrácie študentov’* sa zameriava na dvojdimenzionálny model individualizmu a kolektivismu: vertikálne a horizontálne dimenzie. Kapitola má viacero cieľov. V prvom kroku je popisovaná miera individualizmu a kolektivismu u slovenských vysokoškolákov a jej súvislosť s viacerými osobnostnými charakteristikami. Hlavným cieľom tejto kapitoly je preskúmať súvislosti medzi individualizmom a kolektivismom, potrebou emigrovať a emigračnými zámermi vysokoškolských študentov. V závere kapitoly je sledovaný efekt emigračnej sebaúčinnosti ako možného mediátora týchto vzťahov.

B. GAJDOŠOVÁ Šiesta kapitola *‘Intrapersonálne a interpersonálne faktory podporujúce a brzdiace plány vysokoškolákov dlhodobo emigrovať po skončení štúdia’* prezentuje vzťah medzi plánmi vysokoškolákov dlhodobo emigrovať po ukončení štúdia a psychologickými faktormi podporujúcimi tieto plány, ako je sebaúčinnosť, vnímaná uskutočniteľnosť, dostupnosť zdrojov a potreba zmeny. Ďalej kapitola popisuje aj vzťahy medzi plánmi vysokoškolákov dlhodobo emigrovať a psychologickými faktormi, ktoré potenciálne potláčajú tieto plány, ako je spokojnosť so životom, spokojnosť s domovom/rodinou a religiozita.

L. HRICOVÁ Cieľom siedmej kapitoly *‘Mediačné analýzy súvisiace s emigračnými zámermi, faktormi zakorenenosti a autonómiou medzi slovenskými vysokoškolskými študentmi’* je preskúmať, ktoré psychosociálne faktory môžu byť významné vo vzťahu

(1) ku zakorenenosti (špecificky s faktorom spokojnosť s domovom a rodinou), ako aj (2) medzi podporou autonómie a emigračnými zámermi. Kapitola overuje významnosť moderovanej mediácie (podľa rodu) vzťahu medzi spokojnosťou s domovom a rodinou a emigračnými zámermi prostredníctvom túžby po zmene. Podobne je skúmaná aj rodom moderovaná mediácia vzťahu medzi podporou autonómie a emigračnými zámermi prostredníctvom jednotlivých faktorov zakorenenosti.

J. BAVOLÁR

Ôsma kapitola *‘Rola osobnostných faktorov a charakteristík rizika v migračných tendenciách vysokoškolských študentov’* sa snaží overiť výsledky zahraničných štúdií na slovenskej vzorke vysokoškolákov. Zisťuje konkrétne či, a do akej miery môžu všeobecné osobnostné faktory a charakteristiky rizika opísať migračné tendencie slovenských študentov. Osobnostné faktory sú operacionalizované pomocou celosvetovo najviac využívaného a všeobecne akceptovaného faktorového modelu Big Five, ktorý obsahuje extravenziu, prívetivosť, svedomitosť, neuroticizmus a otvorenosť voči skúsenosti, ako aj charakteristiky rizika, ako vnímanie rizika a tendenciu riskovať. Migračné tendencie študentov sú sledované ako emigračné zábery, emigračná sebaúčinnosť a emigračné plány. Keďže sa zistilo, že charakteristiky rizika súvisia s osobnostnými faktormi, použila sa lineárna regresia na posúdenie, či vnímanie rizika alebo sklon riskovať dokážu efektívne vysvetliť migračné tendencie aj vo faktoroch modelu Big Five. Je skúmaná takisto aj interakcia charakteristík rizika s najpodobnejším faktorom – otvorenosťou voči skúsenosti.

O. KALINA

Deviata kapitola *‘Analýza vzťahov medzi zdravotne rizikovým správaním a emigračnými tendenciami u slovenských vysokoškolských študentov’* sa zaoberá tendenciami študentov opustiť ich domovskú krajinu a tiež ich rizikovým správaním. Kapitola špecificky skúma, či riziková konzumácia alkoholu, vysoká miera fajčenia a sexuálne rizikové správanie môžu súvisieť so zámermi študentov opustiť ich domovskú krajinu. Predchádzajúce výskumy potvrdili, že mladí dospelí s vyššou úrovňou rizikového správania (sexuálne rizikové správanie, konzumácia alkoholu) viac vykazujú zámer odísť. Avšak tieto výskumy sú zriedkavé a väčšina z nich nemá pôvod v európskom regióne. V tejto výskumnej kapitole sú tendencie študentov migrovať definované ako výstupné premenné a na pokrytie tejto koncepcie sa používa súbor piatich premenných: (1) Mať plán opustiť krajinu; (2) Postoje k migrácii; (3) Zábery migrovať; (4) Emigračná

sebaúčinnosť; (5) Normatívne presvedčenia voči migrácii. Vo všeobecnosti je skúmaná a očakávaná súvislosť medzi zdravotne rizikovým správaním a tendenciami študentov migrovať.

J. BAVOLÁR
M. BAČÍKOVÁ

Desiata kapitola *‘Experimentálna mortalita v štúdií SLICE’* sa zameriava na online údaje získané zo štyroch vĺn medzinárodnej longitudinálnej štúdie SLICE 1. Štúdia bola realizovaná so zámerom identifikovať zdravie a rizikové správanie vysokoškolákov a ich prediktory (individuálne, intrapersonálne a interpersonálne) využitím údajov z piatich Európskych krajín (Slovensko, Česká republika, Nemecko, Litva a Maďarsko). Longitudinálne štúdie, a najmä tie, ktoré sú realizované online, musia často čeliť problémom s experimentálnou mortalitou a s ňou spojenou možnosťou skreslených výsledkov. Z tohto dôvodu bolo zrealizované porovnanie respondentov zúčastňujúcich sa rôzneho počtu vĺn zberu v rámci štúdie SLICE. Respondenti, ktorí sa zúčastnili len prvej vlny zberu, tí ktorí sa zúčastnili dvoch alebo troch vĺn a tí, ktorí sa zúčastnili všetkých štyroch vĺn budú porovnávaní vzhľadom na úroveň ich rizikového správania, psychického zdravia a vybraných intrapersonálnych charakteristík.

A. JANOVSÁ

Posledná, jedenásta kapitola *‘Intrapersonálne a interpersonálne faktory v súvislosti so zmenami zdravotne rizikového správania u vysokoškolských študentov’* poskytuje bližší pohľad na zdravotne rizikové správanie a jeho zmeny v priebehu času. Cieľom tejto výskumnej kapitoly je popísať zmeny vo vybraných typoch zdravotne rizikového správania (fajčenie, konzumácia alkoholu, užívanie marihuany, problematické používanie internetu, rizikové sexuálne správanie) v priebehu štyroch rokov u vysokoškolských študentov v piatich európskych krajinách (Slovenská republika, Česká republika, Maďarsko, Litva a Nemecko). Cieľom výskumu je takisto zistiť súvislosti medzi niektorými intrapersonálnymi faktormi (Big Five osobnostné rysy, optimizmus, well-being, depresívne symptómy) a interpersonálnymi faktormi (podporné vzťahy – rodina, priatelia) ako aj preskúmať zmeny zdravotne rizikového správania v priebehu času.

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Migration theories: socio-economic and political science perspectives

Alexander Onufrák

Although the publication as a whole focus on the emigration intentions of a particular group (in this case, university students), the aim of this chapter is to bring the reader to the issue of migration as such, which includes both flows of mechanical movement of the population, i.e. emigration as well as immigration¹. This chapter introduces several migration theories on a macro level and mezzo level, as well as broader migration contexts within economic and sociological dimensions.

INTRODUCTION

A short introduction to migration

People have migrated and still migrate in periods of peace but also during wars; in times of economic prosperity but also in times of economic crises; in times of democracy even during the time of totalitarian regimes; on their own initiative or because of persecution; due to drought as well as flooding, etc. Migration is absolute and inexhaustible. A common feature of migration for all human history has been the effort of migrants for a “better life”².

In human history migration trends have never been as quantitatively and qualitatively as rich and ethnically diverse as in the present. For centuries, existing migration flows led from rural environments into urban areas and from poorer regions to the relatively richer neighbourhoods. Today, a large majority of migrants prefer the densely populated areas – agglomerations. The number of migrants during the last decades has rapidly increased worldwide and it appears that this trend will continue in the coming years.

At the beginning of the new millennium, the overall number of

1 Migration is a two-way mechanical movement of population. Migration includes emigration and immigration. The departure of a citizen(s) from state A represents emigration, but for state B the arrival of the same citizen(s) represents immigration. Both terms conceal the common concept of migration. Migration has a wider meaning. In other words, migration and immigration are subsets of migration.

2 Defining of a better life is highly subjective, as each person understands something else under this term. While for some people a better life is a synonym for money and wealth, for others it can be career, prestige, love, well-being, clean and safe environment, etc. In the narrowest sense of the word, achieving a better life is an effort to follow one's dreams and to realize them freely.

migrants in the world was 150 million. Three years later, it was already 175 million migrants. In 2008 the number of migrants exceeded 200 million persons (Divinský, 2009). According to the statistics of the International Organization of Migration (below IOM) and Department of Economic and Social Affairs of United Nations (below UN DESA), the number of migrants was 214 million in 2014. It was 3% of the world population (IOM, 2013). It is estimated that in 2017 the number of migrants worldwide is 244 million. The number of people who migrated abroad has surged by 41% in the last 15 years (UN DESA, 2015; IOM, 2017).

If we include the contingent of internal migrants to this group, then the number of all migrants would be several times higher. According to the annual survey of migrant workers conducted by the National Bureau of Statistics of the People's Republic of China (below NBS), the total number of internal migrants was almost 280 million in 2015. This represented 36% of China's total workforce (NBS, 2016).

Koser (2007) has described internal migration as the first step in the effort to migrate. According to him, a person who is willing to leave his or her birthplace and leave for work elsewhere within his home state is more susceptible to migrating abroad (Koser, 2007).

In the European migration context, there has been fundamental changes during the last century. While in the past, Europe was a continent from where people left, today it is a space where many others come. The emigration nature of Europe has changed to an immigration one. Although Europe is the smallest continent in terms of size, in terms of migration it is probably the most active and attractive.

According to Eurostat, at the beginning of 2016 the number of migrants in the EU member states was more than 54 million. Of these, more than 19 million persons were migrants born in one of the EU member states (Eurostat, 2017). Migration is becoming one of the main challenges of the 21st century.

Migration as a general term

There is a huge number of definitions about migration. However, the most suitable definition of migration is that, of Rolný and Lacina (2001). Both of them understand migration as a "mechanical movement of the population, and it means the

process of moving people beyond the borders of their permanent residence. Since migration are also considered to be a transition period with a return, migration is a process of moving the population from one municipality, city, region, and continent to another” (Rolný-Lacina, 2001, p. 231).

According to several authors, foreign migration can be defined as the “spatial mobility of the population, the essence of which is the movement of persons across borders with the intention to settle in the other country for a certain period of time” (Divinský, 2005).

A somewhat more sophisticated definition of foreign migration is offered by IOM. IOM defines foreign migration as “the movement of a person or group of persons from one geographic unit to another through an administrative or political border with a view to settling definitively or temporarily in a place other than that of the place of origin of person” (Divinský, 2005, p. 17). In such an understanding, migration can be horizontally, vertically and structurally sorted and organized according to which criterion we consider to be dominant. For example, Koser (2007) has created four pairs of migrant categories.

The first distinction is between migrants who move freely and those who have been forced to migrate. The causes of compulsion may vary – from armed conflicts through to political persecutions, to climatic or environmental reasons. The second distinction is between migrants who left their states for political reasons (refugees) and those who have done so for economic reasons (economic migrants). The third distinction is between migrants who use legal ways to migrate and those who use “illegal” or “irregular” ways to migrate. “Illegal” migration is not the same as “irregular” migration. According to some scholars, the use of the term “irregular migration” is more accurate and probably less derogatory than “illegal” (Koser, 2007). There is an effort is to avoid the term “illegal” migration, which in most cases is linked to crime and acts negative acts. In the Slovak context, the term “illegal” migration is used quite often. The forth distinction is between those who are qualified and those who are unqualified. A special group in this distinction is the so-called Inter Corporate Transferees (below ICT). There are the employees of companies that regularly migrate although they continue to work in the same company or International Corporation (Koser, 2007).

With regards to labour migration, the typology put forward by Stalker (2008) is the most appropriate. He has divided migrants into five categories; settlers, temporary workers, professionals, unauthorized workers, and refugees and asylum seekers.

In addition to these criteria, there are other criteria that can further categorize migration. One of the most important criteria for assessing migration is the direction of movement. There is a considerable difference if we are discussing immigration or emigration. According to from where and where the migrants are heading, we can divide countries into three groups: country of origin, transit and destination. In last few years, it has become increasingly difficult to include some countries in a particular group. Many states perform all three functions at the same time (IOM, 2003). In this context, Koser (2007, p. 7) has written that “the traditional distinction between countries of origin, transit, and destination for migrants has become increasingly blurred. Today almost every country in the world fulfils all three roles – migrants leave, pass through, and head for all of them.”

Another important criterion in the categorization of migration is the length of stay. From the time perspective, we can discuss short-term migration, which is from three to eleven months. This kind of migration is also often referred to as temporary migration or seasonal migration. Migration longer than twelve months is long-term migration. The last pattern of migration is permanent migration. It is often linked to the acquisition of a residence permit and after a certain time – usually several years depending on the legislation of a particular state – also with acquisition of citizenship of the host state. (Onufrák, 2010; Also see Gbúrová (ed.), 2006; Koziak, Eštok, Bzdilová, Onufrák, Hrehová, Bardovič, 2015).

As a distinct category of migrants are those who live in one state but work in another. Usually they are residents of border areas who cross the border every day for work. However, this kind of migration is not considered to be foreign migration in the true sense of the word. In recent years, thanks to integration and globalization processes, this form of migration is becoming increasingly widespread. This kind of migration is also called transnational migration (For example Szalo, 2007; Also see Collinson, 1999). The gradual abolition of border controls and the creation of a common European Area has the greatest impact on this kind of migration (For more about migration in European

integration context see Koziak, Eštok, Bzdilová, Onufrák, Hrehová, Bardovič, 2015).

Luxembourg is a leader in this context. Around 70% of its labour force is made up of migrants (especially cross-border employees). Of the approximately 160 000 cross-border employees who work in Luxembourg, the largest contingent of the workforce come from France (almost 50 %), followed by Belgium (26%) and Germany (24%) (Le Gouvernement du Grand-Duché de Luxembourg, 2015). As a result, sent remittances make up to 1/5 of Luxembourg's GDP. According to the World Bank report, it is the most in the world (World Bank, 2016). Another example is the thousands of Slovak citizens who cross the borders every day as they work in the Czech Republic, Austria or Hungary. It works the same in the opposite way.

In the last years, a new form of transnational migration has appeared. Citizens of a particular state work in the home state although their permanent residence is located in the border area of the other state. Over the last couple of years, the number of real estate owned by citizens of the Slovak Republic in the border areas of Austria and Hungary has been continually growing (Onufrák, 2010). This trend has been most visible in the wider neighbourhood of the Slovak capital Bratislava although similar trends have been shown in Košice as well (Also see: Košice dnes, 2017; Tišťan In: Hospodárske Noviny, 2013; Vrábľ In: Korzár, 2013).

On the other hand, the number of citizens of Ukraine who have bought real estate in Slovakia (especially in the Eastern part of Slovakia) has been growing too (For example see: Jakubová In: Plus 7 dní, 2013; TASR, 2015).

The fact that migration is a dynamic and constantly modifying process is also confirmed by the declining interest in one-time migration. At the same time, the number of migrants who migrate several times and more often to different states in different parts of the world is growing. Their place of residence is constantly changing. They return to their home state only for a transitional period. Abidance in the home state is usually a short-lived. Its duration can be determined by returning from the one state and by re-traveling to another. This kind of migration is also known as circular migration and is gradually becoming familiar in Slovakia as well. This migration is becoming more and more popular in Slovakia. Many citizens of the Slovak

Republic, who had spent some time in the UK or Ireland, are leaving their homeland again and settling in other state(s).

Why migration is so attractive?

One of the strongest reasons why people choose to migrate is the pursuit of a “better life”. In order to achieve this goal, this means adequate work for an adequate wage in an adequate environment. As stated by Rolný and Lacina (2001, p. 248) “different kinds of migration for work abroad have one common feature and that is the raising of the standard of living”.

According to Fárek, the motivation and direction of migration have been determined by three main driving forces: 1) the effort to gain economic benefit; 2) a poor functioning state and its institutions in the homeland; 3) a wide network of friends and relatives living and working abroad (Fárek, 2008).

According to Martin (2001, p.7-16), seven principal trends now affect international migration and global responses, including asylum policies and practises:

- “growing economic integration and globalisation;
- changing geo-political interests in the post-Cold War era;
- changing demographic trends and gender roles;
- increasing transnationalism as migrants are able to live effectively in two or more countries at the same time;
- increasing technological innovation;
- growing reliance on smugglers, traffickers and other intermediaries; and
- harmonisation of migration policies through regional and international mechanisms”.

Collinson (1999) has mentioned that these trends work synergistically, but are involved in shaping individual types of foreign migration with different intensity. The relationship between migration and these processes is reciprocal. This means that, as these seven processes affect migration, migration also re-enriches these processes.

In our opinion, it is necessary to add one more process to the previous seven, namely the deepening of the economic and social disparities between the rich and the poor. The increase of inequality is becoming a serious global issue (See Gbúrová, Dobiaš,

Geffert, Onufrák, Bzdilová, Eštok, Gojdič, Hrehová, 2015).

Although world wealth grows every year, the number of poor people is not declining. On the contrary, it has a growing trend. The income and wealth of the above-average wealthy persons, households, states, etc. grows much faster than the income and wealth of the others. The worst situation is between the poorest. For example, in the United States the present gap between the rich and the poor is the highest it has been in the last 30 years (Inequality.org). Here is a legitimate question, if there is such an abysmal difference between the richest and the poorest in this state, what then is in the poorest ones? Or what results we would achieve if we compared the states of the rich North to those in the poor South?

Although economic reasons are just one of many reasons why people choose to migrate, the truth is that the economic migrants represent the largest share of all migrants. Higher wages, higher incomes, higher living standards or better social benefits abroad than those in the homeland are still relatively strong motivations for people to migrate. The low social status of the new society, family segregation or possible risks become irrelevant especially if benefits abroad are several times higher than those in the home state.

According to Rolný and Lacina (2001, p. 248) “migration becomes interesting when wages abroad are at least twice as high compared to domestic ones, with the migratory threshold being 70-75% of the standard of living of the developed country”.

Stalker (2008, p. 27) in this context has written that “one of the biggest wage gaps between two neighbouring states exists between the United States and Mexico. An average factory worker in the US earns around four times as much as a Mexican factory worker and 30 times more than a Mexican agricultural worker”.

Significant income gaps exist in Europe too. According to Eurostat, in 2016, the highest average hourly labour costs were recorded in Denmark (€42,0), followed by Belgium (€39,2), Sweden (€38,0), Luxembourg (€36,6) and France (€35,6)³. The lowest hourly labour costs were recorded in Bulgaria (€4,4), and Romania (€5,5)⁴ (Eurostat, 2017). That means that the average hourly wage

3 In Switzerland and Norway (both are not EU member states) the average hourly labour costs higher than €50. In Norway it was €50,2 (2016) and in Switzerland €51,2, or more precisely 59,6 Swiss Francs (2014) (Eurostat, 2017; BFS, 2014).

4 In the case of Bulgaria and Romania, in 2004, the average labour cost per hour was €1,6 in Bulgaria and

in Bulgaria is up to 10 times lower than in Denmark and 12 times lower than in Norway and Switzerland. In 2004, the ratio of the average hourly labour costs between Bulgaria (€1,6) and Switzerland (€33,8) was 1:20. (Eurostat, 2016b)

The Swiss and Norwegian are also the leaders in terms of average gross monthly wages. In 2014, the average gross monthly wages in Switzerland exceeded €6 200, followed by Norway (€5 400), Luxembourg (€4 500), Denmark (€4 400), and Netherlands (€ 4000). The last places have been occupied by Bulgaria (€410) and Romania (€480) (Poštová banka, 2015). In this case, the ratio between Bulgaria and Switzerland was 1:15. Similar trends can also be seen in minimum wages. (Table 1)

Another macro-economy indicator that significantly impacts migration is the shortage of jobs in the home country and, at the same time, an interest in free labour abroad. In industrial and developed states, the demand for free labour forces is growing especially in times of economic growth. In periods of economic crisis, the foreign labour forces are becoming redundant. As an example, we can mention the oil crisis in 1970s when foreign employees lost their jobs first (Onufrák, 2013).

From the economic sector's point of view, it should be noted that there are relatively large differences in the employment of immigrants. The highest numbers of immigrants are employed in construction, agriculture, health and social care and in different kinds of services. In many developed economies, their labour markets would collapse without foreign labour. In some states, there is a high demand for highly qualified specialists like doctors, IT specialists or aviation personnel.

The recruitment of foreign labour forces plays a significant role even during seasonal works. In particular, when it is necessary to obtain a huge amount of labour for a short period (usually two-three month) for very low wages. Typical examples of this are harvesting in agriculture or seasonal tourism. In the case of harvesting of soft fruits such as raspberries, strawberries, blackberries and so on, where the use of mechanisms means more harm than good, manual labour is necessary. Within the sector of agriculture, circular migration between several agricultural units is a common phenomenon. When the harvesting of one commodity ends, somewhere else harvesting of another begins.

Table 1 Average brutto wages, netto wage and minimum wage

		Switzerland	Norway	Luxembourg	Denmark	Netherlands	Belgium	Germany	Sweden	United Kingdom	Island	Finland	Austria	France	Euro zone	Ireland	EU28
Year																	
2014	Minimum wage in Euro	-	-	1 921	-	1 486	1 502	-	-	1 251	-	-	-	1 445	-	1 462	-
	Average brutto wage in Euro	6 211	5 410	4 547	4 443	4 071	3 872	3 829	3 737	3 684	3 684	3 576	3 548	3 119	3 072	2 872	2 660
	Average netto wage in Euro	5 131	3 850	3 188	2 752	2 794	2 233	2 315	2 826	2 810	2 635	2 480	2 320	2 224	2 063	2 284	1 837
	Min monthly wage/ average wage ratio	-	-	42,25	-	36,5	38,79	-	-	33,96	-	-	-	46,34	-	50,9	-
2015b	Minimum wage in Euro	-	-	1 923	-	1 508	1 502	1 473	-	1 510	-	-	-	1 458	-	1 462	-
		Italy	Spain	Malta	Greece	Slovenia	Portugal	Estonia	Croatia	Czech Rep.	Slovak Rep.	Poland	Hungary	Latvia	Lithuania	Romania	Bulgaria
Year																	
2014	Minimum wage in Euro	-	753	718	684	789	566	355	396	310	352	404	342	320	290	190	174
	Average brutto wage in Euro	2 539	2 180	1 754	1 681	1 488	1 453	1 036	1 020	944	862	844	812	776	642	487	414
	Average netto wage in Euro	1 736	1 679	1 406	1 262	994	1 057	833	711	726	665	634	532	541	496	346	325
	Min monthly wage/ average wage ratio	-	34,5	40,93	40,68	53	38,94	34,27	38,8	32,83	40,84	47,91	42,08	41,24	45,11	39,04	41,99
2015b	Minimum wage in Euro	-	757	720	684	791	589	390	399	338	380	418	333	360	325	235	194

Source: POŠTOVÁ BANKA

The latest macro-economy indicator related to employment is the inflows of foreign direct investments. The inflows of foreign investments automatically create new jobs, increase living standards and GDP as well as reducing labour migration abroad. In other words, work migrates due to the labour force. Many corporations shift their production capacities (mainly) from the Asian states closer to their main markets. This trend is the most visible in the nearest neighbourhood of the developed states. The main reasons for such a decision is the reduction of transport costs.

Based on what has already been said, from an economic point of view, migration appears to be a relatively positive phenomenon. Migration provides benefits not only for a particular person, his or her family and state of origin, but also for the employer in the host state, or even for the state where the migrant is settling and currently lives. The contribution of immigrants in relation to the host state is at minimum in that they are also participating in filling the state budget through taxes and contributions to the health, pension and social funds.

According to our findings, each immigrant leaves a minimum of 1/3 of his monthly earnings in the host state, although the primary goal of most immigrants was to save as much money as possible (Onufrák, 2009).

MIGRATION THEORIES

In fact, there is no unique and systematized theory that provides a comprehensive view of migration; its issues, flows, causes as well as the consequences (Massey et al., 1993; Divinský, 2005). Rather, it is preferable to combine multiple approaches and theories in order to exploit their advantages as much as possible and combine them with other theories. The goal is to reach the most relevant and accurate conclusions.

According to Drbohlav and Uherek (2007, p. 127), “a single migration theory cannot even exist because of the impossibility of unifying the coverage of a given complexity”. Most of the so-called “migration theories” they do not consider as theories in the true sense of the word. Both authors prefer terms such as concept, approach, model, perspective and so on.

In this context, we adopt the Faist concept where migration theories are classified to three levels: macro-level, mezzo-level and micro-level (Faist, 2000). (Table 2)

Table 2 Theories of migration defined by level of analysis

Macro-level	Meso-level	Micro-level
<i>Migration cause/perpetuation</i>	<i>Migration cause/perpetuation</i>	<i>Migration cause</i>
Macro-level opportunity	Collectives/social networks	Individual values/desires/
Structure		
e. g. economic structure (income and employment opportunities differentials)	e. g. social ties	e. g. improving survival,
<i>Main theories:</i>	<i>Main theories:</i>	<i>Main theories:</i>
Neoclassical macro-migration theory	Social capital theory	Lee’s push/pull factors
Migration as a system	Institutional theory	Neoclassical micro-migration theory
Dual labour market theory	Network theory	Behavioural models
World systems theory	Cumulative causation	
Mobility Transition	New Economics of Labour Migration	

Source: J. Hagen-Zanker

The greatest attention is putting migration theories at the macro level. In this group, there are several known theories such as The Gravity Models, Neoclassical macro-migration theory, Theory of rural-urban migration, Dual labour market theory, World systems theory, Migration as a system, and Mobility Transition.

The Gravity Model

One of the oldest migration models are the so-called Gravity models. They originate from Ravenstein’s logic and are based on the principles of Newton’s physics (Procházková Ilinitchi, 2010). The American sociologist Dodd is one of the biggest protagonists of this model.

The basic principle of this model is that there is a link between migration and distance and the same principle applies to the number of inhabitants. The greater the distance between the two regions, the smaller the migration intensity. On the other hand, migration is directly proportional to the size of the relevant populations. This distance is not only the physical distance between the source state and the destination but also the aspects of historical and linguistic proximity, geographical, political and

other barriers, etc. (Procházková Ilinitchi, 2010).

In Dodd's words, "groups of people interact more as they become faster, nearer, larger and levelled up in activity", aversely, "people interact less in proportion if their groups (a) have fewer actions per period, (b) are further apart, (c) are smaller in population, and (d) are more unlike each other in average activity" (Dodd, 1950, p. 245).

To some extent, the Gravity model is based on Bogardus social distance scale. A social distance is essentially a measure of how much or little sympathy the members of a group feel for another group. Different groups mean different social distances.

According to Bogardus (1947, p. 306) the social distance approach is "as a form of sociometrists in which attention is centered on the measurement of personal-group relations, on the measurement of changes in these relations, on the use of stereotypes in such measurements, and on attempts to utilize feeling reactions as a means of understanding human behaviour".

Neoclassical Macro-migration Theory

Neoclassical macro-migration theory is one of the oldest and best-known theories. It was originally developed to explain labour migration in the process of economic development. The fundamentals of this theory were first laid by Lewis and a few years later by Ranis and Fei.

In 1954, Lewis wrote an article *Economic Development with Unlimited Supplies of Labour*. Thanks to that, he is considered to be the inventor of the dual sector model - also known as the Lewis model. The growth of a developing economy Lewis explained in terms of a labour transition between two sectors - the capitalist sector and the subsistence sector. The capitalist sector develops by taking labour from the subsistence sector.

According to him, a "capitalist sector" was part of the economy which used reproducible capital and pays capitalists thereof. In other words, capitalists hire the labour force. The capitalist sector is defined by higher wage rates, higher marginal productivity and a demand for more workers. The subsistence sector he defined as that part of economy which is not using reproducible capital. It is characterized by low wages, an abundance of labour and low productivity through a labour-intensive production process. It could be a self-employed sector, for example. The output per

capita is comparatively lower in this sector (Lewis, 1954).

Another model in economic development had been introduced by Ranis and Fei. Their model of economic growth, which is also known as the Surplus Labour model, can be considered as an extension of the previous one. The essential difference between both models is mainly that the Fei-Ranis model recognizes the presence of a dual economy comprising both of the modern (industrial) and also the primitive (agriculture) sector. In the Lewis model, one sector (industry) dominates over another (agriculture).

In 1970, Harris and Todaro developed an economic model which explained some of the issues concerning rural-urban migration in many less developed countries. The main assumption of this model is that the migration decision is based on the expected income differentials between rural and urban areas rather than just wage differentials. Hagen-Zanker (2008, p. 6) stated that the “expected income is a function of rigid, institutionally determined urban wages and the urban employment rate”.

If we return to the fundamentals of the neoclassical macro-migration theory, based on previous concepts, Massey et al. (1993, p. 433) say that “migration is caused by geographic differences in the supply of and demand for labour”. Basically, it is true, that “the states with the large endowment of labour have a low market wages, while states with a limited endowment of labour are characterized by a high market wages”. The resulting differential in wages causes workers from the low-wage states to move to the high-wage states. As a result of this movement, the supply of labour decreases and wages rise in the capital poor state while the supply of labour increases and wages fall in the capital rich state. In other words, migration of the labour force is nothing more than supply and demand processes in practise (For more about supply and demand see Samuelson, Nordhaus, 1995).

Mirroring the flow of migrants from labour abundant to labour scarce states is a flow of capital from capital rich to capital poor states. The forms of capital may vary – from goods and remittances, through human capital up to capital investments.

The disadvantage of this theory is that in some spheres it fails. It consists too much on the principles of supply and demand, while other factors (such as historical context, common language, cultural proximity, etc.) are not taken into account. On the other

hand, the neoclassical macro-level elaboration can be transferred to the micro-level model of individual choice and has been termed the human capital theory of migration (Kurekova, 2011; Drbohlav, Uherek, 2007).

Theory of Rural-Urban Migration

This theory is theoretically based on the Harris-Todaro model. It is an economic model developed in 1970 by Harris and Todaro. The main assumption of the model is that the migration decision is based on the expected income differentials between rural and urban areas not just wage differentials. The rural-urban migration in the context of high urban unemployment can be economically rational if expected urban income exceeds the expected rural income. The Harris-Todaro model assumes that unemployment is non-existent in the rural agricultural sector and also that the rural agricultural production and the subsequent labour market are perfectly competitive.

Migration in this model takes place in two phases; the first phase is migration itself and the process of finding a job. The second phase is the employment phase. In this context, the length of time a migrant looks for a job is very important. It should be directly related with the measure of unemployment rate in the area (Procházková Ilinitchi, 2010).

A more detailed analysis of why and how an essentially rural individual become a permanent city dweller was done by Mabogunje (1970) in his study *Systems Approach to a Theory of Rural-Urban*. This study focuses on rural-urban migration in African states in the late 1960s.

According to Mabogunje, unlike the past, rural areas in many parts of Africa are in general no longer isolated or self-sufficient. This process began during the time of the colonial administration and continued in the period of the formation of the new African states. The decrease of isolation and self-sufficiency of rural areas was triggered by a numbers of factors, ranging from the growing individualization of land holding as well as improvement in transportation and communication links to deeper integration of the rural economy into a national economy. Such integration makes the rural economy more responsive to changes in wages and prices, consumer preferences, and the overall demand pattern within the country (Mabogunje, 1970). On the other hand, decreasing isolation also means greater social and cultural

integration at the national level. The differences between rural and urban areas are becoming more and more nebulous.

Within the framework of rural-urban migration theory, control sub-systems play an important role. Mabogunje compared the relevance of control sub-systems to the role of a thermostat, which controls the amount of heat that flows within a given area. In other words, control sub-systems are thermostats that regulate migration flows. In the rural areas, it could be family or community norms. In urban areas, restrictive migration policy or employment agencies, for example (Mabogunje, 1970; Hagen-Zanker, 2008).

Finally, in the European context, many of these processes took place in the 18th and 19th centuries. They were related to the Industrial Revolution (For example Keller, 2012).

Dual Labour Market Theory

The most prominent protagonist of this theoretical approach is Piore. According to this not purely economic approach, there is economic dualism in the labour market of developed countries and wages also reflect status and prestige (Hagen-Zanker, 2008). In capitalism two labour markets exist side by side. A primary labour market can be defined as stable for skilled workers working with the best equipment and tools and provides well-paid jobs. Employers are forced to invest in these workers by providing specialized training and education. The second labour market is intended for those who are willing to do 3D jobs, which are dirty, difficult and dangerous works and the wages are relatively low (Stalker, 2008). As there is little interest among natives in such jobs, it is easier and cheaper for employers to employ foreigners. In the past, such jobs were mainly occupied by women and teenagers.

Migrants occupy these jobs especially at the beginning of their migration careers. Even low wages abroad appear to be generous by the standards of the home state. At this stage, migrants do not think about their status and they often see themselves as heroes who help relatives at home. After some time, they also look for stable and better paid jobs.

According to this theory, migration solves two problems at once:

- Jobs that are not interesting among natives, but are necessary to be performed are occupied by migrants.

- The existence of a secondary labour market prevents an increase in structural inflation. Raising wages at the bottom of the hierarchy would upset socially defined relationships between status and remuneration. If wages are increased at the bottom, there will be strong pressure to raise wages by corresponding amounts at other levels of the hierarchy (Massey et al., 1993).

Since there always has to be a bottom of any hierarchy, it is better for employers to maintain a clear and distinct difference between both labour markets (IOM, 2000).

World-systems Theory

Before we begin to parse the world-systems theory, it is necessary to briefly mention the Dependency theory, which represents the theoretical base for the World-systems theory. Dependency theory shares many points with Marxists and also with theories of imperialism (for example Luxemburg or Lenin). This theory understands the world as one whole, whereby the political processes in the world are a reflection of economic processes. This means that international politics is only a function of the world economy.

Capitalism is the fundamental element of the world system, even for socialist states. On the other hand, actors of world politics are organized hierarchically. Capitalism favours some states and handicaps others. The supporters of this theory even claim that capitalism increases the gap between the rich and poor. Resources flow from poor and underdeveloped states to rich ones. Goods and capital flow in the opposite direction. While the poor and underdeveloped states are called periphery, the rich ones represent the core. The states of the periphery are mainly sources of raw materials and unqualified labour. Sophisticated economic activities (industry, technologies, engineering, finances, developed agriculture and so on) are linked with core states (Krejčí, 2014).

Wallerstein implemented this and the previously mentioned terminology to his own world systems theory, enriching it with some other dimensions. To the established term of the periphery and core, he added a new term semi-periphery. Semi-periphery represents the transition between the periphery and the core and mixed economic activities take place here.

Wallerstein's concept of capitalist system history consists of four development phases. The first phase represents the beginnings of the capitalist world-economy in Europe between 1450 and 1640; in the second phase, the system was consolidated and ran between 1640 and 1815; in third phase, the world-economy was converted into a global business framework. It happened between 1815 and 1917; and since 1917 there has been another consolidation of the world-economy which is still ongoing. (Krejčí, 2014).

Wallerstein distinguishes between the terms world-economy and world economy. The term world-economy represents the existence of economy everywhere – in the absolute sense of word. The world-economy is everything. In the world-economy there are no political units with ultimate authority in all spheres. In the case of world economy, these are separate national economies that trade with each other.

The fundamental feature of world-economy is that economic decisions are predominantly focused on the world economy. Political decisions are only valid inside the states and states are an integral part of the world-economy system. The world-economy is about politics. All the major social institutions of the capitalist system such as states, people, neighbourhoods, etc. are created and shaped in the world-economy context. According to Wallerstein, there is only one capitalist world system. Being part of it means being integrated into production networks or at least into commodity links (Krejčí, 2014).

In *The Decline of American Power: The U. S. in a Chaotic World*, Wallerstein wrote that the world is afflicted with totally different geopolitical cleavages that act on each other but have different dynamics.

The first cleavage represents the struggle between the USA, EU and Japan which will be the main centre of capital accumulation in the coming decades. The second cleavage represents the struggle between South and North, respectively between the states of the periphery and states of core. The third cleavages represent the struggle between the spirit of Porto Alegre and the spirit of Davos (Ištók, Koziak, Hudeček, Mattová, 2010).

From the migration point of view, the most important cleavage is the second (struggle between South and North). Since 1970, the South has developed three strategies against the North:

1. Enforcing of the radical otherness. Within this strategy, modernist movements of radical otherness are emerging. It turns out that these movements have met with a positive response in many societies. This can lead to the emergence of new movements of similar nature in other societies;
2. Direct confrontation of the existing world-system. That strategy is used by states of South only sporadically, especially, if they are pushed by the North;
3. Mobility. Given that there is a huge demographic gap between the South and the North, migration is the most impressive tool of the South towards the North. While the major problem of the North is ageing, low birth rates and labour shortages, the South is fighting with poverty and surpluses of labour forces. Although the North needs the labour force from the South, the domestic population refuses new immigrants. The attitude of the governments in the North is a two-way position. On the one hand, they would like to absorb new immigrants (more precisely the new labour force), but on the other hand they are conscious of power in the next election. According to Wallerstein, this situation will worsen in the coming decades. Migration flows from the South to the North will be even bigger. It is to be expected that these processes will become a significant source of internal political tension, which can lead to instability at the North (Ištók, Koziak, Hudeček, Mattová, 2010).

Migration as a system Theory

In sociology, the issue of system is inseparably linked to the American sociologist Parsons, who is considered to be the most representative figure of structural functionalism. According to him, any system is characterized by the following features: a) holism, which means that the system as a whole is more than the sum of the system parts; b) the system exists in a certain environment and from other environments is separated by borders; c) interdependence is an important feature of the system; d) within the system there is a tendency toward stability and durability, assuming adaptation and control mechanisms; e) there are at least two subsystems within the system that interact with each other (Petrusek et al., 2011; Keller, 2012).

The other two terms that Parsons used in the context of the system are structure and function. He also created a sociological scheme known as the four functions of AGIL paradigm. In this

context, a paradigm of the four function (AGIL) differentiates four subsystems (economical, political, societal community, and socio-cultural) of the social system. The function of the economy is adaptation (A) and its symbolic media is money. The function of political subsystem is goal-attainment (G) and its symbolic media is political power. The function of the societal community subsystem is integration (I) and its symbolic media is influence and the function of the socio-cultural subsystem is latent pattern maintenance (L) and its symbolic media are value-commitments (Petrusek a kol., 2011).

In the context of the international migration system approach, Kritz and Zlotnik are the most often mentioned authors. They consider migration as an interdependent dynamic system, with its own but interlinked (sub)systems for sending and receiving states (Hagen-Zanker, 2008).

Drbohlav and Uherek understand these theories (or more precisely approaches) as a conjunction of the world systems theory with network theory. Contrary to previous theories and approaches, destinations (in this case) are linked with sources not only through migrants, but also by historical, cultural, (post)colonial and technological linkages (Drbohlav, Uherek, 2007). Migration flows and backflows take place in specific socio-economic, historical, political, geopolitical and demographic contexts. As examples we could mention the relations between the UK or France and many African or Asian states that once used to be their former colonies. This also means that countries within a system need not be geographically close. The flows reflect political and economic relationships rather than physical ones. One state can be part of several systems, even in different positions (Procházková Ilinitchi, 2010; also see Krejčí, 2014).

On the other hand, states may belong to more than one migration system. As political and economic conditions change, migration systems change as well. A migration system is not a fixed framework and also a subject of development (Massey et al., 1993).

In 2007, Jennissen took over the Kritz and Zlotnik concept and spread it about causalities. Based on this, it can be said that causality exists on three levels:

1. international migration is determined by political, economic, social and demographic contexts;

2. international migration determines the political, economic, social and demographic contexts;
3. each context affects another context (Jennissen, 2007).

For many academics, Jennissen's approach is scientifically poor cannot even be, considered as a theory in the true sense of the word. Its advantage may be that it points to issues that have not yet been the subject of interest to researchers or were not considered in the context of migration.

Procházková Ilinitchi have compared this approach to a "thinking map that includes possible contexts and represents a generally complete picture of the given issue" (Procházková Ilinitchi, 2010, p. 23).

Theory of Cumulative Causation

The author of this theory is the Swedish economist and politician Myrdal. He engaged in the issue of economic growth in developing states as well as regional development issues in developed states. In 1956 he rejected the hypothesis of the automatic stabilization of the socio-economic system. He argued that change does not trigger a reaction in the opposite direction, but other changes (in same direction) that will amplify this change. In other words, changing one factor will cause changes in other factors, and these factors will further reinforce the change of the first factor (Blažek, Uhlíř, 2002; also see Jelínek et al., 1984). By these cumulative mechanisms, a growth spiral is created. Myrdal explained it using an example of factory failure, wherein the means of cumulative mechanisms may be capital mobility, outflow of finance from the periphery to the centre through the banking system or selective migration. If migration is considered the first change, it will trigger a series of other socio-economic changes that will lead to further migrations flows, instead of dampening them. The consequence of these cumulative mechanisms is a drain of growth sources in that particular region.

Based on this, Myrdal was convinced that market forces and mobility of goods, capital and labour lead to a deepening of the differences between regions rather than a balance, as predicted by the neoclassical theory. As a result, rich states are becoming richer and poor states become poorer.

Myrdal refused propositions that international trade is free and that it is useful for both sides. According to him, it is international

trade itself which causes the inequalities between the developed states and developing states, whereby something like free international trade never existed. Therefore, the issue of unequal regional development needs to be studied in the context of social differences.

In the context of development, Myrdal was fully aware of the importance of the institutions. For Myrdal's theory, it is also characteristic that approaches of economics, sociology and political science have been used together. The importance of this theory is confirmed by the fact that it became one of the sources for the design of Swedish economic policy, also known as the Scandinavian model (Blažek, Uhlíř, 2002).

In addition to these migration theories at the macro level, there are also the Theory of relative deprivation, Mobility Transition Theory, Human Ecology theory and many others.

Migration theories at the mezzo level integrate characters that are typical for the macro level as well as the micro level. On one hand, migration may not be conditioned solely on an individual's decision. On the other hand, migration may not take the form of a collective action such as mass migration caused by environmental, political, social or other reasons. Familiar, friendly, neighbourly, tribal and many other kinds of relationships play a significant role in this case. Basically, it is about a risk distribution. Firstly, family provides help to family member who choose to migrate. If this person is successful, then he or she shall take care of another family member or the family as a whole.

The most frequently mentioned migration theories at the mezzo level are The New Economics of Labour Migration and Network Theory.

New Economics of Labour Migration

The best known protagonist of this approach is Stark. In the eighties "a new economics of migration" arose to challenge many of the assumptions and conclusions of the neoclassical theory. To some extent, it is a modification of neoclassical theory supplemented by new aspects. From neoclassical theory, the new economic of labour migration differs in the following points:

1. It focuses on agriculture.
2. When analysing migration, it does not refer to an

autonomous individual, but to a particular unit – it can be family or household.

3. A wage differential is not a necessary condition for international migration to occur. Rather, there is a risk reallocation. At the same time, migratory flows do not reflect differences in wages, which means that migration will not stop when wage differentials have been eliminated across national boundaries.
4. International migration and local employment or local production are not mutually exclusive possibilities. There is a strong incentive for households to engage in both.
5. Governments can influence migration rates not only through policies that influence labour market, but also through effective agriculture policy including functioning crop insurance market and futures market. More support for family farms can also lead to a decline in the number of migrants across the globe (Massey et al., 1993).

According to this approach, decisions to migrate are not made by isolated individual actors, but by larger units of related people. They could be family or household member working the agriculture sector. They act collectively not only to maximize expected income, but also to minimize potential risks. The risk in agriculture is too high. No one knows in advance 1) what the weather will be like; 2) what the future crop will be like; and 3) what the yields will be. The risk may mean such bad weather and thus low harvest as well as surplus and subsequent fall in purchase prices. In developed states, the price risk is managed through futures market that allow farmers to sell all or part of their crop for future delivery at a guaranteed price. In many developing states, futures markets are missing or scarce.

In comparison to individuals, households are in a better position as household resources are accumulated from multiple sources. While some family members are economically active in the local economy, some others may be sent to work abroad where the wages are much higher. In the event that local economic conditions deteriorate and activities there fail, the household can rely on migrant remittances for support (Massey et al., 1993).

While in developed states, the risk of household incomes is generally minimized through governmental programs or private insurance markets, in developing states migration is one of the methods how to get through hard times.

Remittances play an important and integral part in the new economics of migration research (Kurekova, 2011). According to Hagen-Zanker (2008, p. 13), “the new economics of labour migration is the only migration theory that explicitly links the migration decision to the impacts of migration, with remittances being his link”.

Network Theory or Migrant Networks

There are several authors who are deal with migration networks. These include Belliger and Krieger, as well as Harvey, Bagchi, Bian and Ang and many others.

Migration flows are taking place within social interactions. According to Massey at al. (1993, p. 449), “migrant networks are sets of interpersonal ties that connect migrant, former migrants, and nonmigrants in origin and destination areas through ties of kinship, friendship, and shared community origin”. These ties can be intimate (for instance family, neighbourly or friendly)⁵ or more non-committal (so called “weak ties”). In the context of migrant networks, both kinds of ties play an important role. It appears that weak ties dominated highly qualified migrants, whereas in low-skilled migrants intimate ties are dominant (Jennissen, 2007; also see Harvey, 2008; Bagchi, 2001).

The first migrants who leave for a new destination have no social ties and generally migration is costly and difficult for them. Because of the nature of kinship and friendship structures, each new migrant creates a set of people with social ties to the destination. After these pioneers, the access of their followers to the destination is easier, because they are better informed through the pioneer migrants. New channels of communication are established and communities of migrants are created in the receiving state. Each act of migration itself creates the social structure needed to sustain it. Because every new migrant reduces the costs of subsequent migration for a set of relatives and friends, some of them are thereby induced to migrate (Hagen-Zanker, 2008; Massey et al., 1993). In this example, we can also see Myrdal’s theory of cumulative causation (Light, Bhachu, Karageorgis, 1990).

Migrant networks help migrants and also potential migrants in many ways. Networks contribute to financing the journey,

5 Some authors also call these ties as „strong ties “. (For example Bagchi or Harvey).

helping to find appropriate accommodation or an adequate job, giving information about education possibilities and free time activities as well as access to any bureaus and agencies, including the social system (Jennissen, 2007; also see Light, Bhachu, Karageorgis, 1990). Some of these activities are very often organized in an institutional way. Guilmoto and Sadron (2001) call such entities as “brokers of migration”. They may be recruiting agents, border-crossing personnel or even attorneys.⁶ Networks also make international migration extremely attractive as a strategy for risk diversification. This strategy was closely discussed in the theory of New Economics of Labour Migration.

On the other hand, migration networks may not only pose opportunities for migrants, but also a threat. They usually help to overcome the feeling of marginality, but at the same time, they can also create marginal groups in marginal spaces. There are a number of examples of marginalized groups worldwide. Migration networks can also regulate the number of migrants.

Networks are the most dynamic during the beginning. As they grow, they increase their efficiency. Later - after some time- they slowly die or change forms. Of course, migrant networks can locate new destinations too. If, having encountered saturation in one destination, migration diverts its flow to other localities (Light, Bhachu, Karageorgis, 1990).

In recent years, migration networks have been increasingly generalized into the concept of transnationalism.

Institutional Theory

This theory has many common attributes with the Network Theory. Even in this case, institutions play a significant role. The concept of an institution is understood in an absolute sense, which means that contain contextual entities as states, organizations, firms as well as social constructs like democracy, systems, religion, policy and so on. Institutions may be formal or informal in nature, and also activities they perform may be in accordance with, or contrary to, the relevant legislation

The main purpose of this theory is to explain the impact of all actors (governmental, non-governmental and supranational) on migration. Institutions help migrants as well as regulating them.

6 Guilmoto and Sandrom refer in their study to Hugo, who even writes about „industry of migration “. This industry is part of the private sector and can be formal or informal, legal or illegal.

For some institutions, migration can also be a form of financial benefit.

The essence of migration theories at the micro level is that a person acts as a rational human being who carefully considers all possible variants. The choice of destination is derived from the level of wages and better prospects to find a job in the destination (Stalker, 2008). The most known migration theories include: The Neoclassical micro-migration theory, Human capital theory of migration, Behavioural models, Theories of motivation and Push and Pull factors theory (Divinský, 2005). These migration theories are dealt with in the following chapters.

MIGRATION IN STATISTICS

Residence permits by Eurostat

According to the Eurostat, in 2015 2.6 million resident permits were issued in the EU to non-EU citizens (Eurostat, 2016). This is the highest number since 2008 when these data began to be collected. Compared to the previous year (2014), it has increased by 13 %. The highest increase in residence permits was recorded for employment reasons. In this case, the increase was up to 23.5 %. However, the highest number of residence permits in 2015 were issued for family reasons (over 753 000), followed by employment reasons (707 000), other reasons (over 619 000) and education (over 525 000). (Table 3)

The highest number of residence permits was issued in the United Kingdom (633 000), followed by Poland (541 000), France (226 000), Germany (194 000), Spain (192 000) and Italy (178 000) (Eurostat, 2016). In this regard, particular attention should be paid to Poland, which has been considered as a source country of migration for many decades. Now, Poland is not only a place from where people leave, but also a place where other people come. It looks, that existing migration are still changing.

From the total number of 2.6 million issued residence permits, almost half a million were citizens of Ukraine. Up to 75.2 % of them benefited from residence permits mainly for employment reasons. This were followed by citizens of the United States (261 000), China (167 000), India (135 000), Syria (104 000) and other states.

Compared to 2014, when the total number of residence permits for citizens of Ukraine was over 302 000 this is an increase of nearly 200 000. In annual figures, this represents an increase of

65.1 % (Eurostat, 2015). Compared to 2013, this increase was even more pronounced. In percentage, the increase was more than 111 % and in absolute figures more than 263 000 residence permits (Eurostat, 2014). (Table 4)

Citizens of Ukraine most frequently obtained residence in the Visegrad Group countries and in the Baltic States. Of the total number - almost half a million residence permits - more than 430 000 of them were granted in Poland. The Czech Republic granted residence permits to 23 000 Ukrainians for the same period. In percentage, this was 33.7 % of the total number of residence permits granted by the Czech authorities. That means, that each third person who received residence permit in the Czech Republic in 2015 had come from Ukraine (Eurostat 2014).

Although the Slovak Republic only granted 3 000 residence permits for the citizens of Ukraine for the same period, the percentage of allocate residence permits for the citizens of Ukraine which is almost the same as in the Czech case.

The Ukrainians were the most numerous group even in Lithuania (almost 2 000) and Estonia (1 500), the second most numerous group in Hungary (1 700) and Latvia (1 600) and the third most numerous group in Bulgaria (1 500). (Eurostat, 2016). (Table 5)

Statistical overview of Bureau of Border and Alien Police of Presidium of the Police Force

According to a report of the Bureau of Border and Alien Police of Presidium of Police Force (below Bureau of Border and Alien Police), the number of foreigners with a residence permit in Slovakia in 2016 was more than 93 000 (ÚHCP P PZ, 2016). Compared to the previous year (2015), there was an increase of 8 400 persons. (Table 6) More than 41 000 of them (which represents 44.2 %) were citizens from the third countries. The most numerous group were citizens of Ukraine (13 000).

In percentage, the share of citizens of Ukraine in the total number of all residence permits granted in Slovakia in 2016 was nearly 14 %. As regards the percentage of the total number of residence permits granted to citizens of third counties, the share of Ukrainians is up to 31.6 %. This means that almost every third foreigner who has been granted a residence permit in Slovakia is a citizen of Ukraine.

Table 3 Number of residence permits granted in the EU28 in 2015 by reasons

Member state	Total	Reasons							
		Family	Education	Employment	Other				
		Subtotal	Share	Subtotal	Share	Subtotal	Share	Subtotal	Share
Belgium	50 085	26 206	52,3	6 345	12,7	4 948	9,9	12 586	25
Bulgaria	9 595	2 906	30,3	874	9,1	2 261	23,6	3 554	37
Czech Republic	68 804	21 265	30,9	13 658	19,9	19 931	29	13 950	20
Denmark	46 153	15 961	34,6	9 248	20	9 706	21	11 238	24
Germany	194 813	133 893	68,7	16 683	8,6	13 451	6,9	30 786	16
Estonia	3 984	1 351	33,9	986	24,7	1 279	32,1	368	9,2
Ireland	38 433	3 444	9	22 075	57,4	6 073	15,8	6 841	18
Greece	37 464	19 175	51,2	871	2,3	1 111	3	16 307	44
Spain	192 931	102 454	53,1	33 096	17,2	41 566	21,5	15 815	8,2
France	266 630	92 458	40,8	70 027	30,9	20 969	9,3	43 176	19
Croatia	3 433	1 852	53,9	387	11,3	790	23	404	12
Italy	178 884	109 328	61,1	22 870	12,8	17 370	9,7	29 316	16
Cyprus	15 569	2 580	16,6	2 226	14,3	7 337	47,1	3 426	22
Latvia	6 357	2 553	40,2	1 117	17,6	1 639	25,8	1 048	17
Lithuania	5 178	1 273	24,6	743	14,3	2 789	53,9	373	7,2
Luxembourg	4 918	2 806	57,1	442	9	1 257	25,6	413	8,4
Hungary	20 751	5 715	27,5	5 876	28,3	4 209	20,3	4 951	24
Malta	9 984	2 143	21,5	2 346	23,5	2 782	27,9	2 713	27

Netherlands	72 355	21 683	30	15 263	21,1	13 308	18,4	22 101	31
Austria	51 282	15 529	30,3	7 063	13,8	3 598	7	25 092	49
Poland	541 583	1 010	0,2	39 308	7,3	375 342	69,3	125 923	23
Portugal	29 021	12 916	44,5	3 139	10,8	6 805	23,4	6 161	21
Romania	11 289	3 770	33,4	4 374	38,7	1 680	14,9	1 465	13
Slovenia	11 417	4 593	40,2	1 315	11,5	5 423	47,5	86	0,8
Slovakia	9 279	2 541	27,4	1 475	15,9	3 142	33,9	2 121	23
Finland	21 797	7 682	35,2	5 756	26,4	5 026	23,1	3 333	15
Sweden	110 623	46 354	41,9	8 975	8,1	15 726	14,2	39 568	36
United Kingdom	633 017	89 936	14,2	229 097	36,2	118 080	18,7	195 904	31
EU28	2 605 629	753 377	28,9	525 635	20,2	707 598	27,2	619 019	24

Source: Eurostat: EU Member States issued a record number of 2,6 milion first residence permits in 2015

Table 4 The total number and share of granted residence permits in the EU28 to citizens of Ukraine for reasons

Year	Total	Citizens of Ukraine		Reasons							
		Total	Share	Family	Education	Employment	Other				
				Subtotal	Share	Subtotal	Share	Subtotal	Share	Subtotal	Share
2015	2 605 629	499 992	19,19	29 276	5,9	30 356	6,1	376 037	75	64 323	12,9
2014	2 305 758	302 772	13,13	21 378	7,1	22 168	7,3	206 422	68	52 804	17,4
2013	2 357 583	236 691	10,04	20 006	8,5	15 739	6,6	151 718	64	49 228	20,8

Source: Eurostat

Table 5 Number and share of residence permits granted to citizens of Ukraine

Member state	2 015				2 014				2 013			
	Order	Resident permits			Order	Resident permits			Order	Resident permits		
		Total	UA	Share		Total	UA	Share		Total	UA	Share
Poland	1.	541 583	430 081	79,41	1.	355 418	247 397	69,61	1.	273 886	171 769	62,72
Czech Rep.	1.	68 804	23 207	33,73	1.	35 458	12 867	36,29	1.	45 544	18 622	40,89
Slovakia	1.	9 279	3 340	36	1.	5 510	1 592	28,89	1.	4 416	1 040	23,55
Lithuania	1.	5 178	1 908	36,85	2.	7 252	2 053	28,31	3.	4 601	873	18,97
Estonia	1.	3 984	1 447	36,32	2.	3 222	853	26,47	2.	2 496	440	17,63
Hungary	2.	20 751	1 686	8,12	n. a.	n. a.	n. a.	-	n. a.	n. a.	n. a.	-
Latvia	2.	6 357	1 591	25,03	2.	9 857	1 316	13,35	2.	7 615	678	8,9
Bulgaria	3.	9 595	1 488	15,51	3.	8 795	598	6,8	3.	6 436	476	7,4
Greece	n. a.	n. a.	n. a.	-	n. a.	n. a.	n. a.	-	3.	18 299	885	4,84

Source: Eurostat

Table 6 Number of residence permits for citizens of Ukraine as at 31. December of the given year

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Order	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
Temporary residence	9 398	7 297	4 955	4 021	3 621	3 508	3 294	3 132	2 567	1 531
Permanent residence	3 582	3 365	3 040	2 838	2 720	2 546	2 447	2 235	2 118	2 240
Tolerated residence	44	44	38	39	38	37	45	46	41	62
Total resident permits UA	13 024	10 706	8 033	6 898	6 379	6 091	5 786	5 413	4 726	3 833
Share	31,58	30,36	27,54	26,37	25,49	25,03	25,23	25,19	24,27	-
Total resident permits	41 232	35 261	29 171	26 157	25 019	24 333	22 932	21 492	19 472	n. a.

Source: ÚHCP P PZ

From the mid-term point (in our case ten years), the number of residence permits has increased significantly. While in 2008⁷ it was not even 20 000 residence permits, in 2016 it was more than 41 000 permits. This is an increase of more than 117 %. In the case of the citizens of Ukraine, this increase was even more pronounced (from 4 000 in 2008 to 13 000 in 2016). This represents an increase of up to 339 %.

Similar trends are also visible in the granted resident permits in a given calendar year. (Tab. 7) During the last year in Slovakia more than 24 000 residence permits were granted all-together. Of which more than 7 000 residence permits were granted to citizens from EU countries and the rest - more than 17 000 residence permits were granted to citizens of third countries (ÚHCP P PZ, 2016). Nearly 6 000 of them were citizens of Ukraine.

Regarding the visa policy in the Slovak Republic, 65 000 visa applications were submitted. The absolute majority of them (more than 63 000) were positively assessed by the Slovak authorities. In approximately 1 600 cases the Slovak authorities rejected the visa applications. (Table 8)

Compared to the previous year (2015) when the total number of visa applications exceeded 78 000, there was a slight decline in 2016 (ÚHCP P PZ, 2015). The highest number of visa applications recorded by the Slovak authorities was in 2013 when the number exceeded 132 000 (ÚHCP P PZ, 2015). On the other hand, the lowest annual number of visa applications was recorded in 2005 and 2006 when their number did not exceed 4 000 per year. This was most likely to be related to the accession of the Slovak Republic to the EU in May 2004, as well as its accession into the Schengen Area and thus to the tightening of visa procedures.

Citizens of Ukraine have long been the most numerous group of visa applicants in the Slovak Republic. In 2016, the number of visa applicants from Ukraine in Slovakia passed 39 000 which is more than 60 % from all applicants. In 2013, it was 88 000 applicants from Ukraine which represented a 66.5 % share. The success of visa applicants from Ukraine in the Slovak Republic is very high – above 97 % in the long term. This can be considered as a very positive phenomenon.

7 Statistical data for 2007 are not available.

Table 7 Number of granted resident permits for citizens of Ukraine as at 31. December of the given year

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Order	1.	1.	1.	1.	n. a.	1.	1.	1.	1.	1.
Temporary residence	5 315	5 524	2 549	2 019	n. a.	797	877	1 273	1 553	948
Permanent residence	466	550	451	347	n. a.	197	158	154	173	253
Tolerated residence	27	29	18	36	n. a.	22	33	34	35	83
Total resident permits UA	5 808	6 103	3 018	2 402	n. a.	1 016	1 068	1 461	1 761	1 284
Share	33,31	35,08	27,64	23,34	-	19,26	21,77	25,58	22,27	-
Total resident permits	17 434	17 397	10 920	10 290	n. a.	5 276	4 905	5 711	7 908	n. a.

Source: ÚHCP P PZ

Table 8 Number and share of the visa applications and granted visas for citizens of Ukraine

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Order	1.	1.	1.	1.	1.	1.	1.	n. a.	n. a.	1.
Visa application UA	39 192	46 148	49 657	88 095	44 093	40 882	22 820	n. a.	n. a.	n. a.
Granted visa UA	38 217	44 894	49 045	87 206	43 742	40 381	22 657	n. a.	n. a.	n. a.
Successful in %	97,51	97,28	98,77	98,99	99,2	98,77	99,29	-	-	-
Share of visa application in %	60,31	59,12	46,67	66,5	57,31	56,79	45,75	-	-	-
Share of granted visa in %	60,32	59,09	46,82	66,95	57,74	54,95	46,76	-	-	-
Total number of visa application	64 987	78 060	106 404	132 466	76 937	71 982	49 877	76 645	91 862	23 819
Total number of granted visa	63 356	75 977	104 751	130 255	75 757	73 482	48 452	76 498	91 586	23 486

Source: ÚHCP P PZ, self-processing

From 11 June 2017, the visa requirement for citizens of Ukraine – holders of biometric passports travelling to the EU for up to 90 days for business, tourist or family purposes has been abolished. This was done by the adoption of the regulation which formally amends Regulation (EC) 539/2001 of 15 March 2001 listing the third countries whose nationals must be in possession of visas when crossing the external borders and those whose nationals are exempt from that requirement. (EC, 20017) By this Regulation, Ukraine has moved from Annex I (which lists the countries whose citizens are required to be in possession of a visa when crossing the external borders of the Member States) to Annex II (which exempts those countries from the visa requirement). A prerequisite for this approach by the European Union was to accomplish all criteria by Ukraine set out in the visa liberalization action plan submitted to the Ukrainian government in November 2010. (EC, 20017).

Some statistics by Central Office of Labour, Social Affairs and Family

According to the statistics of the Central Office of Labour, Social Affairs and Family, at the end of March 2017 more than 4 000 foreigners were registered who were granted a work permit in the Slovak Republic. Statistically, the most significant group was again citizens of Ukraine. Their number exceeded 1 500 which represents a 34 % share.

Regarding the duration of the employment relationship, of the total number of 1 500 Ukrainians, 421 persons were of the duration of employment up to 12 months, 855 persons were in the range between 12-24 months and for the remaining 232 persons it was over 24 months. Most of the citizens of Ukraine occupied the position of operators and installers of machinery and equipment and specialists (ÚPSVR, 2017). (Table 9)

A particularly positive phenomenon in the context of employing Ukrainians in Slovakia is their educational level. In up to 727 cases, they are people with the second level of university degree. It means that almost every second citizen of Ukraine working in Slovakia has a Master degree. The share of Ukrainians of the total number of citizens of the third countries with a second level of university degree is nearly 60 %. The second and third most numerous group of employed Ukrainians in Slovakia are those with secondary vocational education (324) and those with full

vocational education (145). On the other hand, those with primary school education as the highest attainment education has been recorded for only 8 citizens of Ukraine (ÚPSVR, 2017).

From a long-term perspective, it is likely that the number of Ukrainians with a valid work permit will increase although there was a slight decrease between 2012 and 2014.

Another group of employed foreigners in Slovakia are those with the information card – without work permit. According to the Central Office of Labour, Social Affairs and Family, the total number in March 2017 was over 8 000. The citizens of Ukraine were (after the Serbs) the second most numerous group (ÚPSVR, 2017). (Table 10)

FUTURE
RESEARCH

Until recently, most published migration papers in the Slovak Republic had been devoted to the emigration of Slovak citizens abroad. The number of scientific papers that are devoted to immigrants was substantially lower. Given the current economic growth of the Slovak Republic and rising demand for skilled labour, we expect this ratio to reverse in the near future.

LIMITATIONS

The greatest limitation of this chapter was the limited access to some primary publishing sources, particularly concerned with migration theories. Many original texts of migration theories are only partially available or need to be paid online for them.

IMPLICATIONS
FOR PRACTICE

This chapter may be an appropriate theoretical basis for new migration strategies and migration policies of the Slovak Republic.

CONCLUSIONS

This chapter is rather theoretical. Nevertheless, we have been able to come up with several findings that can be used in other research.

- Migration is one of the greatest challenges of the 21st century and therefore a multidisciplinary approach is needed. Research on migration from one or two scientific disciplines, as is often done, is not enough. In detailed migration research, it is necessary that sociologist, economists, demographers, geographers, political scientists, psychologists, historians and representatives of many other scientific disciplines cooperate with each other. The view and analysis of each scientific discipline is equally important. The more the views and analysis there are, the more relevant the results of research will be achieved.

- It is necessary to reduce the social and economic gap between poor and rich, especially between the states of the South and the states of North. Otherwise, the number of migrants on a global scale may increase significantly. This could lead to an increase in the tension between the natives and migrants in many states.
- From a global perspective, it is necessary to liberalize labour markets of the developed countries for labour forces from less developed states. A healthy economic system is when the flows of goods and capital are in balance with back flows of labour. Any integration could be helpful in this process. An example of this is the concept of the European Union.
- Migration is a dynamic process. It is constantly evolving, re-creating and changing. Our duty is to understand this process and have it under control.
- As the Slovak Republic is changing in the socio-economic sphere, it is also changing in the issue of migration. The Slovak Republic is no longer just the place from where people leave, but in recent years it has begun to be a destination for many immigrants. We need to be prepared for this change. It is necessary to prepare adequate migration strategies and migration policies and implement them in practise. On the other hand, it is necessary to reduce internal migration flows (from the Eastern part of Slovakia to the Western part of Slovakia), as it represents the first step towards emigration abroad.

Table 9 Number and structure of employment of citizens of Ukraine with valid work permit

	03 2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Sex											
Male	1 185	1081	686	445	470	448	497	494	550	623	n. a.
Female	314	294	232	188	189	167	208	207	166	157	n. a.
Not identified		13	3	1	2	0	-	-	-	-	n. a.
Duration of the employment relationship											
0-6 months	33	10	8	5	1	10	n. a.	n. a.	n. a.	n. a.	n. a.
7-12 months	388	331	83	123	107	101	n. a.	n. a.	n. a.	n. a.	n. a.
12-24 months	855	735	456	374	386	289	n. a.	n. a.	n. a.	n. a.	n. a.
25-36 months	224	284	365	123	109	201	n. a.	n. a.	n. a.	n. a.	n. a.
over 37 months	8	8	9	9	58	14	n. a.	n. a.	n. a.	n. a.	n. a.
Jobs											
Legislators and Managers	64	62	54	29	27	26	n. a.	n. a.	n. a.	n. a.	n. a.
Specialists	596	574	444	290	222	188	n. a.	n. a.	n. a.	n. a.	n. a.
Technicians and professionals	59	54	46	44	60	74	n. a.	n. a.	n. a.	n. a.	n. a.
Administrative staff	22	18	10	12	14	8	n. a.	n. a.	n. a.	n. a.	n. a.
Employees in services and business	29	27	8	6	10	14	n. a.	n. a.	n. a.	n. a.	n. a.
Employees in agriculture	26	32	38	49	50	43	n. a.	n. a.	n. a.	n. a.	n. a.
Skilled workers and craftsmen	102	109	39	32	121	161	n. a.	n. a.	n. a.	n. a.	n. a.
Operators and installers	607	509	259	159	125	75	n. a.	n. a.	n. a.	n. a.	n. a.
Auxiliary and unqualified workers	2	2	23	7	13	20	n. a.	n. a.	n. a.	n. a.	n. a.

Education											
Unfinished primary	0	0	0	0	1	2	n. a.	n. a.	n. a.	n. a.	n. a.
Primary	8	9	7	20	21	34	n. a.	n. a.	n. a.	n. a.	n. a.
Lower secondary vocational	44	41	23	8	2	50	n. a.	n. a.	n. a.	n. a.	n. a.
Secondary vocational	324	292	179	102	168	127	n. a.	n. a.	n. a.	n. a.	n. a.
Full secondary vocational	145	127	87	86	126	109	n. a.	n. a.	n. a.	n. a.	n. a.
Full secondary universal	124	106	46	21	6	6	n. a.	n. a.	n. a.	n. a.	n. a.
Higher	12	11	6	1	1	9	n. a.	n. a.	n. a.	n. a.	n. a.
University I. level - Bachelor	79	70	40	16	1	-	n. a.	n. a.	n. a.	n. a.	n. a.
University II. Level - Master	727	683	496	337	284	286	n. a.	n. a.	n. a.	n. a.	n. a.
University I. level - Doctorate	18	17	15	10	4	4	n. a.	n. a.	n. a.	n. a.	n. a.
Unspecified	27	32	22	33	47	8	n. a.	n. a.	n. a.	n. a.	n. a.
Total work permits UA	1 508	1 388	921	634	661	615	705	701	716	780	n. a.
Share	34	37,67	30,37	24,88	20,9	18,58	21,67	23,51	26,96	31,03	-
Total number of granted work permits	4 432	3 685	3 033	2 548	3 160	3 310	3 253	2 982	2 656	2 514	n. a.

Source: ÚPSVR

Table 10 Number and structure of employment of citizens of Ukraine with information card (without work permit)

	03 2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Order	2.	2.	2.	2.	3.	3.-4.	2.	2.	1.	1.	-
Male	634	431	272	166	77	47	150	127	117	107	n. a.
Female	482	390	268	180	66	69	143	139	111	93	n. a.
Not identified	49	48	1	2	0	0	-	-	-	-	n. a.
Duration of the employment relationship											
0-6 months	370	178	116	67	38	20	n. a.	n. a.	n. a.	n. a.	n. a.
7-12 months	217	180	131	81	29	28	n. a.	n. a.	n. a.	n. a.	n. a.
12-24 months	262	224	109	85	26	40	n. a.	n. a.	n. a.	n. a.	n. a.
25-36 months	118	110	74	54	30	12	n. a.	n. a.	n. a.	n. a.	n. a.
over 37 months	198	177	111	61	20	16	n. a.	n. a.	n. a.	n. a.	n. a.
Jobs											
Legislators and Managers	19	19	16	11	9	7	n. a.	n. a.	n. a.	n. a.	n. a.
Specialists	171	150	113	86	32	32	n. a.	n. a.	n. a.	n. a.	n. a.
Technicians and professionals	47	42	33	34	14	14	n. a.	n. a.	n. a.	n. a.	n. a.
Administrative staff	48	32	26	16	9	5	n. a.	n. a.	n. a.	n. a.	n. a.
Employees in services and business	161	129	85	45	19	17	n. a.	n. a.	n. a.	n. a.	n. a.
Employees in agriculture	32	24	19	6	0	0	n. a.	n. a.	n. a.	n. a.	n. a.
Skilled workers and craftsmen	156	92	46	27	16	11	n. a.	n. a.	n. a.	n. a.	n. a.
Operators and installers	226	115	75	41	16	9	n. a.	n. a.	n. a.	n. a.	n. a.
Auxiliary and unqualified	228	197	106	67	23	19	n. a.	n. a.	n. a.	n. a.	n. a.

Education											
Unfinished primary	2	0	0	0	2	1	n. a.	n. a.	n. a.	n. a.	n. a.
Primary	100	73	51	26	12	7	n. a.	n. a.	n. a.	n. a.	n. a.
Lower secondary vocational	97	31	19	6	0	14	n. a.	n. a.	n. a.	n. a.	n. a.
Secondary vocational	187	176	109	65	17	4	n. a.	n. a.	n. a.	n. a.	n. a.
Full secondary vocational	199	146	72	44	17	2	n. a.	n. a.	n. a.	n. a.	n. a.
Full secondary universal	194	127	79	55	31	37	n. a.	n. a.	n. a.	n. a.	n. a.
Higher	1	2	1	2	0	1	n. a.	n. a.	n. a.	n. a.	n. a.
University I. level - Bachelor	41	31	16	8	0	0	n. a.	n. a.	n. a.	n. a.	n. a.
University II. level - Master	233	207	160	115	48	42	n. a.	n. a.	n. a.	n. a.	n. a.
University III. Level - Doctorate	3	3	2	6	0	0	n. a.	n. a.	n. a.	n. a.	n. a.
Unspecified	108	73	32	21	16	8	n. a.	n. a.	n. a.	n. a.	n. a.
Total work permits UA	1 165	869	541	348	143	116	293	266	228	200	n. a.
Share	13,5	11,82	17,59	20,41	13,5	12,56	15,38	16,94	17,74	18,48	-
Total number of granted work permits	8 652	7 351	3 076	1 705	1 059	923	1 905	1 570	1 285	1 082	n. a.

Source: ÚPSVR, self-processing

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Psychological concepts of emigration intentions

Marta Kulanová

INTRODUCTION

Research in migration is interdisciplinary and each of the relevant disciplines provides a variety of approaches, theories and methods (Castles, de Haas & Miller, 2014). Due to this, the current situation with international migration suggests that a full understanding of migration processes cannot be achieved by focusing on the separate theories and relying on the one discipline. Rather, the complexity of the migration phenomenon requires a sophisticated approach willing to integrate a variety of perspectives and viewpoints (Massey et al. 1993).

According to Canache et al. (2013), economic, demographic and sociological factors hold a dominant position in most approaches which examine emigration intentions. People are influenced by economic factors and make their decisions considering the technical, economic and educational conditions of the countries. All these factors no doubt influence emigration intentions although they are not complete without examining the psychological factors which contribute to this decision making as well. Emigrating is a very important decision which is linked to risk taking and insecurity about the future. Therefore, this decision also depends on personality traits. Some of them can make people more disposed to having an intention to emigrate or to having a tendency to stay (Canache et al., 2013). Due to this, the psychological approach in emigration intentions research cannot be omitted.

In an attempt to look more closely at the psychological approaches to emigration intentions, it is necessary to clarify what is the intention from the psychological point of view. One of the first researchers with an interest in psychology of intention or at that time, 'will psychology', was Ach (1905, 1910 in Gollwitzer, 1993). He considered the intention to perform a specific action in a specific situation to be the prototype of all willing actions. Ach (Gollwitzer, 1993) claimed that once an individual formed an intention, this would create a determination which would force the individual to perform the intended action

when he met the specified circumstances. The strength of this determination is given by the concreteness of specifying the intended action and the circumstances. The more concrete they are, the more intense this determination is. Pomery and colleagues (2009) describe intentions as reflectors of the underlying motivational factors. Due to this, intention seems to be closely linked to motivational processes.

Intentions are most often and most complexly defined through the theories which are directed to the explanation or prediction of the behaviour through the intentions to perform the behavioural action. These theories provide definitions of intentions together with other important variables and terms which are inseparably linked to intentions in the prediction of the behaviour. In the following part, we briefly describe two psychological approaches which are, in our opinion, most commonly used for the explanation or prediction of intentions. In these two approaches, the well-known theories are briefly introduced. These have been adapted in the research of emigration intentions and starts with Maslow's hierarchy of needs and McClelland theory of needs (theories of motivation), followed by theory of reasoned action and its elaboration – the theory of planned behaviour, and finishing with the Health Belief model (theories of behavioural intentions).

THEORIES OF MOTIVATION

Application of Maslow's theory of motivation

The motivational theories are based on motives and needs. Smékal (2002) has defined need as a state of a personality reflecting the conflict between what is given and what is necessary, or perceived as necessary for survival and development and the state stimulating personality to do actions directed at the removal of this conflict. The need energizes the behaviour, directs and maintains it in a way in which the goal object can be obtained. Huitt (2001) claims that needs are considered as dispositions towards action which provide a situation that is predisposed towards performing action or making a change or moving in a specific direction. According to Huitt (2001) in regard to motivational theory, the behaviour can be triggered by either negative or positive incentives or by their combination.

One of the most famous needs classifications is the one by the humanistic psychologist Abraham Maslow – the hierarchy of needs. Akusoba (2014) explains that Maslow's hierarchy of needs came to existence as an outcome of the interaction between personal and societal needs. The main difference between the push/pull model and Maslow's hierarchy of needs is that the push variables in Maslow's hierarchy interact with society and individuals and migration plans are based on that interaction.

Generally, according to this theory, needs are chained vertically, i.e. the lower level needs must be satisfied before the needs of higher levels can occur at all. Hall & Lindzey (1997) explain that the hierarchy of needs differentiates two kinds of needs. The first kind are basic needs raising from some certain deficiency, i.e. deficiency needs. Referring to Maslow (1970, in Yumol, 2009), physiological needs are the most important of all the needs followed by the needs of safety and stability, need of love, belonging and acceptance and esteem needs. As said by Maslow (1970, in Yumol, 2009) if needs of some level are frustrated, all other needs stop existing or might be pushed to the background. When there is a dominant need in control of an individual, the entire viewpoint of the future be likely to adjust.

Secondly there are needs of a higher level, i.e. growth needs or metamotivation such as the need for self-actualization (Smékal, 2002). These come from the human need to pursue the goals, to constantly exceed them and to become someone better and not only continue in existence (Hall & Lindzey, 1997). Along with Maslow (1970, 1977 in Yumol, 2009), when a lower need is fulfilled, a higher need arises to motivate the individual until he/she becomes everything he or she can be; self-actualized. Maslow (Hall & Lindzey, 1997) claims that some of these metamotivations can be so important to people that they become basic needs such as a need for justice or need for self-expression.

In relation to migration, two diverse countries can offer two completely different ways of satisfying a certain need (Maslow, 1970, in Yumol, 2009). In the words of Andres (1991 in Yumol, 2009), motivation is shaped and strengthened on the basis of specified circumstances and assumes the satisfaction of the lower needs, e.g. presence of positive work standards, just reward systems and benefits and a decent working setting. The fulfilment of these assumptions can be unreachable for the individual in his country of residence and become reachable only abroad. As said

by Maslow (1970, in Yumol, 2009), migration can represent an important behaviour which contributes directly to the fulfilment of basic needs.

Benefader & den Boer (2006) claim that the desire to improve the quality of life is still the strongest driver for migration among developed countries. However, the way of its improving can vary because the drivers of migration can differ. Due to this, we can say that migration can be a means of meeting and fulfilling the needs of various levels of the motivational hierarchy. Reichlová (2005) enlightens how Maslow's motivational theory and individual levels of hierarchy relate to migration behaviour: When physiological needs are not satisfied, the main wish of an individual is to please this need and gain some nourishment. Therefore, an individual may move into another country in order to decrease hunger or thirst.

Secondly, the individual has sufficient nourishment but lives in an insecure, dangerous environment or disordered and unpredictable settings. For that reason, the individual may move to another country if the level of safety, predictability and order will improve through migration. Of course, the lower needs have to be fulfilled to even deal with the higher ones. After that, absence of family, friends or significant others can occur (Reichlová, 2005). The degree of belongingness needs highlight the significance of loving relationships with people in general (Roger, 1980, in Yumol, 2009). Social needs may inspire migration specifically in cases when a significant other has already emigrated. The opportunity to be with loved ones is one of the strongest factors driving migration. In addition it also supports staying in the country of origin as well in order to be with them (Reichlová, 2005). The findings of Piotrowski and Tong (2010) suggest that people are more willing to stay in their home country or come back if they have significant ties with children, partners or parents from their original household. Sheikh et al. (2012) found that strong family ties with members living in the home country are the most frequent factor (65.6%) connected with the intention to stay in their home country.

Next, the level of needs that can motivate people to migrate are esteem needs. This is when an individual striving for this need can migrate due to the prospect of social status enhancement. The last motive for migration related to this hierarchy can be the need for self-actualization when individuals migrate in order to

apply their own talents and intellects (Reichlová, 2005).

Following Maslow's Hierarchy of Needs, Oosthuizen & Ehlers (2007) exemplify which reasons could illustrate the factors that might gratify the particular level of the hierarchy and can influence individuals to emigrate – namely, economic and overall well-being (physiological, social and esteem needs); job responsibilities and working environments (physiological and safety needs); personal development, career progression and achievement in profession (esteem and self-actualisation needs) as well as safety and security needs.

The application of motivational theory in migration research has been widely tested. The analysis of emigration motivations of African nurses by Oosthuizen & Ehlers (2007) has indicated that the inability to gratify safety and security needs are the main factors driving their migration decision-making. Yumol (2009) demonstrated that the desire to gratify human needs encouraged individuals to pursue work abroad. Based on his results, prospects of better incomes and working settings have been the main factors for leaving the country. On the other hand, there were other concerns that played their role – the moving from the Philippines to the US provides nurses with a higher evaluation of themselves, improved self-respect and self-esteem. At the same time, it also offers them the fulfilling of love and belonging need due to being approved to bring their loved ones along and to enjoy a decent quality of life (Yumol, 2009). Silasi & Simina (2008) argue that migration due to poor economic conditions is not a reason encouraging the migration, but rather a gratifying of the need for esteem is possibly the most significant factor. This has been shown when looking at Romanians migrating to the EU.

The motivational approach to emigration intentions sees migration from a different perspective from the economic theories of migration. Economic theories are usually interested in what economic factors of the environment and which situation conditions, especially wage differentials and satisfaction with the economic and public domain, lead to the occurrence of these intentions. The most recent studies indicate that nowadays the economic approaches to migration are not sufficient although still important. Referring to Benefader & Boer (2006) traditional factors which are commonly used for migration cannot explain the occurrence of modern migration in total. While they still have a significant influence on the decision to move, new drivers are

gaining importance. For example, the educated youth strive after self-actualization (Benefader & den Boer, 2006).

The difference between the migration from developing to developed countries and the migration among developed countries can be partly explained by the Maslow's hierarchy of needs, considering the type of the motivation for leaving. According to Akusoba (2014) migrants from developing countries migrate due to fulfilling their basic needs while the migrants from developed countries, as confirmed by Benefader & Boer (2006) migrate mainly due to gain self-actualization. For instance, Akusoba (2014) explains that university workers migrate due to the inability to fulfill their needs in their country – specifically, because they cannot gratify their higher needs if they remain in the current circumstances.

Benefader & den Boer (2006) claim that the traditional approaches to migration explain migration as a tool for satisfying Maslow's basic needs, like needs of food and a place to stay. Modern migration as well as the brain drain is considered as a reaction to the higher-level needs such as security and affiliation and belonging needs. The authors say that the recent new causes of the brain drain are developed in the countries which are relatively well developed and the previous traditional approaches cannot explain it. In the developed countries, young people usually have their basic needs fulfilled and still migrate. This is due to different reasons to those considered in the traditional migration explanation, covered up by the higher levels of Maslow's hierarchy, especially self-actualization. Even the people with the highest education and optimistic prospects for the future in their country emigrate in order to reach self-actualization (Benefader & den Boer, 2006).

Maslow (Hall & Lindzey, 1997) focused on the study of the healthy population. He described self-actualization as a need expressed in various ways, such as a curiousness, an attraction to the unknown and a boredom of the known. According to Maslow (1971, in Huitt, 2001) growth needs are cognitive and include the need to know, to understand and explore. Hypothetically, this could explain the need to go into unknown places and to explore new countries among those who live in a relatively satisfactory environment.

Application of McClelland theory of motivation

The intrinsic motivational tendencies in the study of migration have also been applied by other authors, such as Boneva and Frieze (2001). They placed the foundation of their concept of the migrant personality on the basis of McClellands' motivation theory.

The migrant personality concept comes from 60s-70s, e.g. Jennings (Boneva & Frieze, 2001) who was interested in a mobicentric person. This refers to someone who values movement and action the most and is constantly moving. Morrison and Wheeler (Boneva & Frieze, 2001) researched a pioneer person, someone who likes to relocate constantly and found his personality is mainly characterized by a need for novelty seeking. Boneva, Hansen and Frieze (2006) consider the migrant personality to be a person willing or desirous to geographically relocate. Boneva and Frieze (2001) suggest that people who want to emigrate share a certain system of personality traits, which differs them from those who want to stay in their country. According to these authors, the migrant personality is mainly characterised by the stable motivational tendencies; the three basic motivational needs as defined by McClelland – achievement motivation, power motivation and affiliation motivation. These can be in different relationships with the desire to migrate. In the words of McClelland (1961, in Ondabu, 2014), all people have three basic needs, i.e. motivators, which are learned and depend on culture and the individual life experience. Regardless of gender, age or culture, all people have these three motivators and one of them is probably the dominant motivating driver of the individual.

We can take a closer look at each of these motivators. In the classic view of McClelland (1961, in Boneva & Frieze, 2001) achievement motivation can be understood as a constant effort to overcome one's own standards, fulfill challenges, do something unique and avoid routine. Ondabu (2014) elaborates by saying that people with a high need for achievement have an intense desire to succeed and an equally intense fear of failure. Secondly, power motivation can be defined as an interest in having control and influence over others and the desire to be recognized and respected among other people (Boneva & Frieze, 2001). Power-motivated people are more willing to take risks and put

themselves in danger in order to achieve their goals (Fersch, 1971 in Boneva & Frieze, 2001). Ondabu (2014) further explains that this need for power is not meant in a dictatorial sense but rather as the need to be strong and influential. Thirdly, the affiliation motivation is defined as the interest in social acceptance and desire to build new and maintain existing social relationships. These people are used to being more emotionally involved in their attachments and also in potential relation-separations (McClelland, 1985 in Boneva & Frieze, 2001).

According to the migrant personality concept, these three motivational tendencies and their character seem to be important factors related to migration desires. Frieze and Li (2010) see achievement motivation as the main predictor of actual mobility and as a predictor of the desire for moving from place to place. Boneva et al. (1998) found that those students who desired to leave the region where they studied had a higher level of achievement motivation. This study also pointed out that the interaction between achievement motivation and work centrality could be an even better predictor of emigration desires as a single need. According to Li, Olson and Frieze (2013) studying abroad can be considered as a challenge which requires future planning and overcoming many obstacles. Due to this, students who score highly in achievement motivation can also have a higher desire to emigrate or to study abroad.

Furthermore, there could be a similar relationship between the desire to migrate and the need for power. In this case, people with high power motivation can feel unable to fulfil their need to be strong and influential once when they live in a region struggling with economic problems (Frieze et al., 2004). On the contrary, economically prosperous regions can provide them with satisfying job opportunities; mostly managerial or power positions, which are frequently the choice number one for highly power-motivated people (Boneva & Frieze, 2001). Once there is no possibility to obtain the desired kind of job where the power cannot be manifested, the power motivation can remain unfulfilled and these people can seek to move to another region or country in which their need for power can be more easily expressed. In the study of Frieze et al. (2004), power motivation has been shown to be even more of an important predictor of migration desire than achievement motivation.

With regard to the third motivator, according to the migrant personality concept, the desire to migrate is negatively linked to the affiliation motivation and place attachment. People with higher affiliation motivation are more involved in their relationship and also react more intensively to relationship separations (Boneva & Frieze, 2001). However, the influence of affiliation motivation in the migration decision-making has been shown to be more complex and the negative relationship between desire to move and affiliation motivation has not been fully confirmed. DeJong (2000) found that the breadth of the social network is not related to the motivation to leave. Furthermore, Frieze and colleagues (1998) found that men with a high level of affiliation motivation have lower interest in leaving their country although this was not identified among women. At the same time, recent studies have shown that nowadays migration does not have to be strictly linked with relationship separation. Owusu (2003) concluded that technical progress and the possibility to keep in touch with family and friends from home via electronic technologies can contribute to reducing the influence of this motive in the migration decision-making.

In summary, Frieze and Li (2010) suggest that people with higher achievement and with higher power motivation would also have a higher tendency for seeking novelty and better opportunities in different countries while those with higher affiliation motivation would have a higher tendency to stay in their homeland regardless of their economic conditions. In the study by Boneva and Frieze (2001), respondents were asked where they would like to spend most part of their adulthood. If they responded "living abroad" they were classified as potential migrants. The results showed that there are significant differences between potential migrants and non-migrants. Potential migrants express higher work orientation, power and achievement motivation and also their affiliation motivation is significantly lower than among potential non-emigrants. The results of this study have confirmed the usefulness of the migrant personality model in its complexity although other studies have only shown partial support for this concept.

Theories of behavioral intentions

In the words of Ranis & Fei, Harris & Todaro (1961, 1970 in Groenewold, Bruijn & Bilsborrow, 2006) migration theories can be

distinguished according to one criterion – to what extent they consider the individual as an active agent in the migration process. In a number of migration theories (mainly drawing from a macro-oriented approach) individual decision-making is absent. Groenewold, Bruijn & Bilsborrow (2006) continue that the neoclassical theory, which is more micro-economically targeted, rarely takes into account decision-making but it refers to behaviour that reveals individual preferences (gains and losses). However, they still do not study internal processes lying behind this behaviour and pay little attention to psychological dimensions of migration.

The following theories look at these intentions from a specific point of view. They are directed at the process of decision-making when considering intentions as a forerunner of the behaviour. These theories operate with the concept of intention as something that is the precedent of the behaviour. From the perspective of these theories, intentions should partially and reliably predict occurrence of behaviour. They deal, in particular, with the factors that determine the intentions and are mainly trying to build models that will accurately define factors related to intentions and will predict the existence of the intentions that will eventually lead to actual behaviour.

Theory of reasoned action (TRA)

The theory of reasoned action (TRA) was postulated by Ajzen & Fishbein (1969, 1980 in Southey, 2011), and elaborated by Ajzen (1991, in Southey, 2011) to the theory of planned behaviour. Southey (2011) sees the TRA as a model potentially useful for predicting the intention to perform a behaviour based on the attitudes and beliefs of the individual.

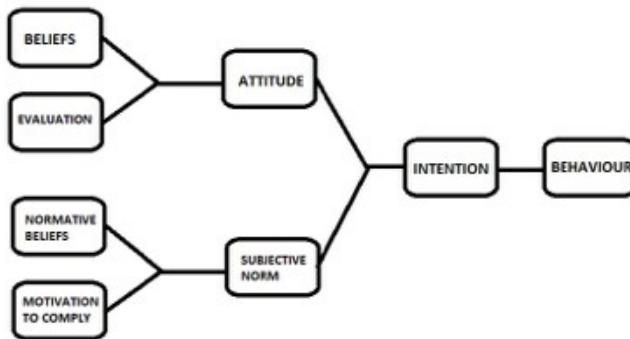
According to the TRA, intention is the immediate antecedent of any behaviour (Ajzen and Madden, 1986) and is a predictive process that precedes reasoned action (Ajzen & Dasgupta, 2015). The stronger the intention is, the greater the probability is that the behaviour will actually be performed. TRA describes intention as a construct which consists of two conceptually independent determinants. First, it is an attitude toward the behaviour considered as a personal factor, referring to the person's evaluation of the behaviour as favourable or unfavourable (Ajzen and Madden, 1986). According to Fishbein and Ajzen (1975), the main characteristic which differs attitudes from other concepts is

their evaluative and affective nature. Ajzen and Madden (1986) continue about the second predictor of the intention defined in the TRA as the subjective norm. This is considered as a social factor and refers to the perceived social pressure to perform or not perform the behaviour.

In more detail, the authors of the theory also define the antecedents of attitudes and subjective norms – the beliefs. There are also two kinds of them, one for both the predictors – behavioural beliefs and normative beliefs. Behavioural beliefs influence attitudes toward the behaviour (Ajzen and Madden, 1986) and are determined by the belief that the particular behaviour will lead to the particular consequence or result and by the evaluation of this consequence or result (Výrost & Slaměník, 1997). Secondly, normative beliefs determine subjective norms (Ajzen and Madden, 1986) are the beliefs about what a reference group or person thinks that the individual should or should not do or whether the individual should or should not perform the particular behaviour. Further, subjective norms are also defined by the motivation to fulfil the requirements of this person or of this group, i.e. by the motivation to comply (Výrost & Slaměník, 1997). Fishbein and Ajzen (1975) suggest, that unlike attitudes, which refers to a person's evaluation of an object as pleasant or unpleasant, beliefs represent information the person has about the object of evaluation and ties some attribute to it. Aside from the association between object and attribute, people may differ in the strength of their beliefs.

Ajzen and Dasgupta (2015) note that the main sign of the TRA and the models based on it are explicit beliefs and attitudes as the bases of the behavioural intentions which further lead to an action. According to Ajzen and Madden (1986), the theory distinguishes behavioural intention as a special case of beliefs in which the object is the person itself and the attribute is always a behaviour. Consequently, the strength of an intention is given by the person's subjective likelihood of performing the questioned behaviour. Therefore, according to the authors, the intentions could be measured by the procedure which put the person along a subjective probability dimension including a relationship between the person and behavioural action. In the words of the authors, intentions are considered as the conative component of the attitude (Ajzen & Madden, 1986). The whole TRA with its factors is illustrated in Figure 1.

Figure 1 Illustration of Theory of reasoned action (Source: Ajzen & Fishbein, 1969, 1980 in Southey, 2011)



The authors conclude that the intention itself consists of four different parts – the behaviour, the target object at which the behaviour is directed, the situation and the time in which the behaviour would be performed. All these parts vary along a dimension of specificity (Ajzen and Madden, 1986). This dimension seems to be very important. In fact, prediction of the behaviour through the intentions is effective when some conditions are fulfilled: Firstly, the specific behaviour should be predicted. Therefore, the researcher must assess equally specific intentions. Secondly, the intention should not change in the time between its expression and the time in which the behaviour is performed, because the longer this time period is, the higher the probability is that unexpected events occur and change the intention. Thirdly, behaviour which is examined should be utterly under control of the person and its decision (Ajzen and Madden, 1986, Fishbein and Ajzen, 1975).

Výrost & Slaměník (1997) note that authors of the TRA claim the general validity of the theory because they take other factors into account such as demographics or personality factors. However, they consider them as not the part of the theory but rather external variables which can influence human behaviour only through affecting the beliefs. Van Dalen & Henkens (2008) explain that TRA is based on the assumption that most the social behavioural actions are under volitional control. Due to this fact, the intention to perform the specific activity is the immediate

determinant of the behaviour and at the same time the single best predictor of relevant future behaviour (Van Dalen & Henkens, 2008).

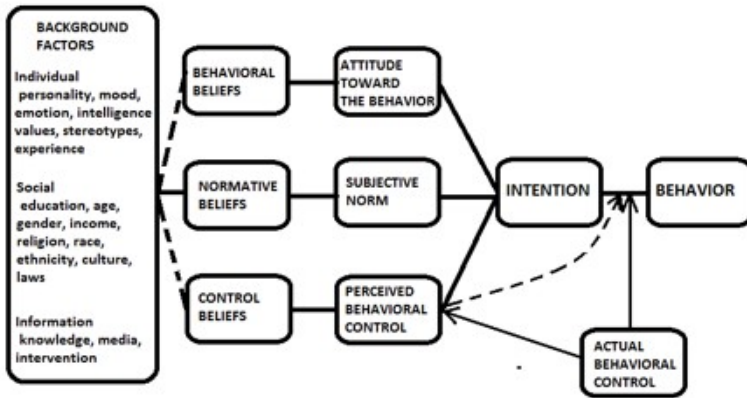
In the other words, the TRA presumes that an individual's intentions to perform a certain action would correctly predict its execution. As this has not always shown to be correct, other motivational components influencing intentions were added into the model - namely perceived behavioural control, which refers to peoples' beliefs about their capability to execute a certain actions. There is large compatibility between Ajzen's concept of behavioural control and Bandura's self-efficacy (Ajzen 1991, in Groenewold, Bruijn & Bilsborrow, 2006). This newly elaborated theory has been called the Theory of planned behaviour.

Theory of planned behaviour (TPB)

The theory of planned behaviour originated as an elaboration of the theory of reasoned action. Pookulangara & Natesan (2010) claim that according to TBP, behavioural intention refers to the likelihood of the individual to engage in the specified behaviour and is the direct antecedent of the actual behaviour. This behaviour intention is the function of the two components, same as in the TRA - attitude and subjective norm. However, there is another component influencing the intention which was added to the model in this theory - the perceived behavioural control. This third component is composed of two subcomponents - control belief which refers to the perception of difficulties or resources influencing the behaviour and perceived power or importance of these difficulties or resources. In the words of Van Dalen & Henkens (2013) this determinant refers to the level to which an individual perceives he or she has control over performing the behaviour, i.e. their self-efficacy.

To sum up, in the TPB, human behaviour is determined by three types of beliefs: beliefs about the outcomes of the performing action (behavioural beliefs) and the evaluations of these outcomes, beliefs about what is expected from the individual (normative beliefs) and the motivation to supply these expectations, and beliefs about sufficiency or insufficiency of resources or obstacles to behavioural action (control beliefs) and the perceived power of these resources or obstacles (Cui, Geertman & Hooimeijer, 2016). The elaborated model of the theory is illustrated in Figure 2.

Figure 2 Illustration of The theory of planned behaviour (Web-source: Ajzen 2017)



According to Ajzen and Madden (1986) the TPB can be more effective and accurate in the prediction of intentions and goal attainment than the TRA. In their experiments, the contributions of the perceived behavioural control in intentions prediction and behaviour predictions were tested and confirmed. This better predictive ability of the TPB over TRA was confirmed by other studies, e.g. Madden, Ellen & Ajzen (1992), Netemeyer (1993).

The TRA and more often TPB have been widely tested and verified in various fields of psychological research. It has not been that different either in the field of emigration intentions research. Many authors tested the prediction of emigration behaviour through emigration intentions applying the approach of TRA or TPB and succeeded (e.g. Van Dalen and Henkens, 2008, 2013). For instance, Cui, Geertman & Hooimeijer (2016) recently examined the migration intentions in the context of TPB and their results confirmed that subjective perspectives such as attitudes, subjective norms and perceived behavioural control are strong predictors of the formation of intentions. Furthermore, they found that parental and peer pressures have a strong direct effect on the formation of intentions as well as indirect through the shaping of positive attitudes about staying in the city.

Health Belief Model (HBM)

The HBM originated in the early 1950s by a group of social psychologists working at the U.S. Public Health Service (Janz & Becker, 1984). This model was originally created for the prediction of intentions to perform a health-related behaviour, such as an intention to engage in the prevention activity. According to Hochbaum (1958, in Hayden, 2013) the HBM is based on the assumption that health behaviour is determined by individual beliefs or perceptions about disease and also by the perception of the intervention or preventative actions offered to reduce its existence.

Several concepts from social and cognitive psychology have been assimilated in the HBM as a basis for the explanation and prediction of health-related behaviour. HBM assumes that what people believe about a condition or behaviour determines what they will do. The original model has been revised and extended from four to six factors predicting the probability that an individual implements a certain behavioural health strategy (Groenewold, Bruijn & Bilsborrow, 2006). Groenewold, Bruijn & Bilsborrow (2006) describe six key components of original HBM:

- Perceived susceptibility - An individual's beliefs about the likelihoods of meeting a health disorder
- Perceived severity (seriousness) - An individual's beliefs about the seriousness of meeting the health disorder
- Perceived benefits - An individual's beliefs about efficiency of the strategy to decrease the danger of disease
- Perceived barriers - An individual's beliefs about the possible negative (physical and psychological) costs of implementing the health strategy
- Cues to action - Events or experiences, either individual (physical symptoms of a health disorder), interpersonal or environmental (e.g., media publicity) that stimulate an individual to perform the action
- Self-efficacy - Confidence in individual's ability to effectively implement the health strategy.

The first two factors, namely perceived susceptibility and perceived severity, together represent the perceived threat of a certain situation. The factors of perceived benefits and perceived barriers merge together into the outcome expectations

and affect an individual's attitude towards the behaviour. The concept of cues to action relates to events or experiences that stimulate an individual's direct need to perform a behaviour. Yet, its role has been less sufficiently examined, mainly due to complications with its operationalization. The newest factor added to the HBM is self-efficacy, which was directly adapted from Bandura's social cognitive theory (Rosenstock 1988, in Groenewold, Bruijn & Bilsborrow, 2006).

As said by Groenewold, Bruijn & Bilsborrow (2006), in contrast to the migration theories, health theories, including the HBM, prominently concentrate on psycho-social factors that affect behaviour such as knowledge, attitudes, beliefs, intentions and personality traits. In order to find an effective way of examining migration, it is wise to study the possible use of the beliefs and intentions concepts in health behaviour research to see if the findings from health research can be moved to the examination of migration.

The HBM incorporates quite a few theoretical viewpoints and contains an aspect of risk perception. Groenewold, Bruijn & Bilsborrow (2006), with the purpose to adapt and verify the applicability of the HBM in the study of migration, generalize its key concepts in order to adapt it to the field of migration. For effective adaptation of the HBM to migration, the transportation of the model into an equivalent psychosocial model of migration behaviour was necessary as well as recognizing migration as an instrumental behaviour (i.e. action Y in Table 1) to a more distant goal (e.g. maintaining or improving current living conditions). This process can be seen in Table 1 (by Groenewold, Bruijn & Bilsborrow, 2006).

The adaptation of the HBM into migration research was tested by Groenewold, Bruijn & Bilsborrow (2006). Due to the fact that economic reasons are the most common explanatory factors of migration and are often recognized as the primary motivation for international migration, the authors chose 'maintaining or improving financial living conditions' of the individual and/or their family as the distant goal that sets the level to individuals' contemplations about migration. Furthermore, this was moved into the explanatory model as the threat of having insufficient income, beliefs about the usefulness of emigration to decrease the threat of insufficient income and the obstacles to emigration, individual and/or interpersonal and/or environmental cues to

undertake steps leading to emigration and the confidence in one's ability to effectively perform the migration behaviour (Groenewold, Bruijn & Bilsborrow, 2006).

Table 1 Transposing the Health Belief Model to a psychosocial model of migration (Groenewold, Bruijn & Bilsborrow, 2006)

HBM concept	Application of the HBM	Generalization of the HBM	Transpose of HBM to the domain of migration
Perceived susceptibility	Perceived chance of becoming infected with HIV	Perceived chance of getting into state X	Perceived chance that income will be insufficient
Perceived severity	Perceived seriousness of becoming infected with HIV	Perceived seriousness of state X	Perceived seriousness of foreseen insufficient income
Perceived benefits	Perceived benefits of condom use to prevent HIV infection	Perceived benefits of implementing action Y	Perceived benefits of emigration
Perceived barriers	Perceived barriers to condom use	Perceived barriers to implementing action Y	Perceived barriers to emigration
Cues to action	Personal or environmental events motivating a person to use condoms	Personal or environmental events motivating a person to undertake action Y	Personal, interpersonal or environmental events or experiences motivating a person to emigrate
Self-efficacy	Confidence in one's ability to successfully use condoms	Confidence in one's ability to successfully implement action Y	Confidence in one's ability to successfully emigrate

This HBM adapted in migration is still too theoretical. In order to be able to imagine how we can work with HBM in migration research, the concrete variables must be identified. Groenewold, Bruijn & Bilsborrow (2006), the original authors of the HBM into the migration adaptation concept, present some possible indicators of particular factors. As regards the perceived threat, possible indicators can be the perception about the existing economic situation of the family and the perceived relative deprivation (negative evaluation of own economic situation when compared to the reference group). Regarding the perceived benefits factor, various kinds of benefits can be expected from emigration and can become reasons for emigration such as improving living standard, gaining of higher income or admiration from others. Regarding the perceived barriers factor,

possible indicators can be represented by the perceived difficulty of getting a job in the new country. The cues to action factor, as personal, interpersonal and contextual events or experiences influencing individual's attitude and intentions to emigration, can be represented by the influence of living in the area with a long and exerted culture of emigration, i.e. perceiving emigration as a normal coping strategy of dealing with problems in the country. Another indicator of the cues to action factors can be represented by remittances received from significant others living abroad (Groenewold, Bruijn & Bilsborrow, 2006). Regarding the self-efficacy factor, this construct can be represented by a self-efficacy as a general confidence of people in their abilities, or can refer to a differentiated group of self-beliefs regarding particular areas of behaviour (Bandura, 1986, in Groenewold, Bruijn & Bilsborrow, 2006), i.e. the general self-efficacy can be identified as well as migration self-efficacy. These are the five factors of the final modified HBM model into the migration intentions prediction:

- Perceived threat to current living conditions
- Perceived benefits of migration
- Perceived barriers to migration
- Events or experiences that may activate migration (i.e. cues to action)
- Perceived confidence about one's ability to migrate (Groenewold, Bruijn & Bilsborrow, 2006). The modified HBM into migration research is illustrated in Figure 3.

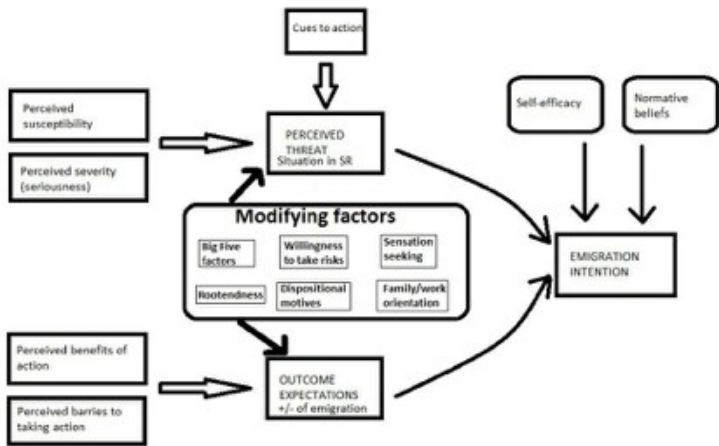
The attempt of the Groenewold, Bruijn & Bilsborrow (2006) to adapt the HBM into migration research has been shown to be successful. Based on their analysis, the transformation of the HBM with the five main psychosocial factors is appropriate for explaining emigration intentions. In their study, a model with all factors included explained 29-56% of the variance in emigration intentions.

The predictive power of the intentions

Gödri & Feleky (2014) claim that despite the increasing amount of people considering any kind of migration or intending to migrate, the amount is much higher than those who actually perform the migration action. The authors explain this fact by possible reasons such as the realisation that the migration act can be

halted by specific unexpected factors or due to changed circumstances under which these intentions were formed.

Figure 3 The modified Health belief model into migration research



The predictive strength of the intentions has been tested widely, usually through the previously discussed models. Therefore, their strength has often been a sign of strength of the tested models and tools by which the intentions were accessed by researchers. It has also been an indication of how well the researchers managed the difficulty of identifying the intentions as accurately as possible. Van Dalen & Henkens (2008) explain that the prediction ability of intentions has often failed due to the research tools. They emphasize the fact that asking about willingness to leave or dreaming of life abroad is a completely different thing than asking individuals about whether they intend or plan to emigrate in the near future. For that reason, the predictive strength of intentions raises the question of the appropriateness of the research tools and measurements.

As mentioned, the prediction of the behaviour based on intentions is effective under certain conditions. Firstly, the researcher must assess equally specific intentions, so only the specific behaviour can be predicted. Secondly, the intention

should not change in the time between its expression and the time in which the behaviour is performed, because the longer the time period is between the formation of an intention and expected performance, the higher the probability is that unexpected events occur and change the intention. Thirdly, behaviour which is examined should be completely under control of the person and their decision (Ajzen and Madden, 1986, Fishbein and Ajzen, 1975).

Fishbein and Ajzen (1980, in Sutton, 1998) showed that intentions are significant predictors of future behaviour, if they are measured close to the observed behaviour, which is the subject of intention. According to McHugh (1984, in Kley, 2009) it has been shown that anticipations about moving are more reliable if they are measured with respect to a relatively short period of time (e.g. some months) than with respect to a longer period of time. The findings of van Dalen and Henkens (2008) have shown that intentions to leave were good predictors of future migration. In the research of these authors, a quarter of those who showed interest in leaving left their country within the next two years. Similarly, intentions were confirmed as good predictors also in their following study where 34% of those who reported an emigration intention actually emigrated within the following five years (Van Dalen & Henkens, 2013). Sheikh et al. (2012) found that only approximately 24% of young students believe that their opinions about leaving abroad, whether positive or negative, can be changed or reasons for leaving can be overcome.

Gödri & Feleký (2014) argue that despite uncertainties in predicting the exact migration processes on the basis of intentions, they are still sufficiently important predictors of migration behaviour. Furthermore, despite the inability to predict migration behaviour completely, studies of migration intentions and migration potential can provide valuable information about the motivations and characteristics of potential migrants and the worthwhile data about their situation prior migration. Many studies have claimed so as well such as Kley (2009), Van Dalen & Henkens (2008, 2013).

FUTURE RESEARCH

In the words of Van Dalen and Henkens (2008), the traditional theories of migration, based on the assumption that individuals are activated to perform migration by net wage differentials can be a valuable starting point and is able to explain migration processes in times of balanced functioning. However, they are

unable to enlighten them in countries such as in the developed countries of Europe. Due to this fact, it is important to extend earlier research approaches to migration and emigration intentions by paying attention to the psychological factors such as the effects of individual characteristics, personality traits, motivations and social networks as well as life-course events on migration intentions. In further research, it is recommended to focus on this construct as a complex and multidimensionally conditioned phenomenon which is influenced by many areas of reciprocally affecting factors.

Emigrating is a very important decision which is linked to risk taking and insecurity about the future (Canache et al., 2013). Therefore, this decision may be somehow easier for people with higher ability to engage in risk activities, higher willingness to take risks, lower perception of (emigration) risk or higher risk aversion. These inclinations to risk behaviour among those with intentions to emigrate were also found by Pedersen et al. (2010), who found that students intending to go abroad have a higher level of alcohol consumption and experience more alcohol-related harm than those who do not intend to go abroad. These connections of emigration intentions and risk and health-related behaviour are also discussed in this publication (Chapter 8: 'The role of personality factors and risk characteristics in migration tendencies of university students' and Chapter 9: 'Relationship analysis between health risky behaviour and emigration tendencies among university students from Slovakia') and a complex investigation is recommended.

LIMITATIONS

Traditional theories of migration, usually interested in income, demographics, policy, living standard, economic opportunities as causes of migration, were not able to completely explain migration and further research is needed (Benefader & den Boer, 2006). This problem can be address also when considering psychological approaches only. The risk of the one-sided view of the problem is always present when focusing on the one and only theory. Therefore the need for a more complex and multidimensional exploration is still present.

Van Dalen & Henkens (2008) explain that the prediction ability of intentions often failed due to the research tools. The problem of the proper operationalization of the construct is constantly present. For that reason, the strength of these theories and the predictions based on them raises the question of the

appropriateness of the research tools and measurements as well as of the general research procedure when trying to measure the theoretical factors.

IMPLICATIONS FOR PRACTICE	The prediction of the future migration behaviour based on the migration intentions seems to be useful. It has been shown that intentions can be a valuable predictor of future migration behaviour (van Dalen and Henkens, 2008; 2013). Also, despite the inability to predict migration behaviour completely, studies of migration intentions and migration potential can provide valuable information about the motivations and characteristics of potential migrants and the worthwhile data about their situation prior migration (e.g. Kley, 2009; Van Dalen & Henkens, 2008; 2013). This way, useful findings can be obtained and utilized in preventing the exodus of young skilled individuals to abroad.
CONCLUSIONS	The previous findings have indicated that the examination of migration from only one of the approaches is insufficient and a comprehensive method to the study of migration is needed. This is necessary for the purpose of stronger and more reliable findings about emigration intentions and future behaviour of young people.

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Push and pull factors of emigration plans among Slovak university students

Ol'ga Orosová, Marta Kulanová

INTRODUCTION

It can be said that in the present world, almost all countries are somehow confronted with voluntary or involuntary migration which is caused by various reasons. In respect to the voluntary migration of the skilled and educated population, the term brain drain is very often applied. The term traditionally refers to the big outflow of highly educated and skilled young people usually migrating from less developed countries to the more developed or highly industrialized countries (Battistella & Liao, 2013). This perspective of looking at the migration of educated people can be considered as rather negative due to fact that it draws attention to the young peoples' departures and to the harmful consequences for the countries of departure (Adams, 2003). However, it is also important to note, that there is another outlook which can be applied when looking at the skilled young people leaving their countries of origin. The alternative view of the migration of educated people can be represented by the term brain gain. The definition of brain gain is more concerned with gaining potential benefits for the development of the countries through migration of their members (Battistella & Liao, 2013). This rather positive perspective supposes that a considerable number of skilled migrants also contributes to the development of the receiving countries. Besides this, this perspective supposes that a considerable number of skilled emigrants returns to their countries of origin after gaining experience and skills abroad. Therefore, they can uniquely contribute to the development of their (home) countries as well. This can be understood as brain circulation which has been defined by Battistella & Liao (2013) – the mobility of educated people who departure but then return to the country of their origin (home country).

Considering skilled migration, it is possible to identify countries which are favourite destination countries for skilled populations as well as countries which are struggling with the great outflow of their skilled population. Based on a set of socio-economic indicators for EU/EFTA countries and cluster analysis, three country clusters were generated: EU/EFTA centre-receiving countries, EU/EFTA periphery-sending countries and EU/EFTA

outlier countries (Manafi, Marinescu, Roman et al. (2017). As these authors noted, the names of these groups reflect not only the geographical position within Europe but the trends in net migration flows during the years. The first cluster was EU/EFTA centre-receiving countries; these countries are located in the centre of Europe and are highly economically and socially developed. The second cluster is EU/EFTA periphery-sending countries, countries from Eastern Europe. The countries in this cluster could be characterized by youth unemployment rates, a higher share of people at risk of poverty, expenditure on social protection, population density, fertility rates, and lower expenditure on pensions when compared to the first cluster. In the third cluster, named EU/EFTA outlier countries, Norway and Luxembourg, are countries with the best indicators. Slovakia was one of the countries in the second cluster EU/EFTA periphery-sending countries. Manafi, Marinescu, Roman et al. (2017) confirmed the persistence of movement from the periphery to centre countries, and it reflected recent flows of mobility in Europe.

The consequences of the „brain drain“ process that refers to high skill migration; the emigration of highly educated individuals, the human capital for development, has been or should be a topic of interest especially for the periphery-sending countries (Hungary, Romania, Estonia, Bulgaria, Croatia, Czech Republic, Latvia, Lithuania, Slovakia, Slovenia, and Spain, Greece, and Portugal). It was found, that „...countries with a low skilled emigration rate may benefit from the brain drain in terms of human capital accumulation while their distribution of income becomes more unequal. On the other hand, those source countries with a high level of skilled emigration may see their human capital stock decrease, but it is likely that they benefit from a more equal distribution of income...“ (Galiano, Romero, 2017, 8). The importance of investigating voluntary migration (Listyarini, Haryanto, Siahaan, 2016) and the voluntary emigration intentions among university students has been supported by the finding that potential emigrants from both the old and the new EU member states tend to be young, better educated and tend to live in larger cities (Zaiceva, Zimmermann, 2008).

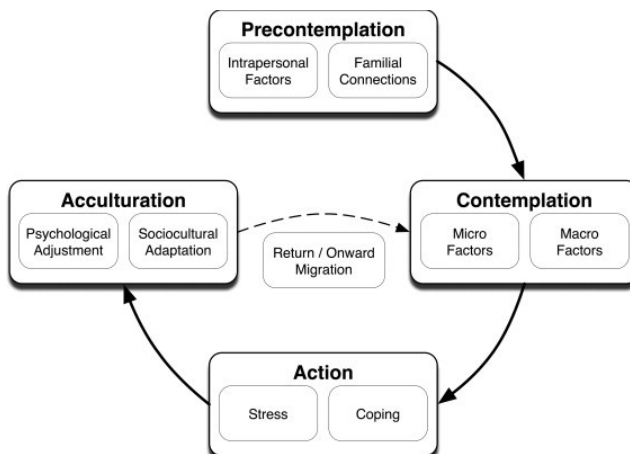
The investigation of push and pull factors which are theorized to underlie the emigration decisions, and especially emigration plans, constitute one of the main aims of this investigation. Push and pull factors are an important topic in economic and socio-

demographic research. Nevertheless, interdisciplinary approach addressing both the macro (society) and the micro (individual) levels on with the implementation of the migration models (Tabor, Milfont, 2014, Hoppe, Fujishiro, 2015) seem to be more promising for understanding emigration intentions and emigration decisions.

Migration should not be understood as a single act but rather as a process with several identifiable phases. This has been investigated by many authors and formulated within a number of approaches. For instance, Tabor and Milfont (2014) modified the well-known DiClemente and Prochaska's Stages of Change Model into the Migration Change Model, model of voluntary migration. The Migration change model consists of four stages of the migration process (Tabor, Milfont, 2011, Figure 1):

- precontemplation (individual has not given any serious consideration to moving abroad, this period often involves developing professional qualifications and skills)
- contemplation (an active examination of the possibilities of moving out of the country of origin)
- action (making a decision)
- acculturation (psychological adjustment and sociocultural adaptation).

Figure 1 Migration change model (Tabor, Milfort, 2011, p. 828)



Factors that were evaluated as important during the Precontemplation stage of emigration are represented by personality characteristics, novelty seeking, high tolerance for risk and uncertainty, family. In the Contemplation stage, push and pull factors were important on both macro and micro level of analyses.

Kley (2010) suggested a three-stage model of migration decision-making and behaviour according to the psychological Rubicon model (Figure 2): (1) a pre-decisional phase (people express intentions to migrate, but have not taken any actions), (2) a pre-action phase (people engage in exploring and planning behaviours), and (3) action phase (people take concrete actions for migrating) (Figure 3). In accordance with Rubicon's model, Kley's investigation supported the assumption that migration was influenced by the perceived opportunity differentials between the place of residence and alternative places. Kley (2010) found that perceiving better opportunities for a career abroad triggered considering and planning to leave the city of residence in all phases of life-course. However, this is the strongest predictor of the decision to migrate only among young adults without children, besides beginning tertiary education.

Hoppe, Fujishiro (2015) built their investigation on person-level factors as predictors of migration decision making on Kley's three-phase model. This expanded previous research on migration intentions and behaviours by focusing on psychological variables such as expectations, values, and beliefs as person-level predictors for migration decision-making.

The pre-migration phase of emigration, the investigation of push and pull factors, personality and psychosocial variables among other push and pull factors of voluntary emigration plans among university students, is one of the main topics of this research. The following part of the theoretical background briefly introduces the relevant findings regarding examined variables and emigration intentions or plans.

Figure 2 Stages of the migration process and action phases of the Rubicon model. Source: Scheme adapted from Heckhausen, 1991 and Gollwitzer, 1996 (in Kley, 2010, p. 472)

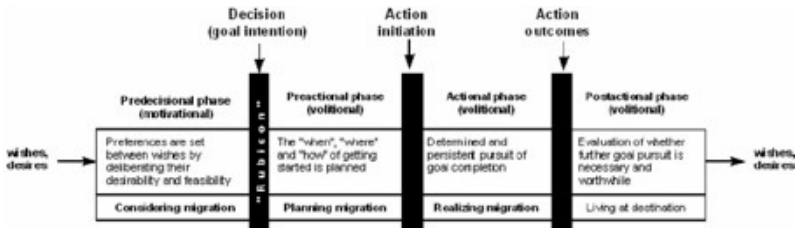
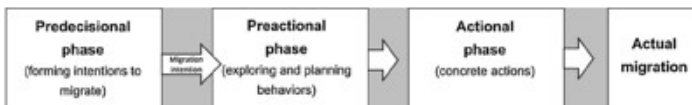


Figure 3 Kley's three-phase model (in Hoppe, Fujishiro, 2015, p. 14)



Push and pull factors of emigration

The forces of migration were traditionally dichotomised into push (push out from the place of residence, negative factors at the origin) and pull factors (pull out by attractive situations in other locations, positive factors at the destination) (Bogue, 1977, Listyarini, Haryanto, Siahaan, 2016). The theory of „push and pull“ (push/pull factors) is part of the research of migrant motivation (Kostromina, Tsvetkova, Gurieva et al., 2015, Jackson, Carr, Edwards, 2005, Ainsaar, 2004). This theory was proposed by Lee (1966) who distinguished among four groups of factors which entered into the decision, as well as the process of migration:

1. Factors associated with the area of origin.
2. Factors associated with the area of destination.
3. Intervening obstacles.
4. Personal factors.

Push factors have been traditionally defined through unfavourable conditions in the emigration places, such as unemployment, political instability, economic conditions, lack of a satisfactory income level in the home country and pull factors have been defined mainly through benevolent conditions, such as better career prospects, economic conditions, lifestyle freedom in

the host country (Güngör, Tansel, 2014, Kazlauskienė, Rinkevičius, 2006). The push-pull framework, the analyses of individuals' ranking of the importance of various pull-push factors has allowed us to why educated individuals emigrate to another country (Güngör, Tansel, 2014).

Labrianidis and Sykas (2017) carried out a literature review and summarised the following research-based important factors of emigration:

Pull factors:

- economic reasons (such as high wages and generally a high return on skills in the host country)
- employment-related reasons (such as a better working environment, job prospects and finding a job in the relevant field)
- scientific reasons (such as university quality, the overall educational system and resource provision)
- wider socio-political reasons (such as the organisation of the state, e.g. legal system, security) and cultural reasons (such as gaining knowledge of a new culture),

Push factors:

- migrants' high socio-economic position, economic conditions in the home country (i.e. wages, youth unemployment)
- the organisational and functional limitations of the educational system,
- general problems in the home country (e.g. corruption).

The authors concluded, based on the current literature review, that the significant reasons for skilled migration were not economic, but mainly related to better conditions in the host country regarding science, education and the cultural environment. Globerman and Shapiro (2008) found that highly educated migrants are more affected by the pull of economic conditions in host countries, while those with less education are more heavily influenced by the push economic factors in their home countries. Jackson, Carr and Edwards (2005) summarised that individuals can be motivated to emigrate because of five key reasons: economic, political, career, cultural, and family.

However, it is important to consider (Bogue, 1977):

- traditionally the „push-pull“ approach tends to regard migration as the output of external forces, and

- „cost - benefit“ approach tends to regard migration from the point of view of the individual migrant; as a rationally planned action, as some outcome of a balancing of the costs and benefits of migration or individual's calculation of disadvantages and advantages of moving or staying. „...the cost-benefit approach would be undertaken to explain migration by collecting information about the particular combination of forces the individual migrant perceives and the interpretation he places upon them.“ (Bogue, 1977, p.168).

Matrix1 Cost – benefit mobility matrix (Bogue, 1977, p.169)

	Potential costs	Potential benefits
Decision migrate	(A) Migration cost factors	(B) Migration pull factors
	Transporting to new residence	Higher rate of pay
	Uncertainty of finding employment	Employment of choice or preference
	Housing while seeking employment	Improved housing
	Closing appropriate for employment	Better educational opportunities
	Mistreatment by stranger	Better community service institutions
	Lack of social status	More interesting, exciting social life
	Living in strange surroundings	Better race, ethnic, social conditions
	Need to use another language, improve speech	
Not migrate	Need to change customary dress, behaviour, habits	
	(C) Migration push factors	(D) Migration counterinfluence
	Difficulties of finding local employment	Inexpensive housing, already available
	Lack of appropriate local employment	Inexpensive food, recreation, living
	Excessive domination by family	Daily contact with family
	Unsatisfactory local social relations	Daily contact with old friends, peers
	Unsatisfactory local institutions	Living in familiar surroundings
	Unsatisfactory race, ethnic, political conditions	Social status assured
		Convenience of continued use of traditional speech, dress, customs
		Assured employment (for some)

(A) the actual or potential cost of migration, (B) pull factors that are commonly hypothesized as stimulating migration, (C) push factors that are commonly hypothesized as stimulating migration, (D) potential benefit of not migrating

Bogue (1977) hypothesised that if the perceived influence of pull and push factors is greater than the migration cost factors and migration counterinfluence, there will be migration. On the contrary, if the perceived influence migration cost factors and migration counterinfluence is greater than the pull and push factors, there will be no migration (Matrix 1). This cost – benefit matrix including the evaluation of the contribution of psychological, psychosocial factors to emigration intentions and emigration behaviour created an important background for future research (Bogue, 1977).

As previously it was mentioned and also addressed in Chapter 2. (Psychological concepts of emigration intentions), a full understanding of migration processes cannot be achieved by focusing on the separate theories and relying on one discipline only. Rather, the complexity of the migration phenomenon requires a sophisticated approach willing to integrate a variety of perspectives and viewpoints (Massey et al., 1993).

The psychological contribution to a more comprehensive understanding of emigration intentions, emigration decisions and behaviour is especially connected with the investigation of personality factors, intervening obstacles (Lee, 1966), intervening factors and the modified versions of traditionally conceptualized „push-pull“ factors (Listyarini, Haryanto, Siahaan, 2016). Lee (1966) used the construct „intervening obstacles“, which means that the evaluation of push and pull factors, calculus of +’s and -’s does not decide the act of migration. This evaluation takes place within the context of an individual and his/her social context (Lee, 1966, Listyarini, Haryanto, Siahaan, 2016). As summarized by Listyarini, Haryanto, Siahaan (2016), Lee’s labeling of „intervening obstacles“ was modified by Jacson into „Intervening variables“ which either facilitate or inhibit migration. In a similar framework, Monn (1995) incorporated the notion of „moorings“; or so called “mooring variables” with possible direct or moderating effects (Bansal, Taylor, James, 2005), variables that allowed an understanding of the impact of the cultural and institutional issues on personal motivation, in motivational meaning, in a push-pull model of migration known as the PPM model (push-pull-mooring model). An interplay of individual, psychological and contextual factors has created an important base for the investigation of emigration intentions and behaviour (Kurekova, 2011).

Gender, importance of religion and emigration intention

Recent studies indicate that emigration intentions can differ among men and women, e.g. Wuliji, Carter & Bates (2009) found that students wanting to emigrate were mostly male and Eliason and colleagues (2014) found that men were 1.8 times more likely to migrate than women. Interestingly, in the study of Santric-Milicevic and colleagues (2014) it was found that women considered migration more often than men although men were more likely to have a solid plan to leave abroad than women.

Strielkowski, Bilan and Kalyugina (2016) found a positive impact of education on the desire to migrate, which arises from educational experience, and a higher level of desire to migrate among males. However, the authors proposed the need for verification of the emancipatory impact of the migration experience. A gender focused analysis of high skilled emigration (Docquier, Lowell, Marfouk, 2009) found a gender specific response to push and pull factors with the same intensity as well as a higher importance of social network and opportunities for career development for females. It also found that highly educated /skilled females were more responsive to the emigration of skilled males than vice versa. This study aims to investigate the moderating effect of gender on the associations between push / pull factors and emigration plans among Slovak university students.

Hagan and Ebaugh (2003) aimed to answer the question about how migrants use religion in some stages of the migration process and stressed the importance of including religion in theories of contemporary international migration. However, Hoffman, Marsiglia and Ayers (2015) suggested the importance of understanding how religion influences more voluntary forms of migration and stated that there was very little research exploring the association between migration aspirations and religiosity in the migrant's native country. Instead, there were more studies focusing on the religiosity among migrants in their new country, which have usually focused on the religiosity of post international migration. The importance of the investigation of the impact of religion and religious identity on potential migrants' migratory intentions was also proposed by Strielkowski, Bilan and Demkiv (2016). An association between culture similarity, religious, family reasons and internal

migration was also found (Kontuly, Smith, Heaton, 1995).

Participation in religious services can be considered as engagement in a church institution. According to Harman and Hartman (1995, in Miller, Haskell & Thatcher, 2002) and proposed social integration theory, the greater the personal engagement in a social institution is, the greater the sense of attachment to the society is in which this institution operates. Subsequently, the greater this attachment is to society, the lower the intention to emigrate is i.e. to leave this society. This assumption was confirmed by Frieze, Hansen and Boneva (2006) who found that engagement in religious services is a significant factor for students not intending to emigrate. Interestingly, the relationship between external religiosity, i.e. when the attendance of religious services is more important for the individual, and emigration intentions was confirmed also by Hoffman, Marsiglia and Ayers (2015). However, this study also revealed the opposite relationship between emigration intention and internal religiosity, when the importance of the religion itself was subjectively important in the life of the individual. The authors tried to explain these results that it could be due to the fact that these people with high internal religiosity may feel a stronger connection to the divine things and may have a feeling of being protected during their dangerous life-paths. This way, internal religiosity can be interpreted as a resilience resource (Sjaastad, 1962, in Hoffman, Marsiglia & Ayers, 2015).

Religious rituals and beliefs are key components of an individual's cultural identity that foster a sense of belonging in a community (Bhugra, Becker, 2005). Baykara-Krumme, Platt, 2016) suggested that religion can increase adaptation competencies and emotional stability while Saroglou, Delpierre, Dernelle (2004) found that religious people tended to attribute high importance to conservation values (Tradition and Conformity), and low importance to hedonistic and openness to change values (Hedonism, Stimulation, and Self-Direction). Religion together with language, entertainment, food and shopping habits were found to be important domains which can be linked with acculturation (Bhugra, 2004), i.e. with the last stage of migration process.

Personality factors and emigration intentions

According to Canache et al. (2013), the decision about whether to migrate or to stay is linked with the individual ability of people to handle a level of uncertainty and to take risks. Jaeger and colleagues (2010) suggest that individuals who are more willing to take risks are more willing to migrate as well. Therefore, this decision is also connected to the psychological characteristics of the individual which can make some people more disposed to having emigration intentions or a staying intention (Canache et al., 2013).

Recent studies indicate that the examination of personality characteristics should be included or at least taken into account when trying to explain emigration intentions. The most commonly used personality factors are those generated on the basis of the Big Five personality model. These factors have already been investigated in connection with emigration intentions. E.g. the results of Paulaskaitė, Šeibokaitė & Endriulaitienė (2010) showed that a lower level of conscientiousness and higher level of openness to experience are related to having an emigration intention. The results of Tabor and Milfont (2011) and Jokela (2009) have confirmed the relationship between openness to experience and emigration intentions. Jokelas' results (2009) also showed a significant relationship between emigration intentions and agreeableness. A higher level of this characteristic was related to a lack of emigration intentions (Jokela, 2009). Similarly, the results of Canache and colleagues (2013) confirmed the relationship between openness to experience and emigration intentions and also revealed the relationship with extraversion, which was also connected positively to having an intention to emigrate. This was also supported by Silventiainen (2007) who also found that migration was related with neuroticism but only among men. To conclude, personality factors contribute to a better explanation of emigration intentions, plans and should not be omitted from the research of this topic.

Conclusion of the theoretical part

Slovakia, even as a relatively well-developed country, may be classified as a country of Eastern Europe and considered as rather a periphery-sending country due to the fact that it sends far more

educated people abroad annually than it receives. As stated by Káčerová and Horváthová (2014), the skilled population leaving Slovakia is considered to be one of the most important problems in the country. There is a long-term process of migration to the Czech Republic, USA, Great Britain, Germany and Austria. According to the Statistical Office of the Slovak Republic (Káčerová and Horváthová, 2014) 21.55% of the Slovak emigrants are university students.

Given the fact that students' migration can represent a phenomenon weakening the country (brain drain), as well as a phenomenon that fosters the country development (brain gain, brain circulation), we consider it important to understand the motivation of Slovak students to move abroad as well as their motivation to stay living in their country. As we focus on the factors that can explain the emigration plans (of which absence can also be considered as staying plans), we consider the factors attracting young people to move abroad as pull factors of emigration plans. Consequently, the factors which discourage students from moving abroad by attracting them to stay in their country of origin can be seen as push factors of emigration; pushing students out of emigration. At the same time, they can be considered as pull factors of staying plans. In other words, factors attracting one to emigrate can be considered as pull factors of emigration and factors discouraging the emigration by attracting them to stay at home can be considered as push factors of emigration plans.

Previous research has shown the importance of (i) the investigation of voluntary emigration through the phases of the emigration process, (ii) the more comprehensive understanding of the pre-migration phase through the extension and modification of the traditional „push-pull“ concept, (iii) the investigation of a moderation effect of gender on the relationship between push / pull factors, as well as personality variables and emigration plans among students during the pre-migration phase.

AIM

This study aimed to contribute to a more comprehensive understanding of emigration plans among Slovak university students through the investigation of the importance of religion together with a comprehensive list of push and pull factors.

The objectives of this study were to explore (i) the associations between gender, socioeconomic factors, the importance of

religion, push, pull factors and emigration plans (stayers, undecided, leavers), (ii) the associations between gender, socioeconomic factors, the importance of religion, push, pull factors, adjusted by personality factors and emigration plans (stayers vs leavers), (c) the moderation effect of gender on the relationship between explored independent variables and emigration plans (stayers vs leavers).

SAMPLE

Participants and recruitment

All universities in Slovakia were invited to join the research project. A link to the survey website was provided to each participating institution. 51.4% of universities, 18 universities from the total of 35, were interested in collaborating with the research group and advertised the letter invitation and the survey website link on their official web sites and/or through the Academic Information Systems, and/or through official Facebook sites of the universities. A total of 436 Slovak students accepted the invitation on a voluntary basis. The questionnaires were self-completed by 375 of them (a response rate of 86%), 75.5% females; mean age=22.9; SD=3.0.

MEASURES

Students were asked regarding gender, their perception of Slovakia's economic future (EF), perception of their financial situation (FS), the importance of religion in their life (IR), personality factors, the importance of particular pull and push factors of emigration, as well as emigration plans (EP).

Emigration plans (EP): Students were asked to evaluate the statement „Do you plan to leave Slovakia after you finish university? Please select one from the possible answers: (1) No, I am not planning to leave, (2) I do not know, I have not thought about it, (3) I do not know, I have not decided yet, (4) I am planning to go abroad for six months, (5) I am planning to go abroad for six to twelve months, (6) I am planning to leave for more than a year, (7) I am planning to leave for more than five years, (8) I am planning to leave permanently“.

Slovakia's economic future (EF): Students were asked to evaluate the following statement on a 4-point scale from very optimistic to very pessimistic: „What do you think about the development of Slovakia's economy over the next 10 years in context of your professional career and perspective of starting your own family?“

Perception of financial situation (FS): Students were asked to evaluate the following statement on a 7-point scale from much better to much worse: “How would you rate your financial situation in comparison to other university students?”

The importance of religion (faith) in life (IR): Students were asked to evaluate the following statement on a 7-point scale from fully disagree to fully agree: How much do you agree with the following statement: “My faith is very important for my life”?

The Big Five personality factors were measured by the shortened version of the Trapnell and Wiggins’ method (IA SR-B5, Trapnell & Wiggins, 1990) verified by Janovská (2012). The measure consists of 25 adjectives and respondents rate the self-descriptive accuracy of each adjective on a scale from 1 (extremely inaccurate) to 8 (extremely accurate).

Push and pull factors of emigration plans: The questionnaire has been developed by the research team of APVV-0253-11 and APVV-15-0662 and VEGA 1/0713/15 projects and presents two sets of questions which aim to measure perceived opportunities connected to living abroad (24 items) – pull factors of emigration, which attract people to emigrate, versus perceived opportunities connected to living in the home country (23 items) – push factors of emigration, which repel people from emigration and attract them to stay in the home country.

The respondents were asked: “If you had an opportunity to go and live abroad, how important would the following factor be from the perspective of going to live abroad?” And “If you had an opportunity to go and live abroad, how important would the following factors be from the perspective of keeping you in Slovakia?” Students were asked to evaluate the statements on a 5-point scale from not important at all to very important.

24 items of the pull factors were subjected to principal axis factoring (PAF). The Kaiser-Meyer-Olkin value was 0.84 and Bartlett's Test of Sphericity reached statistical significance. PAF revealed the presence of six components with eigenvalues exceeding 1, explaining 27.4%, 12.0%, 8.6%, 7.5%, 6.3%, 4.8% of the variance respectively. The six-component solution (Table 1, 2) explained a total of 66.6% of the variance:

- 1st factor (items: 17, 18, 19, 20) – language skills opportunity (LSO)
- 2nd factor (items: 12, 13, 14, 16) – social and legislative support, security (SLS)
- 3rd factor (items: 8, 9, 10, 11) – access of high quality education abroad (E)
- 4th factor (items: 21, 22, 23, 24) – desire for change, new experience (DaE)
- 5th factor (items: 4, 5, 6, 7) – career opportunity (COA)
- 6th factor (items: 1, 3, 15) – open social multicultural opportunity (SMO)

23 items of push factors of emigration were subjected to principal axis factoring (PAF). The Kaiser-Meyer-Olkin value was 0.90 and Bartlett's Test of Sphericity reached statistical significance. PAF revealed the presence of five components with eigenvalues exceeding 1, explaining 40.9%, 11.3%, 7.3%, 6.0%, 5.1% of the variance respectively. The five-component solution (Table 3, 4) explained a total of 70.5% of the variance:

- 1st factor (items: 8, 9, 10, 11, 12, 13, 14, 15, 17) – access of high quality education at home country and social and legislative support, security – education and security (EaSLS)
- 2nd factor (items: 3, 16, 21, 22, 23) – rootedness (R)
- 3rd factor (items: 1, 2) – social relationship and commitment at home/friends, family (SRaC)
- 4th factor (items: 4, 5, 6, 7) – career opportunity at home (COH)
- 5th factor (items: 18, 19, 20) – language difficulties and risky life abroad - Barriers to Study Abroad (BsarLA)

Cronbach's Alpha value for each pull and push factor is presented in Table 6. In the case of a factor with two items (SRaC) Spearman-Brown reliability coefficient is reported, which is more suitable for scales consisting of two items (Eisinga, Grotenhuis and Pelzer, 2013).

Table 1 Pattern Matrix – Pull factors of emigration

Factor	1	2	3	4	5	6
18 Opportunity to master a foreign language	0,953					
19 Opportunity to improve skills in formal communication in a foreign language	0,863					
20 Opportunity to improve skills in everyday communication in a foreign language	0,806					
17 Opportunity to learn a new language	0,688					
13 Functional and flexible legislation		0,752				
14 High level of services from the governmental institutions		0,69				
16 Good social care		0,657				
12 High level of personal safety		0,577				
10 Opportunity to get a prestigious university diploma			-0,881			
11 High quality of university educators			-0,813			
8 Opportunity to get a high quality education			-0,599			
9 Opportunity to finance my study with a loan			-0,556			
23 Opportunity for a change and new experience				0,918		
22 Opportunity to travel				0,802		
24 Opportunity to experience a new working environment and a different work culture				0,675		
21 Opportunity for experience with the life in another country				0,622		
4 Opportunity to find an employment abroad					0,752	
5 Opportunity to have a career abroad					0,705	
7 Good working conditions					0,697	
6 A higher income abroad					0,576	
3 Open relationships among people abroad, relationships without prejudice						0,718
1 Opportunity to make new friends and form new relationships						0,553
15 Liberal, multicultural society						0,519

1st factor - language skills opportunity; 2nd factor - social and legislative support, security; 3rd factor - access of high quality education abroad; 4th factor - desire for change, new experience; 5th factor - career opportunity; 6th factor - open social multicultural opportunity

Table 2 Structure Matrix - Pull factors of emigration

Factor	1	2	3	4	5	6
18 Opportunity to master a foreign language	0,931			0,436		
19 Opportunity to improve skills in formal communication in a foreign language	0,850			0,400		
20 Opportunity to improve skills in everyday communication in a foreign language	0,846			0,467	0,302	
17 Opportunity to learn a new language	0,743			0,450		
13 Functional and flexible legislation		0,806	-0,343		0,332	0,355
14 High level of services from the governmental institutions		0,718			0,339	0,306
16 Good social care		0,692			0,351	0,313
12 High level of personal safety.		0,663	-0,433			0,367
10 Opportunity to get a prestigious university diploma			-0,862			
11 High quality of university educators		0,301	-0,832			
8 Opportunity to get a high quality education			-0,640			
9 Opportunity to finance my study with a loan		0,301	-0,585			
23 Opportunity for a change and new experience	0,396			0,897		0,330
22 Opportunity to travel	0,430			0,813		
24 Opportunity to experience a new working environment and a different work culture	0,441			0,746	0,325	
21 Opportunity for experience with the life in another country	0,519			0,727		
4 Opportunity to find an employment abroad					0,743	
7 Good working conditions		0,373			0,735	
5 Opportunity to have a career abroad		0,304			0,733	
6 A higher income abroad					0,607	
3 Open relationships among people abroad, relationships without prejudice		0,305				0,726
15 Liberal, multicultural society		0,429				0,615
1 Opportunity to make new friends and form new relationships				0,420		0,596

1st factor - language skills opportunity; 2nd factor - social and legislative support, security; 3rd factor - access of high quality education abroad; 4th factor - desire for change, new experience; 5th factor - career opportunity; 6th factor - open social multicultural opportunity

Table 3 Pattern Matrix - Push factors of emigration

Factor	1	2	3	4	5
12 High quality educators in Slovak universities	0,847				
11 Demands of the study in Slovakia	0,790				
15 Services of the governmental institutions in Slovakia	0,775				
14 Functional and flexible legislature in Slovakia	0,758				
13 High level of personal safety in Slovakia	0,725				
8 Opportunity for a high quality education	0,711				
10 High quality training in applied professional skills	0,624			-0,341	
17 Good social services in Slovakia	0,622				
9 Free university education	0,589				
21 Conviction that it is best to stay and live in Slovakia		0,772			
23 Work culture and rules in Slovakia are familiar and easy to understand		0,662			
22 Opportunity to contribute to the development of Slovakia		0,603			
3 Open and whole-hearted relationships among people in Slovakia		0,476			
16 Life in a society based on traditional values		0,393			
1 My relationships and friendships in Slovakia			0,974		
2 My commitments (partner, family) in Slovakia			0,630		
6 Sufficient income				-0,841	
7 Good work conditions				-0,770	
5 Opportunity for a career in Slovakia				-0,751	
4 Opportunity to find work in Slovakia				-0,727	
19 The difficulties with learning a foreign language					0,955
18 Language barrier					0,910
20 Risks connected with living abroad					0,489

1st factor - access of high quality education at home country and social and legislative support, security - education and security; 2nd factor - rootedness; 3rd factor - social relationship and commitment at home/friends, family; 4th factor - career opportunity at home; 5th factor - language difficulties and risky life abroad - Barriers to Study Abroad

Table 4 Structure Matrix - Push factors of emigration

Factor	1	2	3	4	5
12 High quality educators in Slovak universities	0,829	0,327		-0,472	
15 Services of the governmental institutions in Slovakia	0,827	0,337		-0,543	
14 Functional and flexible legislature in Slovakia	0,820	0,354		-0,525	0,337
8 Opportunity for a high quality education	0,795			-0,589	0,308
11 Demands of the study in Slovakia	0,782	0,344		-0,393	0,373
17 Good social services in Slovakia	0,767	0,336		-0,574	0,360
10 High quality training in applied professional skills	0,758			-0,660	
13 High level of personal safety in Slovakia	0,720	0,415		-0,316	0,355
9 Free university education	0,612	0,350		-0,314	
21 Conviction that it is best to stay and live in Slovakia	0,333	0,808	0,348		0,414
23 Work culture and rules in Slovakia are familiar and easy to understand	0,364	0,710			0,380
22 Opportunity to contribute to the development of Slovakia	0,333	0,616			
3 Open and whole-hearted relationships among people in Slovakia		0,579	0,428		
16 Life in a society based on traditional values	0,412	0,559	0,300		0,409
1 My relationships and friendships in Slovakia		0,389	0,964		
2 My commitments (partner, family) in Slovakia			0,639		
6 Sufficient income	0,607			-0,918	
7 Good work conditions	0,632			-0,884	
5 Opportunity for a career in Slovakia	0,571	0,376		-0,835	
4 Opportunity to find work in Slovakia	0,511	0,441	0,309	-0,787	
19 The difficulties with learning a foreign language	0,371	0,366			0,939
18 Language barrier	0,328	0,359			0,894
20 Risks connected with living abroad	0,389	0,535	0,320		0,649

1st factor - access of high quality education at home country and social and legislative support, security - education and security; 2nd factor - rootedness; 3rd factor - social relationship and commitment at home/friends, family; 4th factor - career opportunity at home; 5th factor - language difficulties and risky life abroad - Barriers to Study Abroad

STATISTICAL
ANALYSES

A Mann-Whitney U test was used to test for gender differences and differences between independent groups (stayers vs undecided vs leavers) on a continuous measure of pull and push factors and the personality factors.

Table 5 Emigration plans among Slovak university students

	Females	Males	Total
1. No, I am not planning to leave (Stayers)	72	16	88
	25.4%	17.4%	23.5%
2. I do not know, I have not thought about it	14	4	18
	4.9%	4.3%	4.8%
3. I do not know, I have not decided yet (Undecided)	106	33	139
	37.5%	35.9%	37.1%
4. I am planning to go abroad for six months	19	4	23
	6.7%	4.3%	6.1%
5. I am planning to go abroad for six to twelve months	15	5	20
	5.3%	5.4%	5.3%
6. I am planning to leave for more than a year (Leavers)	26	14	40
	9.2%	15.2%	10.7%
7. I am planning to leave for more than five years (Leavers)	14	9	23
	4.9%	9.8%	6.1%
8. I am planning to leave permanently (Leavers)	17	7	24
	6.0%	7.6%	6.4%

Chi-Square Test = 7.945, p=0.338

Modelling the data with multinomial logistic regression (full factorial model), we analysed the relationship between gender, socioeconomic variables, the importance of religion, pull and push factors and emigration plans. Decision weights to emigrate and emigration plans were included in the models as dependent variables. The question regarding emigration plans (Table 5) was used to create a trichotomous dependent variable contrasting those who were not planning to leave - if answered (1), i.e. stayers (n=88, 23.5%) and those who were considering the possibility of leaving Slovakia after they finish university, but have not decided yet - if answered (3), i.e. undecided (n=139, 37.1%), as well as

those who were planning to leave if answered „from 6 to 8“, i.e. leavers (n=87, 23.2%).

Binary logistic regression was used to explore the associations between gender, socioeconomic factors, the importance of religion, pull, push factors, adjusted by personality factors and emigration plans (stayers vs leavers), as well as the moderation effect of gender on the relationship between the explored independent variables and emigration plans (stayers vs leavers).

All analyses were performed in SPSS, version 20.0.

RESULTS

Pull and push factors of emigration among Slovak university students

A median was used as the measure of the central tendency for each pull and push factors. Table 6 suggests that the priority of pull factors of emigration (factors attracting to emigrate) were language skills opportunity (LSO), desire for change, new experience (DaE), and career opportunity (COA), and the priority of push factors of emigration (factors discouraging the emigration by attracting one to stay at home) was social relationships and commitment at home/friends, family (SRaC) among Slovak university students.

Gender and pull, push factors of emigration among university students

The differences of explored pull and push factors as a function of gender was examined (Table 7). A Mann-Whitney U test revealed significant gender differences in three pull factors LSO, E, SMO, as well as in two push factors SRaC, BSaRLA (Table 7). A higher level of importance of pull factors such as language skills opportunity (LSO), access of high quality education abroad (E), open social multicultural opportunity (SMO), and push factors such as social relationships and commitment at home (SRC), barriers to studying abroad (language difficulties and risky life abroad, BSaRLA) was reported by females.

Table 6 Calculated medians for pull and push factors

Pull factor	Cronbach's Alpha	Possible range	Actual range	Median
LSO	0.90	4-20	4-20	19
SLS	0.81	4-20	4-20	15
E	0.81	4-20	4-20	16
DaE	0.87	4-20	5-20	18
CAO	0.79	4-20	7-20	18
SMO	0.68	3-15	3-15	11
Push factor				
EaSLS	0.93	9-45	9-45	30
R	0.79	5-25	5-25	16
SRaC	0.76(<i>Spearman-Brown index</i>)	2-10	2-10	9
COH	0.93	4-20	4-20	15
BSaRLA	0.86	3-15	3-15	9

Pull factors: language skills opportunity (LSO), social and legislative support, security (SLS), access of high quality education abroad (E), desire for change, new experience (DaE), career opportunity (COA), open social multicultural opportunity (SMO);

Push factors: access of high quality education at home country and social and legislative support, security - education and security (EaSLS), rootedness (R), social relationship and commitment at home/friends, family (SRaC), career opportunity at home (COH), language difficulties and risky life abroad - Barriers to Study Abroad (BSaRLA)

Emigration plans and pull, push factors of emigration among university students

The differences of pull and push factors as a function of emigration plans (stayers, undecided, leavers) was examined and the medians for each pull and push factor were compared across each emigration plans group.

A Mann-Whitney U test revealed significant differences in two pull factors DaE, COA, as well as in every push factor of the undecided and leavers, as well as of the stayers and leavers (Table 8). Furthermore, a significant difference was found in the pull factor open social multicultural opportunity (SMO) of the stayers and leavers.

A higher level of importance of the pull factors such as desire for change (DaE), career opportunity abroad (COA) was reported by the leavers compared to undecided and to stayers, as well as

a higher level of importance of the pull factor open social multicultural opportunity (SMO) was reported by the leavers compared to stayers (Table 8).

Table 7 Calculated medians and U-test for pull and push factors with respect to gender

	Females	Males	Total			
Pull factor	Md (n=283)	Md (n=92)	MD (N=375)	U	z	p
LSO	19	18	19	11009,5	-2.352	0.019
SLS	15	15	15	11939	-1.202	0.229
E	16	15	16	10512	-2.791	0.005
DaE	18	18	18	11788,5	-1.390	0.165
CAO	18	18	18	12507	-0.576	0.565
SMO	11	10	11	10684,5	-2.601	0.009
Push factor				U	z	p
EaSLS	31	29	30	12067	-1.054	0.292
R	16	15	16	12508	-0.566	0.572
SRaC	9	8	9	10401	-3.067	0.002
COH	15	16	15	12802	-0.240	0.810
BSaRLA	9	8	9	10737,5	-2.537	0.011

Pull factors: language skills opportunity (LSO), social and legislative support, security (SLS), access of high quality education abroad (E), desire for change, new experience (DaE), career opportunity (COA), open social multicultural opportunity (SMO);

Push factors: access of high quality education at home country and social and legislative support, security - education and security (EaSLS), rootedness (R), social relationship and commitment at home/friends, family (SRaC), career opportunity at home (COH), language difficulties and risky life abroad - Barriers to Study Abroad (BSaRLA)

A lower level of importance of push factors (education and security, rootedness, social relationship and commitment, career opportunity at home, barriers to studying abroad) was reported by the leavers compared to undecided and stayers (Table 8).

Table 8 Calculated medians and U-test for pull and push factors with respect to emigration plans (undecided vs leavers, stayers vs leavers)

Pull factor	Undecided Md (n=139)	Leavers Md (n=87)	U	z	p	Stayers Md (n=88)	Leavers Md (n=87)	U	z	p
LSO	18	20	6842	1.766	0.077	18.5	20	4338.5	1.630	0.103
SLS	15	16	6384	0.710	0.477	15	16	4009	0.543	0.587
E	16	16	6066	0.041	0.967	16	16	4012.5	0.554	0.580
DaE	18	19	7079	2.216	0.027	17	19	5187	4.128	0.001
CAO	18	19	7031.5	2.103	0.035	17	19	4897	3.247	0.001
SMO	11	12	6821	1.632	0.103	10	12	4900	3.217	0.001
Push factor	Undecided Md (n=139)	Leavers Md (n=87)	U	z	p	Stayers Md (n=88)	Leavers Md (n=87)	U	z	p
EaSLS	31	27	4724.5	-2.767	0.006	31	27	2734	-3.268	0.001
R	15	13	4068	-4.144	0.001	18	13	1605	-6.647	0.001
SRaC	9	8	3748.5	-4.948	0.001	10	8	1402.5	-7.607	0.001
COH	15	12	4584.5	-3.068	0.002	17	12	2424.5	-4.210	0.001
BSaRLA	9	7	4183.5	-3.917	0.001	9	7	2280	-4.649	0.001

Pull factors: language skills opportunity (LSO), social and legislative support, security (SLS), access of high quality education abroad (E), desire for change, new experience (DaE), career opportunity (COA), open social multicultural opportunity (SMO);

Push factors: access of high quality education at home country and social and legislative support, security - education and security (EaSLS), rootedness (R), social relationship and commitment at home/friends, family (SRaC), career opportunity at home (COH), language difficulties and risky life abroad - Barriers to Study Abroad (BSaRLA)

Table 9 Emigration plans and personality factors

Personality factor ¹	Cronbach's Alpha	Females Md (n=283)	Males Md (n=92)	U	z	p	Undecided Md (n=139)	Leavers Md (n=87)	U	z	p	Stayers Md (n=88)	Leavers Md (n=87)	U	z	p
Extraversion	0.86	32	31	11663	-1.703	0.133	31	32	6407	0.755	0.450	31	32	4202	1.118	0.264
Agreeableness	0.81	32	31.5	11903.5	-1.238	0.216	32	32	5902.5	-0.302	0.762	32	32	4006.5	0.534	0.593
Conscientiousness	0.86	31	30.5	12634	-0.426	0.670	31	30	6035.5	-0.032	0.982	32	30	3258	-1.703	0.089
Neuroticism	0.86	19	17	11736	-1.421	0.155	19	18	5421	-1.302	0.191	19	18	3520	-0.920	0.358
Openness	0.52	28	29	14370.5	1.501	0.133	28	29	7364	2.763	0.006	27	29	4563.5	2.200	0.028

¹Possible range of every personality scale was from 5 to 40

Table 10 Multinomial logistic regression results for emigration plans among university students

	Sig.	OR	95%CI for Exp(B)		Sig.	OR	95%CI for Exp(B)	
			lower	upper			lower	upper
	Model 1				Model 2			
<i>Undecided vs Stayer^a</i>								
Gender	0,24	0,67	0,338	1,311				
Economic future	0,23	1,29	0,85	1,96				
Financial situation	0,39	0,89	0,695	1,151				
Importance of religion	0,13	0,85	0,695	1,048				
<i>Leavers vs Stayer^a</i>								
Gender	0,01	0,36	0,167	0,763				
Economic future	0,01	1,92	1,175	3,145				
Financial situation	0,57	1,09	0,814	1,457				
Importance of religion	0.001	0,57	0,449	0,72				
<i>Undecided vs Leavers^b</i>								
Gender	0,06	1,86	0,987	3,51				
Economic future	0,07	0,67	0,437	1,032				
Financial situation	0,13	0,82	0,638	1,057				
Importance of religion	0.001	1,5	1,225	1,839				
Nagelkerke R ²	0.16							
<i>Undecided vs Stayer^a</i>								
Gender					0,136	0,551	0,3	1,2
Economic future					0,866	1,042	0,6	1,7
Financial situation					0,88	0,979	0,7	1,3
Importance of religion					0,634	0,945	0,8	1,2
LSO					0,391	0,946	0,8	1,1
SLS					0,047	0,887	0,8	1
E					0,227	1,058	1	1,2
DaE					0,031	1,137	1	1,3

COA	0,035	1,152	1	1,3
SMO	0,347	1,066	0,9	1,2
EaSLS	0,349	1,025	1	1,1
R	0,115	0,933	0,9	1
SRaC	0,004	0,687	0,5	0,9
CO	0,412	0,961	0,9	1,1
BSaRLA	0,746	0,983	0,9	1,1
<i>Leavers vs Stayer^a</i>				
Gender	0,004	0,248	0,1	0,6
Economic future	0,633	1,157	0,6	2,1
Financial situation	0,309	1,199	0,8	1,7
Importance of religion	0,002	0,633	0,5	0,8
LSO	0,603	0,954	0,8	1,1
SLS	0,157	0,9	0,8	1
E	0,724	1,021	0,9	1,1
DaE	0,001	1,356	1,1	1,6
COA	0,016	1,276	1	1,6
SMO	0,476	1,063	0,9	1,3
EaSLS	0,302	1,035	1	1,1
R	0,031	0,888	0,8	1
SRaC	0,001	0,549	0,4	0,7
CO	0,132	0,915	0,8	1
BSaRLA	0,261	0,927	0,8	1,1
<i>Undecided vs Leavers^b</i>				
Gender	0,033	2,22	1,1	4,6
Economic future	0,666	0,901	0,6	1,5
Financial situation	0,16	0,817	0,6	1,1
Importance of religion	0,001	1,493	1,2	1,9
LSO	0,919	0,992	0,9	1,2
SLS	0,809	0,986	0,9	1,1
E	0,444	1,037	0,9	1,1
DaE	0,029	0,839	0,7	1
COA	0,256	0,903	0,8	1,1
SMO	0,969	1,003	0,9	1,2

EaSLS	0,721	0,99	0,9	1
R	0,271	1,05	1	1,1
SRaC	0,022	1,251	1	1,5
CO	0,295	1,05	1	1,2
BSaRLA	0,29	1,06	1	1,2

Nagelkerke R² 0.40

Pull factors: language skills opportunity (LSO), social and legislative support, security (SLS), access of high quality education abroad (E), desire for change, new experience (DaE), career opportunity (COA), open social multicultural opportunity (SMO);

Push factors: access of high quality education at home country and social and legislative support, security - education and security (EaSLS), rootedness (R), social relationship and commitment at home/friends, family (SRaC), career opportunity at home (COH), language difficulties and risky life abroad - Barriers to Study Abroad (BSaRLA)

a. The reference category is: Stayers, b The reference category is: Leavers

Gender, emigration plans and personality factors

A Mann-Whitney U test revealed no significant gender differences in the personality factors scores (Table 9), and no significant differences in the personality factors of undecided vs leavers, as well as stayers vs leavers with the exception of one personality factor - Openness to experience (Table 9). The results indicated that the median score on Openness to experience for leavers was significantly higher compared to the stayers and undecided (Table 9).

Gender, socioeconomic factors, the importance of religion, pull, push factors and emigration plans. Stayers vs Undecided vs Leavers.

We used multinomial logistic regression to statistically investigate the explanatory power of gender, socioeconomic, importance of religion, pull and push factors on the emigration plans of Slovak university students. The regression results are displayed in Table 10, which contains two models. The first model regresses only background variables (gender, socio-economic variables and the importance of religion), the second model adds pull and push factors of emigration plans. There are three parts in the multinomial logistic regression models. The first part compares undecided vs. stayers, the second part compares leavers vs. stayers and the third part compares undecided vs. leavers.

The first model explained between 14% (Cox and Snell R square) and 15.8% (Nagelkerke R square) of the variance of the emigration plans. In the first model of multinomial regression analysis, being male, a more pessimistic perception of Slovakia's economic future, a lower level of the importance of religion were associated with emigration plans (leavers), as compared to stayers. A higher level of the importance of religion was associated with indecision regarding emigration plans (Table 10).

The second final model with pull and push factors included explained between 35.4% (Cox and Snell R square) and 40.1% (Nagelkerke R square) of the variance of emigration plans (Table 10). A lower level of social and legislative support, security life abroad (SLS), social relationship and commitment at home (friends, family, SRaC), and a higher level of desire for change and new experience (DaE), as well as career opportunity abroad (COA)

were associated with indecision regarding emigration plans, as compared to stayers (Table 10).

Being male, a lower level of the importance of religion, a higher level of desire for change and new experience (DaE), career opportunity at abroad (COA), as well as lower level of rootedness (R) and social relationships and commitment at home (friends, family, SRaC) were associated with emigration plans (leavers) as compared with stayers (Table 7).

Female gender, the higher level of the importance of religion, as well as social relationship and commitment at home (friends, family, SRaC), and the lower level of desire for change and new experience (DaE) were associated with indecision regarding emigration plans, as compared with leavers (Table 7).

Gender, socioeconomic factors,
the importance of religion, pull, push factors,
personality factors and emigration plans.

Stayers vs Leavers

Binary logistic regression was performed to assess the associations between the number of independent variables with statistically significant contributions to the previous models of multinomial logistic regression (Table 10) adjusted for personality factors and emigration plans (stayers vs leavers). The model contained ten independent variables (gender, the importance of religion, two pull factors and two push factors, as well as five personality factors). The full model containing all independent variables was statistically significant $\chi^2 = 124.66$, $p \leq 0.001$, indicating that the model was able to distinguish between stayers and leavers. The model as a whole explained between 51% (Cox & Snell R Square) and 67.9% (Nagelkerke R Square) of variance in emigration plans. As shown in Table 11, gender, the importance of religion, one pull factor - desire for change, new experience (DaE), as well as both explored push factors - rootedness (R) and social relationships and commitment at home/friends, family (SRaC), and two personality factors (extraversion and conscientiousness) made a statistically significant contributions to the model. A higher level of extraversion and lower level of conscientiousness were associated with emigration plans (stayers vs leavers).

Table 11 Binary logistic regression results for emigration plans (stayers vs leavers) among university students

	Sig.	Exp(B)	95% C.I. for EXP(B)	
			Lower	Upper
Gender	0,012	3,953	1,346	11,613
Importance of religion	0,002	0,579	0,41	0,818
DaE	0,014	1,280	1,052	1,557
COA	0,270	1,123	0,914	1,380
R	0,018	0,867	0,771	0,976
SRaC	<0,001	0,399	0,265	0,601
Extraversion	0,034	1,129	1,009	1,264
Agreeableness	0,721	1,026	0,893	1,177
Conscientiousness	0,019	0,896	0,817	0,982
Neuroticism	0,649	0,985	0,922	1,052
Openness	0,190	0,926	0,825	1,039
R ²	0.680			

Pull factors: desire for change, new experience (DaE), career opportunity (COA),

Push factors: rootedness (R), social relationship and commitment at home/friends, family (SRaC)

The moderation effect of gender on the relationship between explored independent variables and emigration plans. Stayers vs Leavers

We used binary logistic regression to statistically investigate the moderation effect of gender on the relationship between the explored independent variables; the ones with significant contributions according to the results of the previous analysis and emigration plans (stayers vs. leavers) (Table 11). The full model consisted of eight independent variables (gender, the importance of religious, two pull factors and two push factors, as well as two personality factors consistent with the results of previous analyses) and two interactions (gender x personality factors).

The regression results are displayed in Table 12. Being male, a lower level of the importance of religion, social relationships and commitment at home (friends, family, SRaC), rootedness (R),

= conscientiousness, as well as a higher level of desire for change and new experience (DaE), and extraversion were associated with emigration plans (stayers vs. leavers). The moderation effects of gender on the relationship between the importance of religion, two pull factors and two push factors and emigration plans were not confirmed. Thus, these interactions were excluded from future analysis. Only one statistically significant interaction, gender and extraversion, was found.

A lower level of extraversion was related to the absence of emigration plans among males / stayers compared to females (Figure 1). Thus, gender was found to moderate the relationship between extraversion and emigration plans.

Table 12 The moderation effect of gender on the relationship between explored independent variables and emigration plans. Stayers vs Leavers

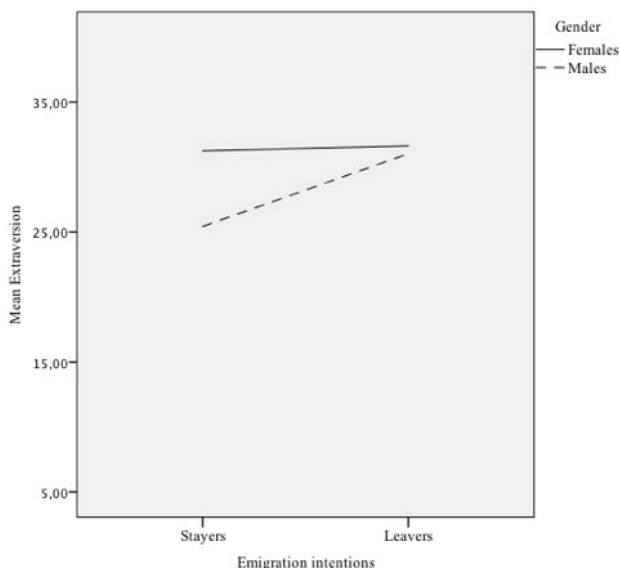
	Sig.	Exp(B)	95% C.I.for EXP(B)	
			Lower	Upper
Gender	0,026	0,001	0,001	0,428
Importance of religion	0,007	0,621	0,440	0,877
DaE	0,005	1,349	1,097	1,659
COA	0,466	1,083	0,874	1,342
R	0,044	0,889	0,792	0,997
SRaC	<0.001	0,368	0,241	0,560
Extraversion	0,444	1,041	0,940	1,152
Conscientiousness	0,006	0,860	0,773	0,957
Extraversion x gender	0,009	1,312	1,071	1,607
Conscientiousness x gender	0,906	1,011	0,839	1,220

Pull factors: desire for change, new experience (DaE), career opportunity (COA), Push factors: rootedness (R), social relationship and commitment at home/friends, family (SRaC); 1The moderation effects of gender on the relationship between explored push factors, pull factors, the importance of religion and emigration plans (Stayers vs Leavers) were not significant and were excluded from analysis;

DISCUSSION Wallace and Haerpfer (2001) reported that fewer than 10% of Slovaks were seriously interested in migration (the New Democracies Barometer) and pull factors were more important for them than push factors. Yet, it was younger and more educated Slovaks that showed more interest in migration. This movement could also be found among Hungarians. Siska-Szilasi,

Kóródi, Vadrnai (2016) reported that the intensity of emigration continuously grew in Hungary, especially among highly educated people.

Graph 1 Moderation effect of gender on the relationship between personality factor extraversion and emigration plans (stayers vs. leavers) among Slovak university students



In this study, it was found that 37.1% of university students were undecided. This means that this group of students were considering the possibility of leaving Slovakia after they finished university, but had not decided yet. Further, 23.2% of the students were leavers, i. e. students who were planning to leave after they finished university. Based on the investigation of the effect of skilled migration on innovation, patenting and bibliometric data, in a panel of 20 European countries between 1995 and 2008, it was found that skilled migrants positively contribute to private, as well as public knowledge creation (Bosetti, Cattaneo, Verdolini, 2015). From this point of view, 23.2% of leavers identified in this research should be evaluated positively.

This study resulted in the finding that the priority of pull factors attracting Slovak university students to emigrate were language

skills opportunity (LSO), desire for change, new experience (DaE), and career opportunity (COA). The push factors repelling them from emigration were social relationships and commitment at home/friends, family (SRaC). These results are consistent with conclusions of the study by Kahanec, Fabo (2013), who explored migration intentions of the youth in new member states using the Eurobarometer 337, wave 72.5, and concluded that a number of push and pull factors indicate that discovering something new, improving one's qualifications, or simply career opportunities were important determinants of the migration decision among the young workers from new EU member states. An endeavour to improve professional competencies, carrier opportunity, and the development of social, intimacy relationships, as well as to strengthen the personal and social identity are important life tasks and life purposes of university students. The pull / push factors of emigration plans which were identified among Slovak university students reflect these developmental distinctiveness of young adults.

In our study, the gender analyses allowed us to conclude that a higher level of the importance of pull factors such as language skills opportunity (LSO), access of high quality education abroad (E), open social multicultural opportunity (SMO), and push factors such as social relationships and commitment at home (SRC), barriers to studying abroad (language difficulties and risky life abroad, BSaRLA) among females. Many factors that could be associated with the decision to emigrate and that made migration more or less possible for females have been identified in the pre-migration stage. These were labour market conditions and conditions of work, the ability of the economy to provide jobs and the type of jobs available, related infrastructure of the sending country (education, job training); the language(s) of the sending society (Boyd, Grieco, 2003), gender equality in the workplace especially of high-skilled females (Baudassé, Bazillier, 2014, Lim, 1993). A higher level of such pull factors such as language skills opportunity and access of high quality education abroad among Slovak female students support this conclusion. In addition, a higher level of the importance of the push factor relationship and commitment at home among Slovak female students could reflect the effect of family context on the migration of women as was stated by Boyd, Grieco (2003). The authors emphasized the need for the incorporation of the gender topic to international migration theory. The investigation of the relationship between

emigration plans and psycho-social factors of gender identity, gender relations, gender role can contribute to a better understanding of the emigration process.

Our results also showed that those who want to stay in Slovakia and do not want to leave (stayers) value religion, or better said, their faith, more than those who are undecided about leaving or than those who want to emigrate (leavers). At the same time, also the undecided value their faith more when compared to the leavers, but less when compared to the stayers. The association between religion and internal migration was found (Kontuly, Smith & Heaton, 1995), specifically, the relationship between a higher level of engagement in religious services and intentions to stay was found (Frieze, Hansen & Boneva, 2006; Hoffman, Marsiglia & Ayers, 2015). This can be possibly explained by the fact, as stated by Saroglou, Delpierre & Dernelle (2004), that religious people attach greater importance to traditional values and lower importance to the so-called hedonistic values such as openness to change. The results of this study, although only descriptive, also showed that leavers are significantly more open to new experience than the undecided and stayers. In addition, a higher level of extraversion and lower level of conscientiousness were present among leavers. These relationships are in line with some previous findings, for extraversion (Canache et al., 2013; Silventioinen, 2007) and for conscientiousness (Paulaskaitė, Šeibokaitė & Endriulaitienė, 2010) as well.

To sum up, the profiles of university students (stayers, undecided, leavers) based on this study's results for emigration plans among university students can be outlined:

Stayers. It is more likely that students are stayers, that they do not have a plan to leave Slovakia after university, if:

- they are females
- religion is very important in their life (the highest level of the importance of religion in their life, as compared with undecided and leavers),
- the evaluation of social and legislative support, security life abroad (SLS) is lower (as compared with undecided),
- desire for change and new experience (DaE), as well as career opportunity abroad (COA) are less important (as compared with undecided and leavers)

- the level of rootedness (R) and the importance of social relationships and commitment at home (friends, family, SRaC) are higher (as compared with undecided and leavers)
- as to personality, lower level of extraversion and higher level of conscientiousness was a part of the profile of stayers.

Undecided. It is more likely that students are undecided, it means that they do not know if stay or leave, they have not decided yet, if:

- they are females
- the importance of religion in their life is lower as compared with stayers and higher as compared with leavers
- the importance of desire for change and new experience (DaE), as well as career opportunity abroad (COA) are less important as compared with leavers, however more important as compared with stayers
- the level of rootedness (R) and the importance of social relationship and commitment at home (friends, family, SRaC) are higher as compared with leavers, however lower as compared with stayers

Leavers. It is more likely that students are leavers, who were considering the possibility of leaving Slovakia after they finish university, if:

- they are males
- religion is not very important in their life (the lowest level of the importance of religion in their life, as compared with undecided and stayers)
- desire for change and new experience (DaE), as well as career opportunity abroad (COA) are more important (as compared with undecided and stayers)
- the level of rootedness (R) and the importance of social relationships and commitment at home (friends, family, SRaC) are lower (as compared with undecided and stayers)
- as to personality, higher level of extraversion and lower level of conscientiousness was a part of the profile of leavers.

Future research is needed to explore the pre-migration phase of emigration as a process. A longitudinal design of investigation of emigration plans is needed, as well as qualitative analyses of emigration intentions, plans, aspirations and expectations among university students as well as among adolescents.

LIMITATIONS	<p>It is also important to address the limitations of this study. Most importantly, the investigation was conducted with a relatively small sample relying on self-reported data collected online. The lists of items of push and pull factors, used in this research of emigration plans among Slovak university students, were not based on qualitative research outputs but only on a literature review.</p>
IMPLICATIONS FOR PRACTICE	<p>It is important to support brain training and brain circulation (Williams, Baláž, 2005), Erasmus+ mobilities of Slovak university students and to increase the value of „human capital“ of our skilled young adults through formal education and lifelong learning aimed at fully developing students' competences (Evans, 2002 in Williams, Baláž, 2005, p. 444):</p> <ul style="list-style-type: none"> • „Content-related and practical competences (e.g., willingness to carry out a variety of duties); • Competences related to attitudes and values (e.g., responsibility or reliability); • Learning competences (e.g., openness to learning or perceptiveness); • Methodological competences (e.g., networking skills or ability to handle multiple tasks); and • Social and interpersonal competences (e.g., communication skills or awareness of others' viewpoints).“
CONCLUSIONS	<p>In our study, it was found that 37.1% of university students were considering the possibility of leaving Slovakia after they finish university, but had not decided yet. 23.2% were planning to leave Slovakia after they finish university. The priority of pull factors attracting Slovak university students to emigrate were language skills opportunity, desire for change, new experience, and career opportunity. The priority of push factors repelling them from emigration were social relationships and commitment at home/friends, family. A higher level of importance of pull factors such as language skills opportunity, access of high quality education abroad, open social multicultural opportunity, and push factors such as social relationships and commitment at home, barriers to studying abroad (language difficulties and risky life abroad) were reported by females, as compared with males.</p> <p>Being male, a lower level of the importance of religion, a higher level of the desire for change and new experience, and career opportunity abroad, as well as a lower level of rootedness and</p>

social relationships and commitment at home (friends, family) were associated with emigration plans (leavers) as compared with stayers. Being female, a higher level of the importance of religion, as well as social relationships and commitment at home (friends, family), and a lower level of desire for change and new experience were associated with indecisions regarding emigration plans, as compared with leavers. A higher level of extraversion and lower level of conscientiousness were associated with emigration plans (stayers vs leavers). Gender was found to moderate the relationship between extraversion and emigration plans.

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Psychological contexts of students' migration from the perspective of the Self-determination theory

Jozef Benka

INTRODUCTION

Migration is an overarching term representing a whole spectrum of phenomena which can be defined as an act, a process or an instance of migrating i.e. moving from one place to another (Merriam-Webster Inc, 2005). These phenomena have been always present at all levels of human society. However, whether the national, regional, ethnic, tribal, or family level is considered, migration eventually affects lives of individual people (Chirkov, Ryan, Kim, & Kaplan, 2003). The level, relative intensity and perhaps most importantly the reasons behind migration give migration a concrete shape. However, it is usually the consequences of migration, imminent or long-term that provide a different weight of significance and relevance for migration as a topic which deserves attention of researchers.

It is important to acknowledge that today's world has relatively recently gone through quite significant changes which are highly relevant for migration. In particular, new social and societal contexts appear with quickly expanding globalization spurred by the development of new technologies making worldwide travel and communication accessible and affordable for masses. This has a far-reaching impact on both the physical and the psychological interconnectedness. This has caused that not only similarities but also differences between countries and societies are being confronted more frequently and at a greater speed than ever. Therefore, it is worth considering that the context of migration today differs from that in the past and migration may take on different forms and may essentially represent a different and to some extent perhaps even completely new phenomenon (Canache, Hayes, Mondak, & Wals, 2013; Mullet, Dej, Lemaire, Raïff, & Barthorpe, 2000).

Nevertheless, any exploration should be grounded on the existing knowledge, and this chapter will firstly focus on most frequently used approaches/theories and psychological constructs which

have been used to study migration. It will be mainly argued that even though migration is a very complex phenomenon which requires multidisciplinary approach, psychological analysis has an important and irreplaceable role in understanding migration on the individual level, and especially with regard to individual's emigration plans, intentions and decisions to move and live in another region or country.

Most of the theories which have been used to study migration (presented in other chapters of this monograph) put considerable emphasis implicitly or explicitly on the motivational variables and social influence variables. This chapter will narrow its focus and use the Self-determination theory (SDT) as a modern macro-theory of human motivation and personality. The fundamental tenets of SDT will be briefly presented. The main emphasis will be on the concept of autonomy and autonomous functioning as the key variable for understanding individual's functioning in the society in the context of migration. The SDT will be then used as the main conceptual basis and the empirical investigation will focus on the role of autonomy and autonomous functioning in relation to emigration plans and the "content" of these plans of university students.

Migration as complex a phenomenon defined by its context

The concrete form and content of migration is always shaped in and by the specific context which involves societal, economic, political, social and psychological factors. It would, indeed, be perhaps more accurate to address it in terms of essentially different and separate phenomena in each of existing contexts which by the definition involve relocation of groups or aggregates of people. Therefore, migration and what is meant by it, ultimately depends on the situation and the very concrete circumstances in which it takes place. In addition, the level of analysis can vary from national to individual, the emphasis can be put on the prediction of the occurrence and scale of migration. A different goal would be to understand its causes based on specific circumstances. Lastly, every discipline studying migration and the process of migration postulates its own conceptual views and often uses existing comprehensive theories or their modifications which are subsequently applied to the problem of migration (Groenewold, Bruijn, & Bilsborrow, 2006).

This should not be underestimated even if the approach is interdisciplinary the ultimate goal and emphasis on different factors by different disciplines is unavoidable (Chirkov et al., 2003).

In order to demonstrate this, it is important to at least briefly address the point of view of different disciplines that have paid a lot of scientific attention to migration such as economics, sociology, political science and last but not least, psychology.

The economic approach has stressed the importance and the role of economic wealth and its distribution which can be traced back to the Neoclassical approach (Mullet et al., 2000). Distribution of wealth and its specific characteristics are very closely related to the functioning of labor markets which can be seen as the main motivator for moving from one region or country to another. An example of this approach could be the classic approach of the Gravity theory of migration which was originally developed in the field of urban studies. This theory applied Newton's law of gravity and is based on the interactive influence of two main factors location/distance and importance. Importance was further defined by gross national product of the location and population density. This has been applied directly to consumer behavior and is known as Reilly's law of retail gravitation (Reilly, 1931). Current economic approaches focus more closely on the characteristics of the labor market emphasizing the role of skill composition, work adaptation of immigrants and their further impact on the economy of the country (Mullet et al., 2000).

Sociological approaches, on the other hand, try to identify the factors arising from the social structures and focus mainly the changes that occur within these structures (Mullet et al., 2000). Then, they emphasize political and societal factors that play a crucial role in defining norms and contribute or even shape a discourse in societies which is highly relevant for attributing meaning to certain significant social phenomena relevant for migration. The common theme which these approaches share is that their main concern is to identify the "motivators" for migration which are believed to be located in the environment or social context of an individual.

Socio-economic approach to migration

Certain integration of these approaches can be found in the socio-economic approach of push and pull factors (Chirkov et al., 2003;

Mullet et al., 2000). Originally, push and pull factors corresponded to the forces or factors related with the increase and the decrease in labor demand. Thus, its use depended on the dynamisms of the economies pushing and pulling individuals to and from countries or regions. However, this approach allowed for inclusion of additional factors which were more sociological or psychological in nature. Particularly, sociological models have started to emphasize that individuals may be pushed from their own countries by the lack of liberties or personal freedom, marginalization or ostracism, discrimination, religious confession and similar issues whereas the pull factors are based more on perceived hopes for the future and promising career opportunities. Perhaps it could be concluded that push and pull approach has eventually brought the emphasis on social and psychological factors.

Psychological approaches to migration

In the current research of migration, it is still mostly economic, demographic and sociological factors which dominate the research of migration as such. Models which are based on these factors to a large extent juxtapose the conditions in home country versus the conditions in the potential country to which individuals consider moving (Canache, Hayes, Mondak, & Wals, 2013). This line of thinking originally stems from the so called “deficiency models” by which is meant that emigrants have fewer resources in their home country and strive to find new resources in other countries. However, the resources in original deficiency models represent not only material and economic resources but also social and personal resources. This model thus formulated an important premise where the decision to emigrate is related to feelings of insecurity and inadequacy in the social environment of the home country (Tartakovsky & Schwartz, 2001). This idea is no longer acceptable which has been reflected by the already mentioned concept of “pull factors” within the socio-economic approach.

Nevertheless, while perceived deficiency in valued areas of life is undoubtedly important, the current line of thinking emphasizes that the driving force for making decisions to leave lies not so much in the lack of personal and social resources but contrary in its presence and potential. Therefore, when addressing migration on an individual level the psychological aim should be to identify and understand intrapersonal and interpersonal variables which

play an important role during the migration process and perhaps beyond it (after the individual has moved to the desired country) and reveal the mechanisms of their interplay. Contrary to the economic and sociological approaches the main aim is to understand the processes that take place on individual level.

In order to do so, several existing theories have been utilized. For the purposes of this chapter it is useful to divide them into two groups. The first group consists of those theories which stand on the grand theories of human motivation and include for example Maslow's theory of motivation and McClelland's theory of motivation (B. Boneva et al., 1998; Ehlers & Oosthuizen, 2007). Both theories stress the importance of deeply rooted human needs/motives which every individual seeks to satisfy. These needs and motivations thus form implicit determinants which make it more likely for certain individuals to leave under the same conditions. Particularly McClelland's theory of motivation has been elaborated as a basis for the so called "migrant personality" (Boneva & Frieze, 2001). Other theories took a narrower approach and addressed specific constructs such as sensation-seeking or optimism (Tartakovsky & Schwartz, 2001). However, a comprehensive approach which would address both implicit motives and explicit goals is still lacking. An interesting study was published by Tartakovsky and Schwartz (2001) who studied motivations to emigrate among potential Jewish emigrants from Russia. They based their theory on Schwartz's elaboration of the concept of basic human motivation. They identified three distinct motivations: preservation (physical, social and psychological security), self-development (personal growth in abilities, knowledge and skills) and finally materialism (financial well-being and wealth). Each type of motivation was found to be associated with basic values underlying each factor (Tartakovsky & Schwartz, 2001).

The second group of theories puts a stronger emphasis on the social environment rather than stable personality traits. This group focuses on the importance of normative social influence (Deutsch & Gerard, 1955) and particularly the role of normative beliefs (Madden, Ellen, & Ajzen, 1992). Normative beliefs as antecedents of social norms are experienced as social pressure toward certain behavior. This approach has been mainly elaborated within the Theory of Reasoned Action and the Theory of Planned Behavior. Different types of norms have been distinguished and particularly injunctive (behaviors perceived as

morally approved), descriptive (behavior of most people), subjective norm (how significant others think one should behave) and personal norm (internalized social norm or value). Normative approach might be highly relevant because it enables to analyze the current social perceptions of migration and attitudes toward it especially with respect to the reference group and significant others such as family.

Why is it important to study migration now and among university students?

So far, we have mainly addressed the general issues related to migration and discussed the problem of finding a solid theoretical background. Now, it is important to look at the context of this book which specifically concerns university students.

Departing abroad for work, study or "life" is the norm among the young and studying population in the Eastern Europe including Slovakia. Or is it? What does it bring and why is it important to focus on this group specifically? Firstly, whether this kind of migration is driven by education, career, finance, self-development, it tends to be generally labelled as migration of (highly) qualified workforce and its migration has earned its relevance under a very generic term brain-drain. But is this really the case? The brain-drain or more recently the brain circulation is a specific type of migration which is widely recognized. But once again, brain drain is associated more with the contexts of labor markets and has strong economic connotations. The role of psychology in understanding it should not be underestimated (Chirkov et al., 2003).

Secondly, most studies dealing with this issue have addressed the context of the United States of America (USA), which, on the one hand, is not surprising given the mobility possibilities in the US (Frieze & Li, 2010; Frieze et al., 2011). On the other hand, however, it is important to say that the existence of the European Union (EU) and the possibilities for free movement of persons and the labor force (after some constraints) created a similar environment, although with very important specificities regarding the relatively large differences between the individual economies of the countries, of which the EU itself is composed (Mullet et al., 2000). Apart from the existing economic differences, it is also important to mention the socio-cultural differences that create the content. In such a situation of the

existing possibilities of life in another country or other environment, psychological factors such as goals and motivations play an important role (Frieze, Hansen, & Boneva, 2006).

Perspective of the Self-determination theory

The Self - determination theory (SDT) is a modern macro-theory of personality and motivation. It constitutes a comprehensive approach which offers a broad framework for the exploration of the relationship between individual and his or her social settings. From the perspective of the current topic of migration, it is particularly important to mention that this allows to analyze both individual differences and aspects of the environment or social setting which might be relevant for both the plans to leave in search for better environment as well as it might be equally important for understanding the reasons and perhaps the goals of the individual which are important for behavioural regulation (Deci & Ryan, 2008).

SDT is based on certain assumptions regarding human behavior and its causal factors. Since this is very important and crucial, these assumptions are briefly presented. Firstly, within SDT people are basically understood to be active organisms which have an innate tendency to overcome obstacles and challenges, possess a natural tendency for growth, and tend to integrate their experiences which is a basis for the development of a coherent self (Deci & Ryan, 1991). Secondly, this natural tendency is to a considerable level dependent on the environment and social contexts in which individuals live. With a necessary simplification it can be said that social context either facilitate or suppresses this natural organismic tendency. Such suppression causes disintegration, activates defensive processes, or triggers the fulfillment substitute needs (Vansteenkiste & Ryan, 2013). In sum, behavior and experience are according to SDT being formed in the interactions of the organism and the social environment in which he or she lives mainly through the process of internalization (Deci & Ryan, 2008).

The central construct of the SDT theory which emerges from this interaction between individual and his/her environment is the concept of autonomy. From the point of view of this theoretical approach, autonomy is present in different forms. The most pertaining characteristic of autonomy on the experiential level would be that behavior which is conducted autonomously is

accompanied by the feeling that individual acts out of his/her own will and not on the basis of external pressures. In addition, individual fully accepts and is identified with his/her actions. Autonomy can thus be characterized in terms of a sense of integrity that is the driving force of one's action, and in a wider context, development (Deci & Ryan, 2008).

In SDT, a positive development of an individual involves a general progress toward greater autonomy in behavior and experience that leads to psychological integration. The key element of this process is, in addition to intrinsic motivation of the organismic view, the process of internalization and the process of integration of originally extrinsic regulation of behavior. From a more general perspective, the more autonomously individual functions, the more actively he/she participates in managing his or her life, life goals are more intrinsically regulated, plans tend to be less conditioned by the external factors and as a consequence individual experiences greater well-being (Deci & Ryan, 2008).

The central and main function of the construct of autonomy is in qualitative differences in the self-regulatory and motivational processes of the individual. Most of the theory in the field of motivation has focused more on "quantity" without deeper qualitative differentiation. SDT puts a large emphasis on whether individual regulation is based on controlling mechanisms of the external environment, or whether the dominating processes in regulation are autonomously regulated goals. Furthermore, the relationship between the individual and the environment is specified by three basic psychological needs, which are autonomy, competence and relatedness. If these basic needs are satisfied by autonomous functioning, individual (organism) experiences well-being and functions optimally (Ryan & Deci, 2008). However, if basic needs are not satisfied or thwarted, either in terms of developmental or contextual aspect, this eventually leads to deterioration of psychological functioning. In case of a serious deprivation a psychological, serious psychopathology may occur (Ryan & Deci, 2008).

In addition to the presented basic postulates, SDT gradually formally developed into six partial or mini – theories: Cognitive Evaluation Theory, Organismic Integration Theory, Causality Orientation Theory, Basic Psychological Needs Theory, Goal Content Theory and Relationships Motivation Theory. Each of these partial theories essentially addresses one aspect of

functioning of in an autonomous way with the emphasis put on autonomy support, internalization, basic psychological needs, goal content or relationships (Ryan & Deci, 2008).

In this chapter, we will be mainly interested in the exploration of autonomy on the level of autonomous functioning in terms of relatively stable differences among individuals which corresponds with the Causality Orientation Theory. This approach has been chosen because it allows to study the nature of the relationship between individual and his or her social settings in terms of autonomous functioning and thus might be related to willingness to change the social settings.

Relatively recently, Weinstein (2012) proposed that autonomous functioning as a relatively stable individual difference comprises three components. These components were called Authorship/Self-congruence, Interest-taking and Susceptibility to Control. These components capture three different aspects and manifestations of autonomous functioning. The first two are intrapersonal and address the fact the one is interested in the causes of his or her intrapsychic processes (Interest-taking) and tends to feel as the author of his or her own actions which are also perceived in line with his/her values and goals. The third component is different and addresses the characteristics of the environment. In particular, it focuses on its controlling aspect and the level to which one tends to subdue to its forces (Weinstein, Przybylski, & Ryan, 2012). As mentioned in the introductory parts of this chapter, most of the reviewed theories and particularly those coming from interdisciplinary research have focused mostly on environmental factors and ascribed them either explanatory or predictive value. The approach of the SDT allows to fully acknowledge the importance of the environmental factors and yet bring the attention to individual level by emphasizing qualitative aspects of self-regulatory as well as motivation processes.

Aim

The aim of this study was to explore the relationship between autonomy as the main construct of Self-determination theory and emigration plans as well as the content of these plans in the form of motivations or “pull factors”. In particular, the aim is to explore the relationship between autonomy support, individual differences in autonomous functioning and normative beliefs in relation to emigration plans and motives for leaving.

SAMPLE	<p>The sample consisted of 489 university students studying at universities in different Slovak regions (Mean age = 22.80, SD = 2.97; 76.5% women). Potential participants were invited to complete an online survey which was advertised on official websites of participating universities as well as spread via messages using academic information networks and online social networks. While the reach to university students was considerable the sample was based on self-selection.</p>
STATISTICAL ANALYSES	<p>Descriptive statistics was used to provide a general overview of the data. Gender comparisons were analyzed by chi-square test, Mann-Whitney U-test and independent t-test. Logistic and linear regression analyses were used to analyze hypothesized relationships. In the case of significant deviation from normality, square root transformation was applied. All analyses were performed in the SPSS 21.</p>
MEASURES	<p><i>Emigration plans</i> – emigration plans were measured by the question: „Are you planning to leave Slovakia after completing your university study?“ with possible answers: No, I am not planning to leave; I don’t know, I have not thought about it; I don’t know, I have not decided; Yes, I am planning to leave for a period up to 6 months; Yes, I am planning to leave for a period from 6 to 12 months; Yes, I am planning to leave for a period longer than a year; Yes, I am planning to leave for a period longer than 5 years; Yes, I am planning to leave permanently. For the purposes of binary logistic regression, the answers were dichotomized to (0) not planning to leave and (1) planning to leave for a year or longer.</p> <p><i>Motivations to emigrate</i> were measured by the measure of Pull and Push factors (only pull factors were used) which consisted of six subscales addressing these areas: Language (opportunity for improving language skills), Security (feeling socially and physically safe), Education (opportunity for high quality education), Experience (opportunity to experience new things), Career (opportunities for career progress) and Relationships & Culture (opportunity for relationships in an open/liberal culture) (Mullet et al., 2000). All subscales consisted of four items which were evaluated on a 5-point Likert type scale. Cronbach’s alpha for individual subscales ranged from 0.80-0.91.</p> <p><i>Autonomy</i> was measured using the Index of Autonomous Functioning (IAF), which consists of three subclasses representing individual components of autonomy as theoretically</p>

conceptualized within SDT (Weinstein et al., 2012). These components are "Authorship / self-congruence", "Susceptibility to control," and "Interest-taking" (Reflection). This method addresses three dimensions of autonomous functioning, including the ability to reflect their own experiences and ideas, the ability to integrate these experiences, and the ability to withstand the control element of the environment. Individual scale items are rated on a five-point Likert scale. The individual subscales showed good internal consistency (Cronbach's alpha 0.80-0.90).

Autonomy support was measured by two subscales Family autonomy support and Family separation support capturing two tendencies relevant for assessing autonomy supporting environment in the family (Manzi et al., 2012). Both measures consisted of six items each and were assessed on a 7-point Likert-type scale (Cronbach's alpha 0.78-0.89).

Normative beliefs - Four types of normative beliefs focused on the family environment were measured by single items evaluated on a 5-point Likert-type scale. Descriptive normative belief "Many of my family members want to emigrate", Injunctive normative belief "My family agrees that leaving Slovakia is a good thing", Subjective normative belief "My family thinks that I should go to live abroad", Personal normative belief "According to my personal standards and beliefs it would be ok if I emigrate from Slovakia".

RESULTS

Firstly, descriptive statistics of the dependent variable emigration plans was conducted separately for female and male students as well as for the whole sample and is displayed in the Table 1. As can be seen the distribution among genders is approximately similar with the highest number of the undecided who are still considering the option of leaving. The second most numerous category were those who did not plan to leave at all (22.5%). Other categories correspond with specific timeframes for leaving and staying abroad and reflect qualitative aspects which underlies the length of leaving. In order to overcome this, the respondents were dichotomized into two categories for the purposes of the further analyses. The first group consisted of respondents who were either not planning to leave or were planning to leave but only for a specified period (relatively short) of one year or less (n=373; 80% women). The second group consisted of respondents who planned to leave for a period of more than a year (n=116; 68% women). The number of male student was significantly higher in

the group which was planning to leave ($\chi^2=5.936$; $p<0.05$).

Table 1 Overview of the emigration plans for genders and for the total sample

Emigration plans	Men		Women		Total	
	frequency	%	frequency	%	frequency	%
No plan to leave	20	17.4	90	24.1	110	22.5
Undecided (have not thought about it)	4	03.5	21	05.6	25	05.1
Undecided (have not made a decision yet)	41	35.7	137	36.6	178	36.4
Planning to leave for 6 months or less	6	05.2	22	05.9	28	05.7
Planning to leave for 6 to 12 months	7	06.1	25	06.7	32	06.5
Planning to leave for more than a year	17	14.8	34	09.1	51	10.4
Planning to leave for 5 years or more	10	08.7	18	04.8	28	05.7
Planning to leave permanently	10	08.7	27	07.2	37	07.6

The Table 2 provides descriptive statistics and gender comparisons for the measured variables addressing six motives for leaving abroad, four measured types of normative beliefs, family autonomy support and autonomous functioning. Regarding the motives for emigration the highest relative scores were obtained in Language, Experience and Career showing the perceived significance of these motives. Gender comparisons showed that differences between male and female students existed. Males scored lower in Language, Education, Experience and Relationships & Culture. Regarding normative beliefs, the relatively highest scores were obtained for injunctive and personal belief. No gender differences were observed in this case. Lastly, autonomy related variables were addressed but no gender differences were found.

In the third step, binary logistic regression was performed to explore the relationship between normative believes, family autonomy support, autonomous functioning and the dependent

Table 2 Descriptive statistics for emigration motives, normative beliefs, autonomy support and autonomous functioning

		Female			Male		Gender comparisons	Total	
		Range	Mean	SD	Mean	SD	sig	Mean	SD
Motives	Language	4.20	18.16	2.41	17.21	3.29	p<0.001	17.93	2.67
	Security	4.20	15.38	3.17	14.84	3.47	ns	15.25	3.25
	Education	4.20	15.87	3.41	14.37	04.7	p<0.001	15.52	3.63
	Experience	5.20	17.51	2.70	16.71	3.42	p<0.05	17.32	2.90
	Career	7.20	17.60	2.28	17.27	2.59	ns	17.53	2.36
	Relationships and culture	4.20	14.44	3.00	13.00	3.34	p<0.001	14.10	3.14
NB	Descriptive NB	01.5	2.34	1.15	2.36	01.9	ns*	2.34	1.14
	Injunctive NB	01.5	3.30	1.00	3.34	.98	ns*	3.31	1.00
	Subjective NB	01.5	2.67	1.19	2.69	01.9	ns*	2.67	1.17
	Personal NB	01.5	3.57	1.19	3.44	1.19	ns*	3.54	1.19
AS	Family autonomy support	6.42	31.62	7.66	31.65	7.40	ns	31.63	7.59
	Family separation support	6.42	20.16	6.89	19.78	6.35	ns	20.7	6.77
IAF	Authorship/Congruence	9.25	20.13	2.88	19.91	3.24	ns	20.8	2.97
	Interest-taking	7.25	19.20	3.61	19.1	3.87	ns	19.15	3.67
	Susceptibility to control	5.25	15.52	3.41	15.50	3.48	ns	15.51	3.42

*Note gender comparisons were performed by t-test or *Mann-Whitney U-test; ns - not significant; NB - normative beliefs; AS - autonomy support; IAF - Index of autonomous functioning*

variable having versus not having emigration plans (planning to leave for one year or more). Out of autonomy related variables, only susceptibility to control was associated with emigration plans and this association was negative. This suggests that respondents scoring higher in susceptibility were less likely to plan to leave for a longer period of time (Table 3). For other autonomy related variables, there was no evidence that they would associated with having a plan to leave the home country. Normative beliefs, however, produced significant results in all instances except for the subjective normative belief. Personal and descriptive normative belief increased the probability of having a plan to leave while injunctive normative belief functioned in the opposite way.

Table 3 Binary logistic regression on emigration plans

	B	S.E.	Wald	Sig.	Exp(B)
Family autonomy support	.003	.016	.032	.859	1.003
Family separation support	.002	.017	.012	.913	1.002
Authorship/Self-congruence	-.012	.044	.078	.780	.988
Susceptibility to control	-.082	.041	3.997	.046	.922
Interest-taking	-.025	.038	.417	.518	.976
Subjective normative belief	.064	.116	.306	.580	1.066
Injunctive normative belief	-.591	.178	11.053	.001	.554
Descriptive normative belief	.664	.147	20.330	.000	1.942
Personal normative belief	.892	.145	37.919	.000	2.439

Note R2 = 0.19 (Cox & Schnell), 0.29 (Nagelkerke); Chi-square (1) = 108.01 p<0,001; analysis was controlled for gender

Next, the analysis focused on different motives and linear regression was used to explore their relationships with autonomy related variables and normative beliefs. Six linear regression models were built, controlling for gender and addressing each motivation separately. As can be seen in the Table 4, different patterns of associations were observed between respective motives. Out of the autonomy measures two subscales showed significant relationships. These were Interest-taking in case of Education, Experience and Culture and Authorship/Self-congruence in case of career. Autonomy support from family did not produce any significant results. Finally, only personal

normative belief was associated with the motivations to leave with regard to Security, Experience, Career and Culture. Explained variance was relatively low and in most models reached approximately 10 percent.

Table 4 Linear regression of motives for emigrating

	Language	Security	Education	Experience	Career	Culture
Family autonomy support	.020	.025	.012	.017	.017	.012
Family separation support	.013	.014	-.063	.061	.039	.022
Authorship/ Self-congruence	.084	.099	.079	.053	.160***	-.004
Susceptibility to control	.064	.076	.071	.019	.082	-.036
Interest-taking	.055	.016	.135***	.174***	.020	.169***
Subjective normative belief	-.079	-.043	.067	.008	-.012	-.019
Injunctive normative belief	-.058	-.040	-.082	-.063	.071	-.056
Descriptive normative belief	.033	.080	.065	-.003	-.023	.087
Personal norm	.092	.171***	.008	.185**	.237***	.215***
Model R ²	0.06	0.06	0.08	0.09	0.10	0.09
F	2.79**	2.86**	4.22***	4.88***	5.43***	5.49***

*Note: displayed values are standardized betas; ***p<0.001; **p<0.05; variables were transformed by square root transformation to address the deviation from normality*

In the final analysis, interactions between autonomy related variables and normative beliefs were tested but no significant relationships were found. Only in the case of descriptive norm and susceptibility, the interaction product was approaching significance (p= 0.057).

DISCUSSION

This chapter provided a brief overview of the existing approaches to migration and tried to provide support for the importance of psychological analysis of this problem. Self-determination theory was used as a theoretical background and autonomy served as the main construct in relation to emigration plans. The main aim of the empirical investigation of this chapter was to address the relevance of autonomy in terms of inter-individual differences and family support in the context of migration and particularly with respect to emigration plans and their content. A further aim the aim was to explore the context of social norms and inspect whether they interact with autonomy.

Autonomy is a very broad construct which allows different conceptualizations. The theoretical framework of SDT used in this chapter conceptualizes autonomy within six mini-theories. In this chapter, the emphasis was put on the concept of autonomy mainly from two angles. The first angle was represented by autonomy in the form of autonomy support from family and the second angle focused on the relatively stable tendencies to act and function autonomously. Autonomous functioning was addressed by three indicators: Authorship/Self-congruence, Interest-taking and Susceptibility to control.

The first part of the aim was explored by analyzing the relationship between autonomy support and the mentioned three indicators of components of autonomy and emigration plans. While no specific hypothesis had been formulated concerning the direction of the relationship, interestingly, only the component of susceptibility to control was found to be related to having an emigration plan. The other two remaining components of autonomous functioning were not associated with emigration plans. Similarly, autonomy support did not produce a significant association either. This suggests autonomous functioning in terms of dominant intrinsic regulation does not play a role in this matter. On the other hand, susceptibility to control was found to be related to having an emigration plan. In this case it reflects the controlling aspects of the environment, whereas the remaining components do not. The importance of this was perhaps to some extent further highlighted by the fact that almost all normative beliefs as indicators of social pressure were significant as well. Existing research which has addressed this is sparse, but generally supports our results (Chirkov et al., 2003; Chirkov, Vansteenkiste, Tao, & Lynch, 2007).

The second part of this aim was the exploration of autonomous functioning with the content of the emigration plans which was measured by the motivations conceptualized similarly to “pull factors”. In this case, basically an opposite pattern was observed. Significant relationships were found in case of Education, Experience, Career and Culture. In all of these cases, components related to intrapersonal rather than to the environmental aspects were significant. Out of four normative beliefs only personal norm (internalized norm) was significant. Further analysis regarding potential interactions between autonomy related variables and normative beliefs did not reveal any significant results.

The observed trend, however, is very interesting. The two dependent variables addressed in this study focused on different aspects of emigration plans. The first one simply reflected the potential plan to leave for a longer period. It seemed to be more strongly related to “environmental” factors or “pressure” from the social settings and individual ability to resist such pressure. On the other hand, the “content” of concrete motivations for leaving such as studying, experiencing new things, developing one’s career were related to intrapersonal aspects of autonomy. In particular, it was seen in interindividual differences in self-reflection, perceived congruence of one’s inter world and interest in understanding one’s self.

Unarguably, the data and measures allowed only for analysis of trends on a quite general level. Nevertheless, the findings point out that there might be different factors at play when one is deciding whether to leave (perhaps more strongly determined by environmental factors) and when one considers what to leave for (intrapersonal factors). Specifically, different aspects of autonomous functioning seem to be related to making the decision and with what is “next” after the students leave. Even though, it must be said that this was measured only hypothetically, it implies that there are two separate psychological processes. The first has to do with the influence of the environment and social norms which can develop into social pressure and operate on the level of external regulation. The second process could be relatively independent and based on internal level of self-regulation (e.g. including internalized norms) which is crucial for integrated self and autonomous functioning. It could be further speculated that these two processes might be congruent or in conflict. The empirical analysis does not allow further speculation in this line but suggests a pathway for further investigation.

LIMITATIONS

This chapter addressed the topic which is relatively new and very strongly context based. It is important to address its limitations. Firstly, the operationalization of autonomy reflected only a general level of functioning and so the findings are relatively strictly limited to interpretation of trends as already discussed. Secondly, the sample was self-selected and the questions were hypothetical which has to be acknowledge with regard to generalizations.

FUTURE RESEARCH	In the chapter, an important link between normative beliefs and autonomous functioning was postulated but not sufficiently elaborated. Neither theoretically nor empirically. Nevertheless, it seems to be very relevant and might capture the inner interplay between factors of the social environment and the process of internalization of normative beliefs. Future research should study this in more depth.
IMPLICATIONS FOR PRACTICE	Migration in general and emigration of university students in particular, has been presented in the light of a complicated and interdisciplinary problem. However, this problem when broken down into individual parts, essentially concerns characteristics of a particular situation in social and perhaps political context which individual with his or her unique characteristics is a part of. Thus, exploring migration on the level of individual differences and intrapersonal variables such as autonomous functioning might be crucial for understanding migration on an individual level.
CONCLUSIONS	In this chapter, the relationship between autonomy and emigration plans of Slovak university students and the “content” of these plans operationalized as “pull factors” or motivators for leaving home country was addressed. Autonomy as the main variable was conceptualized as autonomous functioning consisting of three components (Authorship/Self-congruence, Susceptibility to control, Interest-taking) and autonomy support from the family. The analysis showed an important distinction. While emigration plans (plan to leave for a year or more) were found to be negatively related to Susceptibility to control as one of the components of autonomous functioning the “content” of these plans (e.g. new experiences, getting to know new culture, education...) was found to be associated with other more intrapersonal components of autonomous functioning such as Authorship/Self-congruence and Interest-taking. Further analysis focused on the interactions between social influence and autonomy but did not yield consistent results. Overall, the findings presented in this chapter show that the concept of autonomy is relevant for the exploration of migration and emigration plans reveal that different aspects of autonomy might be at play with regard to having versus not having a plan to leave and the actual “content” of the plan.

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Individualism and collectivism in the context of emigration of university students

Mária Bačíková

INTRODUCTION

Many university students consider the possibility of working and living abroad after finishing their studies. The migration of highly educated people is of great interest as this “brain drain” affects the whole economy of the country (Marchiori, Shen, & Docquier, 2013). It is therefore very important to study the factors that influence the young peoples’ decision to leave the home country. Within this paper we use the word “emigration” in terms of moving abroad for longer or permanent period.

Based on Ajzen’s (1991) theory of planned behaviour, Krieger (2004) views the decision to migrate as a stage process and describes several levels of commitment to migration: (1) from general inclination (a favourable attitude to migration), (2) via intention, (3) to firm intention (or plan) (for more information see the second chapter of this monograph). In the present study we will focus on the second and third level and will distinguish between migration intentions and migration plans.

There are many reasons why young people prefer to emigrate abroad for study or work opportunities and economic factors are not the only predictors. A number of psychological and social factors that contribute to the decision to emigrate have been identified (Frieze et al., 2004; Li et al., 2012) with some evidence that personal factors are more important than economic factors (Cairns, 2014). Among Slovak university students, the most important reasons for emigration intentions were better job opportunities, the possibility to improve language skills and opportunity for travelling and new experiences (Benka & Orosova, 2017).

When the predictors of emigration of highly skilled individuals are considered, it is important to take into account many intrapersonal characteristics that may significantly influence the willingness to emigrate. Research shows that people who score more highly on openness to experience and uncertainty tolerance are more ready to relocate for work (Otto & Dalbert, 2012).

University students with higher willingness to take risks more often planned to emigrate (Kulanová & Orosová, 2017). Those Central and Eastern European university students who wanted to leave the country scored higher on work orientation and lower on family orientation. Interestingly, higher scores of achievement were not related to emigration desires (Frieze et al., 2004). Undergraduate students with a stronger desire for long-term international emigration scored higher on career orientation and neophilia and lower on place attachment (Li et al., 2012). Among college students, attitudes towards relocation seem to be an important predictor of willingness to relocate (Buehrer, Mallin & Jones, 2007). Students have more positive attitudes if they are active in campus organizations, are single, their parents will not need care within the next 5 years, they believe that they will have to relocate having received a college degree, they believe they are preparing for the career that is associated with relocation and that they believe that relocation is necessary for a successful career. Students, who perceive home as place that could be anywhere or nowhere, had more open migration plans (Wu & Wilkes, 2017).

The predictors of emigration are more closely described within other chapters of this monograph. In this chapter, we will focus on the level of one's individualism or collectivism as one of the intrapersonal characteristics that might be associated with emigration.

The first author that described the concept of individualism and collectivism (IND COL) was Hofstede (1984). He proposed that on the level of cultures and nations, IND COL are opposite extremes of a continuum. There are cultures that highly appreciate individual values, such as time for oneself or personal freedom. On the other hand, collectivistic cultures appreciate tight relations between people and a group interest. However, even within the countries that have been commonly assumed to have more or less uniform pattern of cultural values, there is evidence of many individual differences (Lazarus, 1997). It shouldn't be assumed that all people within one culture have the same values and goals. Therefore, psychologists have become interested in an individual level of IND COL that does not necessarily have to be in line with a cultural level. It has been argued, however, that on an individual level perceiving individualism and collectivism as opposites implies the assumption that each value has to serve either the individual or collective interests. This does not apply

for some values such as wisdom (Schwartz, 1990). Therefore, at an individual level IND COL have become treaded as two distinct dimensions.

According to the concept of IND COL, people differ in the way they define their self; in their personal goals; their values and beliefs systems; their social behaviour and the perceived importance of the relationships (Singelis et al., 1995). In this sense, individualism consists of self-reliance, competition, emotional distance from in-groups and hedonism. On the other hand, collectivism consists of interdependence, family integrity and sociability (Triandis et al., 1985). IND COL has also been operationalized as the general importance of close ties with friends and family (Dette & Dalbert, 2005); or individual's identification with the in-group (Gouveia, Clemente & Espinosa, 2003).

As proposed by Triadis and colleagues (Triandis et al., 1985; Triandis & Gelfand, 1998; Singelis et al., 1995), the concept of IND COL is much more complicated and shouldn't be simplified into two dimensions. They argue that more kinds of individualism exist and that collectivism across cultures, for example American individualism, is different from Swedish individualism. Therefore, they proposed a model, where both IND COL are treated within two dimensions: the horizontal dimension that emphasizes equality, cooperation rather than competition; and the vertical dimension that emphasizes hierarchy and clear status differences (Triandis & Gelfand, 1998). The authors state that their typology is consistent with other typologies on cultural patterns or political systems. Gouveia, Clemente and Espinosa (2003) suggest that each type of horizontal or vertical collectivism and individualism may be characterised by a certain personal attribute: HI by uniqueness, VI by achievement orientation, HC by cooperativeness and VC by dutifulness. The major motivational concern that can be attributed to separate groups are as follows: self-reliance (HI), power and status seeking (VI), interdependence and helping others (HC) and duties and obligation toward in-groups (VC) (Shavitt, Torelli & Riemer, 2010).

Table 1 describes the characteristics of individuals scoring highly in horizontal individualism (HI), horizontal collectivism (HC), vertical individualism (VI) and vertical collectivism (VC) as proposed by Triandis and Gelfand (1998).

The multidimensional concept of horizontal and vertical IND COL has been verified within many countries and samples such as adults in Spain (Gouveia, Clemente & Espinosa, 2003); college students in the United States, Taiwan, and Argentina (Chiou, 2001); or Danish university students (Nelson & Shavitt, 2002).

Table 1 Characteristics of individuals scoring highly in horizontal individualism, horizontal collectivism, vertical individualism and vertical collectivism (Triandis & Gelfand, 1998, p.119)

	individualism	collectivism
horizontal	People want to be unique and distinct from groups, are highly self-reliant, but are not especially interested in becoming distinguished or in having high status. “I want to do my own thing”	People see themselves as being similar to others and emphasize common goals with others, interdependence, and sociability, but they do not submit easily to authority.
vertical	People often want to become distinguished and acquire status, and they do this in individual competitions with others. “I want to be the best”	People emphasize the integrity of the in-group, are willing to sacrifice their personal goals for the sake of in-group goals and support competitions of their in-groups with out-groups. If in-group authorities want them to act in ways that benefit the in-group but are extremely distasteful to them, they submit to the will of these authorities.

Despite a large research interest in individualism and collectivism in the last thirty years, surprisingly few studies have considered this construct as one of the possible intrapersonal factors of emigration or mobility. Among the few, Dette and Dalbert (2005) studied the level of IND COL among secondary school students (one year before their graduation) in the context of their attitudes toward mobility within a country after finishing university. They found that those with higher vertical individualism had more positive attitudes while those with higher levels of vertical collectivism had more negative attitudes toward mobility. Interestingly, no associations were found between the horizontal dimension of individualism or collectivism and attitudes. Similar results were found in a sample of adult employees and unemployed people (Otto & Dalbert, 2012). Results showed that high levels of collectivism made individuals less ready to relocate for a job, while high levels of individualism did the opposite. To the best of our knowledge these papers are the

only studies which have aimed to connect individualism and collectivism with e/migration intentions. Therefore, there is a need to pay more attention to this topic.

The hypothetical link between individualism/collectivism and emigration intentions and plans might be mediated by several other factors. Among them, one's specific self-efficacy seems to be important. Emigration intentions and emigration plans might be strongly associated with one's confidence to their ability to manage and organize their life, work or study in a different country. This general confidence in one's abilities to achieve the desired results, to cope with stressful life events or to manage new life situations has been studied as personal self-efficacy (Bandura, 1977; Bandura, 1995). Self-efficacy can be measured as a general confidence or specifically with regard to a certain domain (e.g. academic self-efficacy; drug refusal self-efficacy). In the present study the focus will be on emigration specific self-efficacy. Self-efficacy has been described as an important source of coping with stress caused by emigration to a different country (Jerusalem, Mittag, 1995). However, less is known about the role of self-efficacy in the process of intentions of moving abroad.

AIM

To our knowledge, there has been no study focused on the individualism and collectivism construct in the context of emigration intentions and plans among university students. Therefore, the present study has several aims. Firstly, the level of individualism and collectivism of Slovak university students and its' connection with several personality characteristics will be described. Secondly, the main aim of the present study will be to explore the associations between IND COL and the emigration intentions and plans of university students. Thirdly, emigration self-efficacy as a possible mediator of this relationship will be considered.

SAMPLE

For the study, 18 universities within Slovakia agreed to participate. Universities recruited participants by advertising the survey on web pages, Facebook or via academic information systems. Voluntary respondents filled in on-line questionnaire. Participants had the opportunity to win small gifts (cinema tickets, book vouchers). The final research sample consisted of 489 respondents (76.5% female). The age of respondents ranged from 18 to 37. However, only a minority of the sample (4.5%) were older than 27 years. The mean age was 22.8, standard deviation 2.97. From the sample 50.7% of respondents studied for

a bachelor degree, 38.9% a master degree and 5.3% a doctoral degree. 5.1% of respondents indicated their study year as „other“.

MEASURES

Emigration intentions have been assessed using a 5-item scale (Chan-Hoong, Soon, 2011) that has been slightly modified. Respondents rated the frequency with which they thought of working or living in another country. Each of the five items was scored on a 5-item Likert type scale ranging from 1 (never) to 5 (all the time). Higher scores mean higher frequency of emigration intentions.

Emigration plan. Respondents answered the question “Do you plan to leave Slovakia after you finish your university studies?” with 8 possible answers – (1) No, I’m not planning to leave; (2) I don’t know, I have not thought about it; (3) I don’t know, I have not decided yet; (4) I’m planning to go abroad for six months; (5) I’m planning to go abroad for six to twelve months; (6) I’m planning to leave for more than a year; (7) I’m planning to leave for more than five years; (8) I’m planning to leave permanently. Answers were subsequently dichotomised for those who are not planning or are not decided (1 to 3) (64% of the sample) and those who are planning to leave (4 to 8) (36% of respondents).

Emigration self-efficacy. To assess emigration self-efficacy, two items have been used: “I am convinced that I would manage the process of leaving abroad.” “I am convinced that I would manage my stay abroad.” With a 5 point Likert type scale for answering, ranging from (1) completely disagree to (5) completely agree. Higher scores indicate greater self-efficacy.

Individualism and Collectivism. As stated earlier, the constructs of horizontal (H) and vertical (V) individualism (I) and collectivism (C) were theoretically defined and empirically supported. In the present study, a shortened version of the C-I scale (Triandis and Gelfand, 1998; Singelis et al., 1995) was used. Each subscale consisted of 4 items. Respondents answered on a 9 point Likert type scale, ranging from 1 (never) to 9 (always). Confirmatory factor analysis was conducted in AMOS to verify the factor structure of the measurement (further information about the procedure is described in Statistical analyses). The final C-I scale, used within the paper, consisted of four subscales with three items in each (see Table 2 for the list of items). The reliability for the separate subscales was rather low. However, it was only slightly lower than that reported in the original scale (Singelis et al., 1995) and is therefore considered as satisfactory: for

horizontal individualism Cronbach $\alpha=0.630$; for vertical individualism $\alpha=0.671$; for horizontal collectivism $\alpha=0.623$; for vertical collectivism $\alpha=0.691$.

Personality was assessed using the concept of the Big five dimensions via the shortened version of Trapnell and Wiggins' (1990) questionnaire. The questionnaire consists of a series of adjectives that represent certain personality traits. Respondents assess to what extent the adjective represents themselves on an eight-point scale, (1) it does not fit at all, (8) it fits perfectly. In the present study, a shortened version with five adjectives in each dimension was used (Janovská, 2012). The Cronbach alphas for separate dimensions were: extraversion Cronbach $\alpha=0.849$; neuroticism $\alpha=0.872$; agreeableness $\alpha=0.814$; conscientiousness $\alpha=0.850$; openness to experience $\alpha=0.523$. The Cronbach alpha for openness to experience was rather low and has to be taken into account when interpreting the results.

STATISTICAL ANALYSES

In the first step, Confirmatory factor analyses (CFA) in AMOS 20 was used to verify the original factor structure of Collectivism - Individualism scale in our sample. As the model fit was not satisfactory, items with the lowest loading in each of the subscales were deleted. A new CFA model was run with three items in each of the subscales. A four factor solution was confirmed and showed a good fit (chi square 144.9, d.f. 48, $p < 0.000$; RMSEA = 0.064; GFI = 0.953; AGFI = 0.924; RMR = 0.011; NFI = 0.863; CFI = 0.902). Therefore, a version with three item subscales was used in further analyses (Table 2).

In the next step, linear and logistic regressions were used to study the effect of individualism and collectivism subscales on emigration intentions, emigration plans and emigration self-efficacy. Firstly, an interaction term between gender and IND COL subscales has been included in the models. As none of these interactions were significant, they were removed from the models and the models presented in the chapter are only controlled for the effect of gender. Mediational analyses were run using the procedure described by Baron and Kenny (1986). The significance of the indirect effect (mediating effect) was tested using the Sobel test (Z). As one outcome variable was dichotomous, it was necessary to make the regression coefficients comparable across equations in one of the models. This was done using the method proposed by MacKinnon and Dwyer (1993) (see also Herr, 2011) by multiplying each coefficient by the standard

deviation of the predictor variable in the equation and then dividing by the standard deviation of the outcome variable.

Table 2 IND COL items used within the present study

Horizontal individualism
I'd rather depend on myself than others.
I rely on myself most of the time, I rarely rely on others.
I often do 'my own thing'.
Vertical individualism
It is important that I do my job better than others.
Winning is everything.
Competition is the law of nature.
Horizontal collectivism
If a coworker gets a prize, I would feel proud.
The well-being of my coworkers is important to me.
To me, pleasure is spending time with others.
Vertical collectivism
Parents and children must stay together as much as possible.
It is my duty to take care of my family, even when I have to sacrifice what I want.
Family members should stick together no matter what sacrifices are required.

RESULTS

Descriptive analyses

Descriptive data for the individualism-collectivism scale are presented in Table 3. Overall, respondents score higher on the horizontal than vertical dimension of both individualism and collectivism. Gender differences were found only in VI in the sense that men are significantly more individualistic on the vertical dimension than women ($t=-2.78$; $p\leq0.01$). Correlations between the IND COL subscales (Table 4) show significant correlations between both dimensions of individualism (HI and VI), both dimensions of collectivism (HC and VC), and both IND and COL on the vertical dimension. In order to further describe the concept of IND COL, it was correlated with the Big 5 personality dimensions (Table 4). Vertical collectivism was positively correlated with agreeableness ($r=0.219$), extraversion, conscientiousness, but negatively with openness to experience.

Vertical individualism was significantly but rather lowly correlated only with conscientiousness ($r=0.179$). Horizontal collectivism correlated significantly with all personality characteristics. The strongest positive correlations were with extraversion ($r=0.560$) and agreeableness ($r=0.472$). Horizontal collectivism negatively correlated with neuroticism ($r=-0.211$). Horizontal individualism was positively related to conscientiousness ($r=0.291$), agreeableness and openness to experience.

Table 3 Descriptive statistics and gender differenced in IND COL

		minimum	maximum	mean	SD	t-test
vertical collectivism	female	3	27	18.99	5.14	
	male	3	27	19.47	5.27	-0.866
vertical individualism	female	3	27	16.8	4.80	
	male	4	27	17.55	5.43	-2.78**
horizontal collectivism	female	7	27	21.20	3.68	
	male	11	27	20.76	4.17	0.19
horizontal individualism	female	8	27	21.5	04.5	
	male	11	27	20.99	3.65	0.128

Regression analyses

To study the hypothesis that individuals with a higher level of individualism will be more open to emigration, a series of regression analyses has been conducted. In the first step, an interaction effect of individualism-collectivism scales with gender has been added in all models. As there has been no interaction effect with gender, only models controlled for the effect of gender without interaction are presented.

Table 5 shows the results of linear regression on emigration intentions and self-efficacy. The effect of individualism on the two dependent variables seems to be opposite for the vertical and horizontal dimension. A higher level of VI was associated with lower levels of both, the emigration intentions ($\beta=-0.14$; $p\leq 0.01$) and emigration self-efficacy ($\beta=-0.15$; $p\leq 0.001$). On the other hand, a higher level of HI was associated with higher levels of

Table 4 Correlations of IND COL dimensions with big 5 personality characteristics

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. VC	1										
2. VI	.167**	1									
3. HC	.238**	-.036	1								
4. HI	.014	.325**	.059	1							
5. Extraversion	.121**	.060	.560**	.058	1						
6. Agreeableness	.219**	-.010	.472**	.132**	.656**	1					
7. Conscientiousness	.145**	.179**	.185**	.291**	.260**	.435**	1				
8. Neuroticism	.078	.017	-.211**	.001	-.295**	-.090*	-.094*	1			
9. Openness to experience	-.130**	.069	.224**	.235**	.353**	.355**	.125**	-.105*	1		
10. Emigration plans	-.068	.052	.104*	.094*	.087	.019	-.037	-.104*	.143**	1	
11. Emigration intentions	-.085	.120**	.127**	.198**	.166**	.121**	.016	-.102*	.280**	.682**	1
12. Self-efficacy	-.077	.061	.199**	.143**	.196**	.142**	.037	-.231**	.251**	.377**	.450**

emigration intentions ($\beta=0.16$; $p\leq 0.001$) and self-efficacy ($\beta=0.24$; $p\leq 0.001$). Similarly, HI was associated with higher levels of emigration intentions ($\beta=0.16$; $p\leq 0.001$) and self-efficacy ($\beta=0.12$; $p\leq 0.01$). VC was not related to the studied variables.

Table 5 Regression analyses with emigration intentions and self-efficacy as dependent variables

	Emigration intentions		Self-efficacy	
	Beta	Sig.	Beta	Sig.
Gender	0.07	0.136	0.18	0.000
vertical individualism	-0.14	0.002	-0.15	0.001
horizontal individualism	0.16	0.001	0.24	0.000
vertical collectivism	0.09	0.066	0.03	0.479
horizontal collectivism	0.16	0.000	0.12	0.008
R ²	0.08		0.11	
F (5, 483)	8.29		11.48	

Using logistic regression, similar analyses were conducted with emigration plans as dependent variable (Table 6). In this case, only horizontal collectivism was associated with emigration plans. Those with higher levels of HI had a higher probability (OR 1.08; 95% CI 1.03-1.14) of having a plan to emigrate after finishing university.

Table 6 Logistic regression analyses with emigration plans as dependent variable

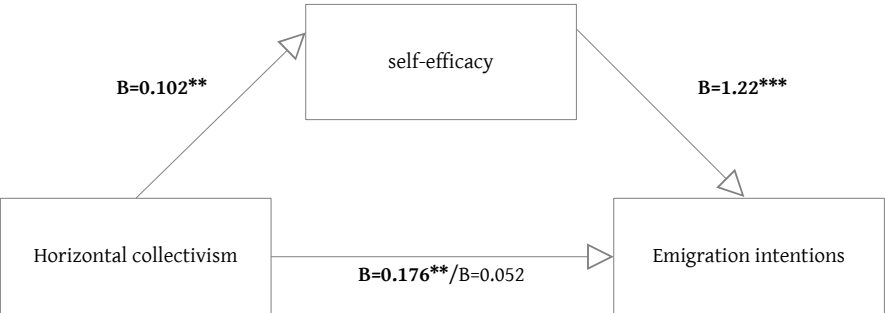
	OR	95% CI		sig
gender	1.61	0.14	2.50	.034
vertical individualism	1.00	0.96	0.15	.830
horizontal individualism	0.14	0.99	0.110	.122
vertical collectivism	0.96	0.93	1.00	.062
horizontal collectivism	0.18	0.13	1.14	.004

Mediational analyses

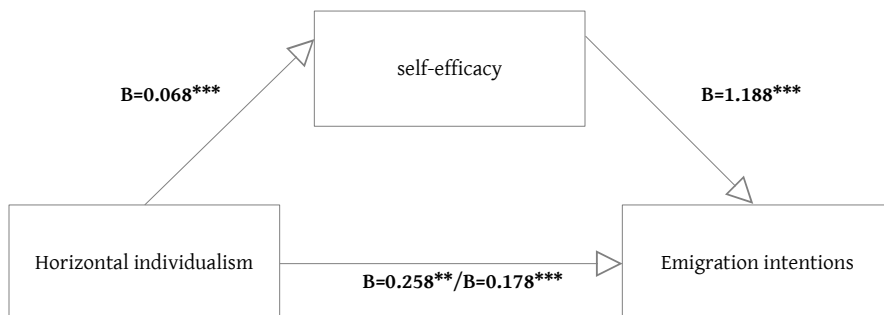
In the last step of the analyses, the assumption that emigration self-efficacy can mediate the relationship between IND COL subscales and emigration intentions and plans was verified. As VI was not associated with emigration self-efficacy ($\beta=0.042$, $p=0.354$), it was not included in subsequent analyses.

The results of mediation analyses with HC and HI are presented in Figures 1, 2 and 3. All analyses have been adjusted for the gender of respondents. The results show that both HC and HI are significantly associated with self-efficacy ($p\leq0.001$). The association between HC and emigration intentions was fully mediated by emigration self-efficacy (Sobel test $Z=4.24$; $S.E.=0.03$; $p\leq0.001$) (Figure 1). On the other hand, the association between HI and emigration intentions was only partially mediated by self-efficacy (Sobel test $Z=3.09$; $S.E.=0.03$; $p\leq0.01$) and remained significant ($B=0.178$; $p\leq0.001$) (Figure 2). Figure 3 presents the results for emigration plans. As the dependent variable was dichotomized, logistic regression was used. The relationship between HC and emigration intentions was fully mediated by emigration self-efficacy (Sobel test $Z=3.88$; $S.E.=0.025$; $p\leq0.001$).

Figure 1 Self-efficacy as a mediator between HC and emigration intentions



**model is adjusted for gender*

Figure 2 Self-efficacy as a mediator between HI and emigration intentions

**model is adjusted for gender*

Figure 3 Self-efficacy as a mediator between HC and emigration plans

**model is adjusted for gender*

DISCUSSION

There were several aims of the present study. Firstly, it was aimed at describing the level of individualism collectivism in our sample and to explore how it is related to the Big 5 personality characteristics. The concept of horizontal and vertical individualism and collectivism seems to also be valid in the population of Slovak university students. Confirmatory factor analyses confirmed the four factors structure of the measure of IND COL as proposed by Triandis (Triandis & Gelfand, 1998; Singelis et al., 1995) although one item from each subscale had to be removed. The means that each subscale indicates that on a vertical level, Slovak university students are more

individualistic than collectivistic. Moreover, they seem to be more horizontally than vertically inclined. Men in our sample were significantly more vertically individualistic than women. No gender differences in the other subscales were found. This result is in line with previous findings (Hartung et al., 2010; Singelis et al., 1995).

The second aim of the present study was to explore how the horizontal and vertical individualism and collectivism are related to the emigration intentions and emigration plans of university students. The results show that higher levels of horizontal collectivism are predictors of both emigration intentions and plans. Horizontal individualism only predicted emigration intentions and vertical individualism negatively predicted emigration intentions; those with high levels of vertical individualism were less likely to have emigration intentions. This result is to some extent different from the results of studies conducted among high school students (Dette & Dalbert, 2005) and the general population (Otto & Dalbert, 2012). Their results clearly showed positive associations of migration readiness with individualism and negative associations with collectivism. This different finding may be related to different study samples. Respondents in the present study were educated young people that belong to the group of highly skilled migrants. Those with high levels of vertical individualism are usually strongly focused on achievement, have a tendency to compete with others, and they might not be willing to undergo the uncertainty that relocation abroad brings at the beginning.

Another possible explanation of the somewhat unexpected findings with regard to collectivism in the present study might be the operationalisation of collectivism. One criticism of the classical view of IND COL emphasises that although social bonds among members of a collective do not necessarily imply close personal relationships, the measures of collectivism usually views collectives as a network of interpersonal relationship (Brewer & Chen, 2007). The result of the present study shows that those scoring higher on the collectivism scale (horizontal dimension in particular) also score higher on extroversion and agreeableness what supports the idea that collectivistic individuals are more open to new social contacts or can more easily find a social support in new places. These characteristics could help them to cope with new situations and uncertainty of relocation abroad. This could be the reason why horizontal collectivism was

positively related to both emigration intentions and emigration plans in the present study. On the other hand, in the seventh chapter of the present monograph, high levels of family and home satisfaction were negatively associated with emigration intentions.

Generally, it seems to be that in the context of emigration intentions and emigration plans, horizontal versus vertical dimension is actually more important than the level of individualism or collectivism. On a horizontal dimension, individuals tend to emphasize equality, cooperation (Triandis & Gelfand, 1998) no matter whether they incline to individualistic or collectivistic values. This probably is an important factor in the decision process about emigration.

Individualism-collectivism in our study seems to be more related to emigration intentions than to emigration plans. The emigration intentions were assessed by asking respondents whether they have thought of working or living in another country. These thoughts may be more related to intrapersonal factors such as the level of IND COL, than actual intentions to live abroad. Emigration plans are probably associated with many other than intrapersonal factors such as the work or study opportunities abroad, family factors, language skills, etc. (see other chapters in this monograph).

The last aim of the present study was to verify whether self-efficacy mediates the relationship between individualism-collectivism dimensions and emigration intentions and emigration plans. Emigration self-efficacy was associated both with individualism and collectivism but only in the horizontal dimension. Those respondents on the horizontal dimension, emphasize equality and cooperation (Triandis, Gelfand, 1998) have higher emigration self-efficacy, feel more secure when considering moving abroad. This is in line with previously mentioned suggestion about better coping with new situations of individuals with higher levels of horizontal collectivism. Self-efficacy in our study also was a significant mediator between the levels of individualism and collectivism and emigration intentions and emigration plans. It fully mediated the relationship between horizontal collectivism and emigration intentions and plans, but only partially mediated the relationship between horizontal individualism and emigration intentions. Expectations of ones' efficacy determine whether a person starts target behaviour

(Bandura, 1977). The feeling of being capable of emigrating abroad increases the probability of emigration intentions and emigration plans. Emigration self-efficacy seems to be essential mainly for collectivists. The positive interpersonal characteristics associated with collectivism may increase an individual's believe in their ability to adapt and quickly find support in a foreign country, their self-efficacy, which in turn increases their willingness to emigrate. Among individualists, high self-efficacy is important but it seems not to be the only factor in their migration intentions. Other characteristics related to individualism, such as hedonism or independence (Gouveia, Clemente & Espinosa, 2003) might explain the relationship.

LIMITATIONS

The limitations of the study have to be mentioned. Firstly, there is unbalanced number of male and female respondents. This is not surprising as the data collection was based on voluntary online questionnaire and women are generally more likely to participate in online research than men (Smith, 2008). Secondly, the measure of emigration plans was based on a single general question on having any intentions to leave Slovakia after finishing university. We do not know to what extent the intentions are real, whether respondents have made some steps towards fulfilling their intentions, e.g. searching for particular information on job opportunities, contacting possible employers, learning language of the target country or even buying a plane ticket.

FUTURE RESEARCH

As this is one of the few studies on the association between IND COL and emigration intentions and plans, further research on different samples would be needed. It is also important to know how this concept is, beside the process of thinking, related to the actual final decision to emigrate.

IMPLICATIONS FOR PRACTICE

The problem of the "brain drain" is highly prevalent in many Central and Eastern European countries (see e.g. Kazlauskienė, Rinkevičius, 2006). As it affects the whole economy of the country (Marchiori, Shen, & Docquier, 2013) it is very important to know what factors contribute to young educated and highly skilled peoples' decision to live and work abroad. If we could identify these factors long before the actual move abroad, we could implement strategies to prevent the brain drain and to motivate young people to stay in their home country.

CONCLUSIONS

Several important conclusions can be drawn from the present study. Men and women do not differ in their levels of IND COL with the exception of higher scores of vertical individualism

among men. On a horizontal level, both collectivism and individualism are associated with both emigration intentions and plans and self-efficacy fully explains the relationship of collectivism and emigration. On a vertical level, individualism is negatively associated with emigration intentions and emigration self-efficacy is not related to vertical individualism. Individualism and collectivism, as representatives of cultural values, seem to be important intrapersonal factors in predicting emigration intentions and emigration plans of university students.

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Intrapersonal and interpersonal factors favouring and hindering plans for long-term migration abroad of university students after finishing university

Beata Gajdošová

INTRODUCTION

The factors which are related to migration intentions of university students can be generally categorized into a few different groups. The first one consists of sociodemographic variables such as age, gender, marital status, education level, socioeconomic status, and financial situation. Then the environmental factors such as birthplace, attended university and its distance from the residence and interpersonal factors as well as intrapersonal factors along with personality factors (see the chapter The role of personality factors and risk characteristics in migration tendencies of university students). However, in the context of migration process, these factors can be further divided into two groups with regard to their role. One group comprises factors which favour the migration tendencies and the other includes factors which hinder these tendencies (also in the chapter Push and pull factors of emigration intentions among university students). Economic theories define so called pull factors which hinder emigration and the push factors which favour emigration process. Traditionally, the focus was almost exclusively on the aspects of professional career such as income, availability of employment opportunities, opportunity for professional development, realization of personal potential, career progress, value of professional status, quality and availability of social and health services, political stability and legal system of the particular country. Unarguably, it is very important that for most graduates, migration has been recognized and understood in terms of an economic strategy. However, this is not necessarily the whole picture and much less is known about the psychological factors which favour or hinder migration of the graduates abroad. These psychological factors include mainly interpersonal factors such as family bonds, relationships with friends and partners and quality of these

relationships as well as intrapersonal factors such as confidence in one's own ability, spirituality, life satisfaction and a need for a change.

Intrapersonal and interpersonal psychological factors of plans for long-term migration abroad

Furthermore, migration as a process can be understood in terms of a sequence of consecutive phases. The individual phases include general inclinations, positive attitude toward migration, strong intention to leave abroad (Baláž & Williams 2017). Several psychological theories have addressed the process of behaviour change which can be applied in the context of migration and consist of the following components: attitude, intention, planning and migration (see also the chapter Psychological concepts of e/migration intentions). Self-efficacy, availability of resources/feasibility, need for a change, life satisfaction, satisfaction with home/family, importance of religiosity appear to be the most significant concepts for the strength and effectiveness in the process of migrations plans.

Self-efficacy represents individual's belief about his/her ability to cope with life situations and challenges (Blatný, 2010). The significance of self-efficacy has been confirmed in various phases of the migration process (Hoppe & Fujishiro, 2015). In the pre-decisional phase – formation of intention, pre-action phase – exploration and planning, action phase – specific action, migrating. While employment benefits and career aspirations have been shown to play a significant role in all phases of the migration decision making process, self-efficacy was relevant specifically during the pre-action phase and mostly in the process of gathering information and in the action phase when carrying out actual practical steps for goal achievement. For the subjects with a lower self-efficacy the authors found a higher significance of employment benefits than for subjects with a higher self-efficacy. Furthermore, in their study, Aldwin et al. (2014) found that life conditions, benefits and disadvantages of migration, self-efficacy and contextual factors contributed to the understanding of migration intentions and plans of potential migrants.

Another important are actual resources which have been in relation migration intentions less explored. From a practical point of view, it can play a role of a supporting variable in the migration process. For example, Weerasinghe & Kumar (2014)

define availability and amount of existing resources in the following way: having relatives or friends abroad, employment opportunities, supporting relationships among family or friends who also favour migration, reliable information and reliable agency. Both self-efficacy as well as availability of resources important for migration, contribute to perceived behavioural control related to emigration plan. It has been found that respondents who had been abroad in the past and have relatives or friends abroad make more plans and show stronger intentions to work abroad (Santric-Milicevic et al., 2014).

The need for a change is a part of several psychological concepts. For example, it is related to the so called migrant personality (Tabor, Milfont & Ward, 2015), and is a part of sensation seeking (Zuckerman, 1994) and can be seen in the concept of rootedness and its theory (McAndrew, 1998). Rootedness can be understood in the context of subjective affinity resulting from the bond and the feeling of satisfaction/dissatisfaction with a specific place/home where an individual has lived and experienced special and significant relationships (McAndrew, 1998). The author further defines two complementary components or rootedness. The first component is represented by the desire for change and the second is satisfaction with relatives and family.

Clark & Lisowski (2016) explored the satisfaction with family and the migration tendencies. They found that there is a negative association between migration plans and quality of relationships with the family, children, partner or parents. This is important for close social networks (family, relatives, partners, friends) as well as for wider networks such as people from the same country. Similar findings regarding the significance of satisfaction with social networks and weaker migration intentions were reported by Beine & Salomone (2013) as well as De Simone & Manchin (2012).

Religiosity and spirituality have been found to be closely related to life satisfaction and health (Begum & Osmany, 2016; Musa, Pevalin & Shahin, 2016). Hagan & Ebaugh (2003) suggest that religiosity should be included in the current theories of migration. They describe the significance of religiosity and the uniqueness of this function in six stages of a migration process: 1. stage of decision-making about migration, 2. stage of preparation for leaving, 3. the process of leaving, 4. arrival to the chosen destination, 5. role of religion in the process of adaptation

to the new situation and settlement, 6. stage of forming new relationship with people from different country. Findings regarding the external and internal religiosity in young people and its role in the aspirations to leave are inconsistent. According the findings by Hoffman, Marsiglia & Ayers (2015) increasing external religiosity is negatively related to migration desire and an opposite trend can be seen with regard to intrinsic religiosity. Intrinsic religiosity and subjective satisfaction with life has been found to be related to weaker migration intentions (Aldwing et al., 2014).

While many research studies studying migration intentions and emigration plans confirm the relationship between objective (mainly) economically driven reasons for migration Cai et al. (2014) focused on the explanation of international migration desires by using the psychological construct of well-being. These authors have found that individuals with a high level of well-being show weaker migration tendencies, lower desire to emigrate and weaker intentions regardless of the affluence of the continents, countries or regions where they live. Silventonen et al. (2007) define emigration as a reaction to unsatisfactory life situations and overall dissatisfaction with life.

The analysis of psychological variables which favour or hinder intentions separately for men and women can contribute to the understanding different psychological mechanisms of migrating tendencies among university students. A higher importance of psychological factors of women in comparison to men in the context of migration has been shown in the study by Tabora, Milfont & Ward (2015).

AIM	The aim of this study is to analyse the relationship between the psychological factors favouring migration (self-efficacy, availability of resources/feasibility, need for change) and hindering factors (life satisfaction, satisfaction with home/family, religiosity) of migration plans of university students.
SAMPLE	During the year 2016, 375 students from 18 universities in Slovakia (13 public universities, 2 state universities, 3 private universities). The data collection was carried out through an online questionnaire. Participation of the students was voluntary and anonymous. From the total number of respondents 375 (75.5%) were women with mean age of 22.9 years and standard deviation of 3.

MEASURES

Life satisfaction was measured by the SWLS - Satisfaction with Life Scale (Diener et al., 1985). In this measure, respondents evaluate five items on a 7-point Likert scale from 1 – strongly disagree to 7- strongly agree. A higher score indicates higher satisfaction with life. Internal consistency in the sample was 0.843.

The rootedness scale (McAndrew, 1998) consists of ten items which respondents evaluate on a 5-point scale from 1- completely disagree to 5- completely agree. The first factor Need for a change consists of six items a refers to the desire for a change. A higher score indicates higher level of the need. The second factor Satisfaction with home/family consists from four items referring to general satisfaction with home and family. A higher score means higher satisfaction with home and family. Both factors contribute to a consistent concept of rootedness indicating its different depth. Each factor was measured independently. Internal consistency of the first factor was Need for change which was on our sample 0.481 and for the second factor Satisfaction with home/family 0.473. The reliability for separate subscales was rather low, similary as they have reported in original scale McAndrew, 1998.

Self-efficacy was measured by two items: „I believe that I can manage the process of leaving abroad“ and „I believe that I can manage living abroad“. Respondents answered these items on a 5-point scale from 1- completely disagree to 5- completely agree. The first question refers to the belief regarding the process of leaving and the second of managing the stay. For the purposes of this study these two items were combined into a single score with a higher score indicating higher self-efficacy. Cronbach's alpha was 0.923.

Feasibility of migration was addressed by three questions evaluated on a 5-point scale 1- completely disagree to 5- completely agree. The questions were following: „If I wanted, I could easily leave abroad“, „My family would help me so I can easily leave abroad“, „Education achieved in Slovakia will help me in the process of leaving abroad.“ A higher score means higher possibility of leaving.

Emigration plans were explored with the following questions:“ Are you planning to leave Slovakia after finishing the university study?“ Respondents could choose one out of eight options: (1) no, I am not planning to, (2) I do not know, I have not thought about it, (3) I do not know, I have not decided yet, (4) I am

planning to leave for 6 months, (5) I am planning to leave for 6-12 months, (6) I am planning to leave for more than a year, (7) I am planning to leave for 5 years or more, (8) I am planning to leave permanently. The frequency is shown separately for male and female students.

STATISTICAL ANALYSES

Data were analysed in the SPSS, version 12. In the analyses, descriptive analysis and frequencies were calculated, correlation analysis using the Pearson correlation coefficient, Pearson independence Chi-square, and the Binary logistic regression models which were evaluated by Cox & Snell Square and Nagelkerke R Square.

The importance of individual psychological factors favouring long term stay abroad and psychological factors hindering migration abroad was analysed by binary logistic regression. Binary logistic regression was separately conducted for the dependent variable of leaving abroad and independent variables hindering migration abroad: subjective satisfaction, satisfaction with home/family, importance of religious faith (Model 1) and independent variables favouring migration abroad (Model 2): need for a change, feasibility and self-efficacy. Binary logistic regression was performed separately for men and women.

The dependant variable was for the purposes of the binary logistic regression dichotomized into a category of short term (0) versus long-term (1) emigration plan after completing the university study. The first category (0) includes students who have no plan to leave Slovakia after finishing their study, are not considering leaving, are undecided, are planning to leave for 6 months or are planning to leave for 6-12 months. This group consisted of 288 students which was 76.8% of the respondents. This group was marked as as not planning to leave long-term (if then only for a short period). The second group of students (1) consisted of students who wanted to leave for at least or even permanently. This group was called as students who are planning to emigrate/stay abroad long-term and included 87 students which is 23.2%.

RESULTS

Descriptive analyses

Most respondents among both men and women were undecided about leaving abroad after completing their university study (35.9% men and 37.5% women). They were followed by those who were not planning to go abroad (17.4% of men and 25.4% women)

and finally there were those planning to leave for more than a year (15.2 men and 9.2 women) (table 1).

Table 1 Descriptive analysis of emigration plans to leave abroad after completing the university study.

Emigration plan	Men		Women	
	N	%	N	%
No, I am not planning to leave	16	17,4	72	25,4
I do not know, I have not thought about it	4	4,3	14	4,9
I do not know, I have not decided yet	33	35,9	106	37,5
I am planning to go abroad for six months	4	4,3	19	6,7
I am planning to go abroad for six to 12 months	5	5,4	15	5,3
I am planning to go abroad for more than a year	14	15,2	26	9,2
I am planning to go abroad for more than five years	9	9,8	14	4,9
I am planning to leave permanently	7	7,6	17	6

Planned long term stay abroad (1) and no plan or a short stay (0) after completing the study is shown in the table 2. As much as 32% male and 20.1% female university students has a plan for a long term stay abroad. We have confirmed significant differences in plans to emigrate abroad long-term between men and women ($p=0.014$).

Table 2 Descriptive analysis of emigration plans of university students

Long- term stay abroad	Men		Women		Chi - square
	frequency	percentage	frequency	percentage	
1	62	67,4	226	79,9	$X^2(1)=6,06$, $p=.014$
2	30	32,6	57	20,1	

Correlation analyses

Correlation analysis shows weak to medium strength of associations. Stronger relationships were observed among female students in comparison to male students. Among male (table3) students the strongest relationship was observed between life

satisfaction and family satisfaction 0.520; among the female students (table 4) it was between the emigration plans and a need for a change 0.405. Among male students, emigration plans were negatively associated with the importance of religious faith and positively with self-efficacy and feasibility and negatively with the importance of religious faith, satisfaction with family/home and life satisfaction. For both genders the strongest association between emigration plans was with the need for change.

Table 3 Correlation analysis of emigration plans and psychological variables (satisfaction with life, family satisfaction, importance of religious faith, feasibility, self-efficacy, need for change) among men

Men			1.	2.	3.	4.	5.	6.	7.
1. SWL	16,03	4,63	1	.520**	.027	.220*	-.062	-.173	-.005
2. Family satisfaction	15,24	2,85		1	.189	.232*	-.025	-.217*	-.100
3. Faith	3,23	1,45			1	-.001	-.022	-.078	-.212*
4. Feasibility	10,04	2,63				1	.329**	-.077	.130
5. Efficacy	8,8	1,47					1	.373**	.299**
6. Need for change	9,53	3,81						1	.373**
7. Emigration plan									1

* $p \leq 0.05$, ** $p \leq 0.01$

Table 4 Correlation analysis of emigration plans and psychological variables (satisfaction with life, family satisfaction, importance of religious faith, feasibility, self-efficacy, need for change) among women

Women			1.	2.	3.	4.	5.	6.	7.
1. SWL	16,25	4,16	1						
2. Family satisfaction	15,85	2,63	.325**	1					
3. Faith	3,33	1,41	-.044	.123*	1				
4. Feasibility	9,5	2,6	.223**	.061	-.198**	1			
5. Efficacy	8,01	1,95	-.048	-.067	-.134*	.283**	1		
6. Need for change	19,59	3,93	-.286**	-.130*	-.122*	-.028	.311**	1	
7. Emigration plan			.196*	.220	-.281**	.210**	.291**	.405**	1

* $p \leq 0.05$, ** $p \leq 0.01$

Regression analyses

Binary logistic regression for dependent variable long-term migration versus short term or no emigration plan after completing the university study was conducted separately for independent variable hindering migration: life satisfaction, family satisfaction and importance of religious faith (table 5, table 6) and independent variables favouring migration: need for a change, feasibility and self-efficacy (table 7, table 8). Binary logistic regression models were performed separately for men and women.

The model with variables hindering migration abroad for men was not significant (table 5).

Table 5 Binary logistic regression for long-term migration versus short term or no emigration plan after completing the university study and for variable hindering migration: life satisfaction, family satisfaction and importance of religious faith for men

men	B	S.E.	Exp(B)	95% C.I.		Sig.
SWL	.02	.06	1.2	.91	1.14	.732
Family satisfaction	-.07	.10	.94	.78	1.13	.492
Religious faith	-.30	.17	.74	.54	1.2	.068

The model consisting of independent variables hindering migration abroad: life satisfaction, satisfaction with family/home and importance of religious faith in association with the variable intention for long term migration abroad was statistically significant for women chi-square 40.351, $p < 0.001$ (table 6).

Table 6 Binary logistic regression for long-term migration versus short term or no emigration plan after completing the university study and for variables hindering migration: life satisfaction, family satisfaction and importance of religious faith for women

Women	B	S.E.	Exp(B)	95% C.I.		Sig.
SWL	-.11	.04	.90	0.83	0.97	.007
Family satisfaction	-.13	.06	.88	0.74	0.99	.033
Religious faith	-.52	.12	.59	0.47	0.75	.000

A higher satisfaction with life 95% CI=0.90 (0.83-0.97), $p<0.01$; satisfaction with family/home 95% CI=0.88 (0.74-0.99), $p<0.05$; and importance of religious faith of female university students 95% CI=0.59 (0.47-0.75), $p<0.001$; was related among female university students with a weaker tendency for long term migration abroad after completing the university study.

The models with the variables favouring long-term emigration was significant for men (Chi-square 22.491, $p<0.001$) explaining 21,7%-30,2% of the variance (table 7).

Table 7 Binary logistic regression for long-term migration versus short term or no emigration plan after completing the university study and for variables favouring migration: need for a change, feasibility and self-efficacy for men.

men	B	S.E.	Exp(B)	95% C.I.		Sig.
Self-efficacy	.55	.25	1.74	01.8	2.82	.024
Need for change	.24	.08	1.28	01.10	1.43	.002
Feasibility	.08	.11	01.8	.88	1.33	.467

The model containing independent variables favouring the migration abroad: need for a change, feasibility and self-efficacy in association with the variable of intention to leave abroad was statistically significant for women (Chi-square 75,055, $p<0.001$) explaining 23.3%-36.8% of the variance (table 8).

Table 8 Binary logistic regression for long-term migration versus short term or no emigration plan after completing the university study and for variables favouring migration: need for a change, feasibility and self-efficacy for women.

women	B	S.E.	Exp(B)	95% C.I.		Sig.
Self-efficacy	.31	.13	1.36	01.6	1.75	0.016
Need for change	.31	.06	1.36	1.22	1.52	0.000
Feasibility	.25	.08	1.28	01.9	1.50	0.002

A higher self-efficacy 95% CI=1.74(1.08-2.82), $p<0.05$ and need for change 95% CI=1.28(1.10-1.43), $p<0.01$; are related among male students with a higher tendency to leave abroad after finishing university study. Higher self-efficacy 95%CI=1.36 (1.06-1.75), $p<0.05$; need for change 95% CI=1.36(1.22-1.52), $p<0.001$ and feasibility 95% CI=1.28(1.09-1.50), $p<0.01$; are related among

female students to a higher tendency to leave abroad after finishing the university study.

DISCUSSION

The goal of this study was to improve the understanding of the role of the psychological factors favouring (self-efficacy, feasibility – availability of resources, need for a change) and factors hindering (life satisfaction with home/family, religiosity) the plans for a long-term migration abroad of university students after the completion of their study.

Descriptive data of our file correspond with the trend which can be seen in the whole of Europe among the university graduates and their migration abroad (van Mol, 2016). Significant difference in the frequencies of emigration plans can be seen between the genders. Male graduates show more emigration plans than female graduates which has been confirmed in our research as well. Among males a stronger desire to emigrate has been found in the regions which have a strong history of migration and culture of migration where family ties in the goal destination was not related to the plans to emigrate (Heering, van der Erf & van Wissen, 2004). Contrary, among women family ties abroad were found to be related to migration tendencies and act in a supportive way. According to Togunde & Rinkinen (2009) for men high quality working opportunities seem to be more important in relation to emigration plans than for women. For women security and better infrastructure of the goal country seemed to be more important. However, for both men and women opportunities in the goal country are seen as the most important reason for leaving.

In this study a high percentage of explained variance in the models of plans for long term migration was related to psychological factors. Both the hindering and favouring factors of long-term migration were found to be significant among women but for men it was only the favouring factors. A higher significance of psychological factors of women in comparison to men in the context of migration has been confirmed also in the study by Seibokaite, Endruilaitiene & Marksaityte (2009).

The model containing independent variables favouring the plans of long term migration abroad: a higher need for a change, self-efficacy, and among males also feasibility were significantly related to a stronger tendency to leave abroad after completing their study. The model consisting of independent variables hindering migration abroad: life satisfaction, satisfaction with

family/home and importance of religious faith in association with a variable emigration plans was statistically significant for women. A higher satisfaction with life, satisfaction with family/home and the importance of religious belief have been found as important factors for female university students who had a weaker tendency for migrating abroad after completing university study.

The need for a change has been a part of many different theories. Within the Five-factor model of personality is the need for a change incorporated in the factors openness to an experience and extraversion. They are related to the concept of sensation seeking (Aluja, Garcia & Garcia, 2003). Similarly, Tabor, Milfont & Ward (2015) found that a higher level of openness to experience can be found as a part of the so called migrant personality. One of the important contexts in which we can find the need for change is the construct of Dely, Delaney & McManus (2010) of „risk willingness“ which can be defined as willingness to undergo a risk. This has been found to be correlated with personality factors of extraversion, openness to experience and negative correlation was found with neuroticism, conscientiousness and amiability. This construct was correlated with individual decision-making process in relation to behaviour in general as well as in the context of risk behaviour. Need for a change and also satisfaction with home/family are parts of the concept of the Rootedness theory (McAndrew, 1988).

Our social networks and satisfaction with them belongs to the most important factors related to international and local migration plans. While the importance of all types of social networks and satisfaction with them dominates among those with elementary and secondary education for respondents with university education migration tendencies are related to close social ties (partners) (Manchin & Orazbayev, 2016). Clar & Lisowski (2016) explored the satisfaction with family and its relationship with migration tendencies. They confirmed the relationship between satisfaction with family environment, relationship with children, partner and family which correlated negatively with long term migration tendencies. Cui, Geertman & Hooimeijer (2016) confirm that perceived parental pressure as well as pressure from the peers is directly related to the formation of intentions and plans created an indirect relationship with a positive attitude toward unchanging environment.

The belief of an individual regarding his possibilities to carry out his/her goals are described in the theory of general and specific self-efficacy. Self-efficacy can directly as well as indirectly be a part of either stopping or terminating certain specific behaviour. It has been repeatedly shown that the significance of self-efficacy and its mediating, moderating as well direct effect is important part of behavioural change (Golestan & Abdullah, 2015, Kim, Compton, & Robb, 2011, (Choi, Krieger &, Hecht, 2013). In the context of migration, its role can be seen in different phases of migration: contemplative, pre-action, action, actual migration which was supported by Hoppe & Fujishirob (2015). The authors Li Hao et al (2016) emphasize the importance of self-efficacy when compared to other constructs such as risk perception. Weerasinghe & Kumar (2014) used the Theory of planned behaviour to study the process of migration. They found that attitudes and self-efficacy fully and subjective norms are associated with behavioural intentions/plans.

Availability of resources is an important component of the Theory of planned behaviour. From the perspective of this theory self-efficacy as well as availability of resources make it easier to emigrate and contribute to the controlled behaviour in the migration process. In our study feasibility and availability of resources were measured by the items: "If I wanted to leave abroad it would be easy for me", „my family would help me so it would be easy for me to leave“, „education which I gain in Slovakia will make it easier for me to leave abroad“. Many studies have confirmed that people who leave abroad tend to be highly educated or have family member or friends abroad which provides certain background for them (Heering, van der Erf & van Wissen, 2004, Santric-Milicevic et al., 2014).

The relationship of religiosity and migration tendencies are inconsistent, especially with regard to the role which might be important for the individual. Religiosity as well as spirituality are important for coping with taxing and stressful situation. They also play an important role in relation to subjective satisfaction, well-being and conditions in which individual lives and for his/her relationships. The importance of psychological factors such as religiosity and being exposed with his/her views in the context of a new culture is important for understanding the acculturation context (Groenewold, & Willem, 2016). The results of the study by Connor (2008) show that there was a decrease in external religiosity in the goal country in comparison t the level

of religious involvement of the same individuals before emigrating. The results of this study show that the importance of religiosity as a factor hindering the long-term migration is in line with the findings of the study by Aldwine et al. (2014).

Similarly to religiosity, the results of life satisfaction in relation to emigration plans were controversial. Satisfaction with life does not create a pressure to change on the other hand life satisfaction may contribute to migration in special cases such as following the partner and his/her desire for a change to adapt to this situation. In this study, life satisfaction as a factor which is negatively related to the intention to migrate abroad was confirmed. These results are in line with extensive research by Cai et al. (2014) with a special attention to place, affluence history of migration, education and gender. The authors support migration aspirations, desires and emigration plans associated with high level of life satisfaction regardless of the affluence of the countries and cultural differences. Similar findings were obtained in Latin America by Graham and Markowitz (2011), Chindarkar (2014) and in central and Eastern Europe by Ostrachshenko & Popova (2014). Silventoinen et al. (2007) consider emigration as a reaction to unsatisfactory life situation and an overall dissatisfaction with life.

LIMITATIONS

This study used a cross-sectional design and future exploration of this topic can benefit from a longitudinal exploration. Since the study was conducted also in other European countries future analysis should include these data. This study did not use a comprehensive model but focused only on a part of the problem.

FUTURE RESEARCH

The study of emigration plans has not been in the centre of psychological research so far. However, recently it has attracted the attention of researchers and in order to understand the psychological context of why graduates leave. In this study the focus was mainly on mentioned psychological factors and emigration plans for graduates of Slovak universities. Future research should also focus on other psychological variables such as resilience, individualism and collectivism, attitudes toward emigration and other factors related to migration itself as well as the factors related to the intentions to leave. It would be also beneficial to focus on different stages in the process of leaving abroad. It would be also necessary to study these variables longitudinally. The future research should apply more integrated

models of psychological variables including interpersonal, societal, political and economic factors.

IMPLICATIONS
FOR PRACTICE

Exodus of young graduates from the country which provided their education is a broader societal problem. On one hand, there is freedom and the opportunity to travel within the EU. This offers young individuals an opportunity to look for the best place to live and use their potential and get appropriate appreciation for their skills. On the other hand, the brain drain drives away the potential from the country. Policy-makers should be aware of this and make efforts to manage the situation of an increasing trend of emigration of young and educated people especially because it has been shown that not only economic factors are those that contribute to long term migration abroad. Providing good conditions for the development of the intellectual potential in home country and especially addressing the needs for explorative, creative plans and intentions in the home environment with the possibility to visit high quality institutes during their studies could help to introduce a new perspective for those who consider leaving.

CONCLUSIONS

The study presents the findings regarding the relationships between long-term migration abroad and psychological variables which favour it (self-efficacy, feasibility – access to resources, need for a change) and hindering factors (satisfaction with life, satisfaction with home and family, religiosity) of these plans. Plans for a long-term migration abroad after completing the university study was reported by 23.2% of students from which 32% were male and 20.1% were female students. The significance of all psychological variables in relation to the emigration plans has been confirmed. The model which contained independent variables hindering the migration abroad: life satisfaction, satisfaction with the family/home and importance of religious faith was with emigration plans statistically significantly associated among female students. A higher satisfaction with life, satisfaction with family/home and importance of faith was associated with a weaker tendency for a long-term migration abroad after completing the university study. The model containing independent variables favouring emigration plans: need for a change, feasibility, resources and self-efficacy were statistically significantly associated with long term migration for both women and men. A higher self-efficacy and a need for a change were significant for both genders and for females it was also feasibility which was significant.

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Mediational analyses related to emigration intentions, rootedness factors and autonomy among Slovak university students

Lucia Hricová

INTRODUCTION

Emigration intentions

Emigration is one of the characteristic manifestations of globalization which is caused by a number of diverse factors (Divinský, 2009), outlined in the first two theoretical chapters of this work. As stated in the Chapter 1 by A. Onufrák, emigration is very popular in Slovakia, especially among young people (Káčerová & Horváthová, 2014). More and more university graduates are leaving their homes and families and go abroad with the vision of a better future (Divinský, 2007; Divinský, 2009; Frieze et al., 2011). In the case of permanently leaving, it might have adverse national and economic consequences, mainly in terms of the transfer of human potential, manpower and skills out of the „sending“ country. According to Battistella and Liao (2013, p.11) „the large outflows of educated and skilled labour migrants, especially those originating from developing countries and moving towards developed or highly industrialized countries“ is often labelled as the brain drain. Therefore, the exploration of migration-related factors has received a lot of attention from experts. Gender also plays an indispensable role in emigration behaviour. Men have been found to be more likely to migrate than women (Eliason et al., 2014). In addition, men are more likely to have a firm plan to work abroad while women consider emigration more often (Santric-Milicevic et al., 2014). However, the role of the gender in the explanation of emigration behaviour can be more complicated and complex. There might be different factors explaining emigration behaviour among men and women.

In addition to demographic, social, political and economic factors, it is also important to monitor the psychological aspects that lead individuals to stay or leave the country (Frieze & Li, 2010; Štefančík, 2010) and to find out why some people leave their home country in the same or very similar conditions as those who don't. Regardless of what specific factors are involved in

emigration, a definitive departure to another country usually precedes the decision-making process; the creation of intentions. This work focuses precisely on the psychological factors of such emigrational tendencies of young people, which are also referred to as emigration intentions. These intentions to emigrate are understood by Kriegler (in Baláž, Williams & Kollár, 2014) as the gradual process from a general tendency to a strong intention to emigrate, with a higher intensity of this intention predicting a realistic decision to emigrate. A closer look at emigration intentions and the associated terms is covered in Chapter 2 by M. Kulanová.

From the psychological point of view, it is important to reveal the socio-psychological – both intrapersonal and interpersonal factors, involved in the development of emigration intentions in university students and to implement these findings into preventing emigration possibilities. According to the Health Belief Model applied to emigration behaviour (Groenewold, Bruijn, & Bilsborrow, 2006), satisfaction with the current living conditions can be inversely associated with emigration intentions and this relationship can be modified by other psychological factors. Similarly, support from others could be understood as cue for action (Tarkang & Zotor, 2015) which might be positively and also indirectly linked to emigration intentions (Groenewold, Bruijn, & Bilsborrow, 2006).

This work aims to find out which psycho-social factors might be relevant in the association between (1) emigration intentions and home and family satisfaction as a rootedness factor as well as between (2) emigration intentions and autonomy support.

Rootedness

A connection with the family or the place where the person lives plays a substantial role in emigration intentions (Sheikh et al., 2012; Leith et al., 2011; Frieze et al., 2011). The psychological state of being, mood, or feeling that results from long-term living in one place is also called the feeling of rootedness (McAndrew, 1998). The rootedness is characterized by two opposite poles. At the positive end of this dimension is satisfaction with home and family and at the negative one is the desire for change (McAndrew, 1998).

At the age of 19-24, individuals put more emphasis on family and friends than on their own economic situation and the country's

political stability in terms of rootedness (Chan-Hoong & Soon, 2011). Piotrowski and Tong (2010) conclude that if a person in their home country has significant ties to children, a life partner, or parents, the willingness to travel abroad permanently decreases. The overall life satisfaction in the home country according to Silventoinen et al. (2007) has a direct impact on emigration tendencies.

On the other hand, the desire for change supports migration behavior (Hricová, Janovská, Orosová & Kulanová, 2017). This tendency for experiencing new situations and searching for life changes might be characterized by the personal feature of novelty seeking. However, the desire for change can also be perceived as the result of unsatisfactory life conditions, leading to emigration intentions. Tartakovsky and Schwartz (2001) have found that physical, social and psychological security (also called as preservation) is negatively associated with openness to change. However, the exploration of satisfaction and emigration intentions has been relatively rare (Nikolova & Graham, 2015). In addition, the concept of rootedness has been largely investigated in connection with relocation and expression of the desire to come back home, respectively with a desire for a home (McAndrew, 1998).

Autonomy support

The concept of human motivation also seems reasonable in explaining migration tendencies. For instance, researchers have applied McClelland's three-motive model (motives for achievement, power and affiliation) in international migration and have demonstrated that those with emigration intentions had higher power and achievement motivation and lower affiliation motivation than those without emigration intentions (Chirkov et al., 2007).

Furthermore, the hierarchy of needs based on Maslow's motivation theory has been used in exploring emigration intentions (Faturochman, 1992; Reichlova, 2007). The research employing this theory has supported the importance of the economic situation in relation to the frustration of basic needs, preference of familiar, stable and safe environment and the need to be close to one's friends, family and other significant people in relation to emigration intentions (Reichlova, 2007).

The framework of Self-determination is also applicable to migration tendencies (Chirkov et al., 2007). As indicated, within the theory of self-determination the behaviour of an individual can be defined as self-determined and autonomous when governed by the self. This means that it is not subject to external contingencies or social pressures. Furthermore, autonomous behaviour is also congruent with one's values and interests (Ryan & Deci, 2000). Autonomy is represented by the feeling of authorship over one's decisions and actions, based on the integrated interests and value coherence which does not necessarily mean independence. Autonomy can be defined as a subjective experience of freedom to decide about one's own actions (Ryan & Deci, 2002). Autonomy also understood as personal freedom from traditional customs can enhance motives to migrate (Faturochman, 1992).

Self-determination theory suggests that the extent of autonomy support from significant others affects how autonomous and self-determined one is (Black & Deci, 2000). Autonomy support is defined as taking the other's perspective, acknowledging the other's feelings and providing the other with relevant information and possibilities for choice from the position of authority and minimizing pressures and demands at the same time (Black & Deci, 2000). Offering opportunities for choice and making own decision in general promotes one's self-determining status (Stefanou et al., 2004).

Psychoanalytical theories highlight the relationship with parents as an important source of personal autonomy (Karabanova & Poskrebyshkheva, 2013). Within the context of parental autonomy support, parents might provide children with the necessary information and encourage them to use it in their own way, while reducing rewards or punishment relative to the required behaviour (Black & Deci, 2000). Although autonomy support from family has to our knowledge never been studied empirically in connection to emigration intentions, the potential to enrich the study of psycho-social factors of international migration applying this theoretical framework seems apparent.

AIM

In order to address the need of exploring the psychological mechanism of the association between emigration intentions and (1) home & family satisfaction and (2) autonomy support, mediated by selected psycho-social factors the following aims of the study were created:

- to find out whether the desire for change mediates the association between home & family satisfaction and emigration intentions while examining the role of gender
- to find out whether home & family satisfaction mediates the association between the promotion of autonomous decision-making and emigration intentions while examining the role of gender
- to find out whether the desire for change mediates the association between the promotion of autonomous decision-making and emigration intentions while examining the role of gender

SAMPLE

Procedure of data collection

20 public universities, 3 state universities and 13 private universities were invited to participate in the study. This added up to a total of 36 institutions with university status in Slovakia. From all invited institutions, 18 universities agreed to participate (51.4%, 13 public, 2 state and 3 private universities); 18 universities did not respond to the official invitation, one university refused to participate and one private university ceased to exist during the duration of data collection. Information concerning this study and invitation to participate was advertised through the university webpages or by messages sent via academic information systems as well as by advertising through the official Facebook accounts of individual universities.

An official website of the projects focused on the exploration of migration intentions of university students under the name „Slice Study 2016“ was created on Facebook. This website was advertised on unofficial Facebook accounts linked to participating universities and student groups (e.g. dormitory social network). Students were motivated by the opportunity to win a small prize. A raffle was organized and advertised by a poster on the mentioned Facebook webpages.

Students were invited in all these forms to join the project and express their attitudes, experiences and plans regarding staying or leaving Slovakia. The respondents who decided to participate were directed to the webpage where after providing their email address obtained access to the questionnaire. The participation of the students was voluntary and anonymous and this information was made clear to them beforehand.

Research sample

436 respondents participated in the survey from which 61 (14%) did not complete the whole questionnaire. The final sample used in this analysis consisted of 375 university students from all universities in Slovakia (75.5% women, mean age 22.9, SD=3.0) who filled the entire questionnaire which is 86% of those who accepted the invitation to participate in the survey.

MEASURES

Intention to emigrate questionnaire (Chan-Hoong & Soon, 2011) is a 5-item scale used to capture the frequency with which students have thought of working or living in another country for the following reasons: (1) overseas education; (2) better job prospects, (3) setting up a business, (4) to work and live in another country for an extended period of time, and (5) emigrating to another country to live there permanently. Each of the five measurements was scored on a 5-item Likert scale from 1(never) to 5 (always). Computing of all items denotes a greater desire to relocate. Cronbach's alpha for this subscale was 0.87.

Rootedness (The Rootedness scale) consists of two sub factors (McAndrew, 1998). The first sub factor Desire for change consists of 6 items (e.g. „I could not be happy living in one place for the rest of my life.“). Cronbach's alpha for this subscale was 0.48. The second subscale Home & Family satisfaction consists of 4 items (e.g. “I have several close, lifelong friends that I never want to lose”). Cronbach's alpha for the second subscale was 0.47. Both scales were answered on a 5-point scale from completely disagree to completely agree. The higher the score, the higher the desire for change and home & family satisfaction.

Autonomy support from family was measured by two measures (Manzi et al., 2012) potentially related to emigration intentions. Promotion of autonomous decision-making dimension consists of 5 items (e.g. “My parents, whenever possible, allow me to choose what to do.”) and indicates the extent to which the family allows children autonomy in the domain of decisions about their lives. Cronbach's alpha for this subscale was 0.90. Promotion of physical separation scale consists of 6 items (e.g. “Family members feel pressured to spend most free time together.”) and refers to the degree to which the family allows or imposes limits on members having time on their own or managing their time and issues freely (Manzi et al., 2012). Cronbach's alpha for this subscale was 0.79. Both scales were answered on a 7-point scale from completely disagree to completely agree. The items of

STATISTICAL
ANALYSES

Promotion of physical separation dimension were recoded reversely, in order that a higher score would indicate a higher promotion of separation. Thus, the higher score in both measures, the higher the autonomy support from family.

In order to look at the sample and to examine the gender differences, a descriptive analysis and T-tests were performed in SPSS 20. Mediation analyses were based on Baron and Kenny's (1986) recommendations. A series of linear regressions were done in SPSS. In order to test the moderated mediation, the collected data were divided into groups according to gender and separate mediation analyses were performed (Edwards, Lambert, 2007). A Sobel test was performed to test for the significance of the mediation effect (Field, 2013).

RESULTS

Preliminary results

Descriptives of all explored variables and gender differences are reported in Table 1. Significant gender differences were revealed only in emigration intentions. Males reported significantly higher emigration intentions in general than females. However, the difference was small. No significant differences were found in the scales of rootedness or autonomy support from family between males and females.

Table 1 Gender differences in explored variables

	Mean (females/males)	SD(females/males)	t	df	p
EI	12.35/13.62	5.11/5.07	-2.07	373	p<.05
HFS	15.85/15.24	2.63/2.85	1.90	373	.06
DC	19.59/19.53	3.93/3.81	.12	373	.90
PADM	27.28/27.11	6.30/6.53	.22	373	.82
PPS	28.15/28.51	6.85/6.50	-.45	373	.66

Note: EI=emigration intentions; HFS=home & family satisfaction; DC=desire for change; PADM=promotion of autonomous decision-making; PPS=promotion of physical separation

Table 2 provides us with the statistical information on how socio-psychological factors contribute to the explanation of emigration intentions among males and female separately. Among females, home & family satisfaction is inversely associated with emigration intentions, while desire for change and promotion of autonomous decision-making is positively associated with

emigration intentions. Among males, only the desire for change was significantly associated with emigration intentions. No significant interaction effects were found.

Table 2 Regression model explaining emigration intentions by social-psychological factors for males and females separately

	B (females/males)	Beta (females/males)	T (females/males)	p (females/males)
HFS	-,237/-,201	-,122/-,11	-2,201/-1,167	<.05/.25
DC	,623/,597	,479/,449	9,292/4,621	p<.001/ p<.001
PADM	,119/,129	,147/,166	2,705/1,735	p<.05/.09
PPS	-,011/-,083	-,014/-,106	-,272/-1,119	.79/.27

Note: DC=desire for change; HFS=home & family satisfaction; PADM=promotion of autonomous decision-making; PPS=promotion of physical separation

Mediation effect of desire for change on the association between home and family satisfaction and emigration intentions

A series of linear regressions were done controlling for gender to find out whether the desire for change (DC) mediates the association between home and family satisfaction (HFS) and emigration intentions (EI). A Sobel test was used to statistically investigate the effect of the proposed mediator.

Model 1 of linear regression (Table 3) explained 2.3% of variance in DC. In this model, HFS was inversely related to DC. Model 2 of linear regression explained 25.5% of variance in EI. EI was positively associated with DC and the association between EI and HF was on the threshold of significance. The Sobel test indicated that DC was a significant mediator of the relationship between HFS and EI.

Gender also seems to be significant in the second model, although no interaction effects were significant. Moreover, significant gender differences in emigration intentions have been previously found. Consequently, moderated mediation was explored with the intention to test whether the explored mediating effect of desire for change in the relationship between home & family satisfaction and emigration intentions was moderated by gender.

Table 3 Mediation effect of desire for change on the association between home and family satisfaction and emigration intentions

		B	Beta	t	P
1. model (predicting DC)	gender	-.19	-.02	-.41	.680
	HFS	-.22	-.15	-2.96	p<.05
2. model (predicting EI)	gender	1.20	.10	2.24	p<.05
	HFS	-.17	-.089	-1.94	.05
	DC	.62	.47	10.42	p<.001

Note: Statistical parameters for Sobel test: z=-2.86, p<.05; DC=desire for change; HFS=home & family satisfaction; EI=emigration intentions

In order to test moderated mediation, the collected data were divided into groups according to gender and separate mediation analyses were performed in order to examine whether the desire for change has a significant mediating effect among males and females (Edwards, Lambert, 2007).

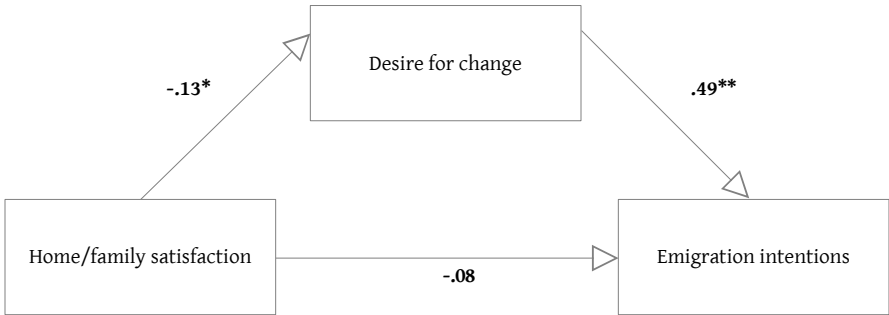
Model 1 of linear regression (Table 4) explained 1.7% and 4.7% of variance in DC among females and males, respectively. In this model, HFS was inversely related to DC. Model 2 of linear regression explained 25.9% and 20.9% of variance in EI among females and males, respectively. EI was positively associated with DC and the association between EI and HFS was not significant. The Sobel test indicated that DC was a significant mediator of the relationship between HFS and EI among females only (Figure 1).

Table 4 By gender moderated mediation of desire for change on the association between the home and family satisfaction and emigration intentions

		B (fem/males)	Beta (fem/males)	T (fem/males)	P (fem/males)
1. model (predicting DC)	HFS	-.19/-.29	-.13/-.22	-2.19/-2.11	p<.05
	DC	.64/.55	.49/.42	9.50/4.32	p<.001
2. model (predicting EI)	HFS	-.16/-.21	-.08/-.12	-1.54/-1.23	.12/.22
	DC	.64/.55	.49/.42	9.50/4.32	p<.001

Note. Statistical parameters for Sobel test: females: z=-2.14, p<.05; males: z=-1.90, p=.06; DC=desire for change; HFS=home & family satisfaction; EI=emigration intentions

Figure 1 Mediation effect of desire for change on the association between the home and family satisfaction and emigration intentions among females. Beta values, * $p < .05$; ** $p < .001$



Mediation effect of home & family satisfaction on the association between the promotion of autonomous decision-making and emigration intentions

A series of linear regressions were done to find out whether home and family satisfaction (HFS) mediates the association between the promotion of autonomous decision-making (PADM) and emigration intentions (EI) among both sexes separately. A Sobel test was used to statistically investigate the effect of the proposed mediator.

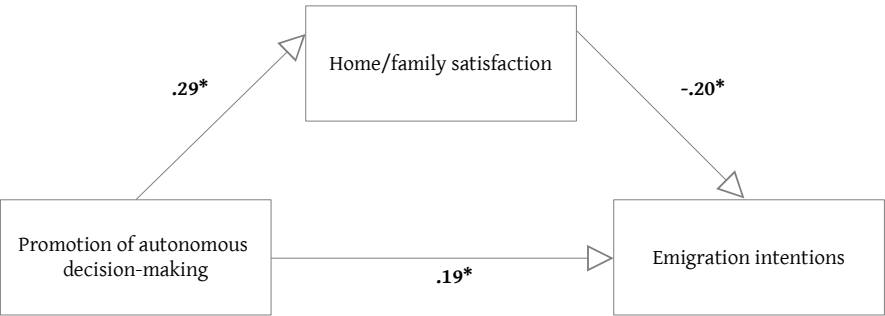
Model 1 of linear regression (Table 5) explained 8.5% and 1.1% of variance in HFS among females and males, respectively. In this model PADM was positively associated with HFS among females only. Model 2 of linear regression explained 5.6% and 5.0% of variance in emigration intentions among females and males, respectively. Emigration intentions were positively associated with PADM among females only and inversely associated with HFS among both sexes. The Sobel test indicated that home & family satisfaction was a significant mediator of the relationship between promotion of autonomous decision-making and emigration intentions only among females (Figure 2).

Table 5 By gender moderated mediation of home & family satisfaction on the association between promotion of autonomous decision-making and emigration intentions

1. model (predicting HFS)		B (females/males)	Beta (females/males)	T (females/males)	P (females/males)
	PADM	.122/.046	.292/.106	5.122/1.012	p<.001 /p=.31
2. model (predicting EI)					
	PADM	.159/.062	.196/.080	3.229/.770	p<.05/.443
	HFS	-.390/-.387	-.201/-.217	-3.314/-2.092	p<.05

Note. Statistical parameters for Sobel test: females: z=-2.77, p<.05; males: z=-.09, p=.37; PADM=promotion of autonomous decision-making; HFS=home & family satisfaction; EI=emigration intentions

Figure 2 Mediation of home & family satisfaction on the association between promotion of autonomous decision-making and emigration intentions among females. Beta values, * p<.05, ** p<.001



Mediation effect of desire for change
on the association between
promotion of autonomous decision-making
and emigration intentions

A series of linear regressions were done for both sexes to find out whether the desire for change (DC) mediates the association between the promotion of autonomous decision-making (PADM) and emigration intentions (EI). A Sobel test was used to statistically investigate the effect of the proposed mediator.

Model 1 of linear regression (Table 6) explained 0.3% and 3.7% of variance in DC among females and males, respectively. In this

model PADM was not significantly related to DC, neither among males nor females. Model 2 of linear regression explained 26.6% and 21.7% of variance in emigration intentions among females and males, respectively. Emigration intentions were positively associated with PADM among females only and with DC among both sexes. The Sobel test indicated that desire for change was not a significant mediator of the relationship between promotion of autonomous decision-making and emigration intentions neither among females nor among males.

Table 6 By gender moderated mediation of desire for change on the association between promotion of autonomous decision-making and emigration intentions

1. model (predicting DC)	B (females/males)	Beta (females/males)	T (females/males)	p (females/males)
PADM	.032/-.112	.051/-.192	.857/-1.856	.392/.067
2. model (predicting EI)	B (females/males)	Beta (females/males)	T (females/males)	p (females/males)
PADM	.091/.114	.112/.147	2.181/1.542	p<.05/.127
DC	.647/.626	.497/.471	9.698/4.926	p<.001

Note. Statistical parameters for Sobel test: females: $z=.86$, $p=.40$; males: $z=-1.75$, $p=.08$; PADM=promotion of autonomous decision-making; DC=desire for change; EI=emigration intentions

DISCUSSION

With regard to explaining emigration intentions by psycho-social factors of rootedness and autonomy support, the regression model revealed the desire for change and promotion of autonomous decision-making to be positively connected to emigration intentions among females. Home & family satisfaction on the other hand seemed to be a protective factor preventing thoughts of emigration among females. Among males only the desire for change was significantly positively associated with emigration intentions out of the investigated psycho-social factors.

The first main aim of this work was to explore whether the desire for change mediates the association between home & family satisfaction and emigration intentions while examining the role of gender. The mediation effect was significant, but our results revealed significant gender differences in emigration intentions. Gender was also a significant factor in the model explaining emigration intentions. As a result, a moderated mediation was conducted and the effect of the proposed mediator was statistically supported among females. The more female students were satisfied with their home and family, the lower intentions to

emigrate they reported. Simultaneously, the presence of negative association between home & family satisfaction and the desire for change eliminated the direct effect of home & family satisfaction on intentions to emigrate.

The second aim addressed home & family satisfaction as a proposed mediator of the association between promotion of autonomous decision-making and emigration intentions with gender as a moderator. The presented results confirmed mediation among females. With a higher level of promotion of autonomous decision-making female students considered emigration more often. Simultaneously, the direct effect of promotion of autonomy on emigration intentions was reduced when significantly associated with home and family satisfaction. Home and family satisfaction appeared to be significant among males in the model explaining emigration intentions by home and family satisfaction and promotion of autonomous decision-making.

The third aim investigated whether the desire for change mediates the association between promotion of autonomous decision-making and emigration intentions among both genders separately. This mediation effect was not significant as a result of no significant association between promotion of autonomous decision-making and desire for change.

The current research findings among Slovak university students on the association between home & family satisfaction and emigration intentions were supportive, but among females only. Previous studies on the association between migration tendencies and factors related to family and home have revealed similar findings to ours. For instance, strong family ties were the most frequent factor connected to the desire to stay in the home country (Sheikh et al., 2012). However, they were not significant in future migration plans in the next five years (Chan-Hoong & Soon, 2011). The retention of an intact relationship with the nuclear family is an inhibitive factor of migration decision making (Leith et al., 2011). Moreover, at the ages between 19 and 24, the most important factor is rootedness ties with family and friends (in comparison to other important factors of rootedness such as the political or economic situation) (Chan-Hoong & Soon, 2011). Higher affiliation motivation and emotionality have been shown to be negatively connected to emigration intentions and were essential in migration distance choice (Boneva, Frieze, 2001;

Jokela et al., 2008). On the contrary, general life satisfaction has also been found to increase the desire to emigrate (Ivlevs, 2015). This might be a consequence of the specific research sample (Nikolova & Graham, 2015).

A female's priority in emotionality and affiliation is well-documented (Deng et al., 2016; Luxen, 2005). These factors may participate in the family commitments which hamper emigration intentions. This is in line with the present results on the importance of family satisfaction among females only.

Not only family and friends' commitments but also a place attachment has been associated with a lower desire to emigrate (Frieze et al., 2011). This is similar to the current findings among females. Moreover, adults who had a desire to emigrate were more dissatisfied with their lives in general and with their well-being state comparing to those with no intention to emigrate (Nikolova & Graham, 2015; Chan-Hoong & Soon, 2011). They were however, similarly satisfied with their family ties (Chan-Hoong & Soon, 2011).

In the current work, the association between home and family satisfaction and emigration intentions was shown to be indirect among females, mediated by the desire to change. Home & family satisfaction together with the desire to change creates a dimension of rootedness. These factors represent the positive and negative ends of the rootedness dimension, which are not necessarily correlated (McAndrew, 1998). Although according to the current results among university students, it seems that the higher the home & family satisfaction is, the lower the desire for change is. On the other hand, it is clear that the less young people are satisfied with their home and family, the higher desire to change they might perceive. Consistent with the current findings among both genders, endorsed openness values, openness to change and a need for novelty seeking, which might result in desire to change, have been found to be related to migration behavior (Chan-Hoong & Soon, 2011; Tabor & Milfont, 2011). Similarly, Canache et al. (2013) consider the personality trait – openness to experience together with extroversion to be a significant predictor of national or international migration. The present results indicate that the desire to change is a significant predictor of emigration intentions among male and female university students. Both factors of rootedness seem to be responsible for the development of emigration intentions among

females. Moreover, their association explains the functioning of the relationship between home & family satisfaction and emigration intentions, which adds a contribution to previous findings.

Furthermore, the association between autonomy support and emigration intentions was examined. In the general model explaining emigration intentions by selected psycho-social variables, within the concept of autonomy support, only the promotion of autonomous decision-making was revealed to be significant. The promotion of autonomous decision-making by parents has been shown to be a protective factor of depression and positively associated with other psychological functioning (Manzi, et al. 2012). A higher level of autonomy increased cultural adaptation of young people studying abroad (Chirkov et al., 2007). Within autonomy support and promotion of autonomous decision making, parents provide children with necessary information and encourage them to use it in their own way, allow children autonomy in the domain of decisions about their lives, without using rewards or punishment. Autonomy then represents a personal freedom to follow one's values and decisions (Ryan & Deci, 2000). This indicates higher independence and might open the door for leaving home. Among the elderly, it has been found that a higher level of autonomy need is a significant factor of moving from the home place to a different region (McHugh & Mings, 1996). However, there might be other psychological variables involved in the association between promotion of autonomous decision-making and emigration intentions. The current study addressed rootedness factors as potential mediators of this relationship. However, only home & family satisfaction was found to be a significant mediator among females. The higher the promotion of autonomous decision-making, the higher level of emigration intentions among women was. If promotion of autonomous decision-making was positively associated with home & family satisfaction, the effect of promotion of autonomy on emigration intentions was reduced among females. Autonomy has often been seen as conflicting with relatedness although Kagitcibasi (2005) has explained that these basic psychological needs are not antithetical but can coexist on higher levels within one individual which supports the current results. Other consistent findings to ours revealed that adolescents with positive caring and supportive relationships reported more independent decision-making (Steinberg, 1990, In Karabanova

& Poskrebsheva, 2013) and that autonomy support across intimate relationships predicted relationship satisfaction (Lynch et al., 2005). In contrast to our results, home & family satisfaction was related to strong parental influence in the choice of the university and curiously, a greater distance between university and one's home town (McAndrew, 1998). In the case that young females are supported in their autonomous decisions by their parents, home & family satisfaction increases and simultaneously decreases the effect of autonomy support on intentions for leaving home country, according to our results.

The desire to change as a mediator of the association between the promotion of autonomous decision-making and emigration intentions was not significant among females nor among males. Autonomy support across intimate relationships has been previously found to predict more openness (Lynch et al., 2005) although the current results don't support the association between home & family satisfaction and the desire to change. In line with our results, no significant relationship between openness to experience and autonomy has been found in previous research on adults (Barrick & Mount, 1993). Thus, the mediation does not work in the proposed way in the case of the desire to change as a mediator.

PRACTICAL IMPLICATIONS

The presented findings indicate that young people don't make their decisions about leaving their home country only on the basis of benefits and barriers or perception of external economic, social or political conditions. Rather their emigration intentions are, to a great extent, influenced by psycho-social determinants, such as autonomy support and rootedness. It is also important to acknowledge that the desire to change is not the predominant intra-personal factor responsible for emigration desire but is associated with home & family satisfaction. Higher desire to change could decrease the positive association between satisfaction with one's home place and family background and emigration intentions. Moreover, autonomy support does not necessarily lead to emigration tendencies. On the other hand, in case of more supportive and warm home and family relations its effect on emigration intentions is reduced. All these findings are useful for policy makers in the field of „brain drain“ prevention. They should highlight the importance of autonomy support from family and home and family rootedness besides the improvement of the political and economic situation of young people.

FUTURE RESEARCH

Regarding future research, there are many other intrapersonal and interpersonal psychological variables which should be explored within emigration intentions issue. For instance, individualism and collectivism together with autonomy support could better explain emigration tendencies. In order to prevent the exodus of young educated people from our country to study at universities abroad, it is appropriate to focus on a younger research sample, as the intentions to leave or stay are developing far earlier than during university. A comparison of emigration intentions of young people across European countries to find out what is needed to be improved is also left for future research.

LIMITATIONS

It is also important to acknowledge limitations of this study. Firstly, all collected data were based on self-report, which might not be absolutely objective. Secondly, the psychometric limitations of the rootedness subscales must be considered. Relatively low values obtained for Cronbach's alpha coefficients are similar to those reported by other authors among university students (Jorgensen & Stedman, 2001). However, good psychometric quality of the Rootedness scale has been confirmed in the validating study by Rioux and Mokoukolo (2010). Even though the other used measures showed sufficient reliability for exploring the current research questions, it must be mentioned that further validation of these methods in the population of university students might improve their psychometric qualities. Thirdly, obtaining a representative sample remains a problem, especially when using an online data collection (Lefever, Dal & Matthiasdottir, 2007). This is also a limiting factor regarding the generalization of the results because those respondents who chose not to participate in the study may have differed from those who did. Studies examining the problems with online data collection (Hayes & Grieve, 2013; Perkins & Haiwang, 2001) have not revealed significant differences regarding the scores in psychological variables when compared to paper based questionnaires. It also needs to be acknowledged, that in this case only intentions were examined, not real behavior. Though, according to previous studies (van Dalen & Henkens, 2008), intentions are strong predictors for future migration. Moreover, only a small percentage of students believe that their opinions about leaving for abroad could change whether in positive or negative way (Seikh et al., 2012).

CONCLUSIONS

The current research study has addressed autonomy support and rootedness factors in explaining emigration intentions of

university students. The need to investigate these constructs is based on the lack of information about the relationship between satisfaction, respectively the rootedness concept and leaving for abroad (Nikolova and Graham, 2015; McAndrew, 1998) as well as between autonomy support and emigration intentions among young people. The association between home & family satisfaction (as a factor of rootedness dimension) and emigration intentions has been enriched by the second factor of rootedness dimension – the desire to change. A significant mediation effect of the desire to change on the association between home & family satisfaction and emigration intentions was uncovered among females, which contributes to the previous research.

Furthermore, the study focused on the association between autonomy support and emigration intentions, while a positive association between the promotion of autonomous decision-making and emigration intentions among females has been found. After home & family satisfaction had been included in this association, the effect of promotion of autonomy on emigration intentions has been reduced. A significant mediation effect of home & family satisfaction has been confirmed among females, while the desire to change has not appeared to be a mediator in the association between autonomous decision-making and emigration intentions. These findings are beneficial as they bring novelty to previous ones. The current findings about the importance of both rootedness factors and promotion of autonomous decision-making in the development of emigration tendencies might be applied to strategies focused on the prevention of the „brain drain“ from Slovakia.

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The role of personality factors and risk characteristics in migration tendencies of university students

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INTRODUCTION

Migration tendencies as plans to leave the home country, thinking about it or considering the possibilities of living abroad are affected by a variety of demographic, socio-psychological and personality characteristics. As the decision to migrate to another country as well as to another place in the home country includes considering its potential consequences that are not completely known and can only be estimated, considering the potential risks is an essential part of the decision-making process. The characteristics of risk perception and tendency to take risks have been found to be related to migration tendencies as well as to migration experience. As research about the relationship between risk attitudes and migration tendencies mostly comes from other cultures, we aim to provide a look at this association in Slovakia. Moreover, as risk attitudes are part of personality structure and are related to some of the Big Five factors, the incremental validity of risk attitudes in addition to the Big Five factors is aimed to be investigated. We are interested in if risk attitudes are able to explain migration tendencies even in addition to the core personality factors.

Risk attitudes and migration tendencies

The term “risk” is used in various areas with slightly different meanings. In one of the first scientific definitions, the economist Knight (1921) distinguished risk from uncertainty – although we do not know the outcome of a given situation in either case, we can accurately measure the odds in risk although setting the odds is not possible in uncertainty because of the missing information. While this distinction has had serious implications for decision-making research (psychological theories of judgment and decision-making under risk or under uncertainty have been exported to economics, management science, finance and medicine, Laibson & Zeckhauser, 1998), this definition of risk has some obvious weaknesses for human behaviour research

(a qualified estimate of the probabilities of possible outcomes can be provided only for a very limited portion of the real-world situations). In psychology, the term risk is mainly used for situations with possible negative outcomes (losses in terms of finance, health) and risk preferences (risk attitudes) refer to individuals' responses to these potential threats. These risk attitudes have often been viewed as stable personality traits manifested in multiple domains (e.g. financial, health, recreational) with relationships with real behaviour. Risk preferences can be measured in multiple ways, besides the most often used questionnaires asking for the general (Are you generally a risk-taking person or do you try to avoid risks?) or more specific attitude or habit (Do you use seat belts when driving?), behavioural tasks are used asking subjects to make a decision in various domains. While these behavioural tasks mainly provide direct information about the tendency to take risks, the questionnaires does not only ask about the probability of engaging in the described behaviour, but also the perceived risk related to this behaviour. Because of this and because of the easier process of administration, questionnaires are the preferred mode of risk preferences measurement (with The Domain-Specific Risk-Taking (DOSPERT, Blais & Weber, 2006) as the most illustrative and mostly used measure) able to provide risk perception as well as risk tendency score. Using these measures, it has to stay in mind that the stated preferences (inspected through self-reported measures) are only weakly related to the revealed preferences (inspected by the behavioural measures, Frey et al., 2017).

Risk characteristics have often been studied in relation to migration and it seems as a well-grounded fact found in different categories of migrants that migration is related to a higher willingness to take risks in a variety of cultures. Risk tolerance and migration in Germany are positively related (Jaeger et al., 2010) and migration propensity is positively associated with willingness to take risks in the best students (Gibson & McKenzie, 2009). Similarly, rural-urban migrants in China and their family members are substantially less risk-averse than stayers (Akgüç et al., 2016). On the other hand, the first-generation immigrants are less willing to take risks than German natives (Bonin et al., 2009) and it is also valid for the different domains of risk taking – financial portfolio, sports and leisure and career issues, but with no difference in driving, health and trusting strangers. The

authors suggest that a possible explanation can be found in the socioeconomic characteristics of the receiving country – if the receiving country is a welfare state, risk-averse persons are more willing to go there (Bonin et al., 2009). Another explanation can be that the general risk attitudes are higher in the home country of migrants. Moreover, Constant et al. (2011) found that second generation migrants are more willing to take risks than natives are. The characteristics of the receiving country and possible social networks can play a crucial role as migrants in Germany who arrived when the networks of migrants were larger are less risk-loving (Umblijs, 2012). This finding indicates that larger networks of immigrants can reduce the perceived risk of coming to a foreign country and more people are willing to try this experience.

As risk attitudes were found to be related to migration tendencies, the characteristics of risk attitudes and their possible consequences were also examined in migrants living in their new country. One of the most studied areas are the characteristics of occupational risk of immigrants where a remarkable change has been observed in the USA in the last decades. While in 1979-1980 the average immigrant worked in industry with a 21 percent lower fatality rate than the average native (Berger & Gabriel, 1991), the injury rates in 1991 were the same in immigrants and natives (Hamermesh, 1998). In 2003-2005 immigrants worked in more risky occupations (e.g. with a 38 percent fatality rate higher than the average native, Orrenius & Zavodny, 2009) with the difference associated mainly with immigrants from Mexico (36 to 46 percent higher fatality rate, Hersch & Viscusi, 2010). The reason in this case would probably be not only risk attitudes, but also other characteristics such as lower English-language ability and education (Orrenius & Zavodny, 2009) related to the shift in immigrants' original country from Europe to Latin America and Asia. A higher proportion of immigrants in riskier jobs was also found in Canada (Premji et al., 2010) and Spain (Díaz-Serrano & Rodriguez, 2010).

Although the relationship between risk attitudes and migration has been extensively studied, it has mainly been done from the economic perspective with other included variables belonging to demographic and economic characteristics (Akgüç et al., 2016; Bonin et al., 2006). Moreover, the role of psychological factors has been overlooked. Considering this, we aim to investigate the role of risk characteristics and migration in relation to the most

general personality characteristics – the factors belonging to the Big Five model. Their role in migration tendencies is described below.

Personality and migration tendencies

Numerous personality traits have been identified up to now, but the research from the last decades has indicated that the Big Five model of the most general personality factors (extraversion, agreeability, conscientiousness, neuroticism and openness to experience) can provide a needed basis for personality description and explanation of various types of behaviour including risk behaviour (e.g. Mezquita et al., 2015, Zvolensky et al., 2015). Similarly, multiple personality factors have been investigated in relation to migration characteristics such as migration tendencies, experiences and attitudes. A combination of various personality and demographic factors is used to describe the so-called “migrant personality – people more likely to move are more often males, and when moving for work, are more committed to their work and more ambitious (Brett et al., 1993). They also have higher levels of power and achievement motivation (Frieze et al., 2004). The concept of a migrant personality assumes that desires to migrate are affected by the following personality factors - motives (achievement, power and affiliation motivation), values (work, family) and personality traits in interaction with other psychological factors (Boneva & Frieze, 2001). While the term migrant personality has been mainly linked to motivation characteristics (e.g. Polek et al, 2011), the Big Five model as the most widely used approach to personality description and the role of its five factors has also been investigated in multiple domains including migration tendencies, experiences and attitudes. Paulauskaitė et al. (2010) found that from the Big Five factors only conscientiousness and openness to experience are related to migration tendencies in a student sample. In this, higher conscientiousness was observed in students with no migration intentions in comparison to undecided students or those not planning to move. On the other hand, students planning to leave the home country (Lithuania) scored higher in the openness to experience in comparison to undecided ones. Tabor et al. (2015) found that chances of planning to move abroad were higher in adult New Zealanders with higher openness to experience, but with lower scores in agreeableness and conscientiousness. The role of emotional

stability depended on gender –lower scores in this factor was related to the higher probability of migration intention in males, but not in females. Similarly, personality was related to migration in Finnish adults, but only in males – migrants scored higher in extraversion and neuroticism than non-migrants (Silventoinen et al., 2008). Similar results have been reported in other studies, when openness to experience and extraversion were positively related to the migration intentions in 22 nations in America (Canache et al., 2013). High extraversion and low agreeableness increased the migration within and between states in the USA, while higher extraversion increased only the within-state migration (Jokela, 2008).

As risk characteristics and personality factors are the main factors investigated in the present study in relation to migration, the associations between them are also the object of our interest. Risky behaviour, risk perception and risk attitudes generally are related to personality factors, including the Big Five factors. Vollrath et al. (1999) reported significant negative correlations between risky health behaviour and mainly two factors – agreeableness and conscientiousness and these two factors (negatively) together with neuroticism (positively) were also related to the perceived susceptibility to different kinds of health risk. A research on Chinese construction project managers (Wang et al., 2016) found a direct positive effect of extraversion and direct negative effect of agreeableness and conscientiousness on risk propensity (tendency to take risks) and these three personality factors also had an indirect effect on risk perception through risk propensity. Nicholson et al. (2005) reported risk propensity to be strongly rooted in personality – overall as well as domain-specific risk propensity was found to be related positively to extraversion and openness to experience and negatively to neuroticism, agreeableness, and conscientiousness. Similar results were also provided by Wong and Carducci (2013) when inspecting financial risk tolerance in university students.

AIM As shown, both personality factors and risk characteristics have been found to be related to migration intentions and behaviour. However, they have not been studied together and risk characteristics have been mainly considered in the context of demographic and socio-economic variables until now. Based on this, this study has three aims. Firstly, it aims to examine the role of the Big Five factors in migration tendencies in Slovak university students. Secondly, the relationships between

migration tendencies and risk characteristics (risk perception and tendency to take risks) are the object of interest. These two groups of variables are planned to be combined in the third aim – to investigate the incremental predictive validity of risk characteristics when added after the Big Five factors.

SAMPLE

The sample included 489 university students at various universities in Slovakia (76.5% females) aged from 18 to 37 (Mage = 22.80, SD = 2.97). Students were asked to participate through announcements on university webpages, messages through academic information systems or through official university Facebook accounts.

MEASURES

Three variables were used to assess migration tendencies. They included emigration consideration, emigration self-efficacy, and emigration intentions.

Emigration consideration was measured by a modified version of The Intention to emigrate - intention to work and live abroad (Leong & Soon, 2011). Participants responded to five items asking about the frequency of thinking about following topics – leave my country and study abroad, seek better employment abroad, start a business abroad, live and work abroad for a long period of time (more than 3 months) and move abroad permanently. The responses on the scale from never (1) to all the time (5) were summed to obtain the final score.

Emigration self-efficacy as a belief in one's ability to manage leaving home country was assessed by the scale including three items – If I wanted, I could easily leave abroad, I am convinced that I would manage the process leaving abroad and I am convinced that I would manage my stay abroad. The responses on a five-point scale from completely disagree (1) to completely agree (5) were summed with a higher score meaning higher emigration self-efficacy.

One question was used to identify *intentions to emigrate* - Do you plan to leave Slovakia after you finish your university studies? Responses I do not know were excluded (N = 203) and response from I am not planning to leave (1) through to I am planning to go abroad for various time periods (six months, six to twelve months, more than year, more than five years) to I am planning to leave permanently (6) were inserted into the following analyses.

The Big Five personality factors were measured by the shortened

version of the Trapnell and Wiggins' method (IA SR-B5, Trapnell & Wiggins, 1990) verified by Janovská (2012). The measure consists of 25 adjectives and respondents rate the self-descriptive accuracy of each adjective on a scale from 1 (extremely inaccurate) to 8 (extremely accurate).

Risk characteristics were covered by two variables – scores of the shortened version of The Domain Specific Risk Attitude (DoSpERT, Blais & Weber, 2006, Kulanová & Orosová, 2017). 10 items (2 items for each domain – financial, health/safety, recreational, ethical, social) were presented twice and participants rated their likelihood of engaging in the described behaviour (from 1 (extremely unlikely) to 7 (extremely likely)) and the perceived riskiness of this behaviour (from 1 (not at all risky) to 7 (extremely risky)). The scores for risk tendency and for risk perception were computed as a sum of the ten corresponding items.

STATISTICAL
ANALYSES

Basic descriptive and correlation analysis were followed by the regression analysis conducted in two steps. In the first step, only the Big Five factors were used as possible predictors of the variables related to emigration (emigration consideration, self-efficacy, and intentions) in multiple linear regression. The risk characteristics were added in the second step and the models with risk perception and risk propensity were inspected separately. As some personality factors as well as risk characteristics were expected to be significant, their interaction was inspected in the third step.

RESULTS

The basic descriptive statistics for each variable and Cronbach's alphas as indicators of internal consistency were obtained firstly (Table 1) and followed by the correlation analysis (Table 2).

The risk characteristics (risk perception and risk propensity) were found to be related to variables describing migration attitudes as well as to some of the Big Five factors. Moreover, a logical negative relationship between risk perception and risk propensity confirms that people rating possible risks as more serious report a lower tendency to take them. When inspecting the associations between risk variables and personality factors, risk perception is positively and risk propensity is negatively related to conscientiousness and neuroticism. However, the relationships are opposite in regard to extraversion and openness to experience. The last personality factor, agreeableness, was related neither to risk perception nor to risk propensity. Students

Table 1 Descriptive statistics of investigated variables

Variable	Cronbach's alpha	Mean	Median	SD	Skewness	Min	Max
Risk							
Risk perception	.67	44,49	45	8,45	-0,199	19	70
Risk propensity	.66	34,85	35	9,24	0,266	10	70
Big Five							
Extraversion	.85	31	32	5,72	-0,716	5	40
Agreeableness	.81	31,9	32	4,6	-0,821	10	40
Conscientiousness	.85	30,94	31	6,1	-0,866	7	40
Neuroticism	.87	19,75	20	7,55	0,086	5	39
Openness	.52	28,73	29	4,87	-0,064	11	40
Migration							
Emigration consideration	.86	12,95	12	5,14	0,374	5	25
Emigration self- efficacy	.76	11,66	12	2,63	-0,796	3	15
Emigration intentions		2,9	3	1,84	0,38	1	6

Table 2 Correlations of all variables

	1	2	3	4	5	6	7	8	9
1 Risk perception									
2 Risk propensity	-.59***								
3 Extraversion	-.10*	.09*							
4 Agreeableness	.02	-.01	.66***						
5 Conscientiousness	.11*	-.14**	.26***	.44***					
6 Neuroticism	.18***	-.05	-.30***	-.09*	-.09*				
7 Openness	-.15**	.17***	.35***	.36***	.13**	-.11*			
8 Emigration intentions	-.21***	.32***	.07	.01	-.05	-.11	.16**		
9 Emigration consideration	-.24***	.32***	.17***	.12**	.02	-.10*	.28***	.79***	
10 Emigration self- efficacy	-.24***	.23***	.22***	.15**	.02	-.24***	.27***	.45***	.46***

* $p < .05$, ** $p < .01$, *** $p < .001$

perceiving risks as lower and with a higher tendency to engage in risky behaviour reported a higher willingness to emigrate, more frequent thinking about emigration and a higher confidence in being able to manage the process of emigration. When inspecting the associations between the Big Five factors and migration variables, emigration consideration and emigration self-efficacy were positively related to extraversion, agreeableness and openness and negatively to neuroticism.

The next step of the analysis was the investigation of the incremental predictive validity of risk characteristics (risk perception and risk propensity) in addition to the Big Five personality factors when explaining variables tapping into different aspects of emigration. The results (Tables 3 and 4) are similar for models including risk perception as well as risk propensity – in all cases, risk characteristics significantly increased the explained variance in emigration variables. When considering personality factors, neuroticism was a significant predictor of emigration self-efficacy and openness was a predictor of emigration intentions, consideration and self-efficacy. As both the openness to experience and risk characteristics were significant predictors of emigration tendencies, their interaction was inspected in the third step. However, the results were negative in all cases – the models including the interaction were not able to explain a substantially higher portion of variance in the three variables describing emigration tendencies.

DISCUSSION

The role of risk characteristics (risk perception and risk propensity) in migration tendencies was at the centre of interest in the current study. As migration experiences have been found to be related to risk characteristic in past research in many culturally heterogeneous countries, we expected a similar pattern in the case of emigration characteristics of Slovak students. The results of the present study can be summarized into the general statement that risk perception and risk propensity can explain a substantial portion of variance in emigration tendencies not only when considered separately in correlation analysis, but also in addition to the general personality factors.

When looking at the results in more detail, the first finding that deserves our attention is the very limited role of the Big Five factors when explaining emigration tendencies. The correlation analyses found multiple significant relationships between these

Table 3 Linear regression investigating the Big Five factors (step 1) and risk perception (step 2) as predictors of variables describing emigration tendencies

	Emigration consideration			Emigration self-efficacy			Emigration intentions		
Extraversion	.07	.06	.06	.09	.07	.07	.03	.01	.01
Agreeableness	-.01	.01	.01	.02	.04	.04	-.05	-.03	-.01
Conscientiousness	-.04	-.01	-.01	-.05	-.03	-.03	-.09	-.07	-.08
Neuroticism	-.06	-.03	-.03	-.20***	-.17***	-.17***	-.09	-.07	-.06
Openness	.26***	.23***	.18	.21***	.19***	.06	.17**	.14*	-.35*
Risk perception		-.19***	-.25		-.18***	-.31		-.16**	-.70*
Interaction RP*O			.07			.17			.67
R ²	.09	.12	.12	.12	.15	.15	.04	.07	.08
R ² change	.09	.03	.00	.12	.03	.00	.04	.03	.01
F	9.29***	11.19***	9.58***	13.55***	14.33***	12.31***	2.55*	3.36**	3.23**
F change		18.92***	.05		16.11***	.30		7.11**	2.38

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 Linear regression investigating the Big Five factors (step 1) and risk propensity (step 2) as predictors of variables describing emigration tendencies

	Emigration consideration			Emigration self-efficacy			Emigration intentions		
Extraversion	.07	.04	.04	.09	.06	.06	.03	-.01	-.01
Agreeableness	-.01	.02	.02	.02	.03	.03	-.05	-.02	-.02
Conscientiousness	-.04	.00	.01	-.05	-.03	-.03	-.09	-.06	-.05
Neuroticism	-.06	-.05	-.05	-.20***	-.19***	-.19***	-.09	-.08	-.08
Openness	.26***	.20***	-.03	.21***	.18***	.10	.17*	.11*	.00
Risk propensity		.29***	-.07		.18***	.05		.29***	.12
Interaction RP*O			.46			.16			.22
R ²	.09	.16	.16	.12	.15	.15	.04	.10	.10
R ² change	.09	.07	.00	.11	.03	.00	.04	.06	.00
F	9.11***	15.41***	13.48***	13.33***	14.15***	12.14***	2.56*	6.50***	5.59***
F change		42.93***	1.78		16.16***	.21		25.10***	.23

* $p < .05$, ** $p < .01$, *** $p < .001$

two group of variables with only one factor (conscientiousness) not related to emigration tendencies. This is in concordance with previous research, but only openness to experience (in all three emigration variables) and neuroticism (only in emigration self-efficacy) were significant predictors of variables describing migration tendencies. Openness to experience logically seems to be related to migration tendencies as its six facets include a preference for variety (Costa & McCrea, 1992). Similarly, one of the core characteristics of neuroticism is the tendency to experience feelings of worry or fear (Matthews, Deary, & Whiteman, 2003). Contrary to past research, extraversion was only weakly related to emigration tendencies and its role in regression models was not significant. Correlations with conscientiousness and openness indicate that these variables (significant predictors) could explain some portion of the variance in emigration tendencies that was related also to extraversion.

On the other hand, the role of the second group of variables present in the current research - risk characteristics, that was found in other countries (e.g. Akgüç et al., 2016; Jaeger et al., 2010), was confirmed in regard to emigration tendencies. A lower² risk perception and higher risk propensity were related to the declared tendency to emigrate not only when investigated in bivariate relationships, but also when taken together with the Big Five factors. Moreover, risk characteristics even significantly improved the regression models predicting emigration tendencies. This finding together with the weak correlations between risk characteristics and personality factors indicates that risk perception (risk propensity) are qualitatively different constructs than the Big Five factors and can be a useful predictor of migration tendencies. They are possibly even a predictor of other variables describing future plans with uncertain results. On the other hand, while the models including personality factors and risk characteristics were significant, they were able to explain only a limited portion of variance in emigration tendencies. It points to the importance of other factors investigated in this monography such as rootedness or basic psychological needs. More complicated multivariate models with possible bidirectional relationships could explain the process of emigration decision-making and associations among its determinants more specifically.

FUTURE
RESEARCH

While the role of personality factors in emigration tendencies was not as relevant as expected, it does not mean that these general characteristics cannot be useful. Rather it may indicate that it is needed to focus on more specific constructs which can explain the concrete behaviour and tendencies to do it in more detail. While risk perception and risk propensity are dependent on the context (different risk propensity for bungee jumping and driving without a seat belt in one person), the general tendency to perceive risks and take them seems to be a habitual pattern with characteristics close to personality traits. As the conducted linear regression showed an incremental predictive validity of risk characteristics over the Big Five factors, personality factors on a similar level of concreteness can be a promising direction of future research. A more specific analysis of the factors perceived in the possibilities abroad and in the home country can focus the attention on some of their characteristics that can be particularly attractive and related to some of the personality traits (e.g. rootedness, attachment, optimism, psychological needs). Moreover, these traits can be related to risk characteristics (e.g. risk perception and risk propensity can be expected to be associated with optimism) and the interaction between them can provide a useful view on the underlying mechanism.

The associations between risk characteristics and pull and push factors of emigration can also present an interesting challenge for future research. As many of these factors are not completely known (e.g. employment that an individual will find abroad and salary in this position, expenses for accommodation), general characteristics of risk perception and risk propensity can affect how we perceive them and to what degree they have potential to form our decision related to potential emigration.

Moreover, while we treated risk perception and risk propensity as one variable each, division of these measures into domains can bring a more specified view. A classis DOSPRT version includes five subscales (financial, health/safety, recreational, ethical, social) and risk characteristics related to financial domain (that can be considered as the most important motive of emigration) can be expressed differently in migration tendencies in comparison to the health or recreational domain.

LIMITATIONS

While the results of this research mostly agree with past studies, some limitations of its generalization to the population of university students in Slovakia should be mentioned. The first

group of limitations concerns the sample. As students were asked to participate electronically and only a small proportion of them completed the battery of measures, the effect of self-selection can play a role in the final sample. Only students with some characteristics (personality factors, risk characteristics, migration tendencies) can be present in the current sample (e.g. students with the higher agreeableness can be expected to participate more). Moreover, as mainly students of arts and humanities participated, the resulting gender ratio is unbalanced with the prevalence of women. As women are generally more risk averse (they report higher risk perception and lower risk propensity), this ratio could affect the current findings. Another limitation lies in the overall study design – migration tendencies of current university students were inspected, but many of them study abroad already (an estimated 14% of finishing secondary school students started their university study in another country, preferably in the Czech Republic, Eurostat 2015). A comparison with secondary school students would be useful as it would cover almost all population at this age.

Another limitation can be found in the way of measuring the variables. All used measures rely on self-reported data which can be biased. While it is a classic approach in identifying personality factors, risk perception and mainly risk propensity can be assessed according to behavioural measures such as the Balloon Analog Task or Columbia Card Task or according to the occurrence of risky behaviour in the past. The described process of identifying variables seems to be problematic mainly in relation to the main variables – emigration tendencies. While these variables can inform us about the frequency of thoughts related to emigration, emigration self-efficacy or actual plans, they may be not in accord with the actual behaviour. A longitudinal design with information about real behaviour during and after university would bring more valid results regarding behavioural outcomes.

IMPLICATIONS FOR PRACTICE

As the problem of student emigration seems to be increasing in importance (source) and the proportion of Slovaks living or working abroad is high (source), the question of student migration and its determinants should be essential not only from the scientific, but also from the practical interest at the national level. The current research shows that not only hardly changeable personality factors, but also risk characteristics have the potential to form emigration consideration and intentions.

The potential to use these results can be seen in providing new opportunities for the younger generation in their home country – opportunities where higher risk is compensated by a higher possible outcome can attract people who are risk seeking and are willing to sacrifice uncertainty for higher expected benefits. As the general economic situation in Slovakia is improving and number of emigrants has declined (source), the gradual decrease of students leaving Slovakia can be expected as a natural process. The emergence of new forms of employment (co-working, freelancing, project employments, higher supply and demand for part-time jobs) indicates that there is a wide range of possibilities for people accepting different levels of risk.

CONCLUSIONS

The conducted analyses show that risk characteristics play a crucial role in forming attitudes toward an individual's intention to leave the home country. From the personality factors, in spite of some significant correlations, openness to experience was found as the only significant predictor in each of the inspected variables describing emigration tendencies. These two variables have the position of the most prominent predictors of migration tendencies although their interaction cannot help to explain them. The role of other personality traits at a more specific level can be a promising direction of future research.

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An analysis of the relationship between health risk behaviour and emigration tendencies among university students from Slovakia

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INTRODUCTION

Opening the borders in Eastern and Central Europe after 1989 changed the previous options and patterns of emigration from Central and Eastern European (CEE) countries (Czech Republic, Hungary, Poland and Slovakia). Since then, citizens from CEE have been able to travel relatively easily to other European countries and those from the West to CEE. In the early 90s, the CEE citizens' migration was strongly associated with economic and social conditions in the post-socialist countries. In particular, high levels of unemployment and the hard-living conditions in comparison to the West were the main motivational factors for crossing the border and leaving one's home country to search for temporary jobs. This early period of migration was characterized by a circular nature and was related to conditions in the home country where the migrants —predominantly men although also women — did not want to move their families which were supported by benefits from the generous welfare system of the post-socialist countries (Wallace and Stola, 2001). Moreover, whether people crossed the borders legally or not, most of the time they worked illegally and as a consequence often in unskilled, underpaid and sometimes dangerous jobs. Therefore, people in this early transition period did not plan to stay in the foreign country. They planned to spend their earnings in their home country where they wanted to live, despite spending more time abroad than at home.

These migration patterns have changed in the last decade where the east-west migration has become driven by the diverse motivations of new migrants. Contrary to the previous decade, these migrants did not typically come from the less developed regions and did not rely on migration as the only source of income to support the family back home. Instead, young people from towns, mostly single and better educated, started leaving

CEE to work in other EU countries. Although many young Slovak and Polish people migrated to the UK and Ireland thanks to the open labour market, this kind of migration was more seasonal and adventurous. It was a very different kind of migration in comparison to the old ethnic migration networks in the traditional migration countries near the border. Nevertheless, it became “more regular and more long-term than circular, and more ‘individualistic’ than related to household or family strategies” (Fihel & Kaczmarczyk 2009, p.45). Therefore, the last decade of intra-EU migration has been characterized by some structural changes. The migrants have not been driven by the previous transition based motivations and by the immediate pressure of poverty, but rather by the desire for new challenges and a better life (Lleshaj, 2013).

The emigration of young people from their home countries whether for a temporary or permanent stay in a foreign country may develop into significant socio-economic problems. An example of this problem dwells in the increasing numbers of young people who are leaving their home country to study abroad. The most popular country is the neighbouring Czech Republic where more than 22,000 Slovak students left to study at Czech universities. In total, more than 14% of Slovak students study abroad which in comparison to other European countries is the 3rd highest number. In general, the most important factors pulling young students to study abroad are the very good conditions in the Czech Republic, a relatively high perceived quality of universities, no additional cost for Slovak students, closeness and no language barrier. Moreover, students’ perception of Slovak universities regarding their quality is low. Therefore, the trend of leaving abroad, especially among highly skilled young people, may significantly affect the social and economic situation in Slovakia.

However, there are other factors which can be associated with leaving abroad or staying in the home country among young people. Despite the fact that young people perceive the socio-economic situation or situation in the education system as problematic, some of them leave although the majority stay. Therefore, there must also be other significant factors which are associated with those patterns. Some studies have found that specific personality characteristics have been associated with intentions to leave the home country. Specifically, intentions to leave have been found to be associated with higher achievement

and power motivations as well with the desire for change and extroversion (Boneva, 1998; Boneva, 2001; Canache et al., 2013; Jokela, 2009). Intentions to stay in the home country have been associated with culture and family bonding (Piotrowski, Tong (2010), Sheikh et al. (2012.).

Another important factor to be considered with respect to emigration is sensation seeking. Sensation seeking represents a tendency which is very visible among youths in the emerging adulthood period and may also determine health risky behaviour of young adults. According to Arnett (2000), sensation seeking may be interpreted as a predisposition or general personality trait which may be connected with many types of behaviour depending on the social environment. Several studies have found associations of sensation seeking and risky behaviour among adolescents such as dangerous car driving, sexual risky behaviour, substance use, smoking and delinquency (Arnett, 2000). Moreover, a study by Silventoinen et al. (2008) has also shown that migrants are more likely to smoke and use alcohol.

Theoretical framework connecting migration and health risky behaviour

The behaviour adaptation theory proposes that the behaviour of migrants changes to resemble the characteristic of behaviour in the foreign country (Kessler et al., 2010; Smokowski et al., 2009a). Behavioural acts, social norms and attitudes are frequently adopted by the migrants that fit in with the host country. Subsequently, when processes of assimilation and acculturation begin, individuals start to identify with customs and typical behaviours of the host culture and give up those from their home culture (Smokowski et al., 2009). Therefore, we may assume that migrants will also adopt some health behaviour patterns from western EU countries such as contraceptive practices. On the other hand, they may adopt some risky patterns as well such as alcohol consumption (Caetano et al., 2000; Kessler et al., 2010; Martinez-Donate et al., 2004; Myers, 2010).

However, the process of migration begins long before the actual migration experience takes place (Tabor and Milfont, 2011). This pre-migration acculturation has been found to be positively related to migration intentions (Kulis et al., 2008). Those individuals who are contemplating and planning migration begin to test the possibilities of leaving their home country and try to

create connections with social and cultural networks in their host country in preparation for migration (Tabor and Milfont, 2011). This period of pre-migration acculturation is also characterized by the tendency of individuals to familiarize themselves with the values, norms, language and history of the new culture (Berry et al., 2006). This may consequently provide a guide for the cultural appropriateness in the destination country (Ayers et al., 2012).

Mass media represents one of the ways through which individuals can begin to adopt “western” behaviour and familiarize themselves with the host country culture during pre-migration acculturation (Gans, 1999). Through mass media, the young people who plan to leave their home country do not only get an opportunity to learn English and obtain information about cultural and behavioural “western” patterns, but can get a picture of the media-portrayed adolescent culture in the host country. This is particularly relevant when their peers and parents are not able to provide this information (Louie, 2003).

By this exposure to the mass media, permissive norms for health behaviour are also presented to both men and woman (Hirsch et al., 2002). Therefore, the media may serve as a possible resource for socialization in the context of a full range of health risky behaviours such as sexual risk behaviour, alcohol use or smoking (Gurman, 2009). For example, regarding sexual behaviour it was found that the mass media, particularly television, influences risky sexual behaviour among adolescents. This can be seen by the earlier age of sexual intercourse, increased number of sexual partners, negative attitudes towards condom use and higher probability of teenage pregnancy (Brown et al., 2006; Chandra et al., 2008; Collins et al., 2004, Tapia-Aguirre et al., 2004).

Regarding the adoption of “western” norms and values, those individuals with personality characteristics such as openness to change and sensation-seeking behaviours were more likely to emigrate (Camperio Ciani et al., 2007; Kotchick et al., 2001). Moreover, those individuals with migration intentions often view the immigration process as an adventure and have a higher risk tolerance (Tabor and Milfont, 2011).

Despite there being almost no risk for Slovak citizens crossing borders in the EU, the decision to migrate, while socially desirable, may still represent a risk because of the challenges linked with leaving family and friends behind as well as

adaptation to a new cultural and social environment. It is well documented that among adolescents and young adults, engaging in one risky behaviour is strongly associated with engaging in other risk-taking behaviours (Gutierrez, 2004; Kotchick et al., 2001; Schuster et al., 1996). For example, engaging in risky sexual behaviour is associated with engaging in delinquency and substance use among Mexican immigrant adolescents (Marsiglia et al., 2005; Santisteban et al., 2002).

Like the aforementioned personality characteristics of some immigrants, engaging in risky sexual behaviour may also be partially explained by the predisposition towards sensation-seeking behaviours (Kotchick et al., 2001; Neumark-Sztainer et al., 1997). Much remains to be understood about the pre-migration characteristics of youth and the factors that protect or might make them more vulnerable to unsafe sex.

AIM

Therefore, migrants can be considered as a risky group in the incidence of some chronic diseases and should be targeted by primary prevention. However, it must be said that studies which explore intentions to migrate and health risky behaviour have been rare. Therefore, our study aims to explore five different variables related to emigrations (having a plan to leave the home country, attitudes and intentions to emigration, emigration self-efficacy and normative beliefs towards emigration) with three different types of health risky behaviour (alcohol use, smoking and sexual risky behaviour).

SAMPLE

Procedure of data collection

Permission to carry out the research was granted by the ethical committee of the Faculty of Arts, P.J. Safarik University in Kosice. The data collection procedure took place in the following order.

Firstly, an invitation letter to participate in the research was sent to all universities. This means that 20 public universities, 3 state universities and 13 private universities were invited to participate in the study. This adds up to a total of 36 institutions with university status in Slovakia. From all invited universities 18 of them (51.4%, 13 public, 2 state and 3 private universities) agreed to collaborate with the research. 18 universities did not respond to the official invitation, one university refused to participate and one private university ceased to exist during the duration of the data collection. All participating institutions invited their students to join the study through the official university

webpages or by messages sent via academic information systems as well as by advertising on the official Facebook accounts.

Secondly, an official web page 'Slice Study 2016' was created on Facebook to give students the opportunity to join the project. Students were also motivated to participate in the study by the chance to win a voucher for book store.

All these forms included an invitation to join an international project regarding their attitudes, experiences and plans towards leaving or staying in Slovakia. Those students who agreed to join the project were directed to the webpage (<http://slice-study.ff.upjs.sk/cgi-bin/rws5.pl?FORM=Migration>) where after providing their email address they obtained access to the questionnaire. The participation of the students was voluntary and anonymous and this information was made clear to them beforehand. The email addresses were used to contact students in the next data collection and also for contacting those students who won the book vouchers.

Research sample

The final sample included 489 respondents (girls = 374; 76.5%). The mean age of respondents was 22.9 years with SD=3.0. The response rate reached 86%. The respondents filled in the web based questionnaire regarding aspects and factors of emigration. The questionnaire also included topics of personality factors and health risk behaviour.

MEASURES

Five types of variables were explored regarding emigration.

Having a *plan to leave* the home country was explored by the single question: "Do you plan to leave Slovakia after you finish your university studies?" Respondents were asked to choose one – best fit option from 8 possibilities (see Table 1).

Attitudes to emigrate were measured by a 6 item scale (Bahna, 2009). Respondents were asked to evaluate each statement (e.g. People who stay abroad are a loss for our country) from (1) strongly do not agree at all to (5) agree completely. The total score ranged from 7 to 35, where a higher score indicates a more positive attitude towards emigration from the home country.

Intentions to migrate were measured by: The modification of the Intention to emigrate - intention to work and live abroad (Chan-Hoong, Soon, 2011). The 5-item scale required respondents to

rate the frequency with which they thought of working or living in another country for the following reasons: (1) overseas education; (2) better job prospects, (3) setting up a business, (4) to work and live in another country for an extended period of time, and (5) emigrating to another country to live there permanently. Each of the five measurements was scored on a 5-item Likert scale of 1(never) to 5 (all the time). Higher scores denote a greater desire to relocate overseas. Cronbach's alpha for this subscale was 0.87.

Emigration self-efficacy was measured by a 5 item scale which was adjusted for the purpose of this study. The respondents were asked to evaluate each statement on a 5-item Likert scale of 1 (completely disagree) to 5 (completely agree). The sum score was generated from 3 items and ranged from 3 to 15 where a higher score denotes higher emigration self-efficacy. Cronbach's alpha for this subscale was 0.623.

Normative beliefs (NB). Respondents were asked to indicate on a 5-point scale (strongly disagree – strongly agree) how much they agree with the 13 statements. A higher sum score (ranged from 13 to 65) indicates higher normative beliefs towards emigration. Cronbach's alpha for this subscale was 0.842.

Health risky behaviour

Three types of risky behaviour were explored.

Alcohol use was measured by AUDIT (The Alcohol Use Disorders Identification Test) (Babor et al, 2001), a 10-item alcohol screening test for the early detection of risky drinking. Audit contains three relevant conceptual domains; (1) hazardous alcohol use - 3 items (frequency of drinking, typical quantity, frequency of heavy drinking) evaluated on 5-point scale from 0 to 4; (2) dependence symptoms - 3 items (impaired control over drinking, increased salience of drinking, morning drinking) evaluated on 5-point scale from 0 to 4; (3) harmful alcohol use - 4 items (guilt after drinking, blackouts, alcohol-related injuries, others concerned about drinking. The first 8 items were scored on a 5-point scale from 0 to 4 (0-never, 1- less than monthly, 2-monthly, 3-weekly, 4-daily or almost daily) and the last two items were scored on a 3-point scale from 0 to 4 (0-no, 2-yes but not in the last year, 4-yes, during the last year). In this study we used a total score ranging from 0 to 40 where a higher value represents a higher rate. Cronbach's alphas range from 0.770.

Smoking. Respondents were split regarding their smoking status into two groups: (1) currently smoking; (2) currently non-smoking.

Sexual risky behaviour. Respondents were asked regarding 4 types of sexual risky behaviour: (1) number of sexual partners in the last 12 months (1-none, 2-one, 3-two or more); (2) age at first sexual intercourse (1-less than 15, 2- from 16 to 17; 3 -18 and more); (3) having sex under the influence of alcohol with an unknown partner (yes/no); (4) having sex without condom with unknown partner (yes/no).

STATISTICAL ANALYSES

At first, we excluded those respondents which did not completely answer regarding emigration and health risky behaviour questions. Next, we performed a means comparison of our output and independent variables by gender using a T-test and Chi Square test. Finally, we tested whether three types health risky behaviour are associated with emigration by using linear regression models. In total, five regression models were performed separately for each type of explored emigration variables and separately for gender as well.

RESULTS

Descriptive analysis of emigration variables and three types of health risky behaviour by gender

More than 20% of boys and more than 30% of girls have a plan to leave Slovakia for at least more than one year. Surprisingly, girls were more likely to report such tendencies especially for the one and five year option. On the other hand, more boys (24%) than girls (17%) did not have plan to leave home country after finishing university (Table 1). Regarding the other emigration variables, only significant differences were found in emigration self-efficacy where boys scored significantly higher than girls. Other mean comparisons across other variables did not show any significant gender differences (Table 2).

Alcohol consumption was significantly higher among boys than girls (Table 3) which is in line with many other studies looking at alcohol use among young adults. Similarly, more boys (71%) than girls (57%) reported having their first sexual intercourse after 18 years which also supports previous findings regarding youth sexual behaviour. Smoking and the three other sexual risk behaviours did not show any significant gender differences.

Table 1 Descriptive characteristic of having plan to leave the home country by gender

	Boys n=115		Girls n=374	
	n	%	n	%
No, not planned	90	24.1	20	17.4
I do not know. I was not thinking about it	21	5.6	4	3.5
I do not know. I am not decided yet	137	36.6	41	35.7
Yes I plan for 6 months	22	5.9	6	5.2
Yes I plan for 6 to 12 months	25	6.7	7	6.1
Yes I plan for more than 1 year	34	9.1	17	14.8
Yes I plan for more than 5 years	18	4.8	10	8.7
Yes I plan - permanently	27	7.2	10	8.7

Table 2 Descriptive characteristic of emigration variables by gender

Variables	score range	Boys		Girls		T-test	
		M	SD	M	SD	p	t
Attitude to emigrate	7-35	18.11	04.10	18.74	3.70	0.120	1.55
Intentions to migrate	5-25	13.53	5.00	12.77	5.17	0.167	-1.38
Emigration self-efficacy	3-15	12.53	2.21	11.38	2.68	0.000	-4.15
Normative beliefs (NB)	13-65	44.21	7.50	44.92	7.00	0.354	0.928

Regression analyses of relationships between three types of risky behaviour and emigration

Our first regression model tested whether those students who have a plan to leave the home country are more likely to report health risky behaviour. The results show that most risky behaviours are not associated with having a plan to leave the country after university. Only those girls who reported more sexual partners in the last 12 months were significantly more likely to report a higher willingness to leave the country after finishing university (Table 4).

Table 3 Descriptive characteristic of health risky behaviour

Variables	Boys		Girls		T-test	
	M	SD	M	SD	p	t
Alcohol use - AUDIT	5.39	4.71	4.14	3.77	0.004	-2.90
Chi-Square						
	n	%	n	%	p	value
Smoking - yes	28	24.3	69	18.5	0.169	1.188
Number of sexual partners in last 12 months						
- none	37	32.2	107	29.0	0.234	2.918
- one	59	51.3	219	59.3		
- more than 2	19	16.5	43	11.7		
Age of first sexual intercourse						
- less than 15	6	6.1	30	9.0	0.034	6.583
- 16-17	22	22.4	114	34.0		
- 18 and more	70	71.4	191	57.0		
Having sex under alcohol influence with unknown partner						
- yes	28	25.2	66	17.8	0.084	2.964
Having sex without condom with unknown partner						
- yes	21	18.9	44	12.0	0.060	3.525

Table 4 Regression models predicting emigration intentions

Variables	Boys			Girls		
	Emigration intentions (R ² =,070)			Emigration intentions (R ² =,022)		
	ß	t	p	ß	t	p
Alcohol use	-.041	-.435	.664	.011	.207	.836
Smoking	-.078	-.829	.409	.053	1.020	.308
Number of partners	.141	1.510	0.134	.168	3.259	0.001
Age of sex	-.080	-.786	.434	-.058	-1.055	.292
Having sex under alcohol influence with unknown partner	.067	.696	.488	-.051	-.978	.329
Having sex without condom with unknown partner	.045	.469	.640	-.070	-1.340	.181

The regression model on attitudes towards emigrations as an outcome variable showed similar results (Table 5). The girls who reported that they smoke and have more sexual partners in the last 12 months than their peers were more likely to hold positive attitudes towards emigration. Surprisingly, the girls with early sexual initiation were less likely to have positive attitudes towards emigration. There was no significant association among boys.

Table 5 Regression models predicting attitudes towards emigration

Variables	Boys			Girls		
	Attitudes towards migration (R ² =,028)			Attitudes towards migration (R ² =,037)		
	β	t	p	β	t	p
Alcohol use	-.133	-1.430	.155	.068	1.324	.186
Smoking	-.110	-1.179	.241	.173	3.379	.001
Number of partners	.091	.973	.333	.121	2.340	.020
Age of sex	-.076	-.746	.458	-.112	-2.060	.040
Having sex under alcohol influence with unknown partner	-.110	-1.152	.252	-.010	-.198	.843
Having sex without condom with unknown partner	-.097	-1.016	.312	-.050	-.951	.342

The regression model on intentions to migrate as the outcome variable showed that girls smoking status and their number of sexual partners in the last 12 months were significantly associated with more positive intentions towards emigration (Table 6). Surprisingly, boys with higher alcohol consumption reported significantly lower interest towards emigration. However, this association was on the edge of significance (p=0.043).

The regression model on emigration self-efficacy (Table 7) showed some similar results as the girls with more sexual partners in the last 12 months were more likely to report higher emigration self-efficacy. Moreover, those girls and boys who reported having sex without a condom with an unknown partner were more likely to have lower levels of emigration self-efficacy. In addition, the age of first sexual intercourse among boys was significantly associated with lower emigration self-efficacy.

Table 6 Regression models predicting intentions to emigrate

Variables	Boys			Girls		
	Intentions to emigrate ($R^2=.084$)			Intentions to emigrate ($R^2=.039$)		
	β	t	p	β	t	p
Alcohol use	-.189	-2.051	.043	.009	.174	.862
Smoking	-.101	-1.080	.282	.141	2.750	.006
Number of partners	.050	.534	.594	.176	3.430	.001
Age of sex	-.165	-1.639	.104	-.050	-.913	.362
Having sex under alcohol influence with unknown partner	-.016	-.168	.867	-.057	-1.092	.276
Having sex without condom with unknown partner	.025	.261	.794	-.055	-1.056	.291

Table 7 Regression models predicting emigration self-efficacy

Variables	Boys			Girls		
	Emigration self-efficacy ($R^2=.089$)			Emigration self-efficacy ($R^2=.033$)		
	β	t	p	β	t	p
Alcohol use	-.066	-.707	.481	.048	.936	.350
Smoking	.047	.504	.616	.100	1.931	.054
Number of partners	.108	1.151	.252	.159	3.087	.002
Age of sex	-.232	-2.341	.021	-.066	-1.212	.226
Having sex under alcohol influence with unknown partner	-.105	-1.107	.271	-.055	-1.050	.294
Having sex without condom with unknown partner	-.201	-2.142	.034	-.118	-2.267	.024

The regression model on normative beliefs towards emigration showed only one significant association among girls (Table 8). The girls who reported a higher number of sexual partners in the last 12 months were more likely to hold higher normative beliefs towards emigration. In all models, health risky behaviour explains a very low proportion of variance. Therefore, we may conclude that health risky behaviour is not a significant predictor of emigration tendencies.

Table 8 Regression models predicting normative beliefs toward emigration

Variables	Boys			Girls		
	Normative beliefs towards emigration (R ² =.131)			Normative beliefs towards emigration (R ² =.022)		
	β	t	p	β	t	p
Alcohol use	-.141	-1.515	.133	-.044	-.853	.394
Smoking	-.106	-1.135	.259	.029	.556	.579
Number of partners	-.064	-.677	.500	.118	2.280	.023
Age of sex	-.170	-1.695	.093	-.079	-1.440	.151
Having sex under alcohol influence with unknown partner	-.064	-.666	.507	.036	.683	.495
Having sex without condom with unknown partner	.115	1.206	.230	-.007	-.140	.889

DISCUSSION Our study aims to explore the associations between the emigration tendencies of young adults and three types of health risky behaviour (alcohol use, smoking and sexual risk behaviour). According to some studies on a similar topic we expected that risky behaviour would be positively associated with emigration tendencies. However, the results of this study have shown that there are no significant associations between types of risky behaviours and emigration tendencies.

At closer inspection on specific types of health risky behaviour we found that alcohol use was significantly associated with intentions to migrate only among boys. Moreover, those who consume more alcohol had less intention to leave the home country which was contrary to previous research such as that by Marsiglia et al. (2011). However, it must be said that Marsiglia explored migrants who had already tried to leave the country but had failed to succeed. In contrast, our study populations only explored intentions to migrate and not real applicants for emigration which can definitely explain the different results.

Regarding smoking, only two significant association were found. Girls who smoked had stronger intentions to emigrate and held more positive attitudes towards emigration. However, we are not able to compare such results with previous ones as there have been no other studies examining this. We can explain this behaviour with the assumption that smoking is strongly

associated with the personality characteristic of extroversion which has frequently been confirmed as a strong predictor of the intention to emigrate (Jokela, 2009; Silventoinen, 2008; Canache et al., 2013).

The results regarding sexual risk behaviour showed several significant results although mostly among girls. In particular, the girls with a higher number of sexual partners were (1) more likely to have a plan to leave the country after university; (2) had more positive attitudes toward emigration; (3) confirmed higher intentions to emigrate; (4) scored significantly higher in emigration self-efficacy and (5) were more likely to have had higher normative beliefs towards emigration. These results are in line with Ayers (2012) as those adolescents who scored high on intention to leave had significantly higher odds of engaging in risky sexual behaviours. It must be said that these findings highlight the importance of examining risky sexual behaviours even before emigration to other countries. By engaging in high risk sexual behaviours prior to emigration, adolescents or young adults are putting both themselves and their sexual partners in Slovakia and their future sexual partners in the foreign country at increased risk of contracting STIs. In general, we may conclude that health risk behaviour (alcohol use, smoking, sexual risk behaviour) is associated with intentions to migrate only in a limited amount. Our results have indicated that the associations between risky behaviours and intentions to migrate were almost solely significant only among females. However, such results could be partially caused by the lower number of boys in our sample. This finding suggests that further research is needed to determine whether the different results by gender here are merely due to the lack of statistical power or by significant moderation by gender.

CONCLUSIONS

With regard to specific types of health risky behaviours and its associations with intentions to migrate, it was the sexual risky behaviour of girls which was most frequently associated with migration. Such results can be explained by the possible interaction with a third variable which could affect health risky behaviour as well as migration intentions. We suppose that bonding to family, home or country could be a good example of such a variable as it has previously been found that individuals with lower levels of family bonding have more chance of behaving riskily and were more likely to migrate.

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Risk behaviour among university students

It is well known that risk behaviour, alcohol use in particular, is highly prevalent among university students. The research team at the Department of Educational Psychology and Health Psychology and the Department of Psychology of the Faculty of Arts, Pavol Jozef Šafárik University in Košice has focused on the research of risk behaviour in university students for a long time. Much of the published research has focused on the predictors and changes of risk behaviour during the years students spend at university. In cooperation with universities in different countries, a large international longitudinal study SLiCE was conducted. It was carried out among university students with the first wave of data collection in 2011. The project SLiCE will be described in more detail in the following chapter.

The findings of the project SLiCE have very strongly shown that factors associated with increased risk behaviour and in particular sensation seeking and risk perception (Brewer et al., 2004) are the factors which are also associated with emigration intentions (e.g. Jaeger et al., 2010). Therefore, a new broader study, with the first data collection launched in 2016 (more detailed information about the study can be found in the introduction), aimed to extend the research scope of university students' behaviour and include data on emigration intentions and possible predictors of this behaviour.

The first eight chapters of this monograph describe the factors associated with emigration intentions and/or plans of university students. The two concluding chapters present the results of the former longitudinal study of risk behaviour of university students in several countries. The interconnection between risk behaviour and migration intentions is elaborated in the 9th chapter. Two chapters are dedicated to presenting the results of the previous study and have been incorporated into this monograph because of their close relationship and possible practical implications for migration tendencies research. Both these chapters are based on longitudinal data collected in four waves within the SLiCE study. The data collection regarding emigration intentions/plans is aimed to be longitudinal as well. The 10th chapter describes the attrition rate in the previous study and describes the characteristics of those respondents who participated in the

study for more than one wave of the data collection compared to those who only participated in the first wave. It can be expected that similar patterns can also be present in the current study. The 11th chapter of the monograph describes the changes in the level of risk behaviour between the first and the fourth study year as they may be related to changes in migration tendencies.

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Attrition in SLiCE study – comparison of respondents and non-respondents

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INTRODUCTION

The problem of sample stability belongs to serious concerns in longitudinal research designs, especially when data are collected via the Internet. Although the online environment provides efficient tools in getting access to a lot of participants with heterogeneous characteristics and also brings other advantages such as time effectiveness and lower financial costs, some of its weaknesses should be taken into account. Following this, the chapter describes the main characteristics of Internet-based research designs, the specifics of longitudinal surveys and their main problem - attrition. It uses data from the longitudinal study SLiCE.

The SLiCE (Student Life Cohort in Europe) study has been developed on the basis of the Cross – National Student Health Survey (Ansari et al. 2007). It is an international longitudinal study aiming to support the general effort of society to promote health behaviours among university students. Universities from thirteen European countries have participated in the first wave of the study. However, for various reasons only five universities continued with all waves of data collection: Pavol Jozef Safarik University in Kosice (Slovakia), Charles University in Prague (Czech Republic), Eötvös Loránd University (Hungary), Lithuanian University of Health Sciences (Lithuania) and University of Bielefeld (Germany).

There were several general aims of the study. Firstly, to explore health indicators and health-related behaviour of university students in several European countries. Secondly, it aimed to address gender and country differences and similarities regarding students' health and risk behaviour. Thirdly, the study aimed to explore how variation in health indicators and health behaviours and changes over time can be explained by a set of individual, intrapersonal and interpersonal factors. In order to accomplish these general aims, four waves of data collection (each study year one wave, starting from the first year) among university students have been conducted. Up to now, many valuable papers have

been published using data collected within the SLiCE study including both national and international data (e.g. Orosová et al., 2015; Bavolar & Orosová, 2013; Ssewanyana et al., 2015; Hricová et al., 2015; Brutovská et al., 2014; Helmer et al., 2016).

As some of the possible questions related to the sampling procedures and potential of generalization of results can be answered with the help of comparing participants quitting at different waves of the study, three groups of SLiCE participants are compared in selected characteristics including health risk behaviour, intraindividual characteristics and mental health – those present only in the first wave, participants present in two or three waves and the group completing all four waves.

Internet-based studies

The Internet evolved from projects of narrow groups of people and its potential for academic research was recognized soon. In psychology, its use for data collection began in 1994 (Musch & Reips, 2000) and has been perceived as controversial from the beginning with many methodological issues to consider. Reips (2007) summarises the advantages of web-based methods in the following points:

- Possibility of quick testing of large samples
- Recruiting heterogeneous samples and people with rare characteristics
- Cost-effectiveness in administration, time, space, and labour in comparison with laboratory research
- The ease of access for participants, even for people from different cultures
- Truly voluntary participation
- Better generalizability of findings to the general population;
- The generalizability of findings to more settings and situations because of high external validity;
- The avoidance of time constraints;
- The simultaneous participation of large numbers of participants is possible;
- The reduction of experimenter effect;
- The reduction of demand characteristics;
- Greater visibility of the research process;

- The ease of cross-mode comparison – comparing results with the results obtained not online;
- Greater external validity through greater technical variance; and
- The heightened public control of ethical standards.

Buchanan (2010) adds another advantage of using the Internet for personality assessment although they are also valid for many other psychological characteristics. Firstly, Internet-based tests are easily scalable with a possible automatic process of computing final score. Secondly, online tests can be easily updated and revised. Thirdly, computerized testing procedures can provide metadata related to how participants complete the tests – time spent by individual items, possible returns to previous items and changes, moves of mouse pointer while considering various options.

On the other hand, the disadvantages of online data collection are mainly related to the lack of control over the testing process, e.g. junk mail, questions about sample selection and implementation (e.g. an unintended person may answer, some subsamples may be under-represented, volunteer bias), unclear answering instruction, privacy and security issues, unfamiliarity of respondents with the internet, low response rate (Evans & Mathur, 2005; Cohen, Manion & Morrison, 2013). When considered from a practical point of view, these issues may lead to security concerns in various areas. Tests can become publicly known and security of data should be secured. In addition, the identity of participants may not be known, which can be a problem when certain people are required to respond. The other serious concerns are associated with “the psychological side of testing”, particularly with the validity of measures that may arise from various factors with possible influence on the way of responding. For example, environmental variance should be considered. Although the negative effect of no control over the settings of tests completion are mainly mentioned, they may as well be recognized as the way of increasing the ecological validity. Moreover, the question of equivalence of online and offline procedures is one of the most elaborated. For example, people may be more willing to disclose sensitive information to computerized questionnaires than to other people (Weisband & Kiesler, 1996) and they respond in a less socially desirable manner via Internet (Joinson, 1999). In addition, when comparing

individuals' scores with the population, normative data from traditional instruments are still used. Although the proportion of online tests is increasing and while predictions say that the majority of testing will be done on computers, if not online (e.g. Buchanan, 2010), these measures are still predominantly made from original paper-and-pencil versions. Therefore, while little consideration of the equivalence of different forms can be expected in future, this stage has still not been achieved. To conclude, few differences have been found when online and offline methods have been compared (e.g. Casler, Bickel, & Hackett, 2013; Le Corff, Gingras, & Busque-Carrier, 2017; Weigold, Weigold, & Russell, 2013) and some authors (e.g. Epstein & Klinkenberg, 2001) consider the question of equivalence of online and offline testing being solved positively.

Attrition in longitudinal studies

The advantage of longitudinal studies over the cross-sectional lies in the potential of investigating causal mechanisms (Menard, 1991) with the possibility of distinguishing the effects of age and cohort. Hillygus and Snell (2015) add that they also a) reveal within-subject change, that may be not easily traced by multiple cross-sectional surveys, and b) provide information for test-retest stability assessment. In spite of the known strong points of longitudinal research, some problems are obviously associated with them and can pose a threat even to data gathered through the SLICE study, for example (Ruspini, 2002):

- Attrition in the sample size that represents a process of selective reduction of the subjects involved. Attrition is cumulative, as non-respondents in any wave are not contacted in later waves. When this process is not random, the data can become biased resulting in a non-representative sample.
- Missing data poses a more serious problem in longitudinal studies due to their possible accumulation.
- Higher risk of measurement error than in cross-sectional data with errors accumulating over time.
- Distinguishing the kind of changes – true changes from reflections of inaccuracies in measurements.
- The nature of the answers can be influenced by repeated participation.

The representativeness of the sample belongs to the main concerns of researchers and can be endangered in cross-sectional study designs in numerous ways (e.g. nonresponse bias). However, it poses an even more serious problem in longitudinal surveys. The increase of the sample representativeness can be accomplished by increasing the response rate, which is affected by numerous factors (e.g. length and tone of the test battery, the order of the items, the follow-up mechanism, or the personal connection with the survey (Werner, Praxedes, & Kim, 2007). Non-respondents (or missing data) in longitudinal studies in the school environment can result from various sources (Siddiqui, Flay, & Hu, 1996). Firstly, a subject may fail to answer a specific item, but responds to the overall survey. This type of missing data is present as well in cross-sectional studies and is named item nonresponse. Secondly, some subjects may miss an entire survey (test battery), but are present in later surveys (unit nonresponse). Thirdly, subjects may leave the school and cannot be followed (dropout). Fourthly, they may simply not choose to participate

When considering the overall pattern of participation in longitudinal studies, Lugtig (2014) distinguishes four distinct mechanism potentially leading to declining response propensities and attrition. In the case of “absence of commitment” to the survey, participants just do not want to respond to the invitation and they drop out very early. Even in the absence of high commitment, “habit” can lead to repeated participation. However, once the habit is broken, a higher risk of missing more waves arises. “Panel fatigue” occurs when respondents feel like they have done their duty after a prolonged period of participation and “shock” is a name for lifechanging events like a serious illness (or death), moving, etc. Lugtig (2014) also reported four categories of participants according to their behaviour during longitudinal surveys (based on surveys with 48 waves after one month). Stayers almost always respond to each wave or to some of the beginning waves until the end (probability of responding higher than 90%). “Lurkers” respond infrequently but during the whole length of the survey and “fast attriters” and “gradual attriters” differ in the time of quitting the study – during the earlier waves or later. Variables related to future attrition can be categorized to several groups (Gustavson et al., 2012). From socio-demographic characteristics, low educational level, being out of work, and not being married are typically related to an increased risk of non-response and attrition in

epidemiological studies. When taking into account unhealthy life style factors, smoking, high alcohol consumption, and physical inactivity were reported to be related to non-participation and attrition. On the other hand, the effect of psychological stress on attrition varies from no effect to weak or moderate effect after adjusting for other variables and social networks and support (Badawi et al., 1999) as well as marital satisfaction and spousal support (Goodman & Blum, 1996) did not predict attrition in a job satisfaction study.

Although the problem of attrition was considered as serious decades ago (with studies ranging from 3 to 50% attrition rate (Farrington et al., 1990) or from 30 to 70% (Gustavson et al., 2012)), most studies only found small effects of attrition on the generalizability of results (Zethof et al., 2016) with even a 74% attrition rate leading to only small (but significant) attrition effects. This had no effect on the primary outcome measures (Lohse et al., 2000). On the other hand, Mirowsky and Reynolds (2000) reported that suffering from depression predicted attrition, and Burkam and Lee (1998) found that attrition resulted in an overestimation of the negative effects of race and ethnicity on academic achievement. The effect of attrition - nonresponse bias - can be tested in numerous ways. Comparison of respondents and nonrespondents or the population in archival data or data from the follow-up survey can be done although these data are not always available. In this case, respondents from different waves can be compared to investigate possible differences. In any case, nonresponse analyses are more common in studies with lower response rates (Werner, Praxedes, & Kim, 2007) and is suggested to be performed with less than an 85% response rate (Dooley & Lindner, 2003). Deng et al. (2013) describe more ways of dealing with attrition in longitudinal studies. The simplest alternative is ignoring it - only the available cases are analysed and listwise deletion is conducted. The panel attrition is assumed to be missing completely at random (MCAR), that is, the missingness is independent of observed and unobserved data. On the other hand, since some individuals are more prone to drop out, this approach does not seem to be the best solution and some researchers assume that the data are missing at random (MAR) - missingness depends on observed, but not unobserved data. Multiple methods based on the assumption of MAR are used with adjusting survey weights for nonresponses, predicting probabilities of nonresponse obtained by modelling, simple

imputing missing values with a plausible guess or multiple imputation methods. In more elaborated approaches, the attrition is handled directly in the statistical models used for longitudinal data analysis. Sometimes, even an entirely different method can be adopted – new respondents are added in some consecutive waves to substitute dropout (refreshment samples).

AIM

As noted earlier, the respondents' attrition is probably the most widely-recognized challenge in longitudinal studies of all types, modes, and sponsors (Hillygus & Snell, 2015). Moreover, the response rate has even decreased in recent years (Hillygus et al., 2006). The online data collection using mainly mail invitations is qualitatively different from offline collection, and the differences are also expressed in study participation. In the first phase, some people may refuse to respond to Internet surveys because of various reasons – negative attitudes to Internet as a mode of communication (mainly in older age groups, DeLeeuw & Hox, 2011), email invitations can be forgotten or more easily ignored than personal invitations. In addition, waves in online studies are typically more frequent than traditional methods (Lugtig, Das, & Scherpenzeel, 2014), that poses higher demands on participants. Considering these challenges of longitudinal online research, the examination of respondents' attrition is needed to assess the expected generalisability of the SLiCE study results. In the current research, this is conducted by descriptive statistics (proportions of people present in particular waves) and comparing participants in different numbers of waves.

SAMPLE

The sample used in this study is from a large longitudinal international project SLiCE described in the introduction of this chapter. Data for the first wave were collected in 2011. The multinational cohort was planned to include at least 500 students from each of the involved institutions and conduct an on-line follow up for the whole university education. First year university students were approached in each participating country and asked to participate in a web-based questionnaire containing measures of a number of health-related behaviours, measures of psychological status and functioning and personality variables. Participation was completely voluntary. Every respondent gave informed consent prior to filling in the online questionnaire and the respective Ethics Committees approved of this study at individual universities. The strategies of respondents' recruitment differed per site because of the structural differences in the participating countries. In Slovakia, the universities

provided access to the e-mail addresses of all first-year students (totally 4078). In order to obtain a larger sample size, the project was also presented to students at each university during regular seminars. Students were encouraged to participate in the survey through an invitation e-mail and asked to fill in the online questionnaires without incentives.

The data were collected in four waves – each study year was one wave of data collection. For the second, third and the fourth waves, students were recruited via e-mails that they had provided during the baseline. The final study sample consisted of students attending universities in five countries: Slovakia, Czech Republic, Hungary, Lithuania and Germany. Overall, 2961 respondents completed the first wave of the study. From them, 554 (18.7%) completed two waves, 476 (16.1%) three waves and 139 (4.7%) respondents completed all four waves of data collection. Their mean age at the first wave was 20.8 (SD 3.14). A closer description of the sample based on the country is presented in Table 1.

Table 1 Percentage of respondents based on their participation on the number of data collection waves in which they participated

		only the 1 st wave	two waves	three waves	four waves
Slovakia	N	341	138	107	10
	% within country	57.2%	23.2%	18.0%	1.7%
	% of female	68.7%	78.3%	85.7%	80.0%
Lithuania	N	665	162	136	11
	% within country	68.3%	16.6%	14.0%	1.1%
	% of female	67.1%	73.1%	75.9%	80.0%
Hungary	N	553	114	97	11
	% within country	71.4%	14.7%	12.5%	1.4%
	% of female	77.1%	72.6%	66.0%	90.9%
Czech Republic	N	142	76	67	66
	% within country	40.5%	21.7%	19.1%	18.8%
	% of female	58.2%	64.5%	77.3%	71.9%
Germany	N	91	64	69	41
	% within country	34.3%	24.2%	26.0%	15.5%
	% of female	65.6%	73.4%	75.4%	73,20%

MEASURES

Within this SLiCE study a broad range of risk behaviours, health related behaviours, mental health, intrapersonal and interpersonal factors were studied. At first, a questionnaire was compiled in English and then translated into the local languages using two independent forward translations for each language. The research team reviewed any case of disagreement and the authors familiar with the respective language made the final decisions. In this chapter, we will focus on selected risk behaviours, mental health and intrapersonal characteristics of respondents. In order to measure them, a number of questionnaires and single item measures were used. They will be briefly described in the following section. For a closer description of the measures, see monograph Orosova et al. (2015). All the continuous variables are scored in such way that a higher score represents a higher amount of the characteristic (e.g. higher stress, higher self-regulation, higher optimism, etc.).

Risk behaviour

Alcohol use was measured by the questionnaire AUDIT (Alcohol Use Disorders Identification Test) (Barbor & Grant, 1998). It consists of 10 items in three subscales addressing the amount, frequency and negative consequences of drinking. The sum score of all items has been computed.

Smoking was measured using a single question: „During the past 30 days (one month), on how many days did you smoke cigarettes?” Respondents answered this item on a 7-point scale from 0 days to all 30 days.

Problematic internet use has been assessed by the Generalized Problematic Internet Use Scale 2 (GPIUS 2) (Caplan, 2010). The scale consists of 15 items that are divided into 5 factors: (1) preference of online social interaction, (2) use of the internet for mood regulation, (3) compulsive use of the internet, (4) cognitive surfeit of internet use, (5) negative consequences of internet use. In the present chapter however, the sum-score of problematic internet use has been computed.

Intra-individual characteristics

The Self-determination scale (Sheldon & Kasser, 1995) was used to measure individual differences in autonomy. The scale consists of two subscales (awareness of self and perceived choice) that have

been analysed separately. Chronbach's α for this scale was 0.77.

Short Self-Regulation Questionnaire (Carey, Neal, & Collins, 2004) is a 31 item measure to assess self-regulation skills. For this study, only a total self-regulation score was computed. Cronbach's alpha was 0.93.

Personality variables were measured by The Ten-item Personality Inventory (TIPI) (Gosling, Rentfrow, & Swann, 2003). The TIPI is a brief 10-item scale consisting of two descriptors designed to measure two poles of the Big Five Personality model.

Mental health

The WHO Well-being index measure ((WHO 1998) is a five item measure addressing different aspects of psychological well-being. Respondents answered on a 6-point scale. Cronbach's α for the measure was 0.79

The Beck Depression Inventory modified version (M-BDI) (Schmitt et al., 2003) consists of 20 items to measure experience of depressive feelings during the past few days. Cronbach's alpha in this sample was 0.94.

The Perceived stress scale (PSS-4) (Cohen, Kamarck, & Mermelstein, 1983) consists of 4 items to measure perceived stress. Cronbach's alpha in this sample was 0.77.

STATISTICAL ANALYSES

For this chapter, simple descriptive statistics, chi-square, t-test and ANOVA were used. For ANOVA, Scheffe post-hoc tests were computed. For those measures that did not meet the assumption for normal distribution, a Kruskal-Wallis test was used. However, as the results did not differ from ANOVA tests, the results of ANOVA are presented for all variables.

Country based description

RESULTS

Table 1 shows the percentage of respondents based on the number of waves they have participated in for each country separately. Further, it displays the percentage of participating females in the country and wave. Generally, the number of respondents who answered the questionnaire on all four occasions is very low in Slovakia, Lithuania and Hungary. However, in the Czech Republic and Germany nearly one fifth of the respondents participated in all four waves of data collection.

In the subsequent analyses we compared those respondents who participated only in the first wave of data collection with those who participated in two or three waves and those who filled in the questionnaire in all four data collection times. The analyses have been conducted for the whole sample, regardless of the country.

Demographic characteristics

With regard to gender, women participated in more than one wave significantly more often than men (chi square = 15.01, $p=0.020$); those who participated in at least two waves reported having significantly better overall high school performance ($F=14.53$, $p\leq0.000$) and there were no age differences between the groups.

Risk behaviour

Table 2 shows the differences in risk behaviour according to participation. Those respondents who only participated in the first wave of data collection reported significantly more alcohol consumption ($F=4.065$, $p\leq0.05$) and more days of smoking during the previous month ($F=7.507$, $p\leq0.01$). There were no significant differences in the problematic internet use between respondents and non-respondents.

Table 2 Differences in risk behaviour between different groups of participants

		N	mean	std.dev.	F	p	Scheffe post hoc
alcohol consumption	only the 1st wave	1365	5.63	4.55	4.065	.017	1>2
	two/three waves	865	05.9	4.28			
	all four waves	112	5.68	4.61			
problematic internet use	only the 1st wave	1381	36.43	19.22	.422	.656	
	two/three waves	882	37.19	19.81			
	all four waves	115	36.67	17.7			
smoking	only the 1st wave	1281	2.44	2.18	7.507	.001	1>2
	two/three waves	718	02.9	02.1			
	all four waves	85	1.94	1.64			

Table 3 Differences in intrapersonal characteristics between different groups of participants

		N	mean	std.dev.	F	p	Scheffe post hoc
extraversion	only the 1st wave	1158	09.1	3.19	13.937	< .000	1>2; 1>3; 2>3
	two/three waves	900	8.48	3.22			
	all four waves	133	7.69	03.4			
agreeableness	only the 1st wave	1159	6.35	2.37	5.998	.003	1>3; 2>3
	two/three waves	893	6.31	2.38			
	all four waves	136	5.61	2.33			
conscientiousness	only the 1st wave	1161	10.26	2.55	3.779	.023	1<2
	two/three waves	899	10.56	2.55			
	all four waves	136	10.58	2.56			
emotional stability	only the 1st wave	1158	07.7	2.87	.683	.505	
	two/three waves	896	7.18	2.97			
	all four waves	135	6.90	2.95			
openess to experience	only the 1st wave	1154	10.76	2.37	3.576	.028	
	two/three waves	898	10.55	2.39			
	all four waves	135	10.28	2.32			
optimism	only the 1st wave	1172	20.76	4.29	1.084	.338	
	two/three waves	897	21.00	4.52			
	all four waves	136	21.18	4.72			
SDS awarness of self	only the 1st wave	1198	19.57	4.20	.488	.614	
	two/three waves	900	19.66	04.12			
	all four waves	133	19.93	3.87			
SDS perceived choice	only the 1st wave	1196	18.48	04.3	1.885	.152	
	two/three waves	908	18.59	3.95			
	all four waves	135	19.18	3.57			
self regulation	only the 1st wave	1067	112.55	16.46	19.717	< .000	1>2, 2<3
	two/three waves	837	107.97	15.28			
	all four waves	126	111.72	15.51			

Intrapersonal characteristics

Means and standard deviations for the studied intrapersonal characteristics for separate groups of respondents are presented in Table 3. Furthermore, the results of ANOVA and Scheffe post-hoc test are presented.

Several differences between the respondents and non-respondents have been found. Regarding the Big 5 personality characteristics, non-respondents reported significantly higher levels of extraversion ($F=13.937$, $p\leq 0.000$) and agreeableness ($F=5.998$, $p\leq 0.01$) than those who participated in more than one wave of data collection. Emotional stability was not associated with research participation. Neither were two subscales of self-determination (awareness of self and perceived choice) and the level of optimism. With regard to self-regulation, a somewhat unexpected result has been found. Both those who participated only in the first wave and those who participated in all four waves, reported significantly higher levels of self-regulation ($F=19.717$, $p\leq 0.000$) than those who participated in two or three waves.

Table 4 Differences in mental health between different groups of participants

		N	mean	std.dev.	F	p	Scheffe post hoc
well-being	only the 1st wave	1697	12.72	05.6	16.314	< .000	1>2; 2<3
	two/three waves	1018	11.75	05.11			
	all four waves	135	13.72	4.66			
stress	only the 1st wave	1673	10.59	3.24	3.426	.033	2>3
	two/three waves	1012	10.71	3.32			
	all four waves	136	9.93	3.34			
depression	only the 1st wave	1069	48.95	15.73	4.553	.011	1>3; 2>3
	two/three waves	843	48.27	16.29			
	all four waves	122	44.38	14.94			

Mental health

Three factors of mental health (well-being, perceived stress and depression) have been considered in the present study. The results of ANOVAs are presented in Table 4. Those participating only in the first wave reported significantly higher depression ($F=4.553$, $p\leq 0.05$) and perceived stress ($F=3.426$, $p\leq 0.05$). With regard to well-being, the highest levels of well-being reported those who participated in all four waves, while the lowest levels reported those who participated only in the first wave ($F=16.314$, $p\leq 0.000$).

DISCUSSION

The connection of internet-based study and longitudinal research design brings a lot of challenges and possible pitfalls with the response rate and attrition belonging to the most serious. Problems in this area can produce significant threats of generalisability of results and question their applicability. A variety of approaches have tried to deal with it using different statistical techniques including inputting missing values, ignoring not continuing respondents or considering them in complex statistical models (see Deng et al., 2013). One of the straightforward ways of dealing with it is a simple comparison of respondents present in various waves of data collection – the possible differences between them inform not only about potential threats to generalisability, but can help to identify variables responsible for sample attrition.

Past studies have described heterogeneous characteristics related to the increased risk of non-response and attrition in longitudinal studies with education level, being out of work or not being married as demographic and smoking, alcohol consumption and physical inactivity as the most prominent life style factors (Gustavson et al., 2012). Some of these factors were also investigated in the present study (mainly life style characteristics), but some of the demographic characteristics were not applicable. All participants were at the same educational level (ongoing university) and the majority were single. From the demographic characteristics available in the present sample, country and gender seem to be relevant with regard to participation in a longitudinal study. Respondents from the Czech Republic and Germany participated more often in more than one wave with women increasing their participation rate along the four waves. Gender differences in participation were in line with

results from previous studies (Radler & Ryff, 2010; Fitzgerald, Gottschalk, & Moffitt, 1998).

When considering health risk behaviour, participants present only in the first wave reported higher alcohol consumption and more frequent cigarette smoking in comparison with the participants continuing to the second and third wave. This result seems to be in line with previous findings that those engaging in risk behaviour tend to participate less frequently in followups (Graaf et al., 2000, Caetano, Ramisetty-Mikler, & McGrath, 2003). Comparisons in personality characteristics as well as in mental health indicators have not created a clear pattern. While the score of extraversion and agreeableness was lower the more waves respondents participated, other characteristics did not differ significantly and differences in self-regulation were inconsistent without a recognizable trend. More consistent results are visible in mental health indicators with one generalizable finding – more positive mental health (higher well-being, lower stress and depression) in participants of all waves when compared with the other two considered groups (with the exception of one nonsignificant result in perceived stress). In summary, it can be generalized that the present findings indicate a higher probability of participating for students with a lower inclination towards health risk behaviour and with more positive mental health indicators.

LIMITATIONS

Although the present results shed some light on the possibility of generalizability of the SLiCE results reflecting the response rate and attrition, some of the limitations should be taken into account. The spectrum of demographic characteristics was narrowed because of the focus on university students (education level or marital status were not considered), but some other factors not present in other longitudinal studies could lie behind the attrition. Firstly, students could not be approached because of leaving university although this has not been investigated. Not continuing at university could be the result of different factors – not only insufficient study results, but also the transition to another school or decision to earn money immediately and not wait to finish. Moreover, the online communication provided greater freedom not to respond to participation invitations. While personal invitations during the classes that were in the first wave of data collection were very effective (the role of social pressure is obvious), e-mail communication in follow ups allowed a much easier refusal with no consequence.

FUTURE RESEARCH	It would be interesting to investigate in more depth the reasons for country differences in the attrition rate. Although the basic procedure for data collection was the same across countries, specific strategies for respondents' recruitment differed by university due to structural differences in participating countries. These specific strategies might lead to different attrition rate.
CONCLUSIONS	This study shows that respondents bias has to be considered when interpreting the longitudinal results of the SLiCE study in particular with several characteristics. The respondents participating in more than one wave of data collection are more likely to be women, less inclined towards health risk behaviour, have better mental health and score less in extraversion and agreeableness.

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Intrapersonal and interpersonal factors associated to changes of health-risk behaviour among university students

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INTRODUCTION

There are many definitions of health-risk behaviour in the current scientific literature. Health-risk behaviour can be defined as any activity undertaken by people with a frequency or intensity that increases the risk of disease or injury (Steptoe & Wardle, 2004). Lane and Cherek (2001) have reported that risk behaviour is a type of acting in which the result is not clear and requires a balancing between the possibility of negative consequences, losses and positive consequences and profit. Health-risk behaviour could lead to damaging physical and mental health, which can be caused for example, by alcohol, smoking or using drugs. The most common forms of risk behaviour among young people are smoking cigarettes, alcohol consumption, marijuana use, sexual risky behaviour and problematic internet use.

The likelihood of drug use and other forms of health-risk behaviour during adolescence increases and reaches its peak during young adulthood before it begins to decline (Hirche & Gottfredson, 1994 in Voekl & Frone, 2000). University for most young people is a period of becoming independent, taking life into one's own hands, pulling out of care and family control. Starting university may be a particular stressful time. This period of life brings with it many changes that students have to adapt to (Krajčová, 1997). The students are still immature and emotional vulnerable. They want to be recognized in company as well as having friends. If these needs are not met, their self-confidence decreases and the risk of using substances harmful to their health increases (Gábríš, 2003). Specific patterns of alcohol consumption, smoking cigarettes, marijuana use, sexual risky behaviour and problematic internet use constitute relevant risk behaviours among university students. According to current research findings the crucial period that should be studied is the first year spent in the university environment. It is highly relevant to focus closely on the role of the intra/interpersonal risk and protective

factors of these specific risk behaviours in order to improve the effectiveness and efficiency of prevention programs.

Alcohol use and problems that are associated with it are more frequent among university students than among their peers who do not study at university (Adámková, Vondráčková, & Vacek, 2009). Alcohol consumption places university students at risk for health problems, injuries, and poor academic performance. High-volume alcohol consumption and heavy single occasional drinking is considered to be one of the leading causes of injury and death among university students and young adults as well (Wicki, Kuntsche, & Gmel, 2010). As levels of alcohol intake increase, so does the prevalence of a variety of risky behaviours including unsafe sexual activity (Wechsler et al., 1994). Only a minority of university students abstain from alcohol whereas many more are binge drinkers (Zahran et al., 2007). Bewick et al. (2008) reported a significant reduction in the number of alcohol units per week consumed over the three-year undergraduate time span in both the longitudinal and cross-section samples. Despite this finding, nearly a third of students were still drinking above recommended levels in the third year at university and those who reported drinking within the high-risk category during the first year were more likely to still be at high risk in subsequent years. Nevertheless, the pattern of changes in alcohol consumption during university differ from study to study where some show decreasing pattern others refer to a peak in the middle years and some studies reported no difference (Wicki, Kuntsche, & Gmel, 2010).

Smoking among university students poses significant health and social problems too. Despite educational efforts, various campaigns pointing to the adverse effect of smoking and the laws protecting non-smokers, university students still smoke too much. Student smokers more often consume alcohol, try marijuana and other drugs and more often have unprotected sex (Emmons et al., 1998).

The most often used indicators of risky sexual behaviour are higher numbers of sexual partners, higher frequencies of unsafe sexual activity and lower frequency of condom use (Beadnell et al., 2005). The decision about condom use usually depends on two reasons; the opinion that using condoms can reduce sexual pleasure and in case of romantic relationships, using condoms may imply a lack of trust in the partner (Nettelman, Brewer,

& Ayoola, 2007). Lam and Lefkowitz (2013) reported that risky sexual behaviour included students' condom use inconsistency increased over time but the rate of change slowed towards the end of university.

Research regarding the risk factors of problematic internet use are very much needed (Aboujaoude, 2010) because of it can lead to serious psychological dysfunction (Young, 1998). University students who suffer from problematic internet use may also have physical health problems as well psychological symptoms (depression, social anxiety) and behavioural problems (substance abuse, aggression, self-destructive behaviours) (Sun et al., 2012, Vandelandotte et al., 2009). Li et al. (2016) reported the signs and symptoms of problematic internet use: a) use longer than intended; b) preoccupation; c) withdrawal symptoms; d) tolerance; e) unsuccessful attempts to stop or reduce internet use; f) craving; g) less interest in other hobbies and activities; excessive use despite problems; i) use internet to escape or relieve negative mood; j) lying about using internet. These signs are almost the same as those used to classify substance use and behavioural addiction.

Problematic behaviour has been explained by means of personality factors and close social environment (family, peers) (Jessor, 1987 in Kožený, Csémy, & Tišanská, 2007). Extraversion was found to be positively correlated with alcohol drinking the same as low levels of neuroticism and consciousness which are associated with drinking higher volumes (Kuntche et al., 2006). Researchers examining the link between alcohol use and the mental health of young people have found mixed results (Burriss et al., 2011). Cox and Klinger (2002) reported an association between negative affectivity and alcohol drinking only among those students who had alcohol related problems. Another study refers to the lower prevalence of alcohol drinking among students who never or seldom experienced depressive symptoms (Stock et al., 2009). Dispositional optimism has been defined as the "tendency to believe that one will generally experience good versus bad outcomes in life" (Scheier, Carver, 1992, p.202). Optimism is positively associated with well-being, adaptive coping and health-promoting behaviour (Mulkana, Hailey, 2001). The literature concerning stress, well-being and risky behaviour among adolescents and young adults indicates social support as a buffer which helps individuals cope with stressful situations and protects them against using maladaptive strategies. Social

support and well-being has been found to be negatively related to health-risk behaviour especially drug use and unsafe sexual behaviour (Cakar & Tagay, 2017). The same authors state that adolescents who perceive a high level of social support from family, friends and teachers tended to behave less risky.

AIM

The objectives of this study were to describe the changes of selected types of health-risk behaviour (smoking, alcohol consumption, marijuana use, problematic internet use, risky sexual behaviour) over four years among university students in five European countries (Slovak Republic, Czech Republic, Hungary, Lithuania, Germany). The study also aims to find out the associations between some intrapersonal (Big Five personality traits, optimism, well-being, depressive symptoms) and interpersonal factors (supportive relationships from family and friends) to significant changes of health-risk behaviour.

SAMPLE

The analysed data was used from the 1st and 4rd wave (each with a one year follow up) of the Student Life Cohort in Europe (SLiCE). This is a multinational longitudinal study among first year university students from five European countries (Slovakia, Lithuania, Hungary, Czech Republic, Germany). The data were collected online. Students were asked to complete self-administered online questionnaires. The strategies of the respondents' recruitment differed per site because of structural differences in the participating countries. Some universities provided access to the e-mail addresses of all enrolled students. The project was introduced to students during regular lectures and seminars. Then students were directly invited to participate in the survey by an invitation email. Other students were informed using university newsletters and other formal as well as informal channels. Following that, they registered on www.slice-study.eu and filled in the form. Student participation in the study was voluntary and anonymous. Students were informed that by completing the questionnaire they were providing their informed consent to participate. They were also informed that they could terminate the participation at any point while filling out the questionnaire. No incentives were provided. The permission to conduct the study was granted by the ethical commissions of participating institutions. After receiving the invitation e-mail, students completed the online questionnaire covering a range of questions on students' health behaviour. At first, the questionnaire was compiled in English and followingly translated into local languages using two independent forward translations

for each language. The research team reviewed any cases of disagreement and the authors familiar with the respective languages made the final decisions.

We compared the data collected from the university students of five countries in the first (T1) and the fourth year (T2) of their university studies. From 3026 respondents who filled questionnaires in the first round, only 360 (73.3% females) took part in the fourth round too. The research sample consisted of university students from five countries: Slovakia (N=47; % females, mean age T1- 20.09, SD T1- 1.01), Lithuania (N=89 ; 76.4% females, mean age T1- 19.68, SD T1- 0.79), Hungary (N=62 ; 72.6% females, mean age T1- 20.34, SD T1- 2.15), Czech republic (N=99 ; 67.7% females, mean age T1- 21.98, SD T1- 2.73) and Germany (N= 63; 69.8% females, mean age T1- 20.81, SD T1- 2.14), which have filled in both T1 (first round) and T2 (fourth round) SLiCE questionnaire.

MEASURES

Demographic variables including age, gender and country were collected from all participating students.

Alcohol use was measured by the questionnaire AUDIT (Alcohol Use Disorders Identification Test) (Babor et al., 2001). AUDIT is a screening tool sensitive to early detection of risky and high risk (or hazardous and harmful) drinking. It has 3 questions on alcohol consumption, 3 questions on drinking behaviour and dependence and 4 questions on the consequences or problems related to drinking. Questions 1 to 8 are scored on a five-point scale from 0 to 4 and questions 9 and 10 are scored on a three -point scale from 0, 2 and 4. It takes four possible scores: consumption score - questions 1 to 3 - maximum possible score is 12 (a score of 6 or 7 may indicate a risk of alcohol-related harm), dependence score - questions 4 to 6 - maximum possible score is 12 (a score of 4 or more indicates the possibility of alcohol dependence), alcohol-related problems score - any scoring on questions 7 to 10 and total score -maximum possible score is 40 (total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence. AUDIT-scores in the range of 8-15 represent a medium level of alcohol problems, whereas scores of 16 and above represent a high level of alcohol problems). Cronbach α of the total score was 0.777.

Tobacco smoking was assessed by two particular questions. The first of them concerned life prevalence of smoking: "Have you ever tried or experimented with cigarette smoking, even one or

two puffs?“ with possible answers „yes“ or „no“. The second question asks about tobacco smoking during last month: „During the past 30 days (one month), on how many days did you smoke cigarettes?“. We divided respondents into four groups depending on the answers (never; 1-5 days; 6-19 days; 20-every day). The question: „How often in the last month have you used marijuana?“ was used to indicate marijuana abusers. According to the answers we divided the respondents into 3 groups (never; 1 – 2 times a month; once a week or more).

Risk sexual behaviour was assessed by several particular questions. Three of them were selected for the analysis. They included the number of sexual partners in the last 12 months, using a condom during the first sexual intercourse with a new partner (possible answers: never, sometimes, always) and the third question asked: “Do you usually carry condoms?“ with possible answers: never; if sexual contact can be expected; sometimes; always.

The Generalized Problematic Internet Use Scale 2 (Caplan, 2010) was used to assess problems with use of the internet. The questionnaire consists of five subscales (preference of online social interaction - Cronbach α =0.800; use the internet for mood regulation - Cronbach α =0.793; compulsive use of the internet - Cronbach α =0.809; cognitive preoccupation of internet use - Cronbach α =0.825; negative consequences of the internet use - Cronbach α =0.848) each measured by 3 items. The total score and five subscores can be computed. The respondents express the degree of agreement with individual items on an 8-point scale from “totally disagree” to “totally agree”. Higher scores indicates a much riskier internet use.

Personality traits were measured using The Ten-item Personality Inventory (TIPI). TIPI is a brief 10-item scale consisting of two descriptors designed to measure two poles of the Big Five Personality factors (Gosling, Rentfrow, & Swann, 2003). Each item was preceded by the statement: „I see myself as...“ and all of them are scored on a 7-point Likert scale ranging from strongly disagree to strongly agree. The scores of opposite poles were combined to represent a cumulative score for each component of the Big Five Model. Cronbach α of extraversion =0.556; Cronbach α of agreeableness = 0.548; Cronbach α of conscientiousness = 0.541; Cronbach α of emotional stability = 0.460; Cronbach α of openness = 0.460.

Optimism was measured by LOT-R (Revised Life Orientation Test)

(Scheier, Carver, & Bridges, 1994). LOT-R is a 10-item (four items are fillers) measure of generalized dispositional optimism (versus pessimism). The participants were asked to answer each item on 5-point scale from “totally disagree” to “totally agree”. Scores range from 5 to 30 with high scores indicating greater optimism (Cronbach $\alpha=0.785$).

The WHO-5 Well-being index (WHO-5, World Health Organization, 1998) was used to address the psychological well-being of students. This measure focuses on the aspects of emotional well-being and covers positive mood, vitality and general interests. The participants were asked to answer each item on a 6-point scale from not present („at no time“) to constantly present („all of the time“). A higher score indicated a higher level of well-being. Cronbach $\alpha=0.838$.

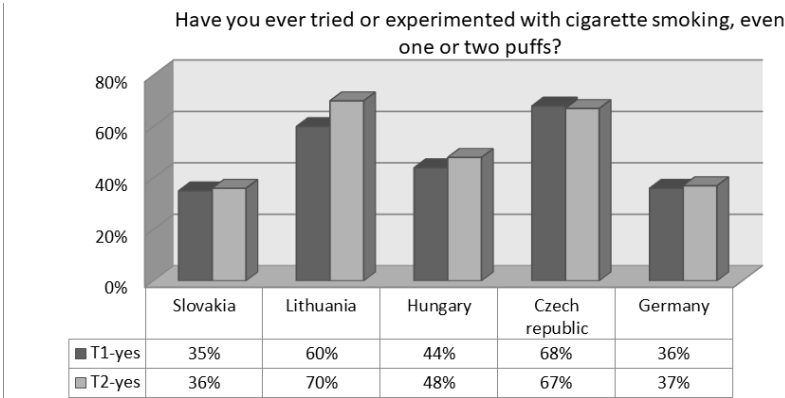
Depressive symptoms were measured using a modified version of the Beck Depression Inventory (Schmitt et al., 2003). In this questionnaire, students were asked to describe how often they experienced each of the 20 depressive symptoms during the past few days on a 6-point scale ranging from „never“ to „almost always“. The total score of depressivity was obtained by summing up the answers to individual questions. A higher score indicated a higher level of depressive symptoms. Cronbach $\alpha=0.919$.

Perceived social support was measured using the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). The MSPSS is a 12- item, multi-dimensional tool measuring how one perceives his/her social support relationships including family (Cronbach $\alpha=0.906$), friends (Cronbach $\alpha=0.943$) and significant others (Cronbach $\alpha=0.945$). Each item was rated using a 7- point scale with possible answers varying between „definitely no“ to „definitely yes“. A higher score indicated a higher level of social support.

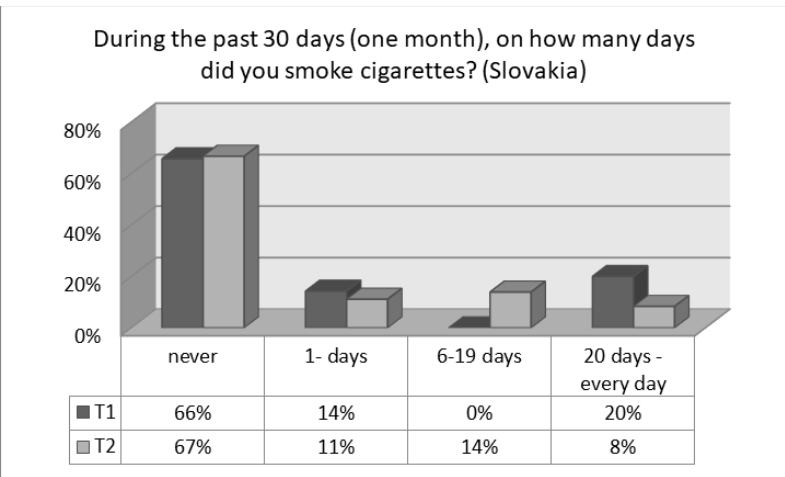
RESULTS

We compared the data collected from university students of five countries in the first (T1) and the fourth year (T2) of their university studies. We focused on the smoking, drinking alcohol, marijuana use, problematic internet use and risky sexual behaviour.

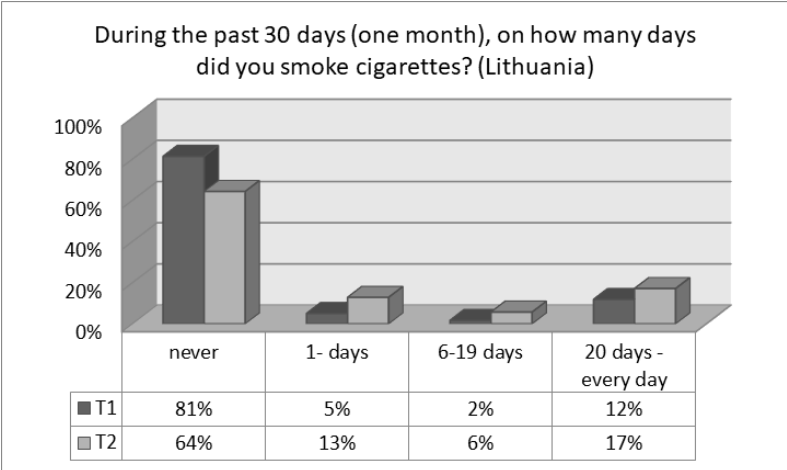
Graph 1 Changes in life prevalence of tobacco smoking between the first (T1) and the fourth round (T4)



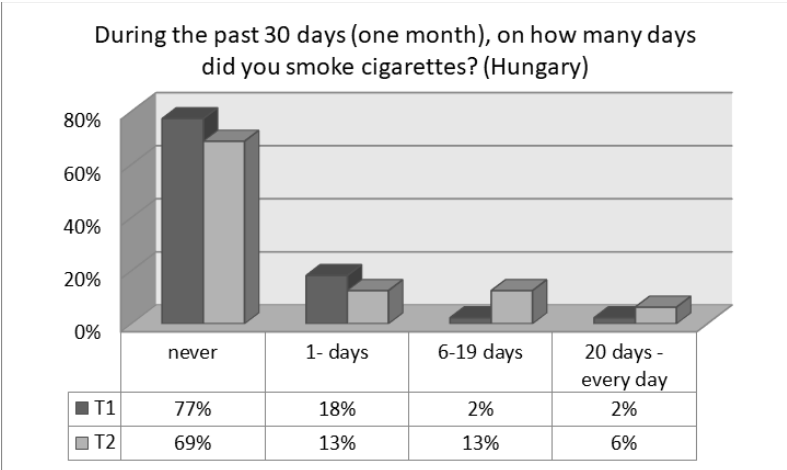
Graph 2 Changes in intensity of smoking tobacco cigarettes during past month among Slovak university students



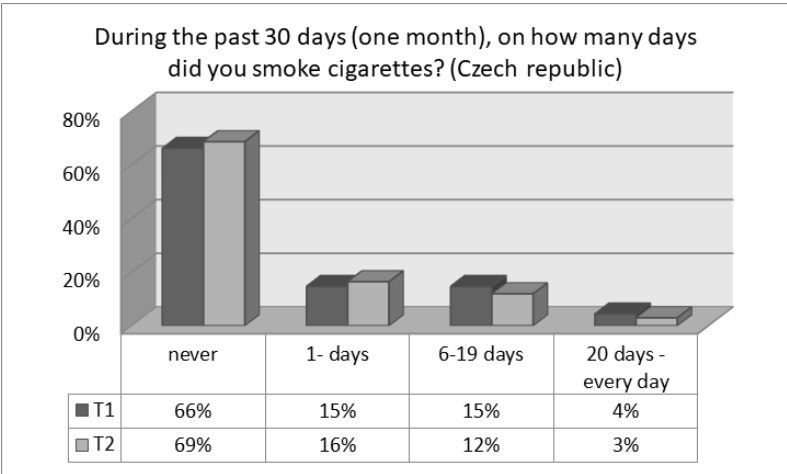
Graph 3 Changes in intensity of smoking tobacco cigarettes during past month among Lithuanian university students



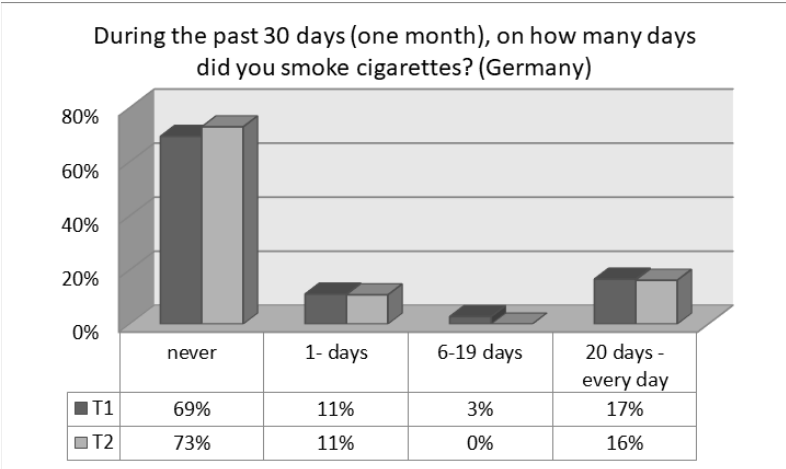
Graph 4 Changes in intensity of smoking tobacco cigarettes during past month among Hungarian university students



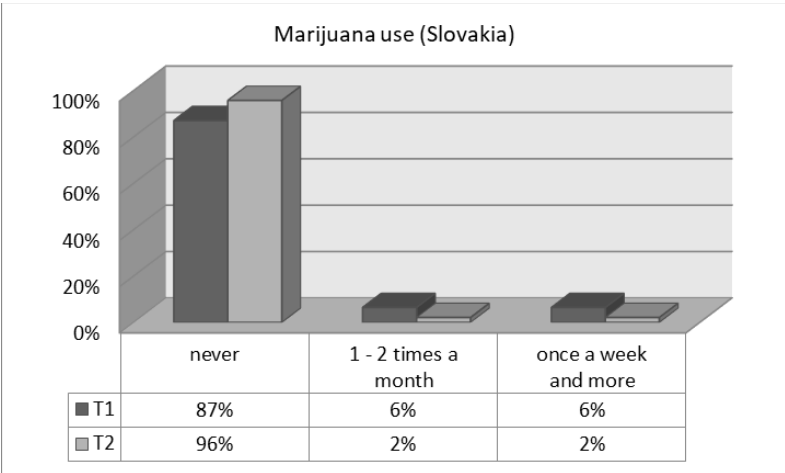
Graph 5 Changes in intensity of smoking tobacco cigarettes during past month among Czech university students



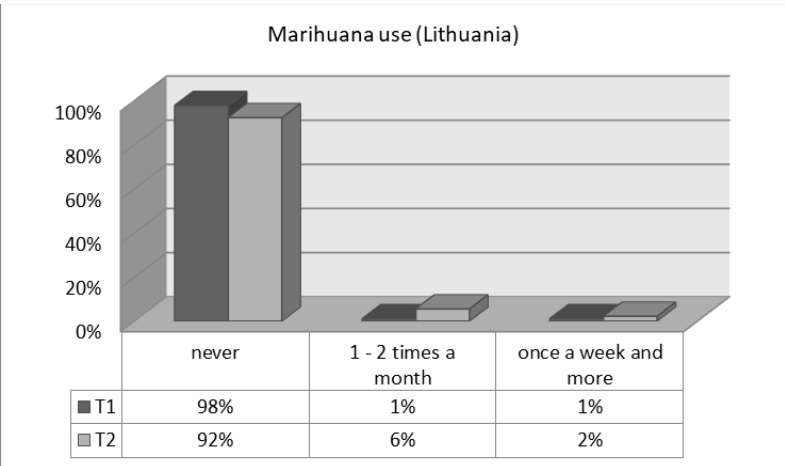
Graph 6 Changes in intensity of smoking tobacco cigarettes during past month among German university students



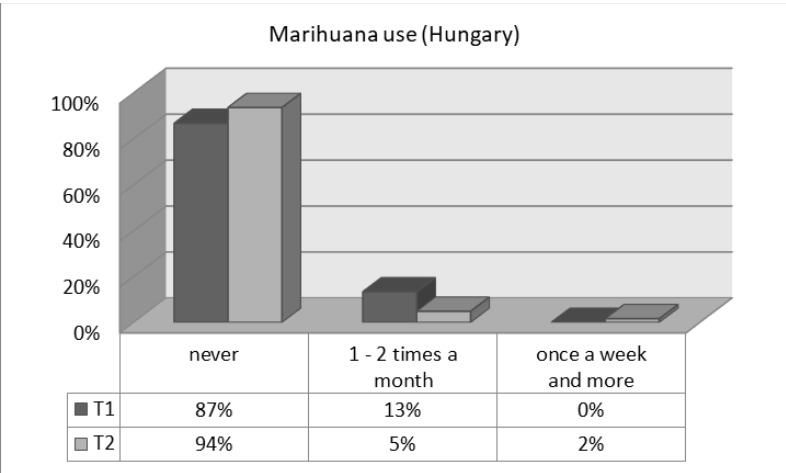
Graph 7 Changes in marijuana use among Slovak university students



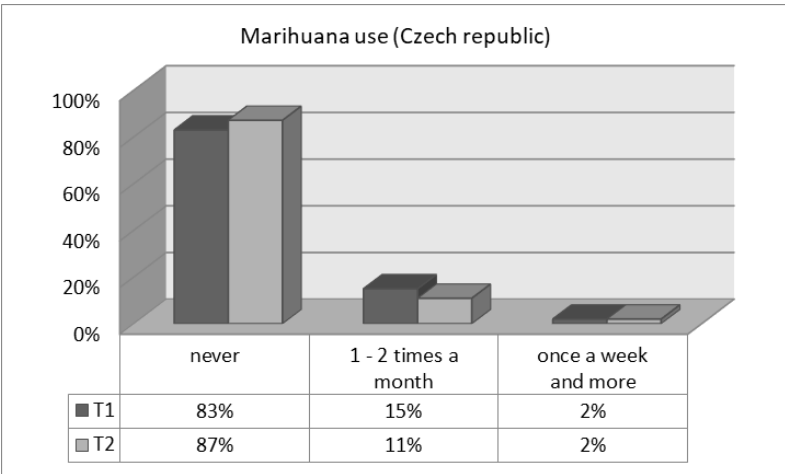
Graph 8 Changes in marijuana use among Lithuanian university students



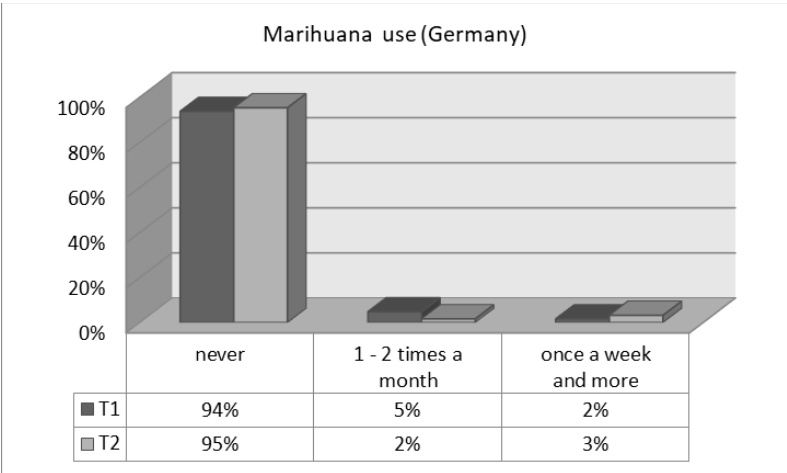
Graph 9 Changes in marijuana use among Hungarian university students



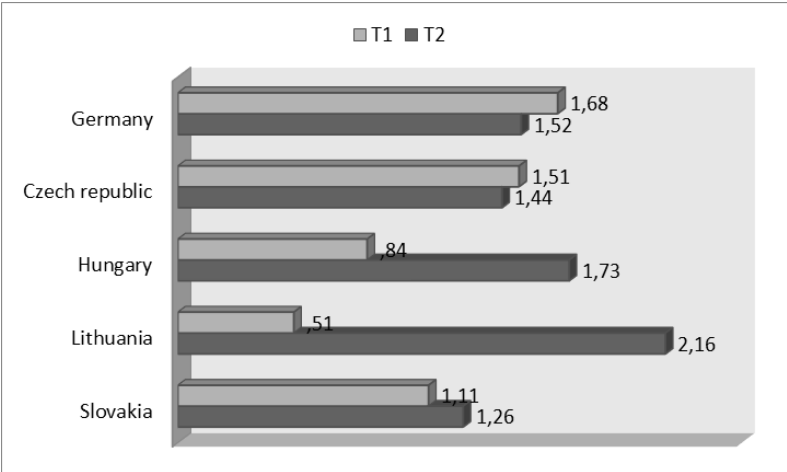
Graph 10 Changes in marijuana use among Czech university students



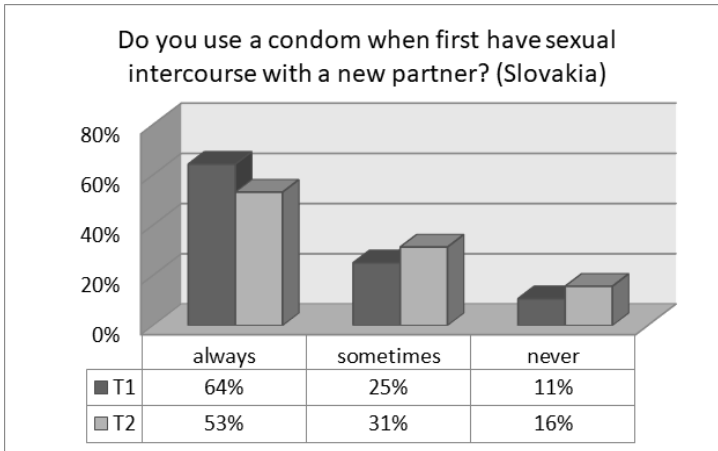
Graph 11 Changes in marijuana use among German university students



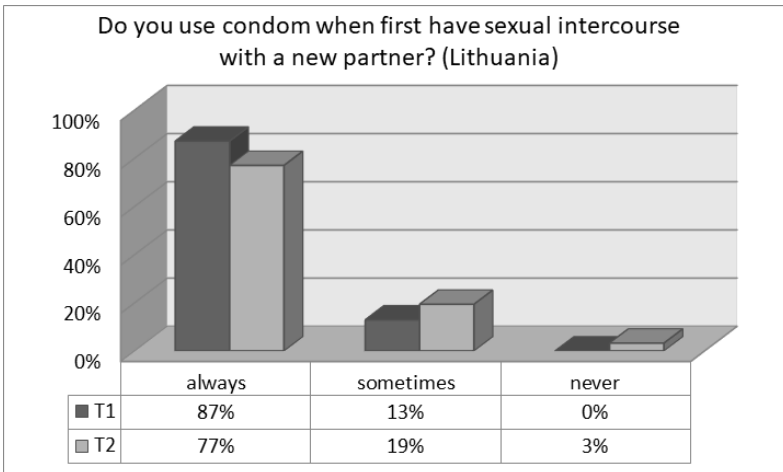
Graph 12 Differences in number of sexual partners over a four-year period



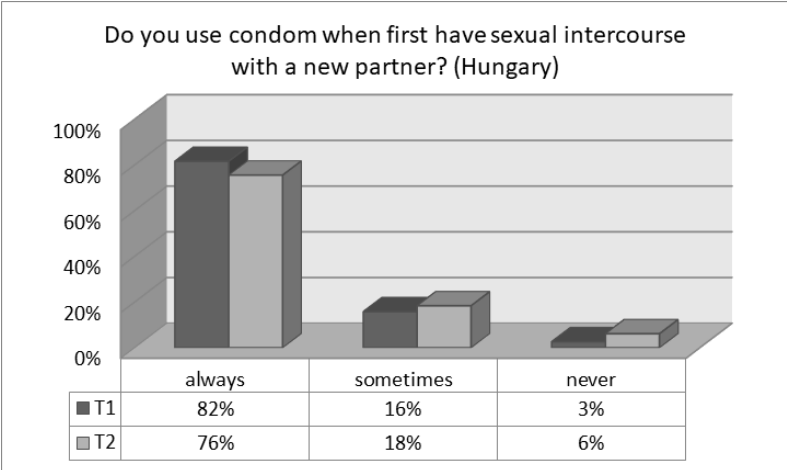
Graph 13 Differences in using condoms in a first sexual intercourse with a new partner among Slovak university students



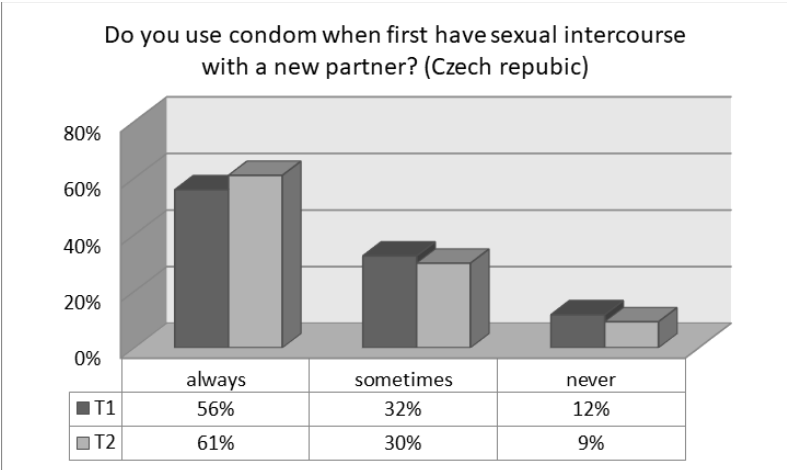
Graph 14 Differences in using condoms in a first sexual intercourse with a new partner among Lithuanian university students



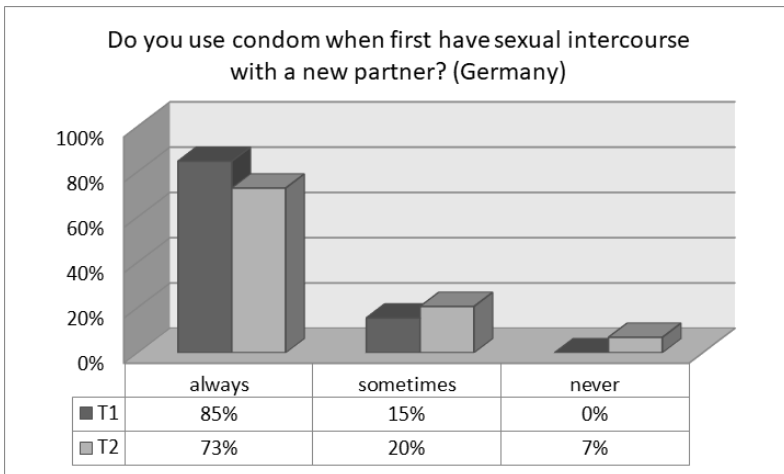
Graph 15 Differences in using condoms in a first sexual intercourse with a new partner among Hungarian university students



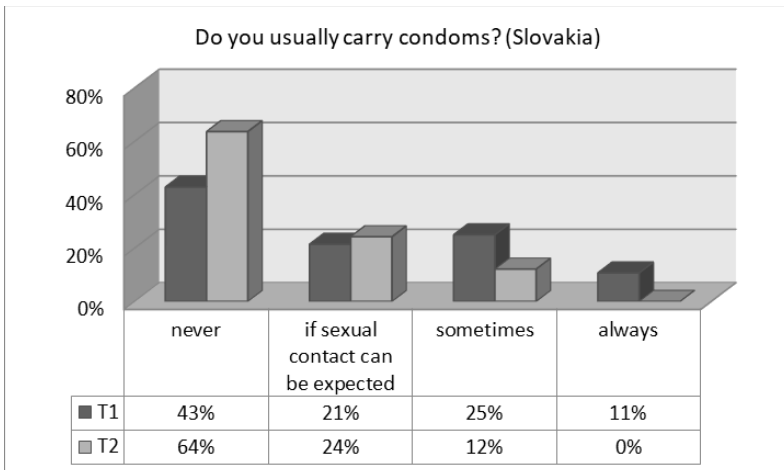
Graph 16 Differences in using condoms in a first sexual intercourse with a new partner among Czech university students



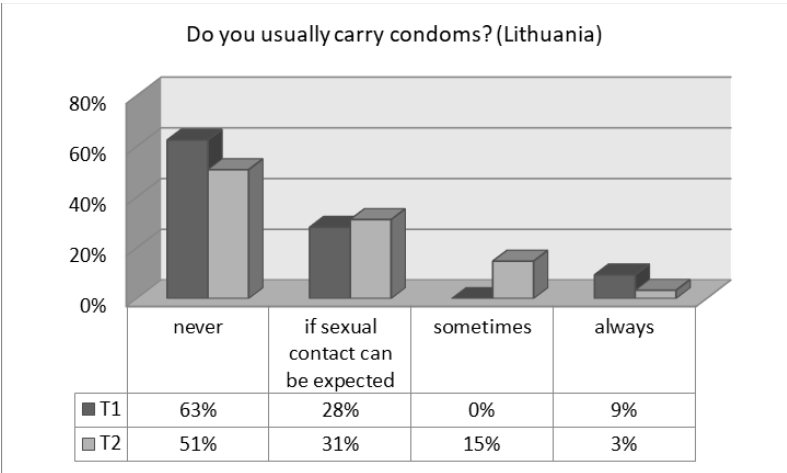
Graph 17 Differences in using condoms in a first sexual intercourse with a new partner among German university students



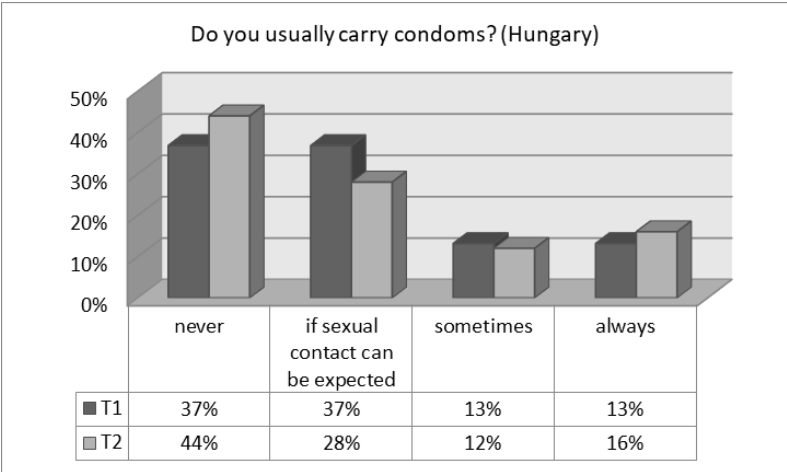
Graph 18 Differences in carrying condoms among Slovak university students



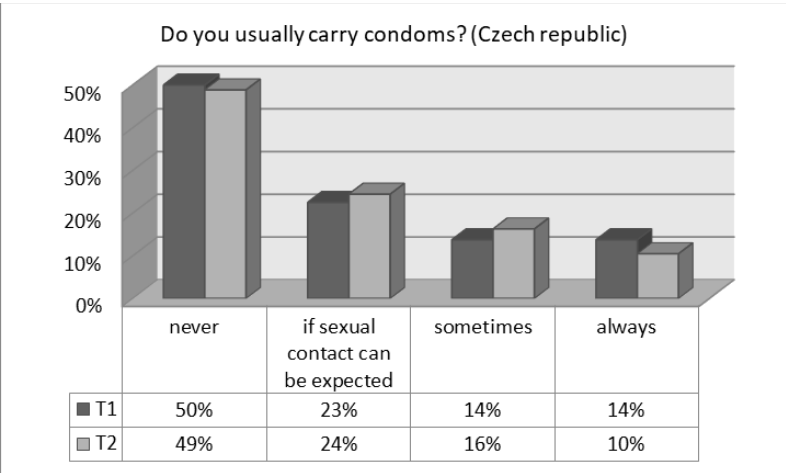
Graph 19 Differences in carrying condoms among Lithuanian university students



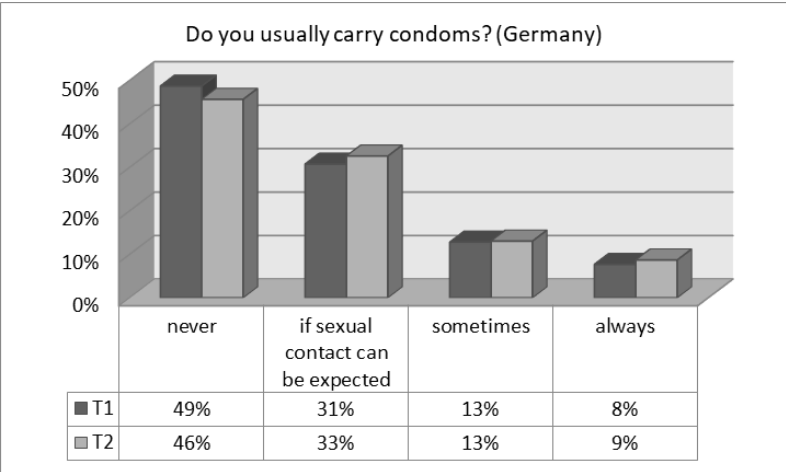
Graph 20 Differences in carrying condoms among Hungarian university students



Graph 21 Differences in carrying condoms among Czech university students



Graph 22 Differences in carrying condoms among German university students



Changes in smoking over a four-year period

As can be expected, there was positive change in the life prevalence of smoking among university students. There was only a 1% increase in trying smoking among Slovak, Czech and German students but a 10% positive change among Lithuanian students and 4% increase among Hungarian students was found (Graph 1).

In Graphs 2 – 6 we can see changes in the number of days during the last month in which respondents smoked. It can be an indicator of the intensity or regularity of tobacco smoking. We have found a decrease in the number of regular smokers (students who used to smoke 20 days or more during a month) among Slovak students and a small decrease of smoking days among Czech university students (Graph 2, Graph 5). On the other hand, there was a positive change (increase) of intensity of smoking among Lithuanian and Hungarian university students (Graph 3 – 4). There was almost no change in the intensity of tobacco cigarettes smoking among German university students (Graph 6).

Changes in marijuana use over a four-year period

The changes in marijuana use among university students of the five countries over a four-year period are presented in Graphs 7- 11. There was a decrease of marijuana users among Slovak, Hungarian and Czech university students but we found an increase of using marijuana among Lithuanian students (the difference was statistically significant: $p = 0.018$). As in the case of smoking cigarettes there was hardly any difference in marijuana use among German students.

Changes in sexual risk behaviour over a four-year period

Wilcoxon signed rank test was conducted to compare the number of sexual partners during the last 12 months over the four-year period among students from Slovakia, Lithuania, Hungary, Czech Republic and Germany. The means are presented in Graph 12. Only among Lithuanian ($p < 0.001$; $N = 53$; test statistic = 446) and Hungarian ($p = 0.044$; $N = 49$; test statistic = 347) university students there was a significant increase in the number of sexual partners.

Another type of sexual risk behaviour concerned using condoms in first sexual intercourse with a new partner and frequency of carrying condoms. Only Czech university students reported that they used a condom more often in the fourth year compared to the first year of study (Graphs 13 – 17).

The changes in frequency of carrying condoms over a four-year period are shown in graphs 18 – 22. The number of Slovak, Lithuanian and Czech students who always carried condoms with themselves decreased but the number of students from all countries except Hungary who carried condoms only if sexual contact was to be expected increased. The number of Hungarian students who always carried condoms is higher in the fourth year of study compared to the first year. However, it is important to say that there were only 29.2% of students who had a steady relationship in the first year and 43% of students with a steady partner in the fourth year of study.

Table 1 Comparison of alcohol drinking over a four-year period

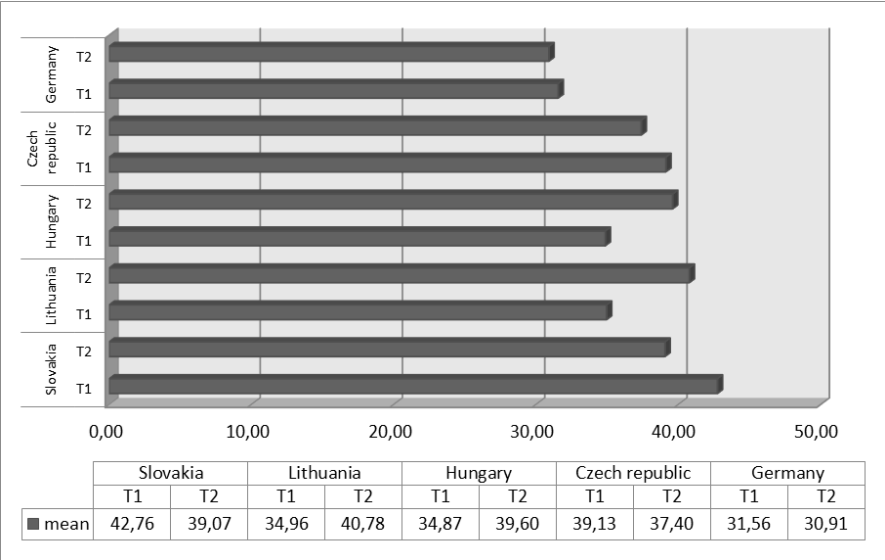
country	group	N (T1)	T1 (%)	N (T2)	T2 (%)
Slovakia	1	29	72.5	33	82.5
	2	8	20.0	4	10.0
	3	3	07.5	3	07.5
Lithuania	1	65	80.2	66	81.5
	2	15	18.5	15	18.5
	3	1	01.2	0	0.0
Hungary	1	43	95.6	46	88.5
	2	2	04.4	6	11.5
	3	0	0.0	0	0.0
Czech republic	1	64	71.9	74	81.3
	2	20	22.5	17	18.7
	3	5	05.6	0	0.0
Germany	1	33	71.7	35	76.1
	2	10	21.7	11	23.9
	3	3	06.5	0	0.0

1-not harmful alcohol use; 2 - medium level of alcohol problems; 3- high level of alcohol problems

Changes in alcohol consumption
over a four-year period – descriptive information

According to a recommendation by the authors of the AUDIT questionnaire, the respondents were divided by the total score into three groups: 1 – not hazardous or harmful alcohol consumption; 2 – medium level of alcohol problems; 3 - high level of alcohol problems. The percentage in group 1 was higher in the fourth year of university among Slovak, Czech and German students. The pattern of alcohol drinking over the four year period was different among Hungarian students because the percentage of students who did not drink alcohol beverages hazardously or harmfully was in the fourth round lower than in the first one. There was no Hungarian student with a high level of alcohol problems (Table 1).

Graph 23 Differences in total score of PIU over four year period



Note: Score range; Slovakia T1 (15 - 95), T2 (15 - 120); Lithuania T1 (15 - 91), T2 (15 - 100); Hungary T1 (15 - 70), T2 (15 - 83); Czech republic T1 (15 - 85), T2 (15 - 87); Germany T1 (15 - 74), T2 (15 - 78).

Changes in problematic internet use over a four-year period – descriptive information

Graph 23 shows changes in problematic internet use over a four year period in countries involved in our research. Slovak and Czech university students used internet in their first year of university study more often than in their fourth year. On the contrary, the frequency of problematic internet use of Hungarian and Lithuanian university students was higher in the fourth round of collecting data. The only significant difference was among Lithuanian students ($p=0.004$). There was almost no change in problematic internet use among German students and their score of problematic internet use was the lowest in both rounds.

Intrapersonal and interpersonal factors associated with changes of health-risk behaviour

The objectives of this study were to find out if there are any significant associations between some intrapersonal (Big Five personality traits, optimism, well-being, depressive symptoms) and interpersonal factors (supportive relationships - family, friends) to significant changes in health-risk behaviour. According to the type of variables, we focused only on alcohol consumption and problematic internet use as selected types of health-risk behaviour. Table 2 shows significant differences in selected variables over the four year period among university students of five European countries. We found a decrease in alcohol consumption and increase in well-being and depressivity among Slovak students. Lithuanian university students used internet more riskily in the fourth year of their university studies compared to the first year and they have more depressive symptoms. Alcohol dependence, problems associated with alcohol use and compulsory internet use among Czech students significantly decreased over four years and their optimism significantly increased. There was no significant change among Hungarian and German university students.

Table 2 Significant differences in selected variables between first and last data collection

	N	mean T1	mean T2	t	p
SLOVAKIA					
Alcohol consumption	39	3.74	3.26	2.279	0.027
Well-being	46	10.24	14.8	-4.192	< 0.001
Depressivity	38	44.71	50.92	-2.559	0.015
LITHUANIA					
PIU* - mood	84	8.95	10.61	-2.407	0.018
PIU* - compulsory use	85	6.61	7.76	-2.387	0.020
PIU* - preoccupation	82	7.71	9.3	-2.417	0.018
Depressivity	54	47.85	52.40	-2.063	0.044
CZECH REPUBLIC					
Alcohol dependance	86	0.85	0.44	2.524	0.013
Alcohol problems	85	1.70	0.99	3.234	0.002
PIU* - compulsory use	95	7.60	6.68	2.021	0.046
Optimism	101	20.86	21.89	-3.171	0.002

**problematic internet use*

Correlation analysis between health-risk behaviour and intrapersonal and interpersonal variables

The correlation analysis was focused on finding out if there are any significant associations between significant changes in health-risk behaviour and selected intrapersonal and interpersonal variables (personality traits, difference in optimism, difference in depression, differences in social support). The difference in alcohol consumption among Slovak university students was positively significantly associated with personality traits extraversion and openness to experience (Table 3). A higher level of extroversion and openness to experience is associated with a higher decrease of alcohol consumption in the fourth year of university.

Changes in problematic internet use were the only significant changes in health-risk behaviour among Lithuanian students. A higher level of using internet as mood regulation was associated with a higher increase in depressive symptoms over

four years at university. The difference in problematic internet use - mood regulation among Lithuanian university students was negatively significantly associated with the difference in social support from friends. The level of using internet to regulate mood more frequently in the fourth year of university studies compared to the first year was higher among students in which social support from friends decreased. Similar correlations were found in the case of the difference in problematic internet use – preoccupation and compulsive internet use. In addition, the difference in internet preoccupation and compulsive internet use were significantly negatively correlated to openness to experience and difference in optimism. Students who tended to use the internet more problematically over four years had a lower level of openness to experience and their level of optimism decreased (Table 4).

Table 3 Significant correlations between difference in alcohol consumption and personality traits among Slovak university students

SLOVAKIA		Extraversion	Openness to experience
Difference in alcohol consumption	Correlation Coefficient	.417	.562
	Sig. (2-tailed)	.009	.000
	N	38	38

Table 4 Significant correlations between differences in PIU and intrapersonal and interpersonal factors among Lithuanian university students

LITHUANIA		OE	DO	DD	DSSF
Difference in PIU* - mood regulation	Correlation Coefficient			.314	-.315
	Sig. (2-tailed)			.023	.019
	N			52	55
Difference in PIU* - internet preoccupation	Correlation Coefficient	-.283	-.351	.478	-.268
	Sig. (2-tailed)	.031	.008	.000	.046
	N	58	56	53	56
Difference in PIU* - compulsory use	Correlation Coefficient	-.308	-.293	.383	-.344
	Sig. (2-tailed)	.019	.029	.005	.009
	N	58	56	53	56

Notes: *problematic internet use; OE - Openness to experience; DO - Difference in Optimism; DD - Difference in Depression; DSSF - Difference in social support-friends

There was only one significant correlation between health-risk behaviour changes and intrapersonal and interpersonal variables among Czech university students. The level of compulsive internet use in the fourth year of university compared to the first year was higher among students in which social support from family decreased (Table 5).

Table 5 Significant correlations between difference in PIU - compulsory use difference in social support from family among Czech university students

CZECH REPUBLIC		Difference in social support - family
Difference in PIU* - compulsory use	Correlation Coefficient	-.259
	Sig. (2-tailed)	.011
	N	95

Note: * *problematic internet use*

DISCUSSION

This study described the changes of selected types of health-risk behaviour (cigarette smoking, alcohol consumption, marijuana use, problematic internet use and risky sexual behaviour) over four years among university students in five European countries (Slovakia, Czech Republic, Hungary, Lithuania and Germany). The main aim of our investigation was to find out if the changes in health-risk behaviour were related to selected intrapersonal factors (Big Five personality traits, optimism, well-being, depressive symptoms) and interpersonal factors (supportive relationships with family and friends).

The results of this study showed that changes in health-risk behaviour among university students over a four-year period differed from country to country. Most results of our study are consistent with the outputs of other researchers who report that the likelihood of health-risk behaviour during adolescence reaches its peak during young adulthood and then declines (Hirche & Gottfredson, 1994 in Voekl & Frone, 2000).

There was only a small increase in trying cigarettes among Slovak, Czech and Germany students although there was a slightly bigger increase among Hungarian students and an even bigger positive change was found among Lithuanian students. Moreover, we found a decrease in the number of regular smokers among Slovak students and a small decrease of smoking days among Czech students. There was a rise in the intensity of

smoking among Lithuanian and Hungarian university students and almost no change among German students. The percentage of regular smokers in our research sample was lower than reported by some other authors (Copeland et al., 2009).

Regarding marijuana use, we found a decreasing number of marijuana users among Slovak, Hungarian and Czech university students and an increase among Lithuanian students. There was hardly any difference in marijuana use among German students.

We also included the most commonly used indicators of risky sexual behaviour, i.e. a high numbers of sexual partners, a high frequency of sexual activity and a lower frequency of condom use (Beadnell et al. 2005). Only among Lithuanian and Hungarian students there was a statistically significant increase in the number of sexual partners. Czech students reported that they used condom more often in the fourth year compared to the first year of their study. The number of Slovak, Lithuanian and Czech students who always carried condoms with them decreased but in Hungary there was a rise. The number of students, who carried condoms only if sexual contact could be expected increased in all countries but Hungary. Our results are consistent with Lefkowitz (2013) who reported that risky sexual behaviour among students increased over time but the rate of change slowed toward the end of the university.

The percentage of students belonging to a group without hazardous or harmful alcohol consumption was higher in the fourth year among Slovak, Czech and German students. The pattern of alcohol drinking over the four-year period was opposite for Hungarian students although there was not a single Hungarian student with a high level of alcohol consumption problems. Bewick et al. (2008) reported a significant reduction of alcohol consumption over a three-year undergraduate time span too but they also stated that nearly a third of students were still drinking above recommended levels. The percentage of hazardous or harmful alcohol consumption in our sample was lower at around 20% in the fourth year of study.

According to our research, Slovak and Czech university students used the internet problematically more often in their first year of study than in their fourth year. On the contrary, the frequency of problematic internet use of Hungarian and Lithuanian university students was higher in the fourth year. We did not find any change in problematic internet use among German students and

their score of problematic internet use was the lowest in each round.

The only statistically significant changes in health-risk behaviour over the four-year period among students were:

- decrease in alcohol consumption among Slovak students
- decrease in symptoms of alcohol dependence and in the number of alcohol related problems among Czech students
- decrease in problematic internet use on three subscales (mood regulation, compulsory use and preoccupation) among Lithuanian university students
- decrease in compulsory use of the internet among Czech university students.

We have seen more depressive symptoms among Slovakian and Lithuanian students as well as a rise in the well-being of Slovak students.

The differences in health-risk behaviour were statistically significantly associated with personality traits (a higher level of extroversion and openness to experiences among Slovak university students was linked to higher decrease of alcohol consumption; a negative association between openness to experiences and problematic internet use among Lithuanian university students), changes in depressive symptoms (positively correlated to problematic internet use among Lithuanian university students), changes in optimism (negatively correlated to problematic internet use among Lithuanian university students) and changes in social support (a decrease in social support from friends/family was associated with an increase in problematic internet use among Lithuanian/Czech university students).

As stated by Jessor (1987 in Kožený, Csémy, & Tišanská, 2007), problematic behaviour has been explained by the means of personality factors and close social environment (e.g. family and peers). Savi, Cakar and Tagay (2017) have stated that adolescents who perceived a high level of social support from family, friends and teachers tended to behave less riskily. Our results have also suggested that having a close and positive relationship to family and friends could work as a protective factor, particularly against problematic internet use and harmful alcohol drinking. Extroverted people tended to drink more (Kuntche, 2006) although more extroverted Slovak respondents in our sample

drank less in their fourth year of university study compared to the first year. It can be explained by social support too because of a positive correlation between social support and extroversion. Students who suffered from problematic internet use also expressed more depressive symptoms. This finding was consistent with other research (Sun et al., 2012, Vandelandotte et al., 2009).

FUTURE RESEARCH

Future research should keep the focus on both intrapersonal and interpersonal factors and further develop the study of the determinants of changes in health-related behaviour. Our results suggest the existence of differences between countries in the development of health-risk behaviour and its determinants and this could also be explored more deeply. The scope of research should generalise from just university students to the whole group of young adults. It is important to design the sample in a way that maximizes the response rate in the following rounds of collecting data.

LIMITATIONS

The main limitation is related to the characteristics and size of the sample. Only 12% of the respondents who filled in questionnaires in the first round also took part in the fourth round. For this reason, it was not possible to conduct a more complex statistical analysis. A comparison of characteristics of the group of students who filled in questionnaires both in first and fourth year of their university studies to the group who did not follow up is described in chapter ten.

IMPLICATIONS FOR PRACTICE

The transition from childhood to adulthood may be a stressful time. It is broadly accepted that health-risk behaviour of adolescents and young adults is becoming substantially problematic in many countries. Identifying the intrapersonal and interpersonal factors associated with these behaviours is crucial to the prevention and intervention of such negative health related problems. Educational, preventive and treatment programs should include peer and family influence. University students need support and help especially in their first year of study. It is important to provide counselling for students to promote their well-being.

CONCLUSIONS

The results showed a decrease in the number of regular smokers among Slovak students and a small decrease in the frequency of smoking among Czech students. On the other hand, there has been a rise in the intensity of smoking among Lithuanian and Hungarian students. Regarding marijuana, there has been

a statistically significant increase among Lithuanian students. Regarding sexual risky behaviour, students have reported using condoms less often, with the exception of Czech university students who reported using condoms more often. The frequency of problematic internet use by Lithuanian university students increased over time and this was statistically significant. There was a statistically significant association with the increase of depressive symptoms. Risky alcohol drinking got statistically significantly lower among Slovak and Czech university students over time. Extraversion and openness to experiences was shown to be positively statistically significantly associated with alcohol use change. A negative association between increased problematic internet use among Czech university students and social support from family was also found.

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Conclusions

The first chapter '*Migration theories: socio-economic and political science perspectives*' (A.Onufrák) provides a theoretical overview. Nevertheless, the author has several findings that can be used in other research. Firstly, migration is one of the greatest challenge of the 21st century and therefore a multidisciplinary approach is needed. Secondly, it is necessary to reduce the social and economic gaps between poor and rich, especially between the states of the South and the states of the North. Otherwise, the number of migrants on a global scale may increase significantly. This could lead to an increase in the tension between natives and migrants in many states. Thirdly, from a global perspective, it is necessary to liberalize labour markets of the developed states for the labour force from less developed states. A healthy economic system is when the flows of goods and capital are in balance with back flows of labour.

The second chapter '*Psychological concepts of emigration intentions*' (M.Kulanová) has focused on psychological approaches to the explanation of intentions as well as emigration intentions. Specifically, it has concerned theories of motivation and theories of behavioural intentions and their efficiency in migration research. Within the motivational theories, the chapter presents Maslow's hierarchy of needs and McClelland's theory of dispositional motives. The approach of behavioural intentions has been represented by the theory of reasoned action and its elaboration, the theory of planned behaviour. Furthermore, the chapter has paid particular attention to a relative novelty in the research of emigration intentions, namely to the Health Belief Model and its adaptation in the research of emigration intentions. Finally, the chapter addresses the usefulness of the concept of intentions in the prediction of future behaviour and argued for their use in the future research.

The objectives of the third chapter '*Push and Pull factors of emigration plans among Slovak university students*' (O. Orosová a M. Kulanová) was to explore the associations between gender, socioeconomic factors, the importance of religion, push/pull factors and emigration intentions, as well as the role of personality and gender in this exploration. The study has shown that the main pull factors attracting students to emigrate are language skills opportunity, desire for change and new experience and career opportunities abroad. The main push factors repelling students from emigration are social relationships and commitment at home, i.e. relationships with family and friends. In addition to other interesting findings, the chapter has provided a useful description of three categories of students due to their planned departure or staying at home. This mirrors the major differences between them. Male gender, a lower level of the importance of religion, higher level of desire for change and new experience, and career opportunity abroad as well as a lower level of rootedness and social relationship

and commitment at home (friends, family) were associated with emigration intentions (leavers) as compared with stayers. Furthermore, the moderation effect of gender on some of the relationships between the explored variables and emigration intentions was found.

The fourth chapter is '*Psychological contexts of students' migration from the perspective of self-determination theory*' (J. Benka). This chapter uses the Self-determination theory to study the relationship between autonomy and emigration plans and reasons for leaving the home country of Slovak university students. Autonomy was addressed as autonomous functioning consisting of three components (Authorship/Self-congruence, Susceptibility to control, Interest-taking) and autonomy support from the family. The analysis revealed an interesting pattern. Emigration plans were negatively related to Susceptibility to control as one of the components of autonomous functioning. However, the "content" of emigration plans (e.g. new experiences, getting to know new culture, education...) was found to be associated with other more intrapersonal components of autonomous functioning; the Authorship/Self-congruence and Interest-taking. This suggests that while the decision to leave is more closely related to external factors the actual reasons are more closely related to internal regulatory processes. Overall, the findings presented in this chapter show that the concept of autonomy is relevant for the exploration of migration. Emigration plans reveal that different aspects of autonomy might be at play with regard to having versus not having a plan to leave and the actual "content" of the plan.

Several important conclusions can be drawn from the fifth chapter '*Individualism and collectivism in the context of students' migration*' (M. Bačíková). The author has found that men and women do not differ in their levels of individualism and collectivism with the exception of higher scores of vertical individualism among men. On a horizontal level, both collectivism and individualism are associated with the desire to emigrate and emigration intentions. However, emigration self-efficacy fully explains the relationship of collectivism and emigration. On a vertical level, individualism has been negatively associated with the desire to emigrate and emigration self-efficacy has not been related to vertical individualism. Individualism and collectivism, as representatives of cultural values, have been shown to be important intrapersonal factors in predicting the desire to emigrate and emigration intentions of university students.

The sixth chapter '*Intrapersonal and Interpersonal factors favouring and hindering plans for long-term migration abroad of university students after finishing university*' (B. Gajdošová) has concerned the relationships between plans for long-term migration abroad of university students after finishing and psychological variables which favour it (self-efficacy, feasibility – access to resources, need for a change). Furthermore, the chapter also describes the relationships between

plans for long-term migration abroad of university students after finishing and psychological variables which potentially hinder it (satisfaction with life, satisfaction with home and family and religiosity) The significance of all psychological variables in relation to emigration plans has been confirmed. The model which contained independent variables hindering migration abroad: life satisfaction, satisfaction with the family/home and importance of religious faith was statistically significantly related to emigration plans among female students. A higher satisfaction with life, satisfaction with family/home and importance of faith was associated with a weaker tendency for long-term migration abroad after finishing university. The model containing independent variables favouring emigration plans: need for a change, feasibility, resources and self-efficacy was statistically significant for both women and men. Higher self-efficacy and need for a change were significant for both genders and for females it was also feasibility which was significant.

According to the results of the seventh chapter '*Mediational analyses related to emigration intentions, rootedness factors and autonomy among Slovak university students*' (L.Hricová), a desire for change and promotion of autonomous decision-making is positively connected to emigration intentions among females. Home/family satisfaction on the other hand seems to be a protective factor preventing students from thoughts of emigration among females. Among males only the desire for change has been shown to be significantly positively associated with emigration intentions out of the investigated psycho-social factors. The association between home/family satisfaction (as a factor of the rootedness dimension) and emigration intentions has been enriched by the second factor of rootedness dimension – desire to change. A significant mediation effect of the desire to change on the association between home/family satisfaction and emigration intentions has been uncovered among females. This contributes to previous research. Similarly, the association between autonomy support and emigration intentions was confirmed to be mediated by home & family satisfaction among women.

The eighth chapter '*The role of personality factors and risk characteristics in migration tendencies of university students*' (J. Bavoľár) brings information about the role of the Big Five factors and risk characteristics in migration tendencies of Slovak students. While previous studies investigated these two groups of variables separately, the author has tried to assess them together because of their partial overlap. Contrary to the past research and in spite of significant relationships between personality factors and migration tendencies, when these factors were inserted into linear regression together, their role was very low with the exception of openness to experience. Moreover, while risk characteristics have been shown to be significant predictors of migration tendencies in all cases, they have not been able to explain a substantially higher proportion of variance. These results point to the necessity of considering other factors of migration

tendencies such as push and pull factors, demographic characteristics or socioeconomic variables in addition to the investigated role of personality and risk characteristics.

The ninth chapter '*An analysis of relationship between health risk behaviour and emigration tendencies among university students from Slovakia*' (O.Kalina) deals with the exploration of the relationships between emigration tendencies and risky consumption of alcohol, high level of smoking and sexual risky behaviour. Regarding sexual risk behaviour the results have shown that girls with a higher number of sexual partners are (1) more likely to have a plan to leave the country after studying; (2) have more positive attitudes toward emigration; (3) report higher intentions to emigrate; (4) score significantly higher in emigration self-efficacy and (5) are more likely to have higher normative beliefs towards emigration. Regarding smoking, girls who smoke have stronger intentions to emigrate and hold more positive attitudes towards emigration. Regarding alcohol use, it has been significantly associated with intentions to migrate only among boys. However, according to these results, those who consume more alcohol have less intention to leave the home country which was contrary to previous research.

The tenth chapter '*Attrition in the SLiCE study – comparison of respondents and non-respondents*' (J.Bavolár, M.Bačíková) aimed to compare participants of different numbers of data collection waves of the international SLiCE study with regard to several risk behaviour indicators, psychological health indicators and interpersonal characteristics. To summarize the results of the chapter, significant gender and country differences in attrition rate were found. Women participated in more than one wave more often than men and respondents from the Czech Republic and Germany significantly more often participated in all four waves than respondents from other countries. With regard to other characteristics, those who only participated in the first wave had higher alcohol consumption, smoked more cigarettes, scored higher on extraversion, agreeableness, self-regulation and depression and lower on consciousness. Significant differences found in psychological health indicators do not present such a clear pattern.

The eleventh and final chapter '*Intrapersonal and interpersonal factors associated with changes of health-risk behaviour among university students*' (A.Janovská) concerns health-risk behaviour and its changes over four years. The results of the author have shown a decrease in the number of regular smokers among Slovak students and a small decrease of frequency of smoking among Czech students. On the other side, there has been an increase in the intensity of smoking among Lithuanian and Hungarian students. Regarding marihuana, there has been a significant increase reported among Lithuanian students. Regarding sexual risky behaviour, university students have reported using condoms less often, with the

exception of the Czech students who reported using condoms more often. The frequency of problematic internet use of Lithuanian university students has been shown to be significantly higher over time. It was also found that there is a significant association with the increase of depressive symptoms. Risky alcohol drinking has been shown to be significantly lower among Slovak and Czech university students over time. Extraversion and openness to experiences has been shown to be positively significantly associated to alcohol use change. A negative association between increasing compulsive use of the internet among Czech university students and social support from family has been also found.

General conclusions

Migration and its causes have been overlooked for a long time. However, they have attracted a lot of attention worldwide in recent years and have become a priority also in psychological research. Slovakia suffers from this phenomenon as well, mainly because of the exodus of young educated people labelled as the 'brain drain'. Various groups of factors are responsible for this behaviour and therefore a multidisciplinary approach is needed. This publication takes into account the social, economic, political and psychological indicators of emigration behaviour and emigration intentions, as adequate predictors of future behaviour. Theories of motivation and theories of behavioural intentions and their efficiency are popular in migration research. On the other hand, the Health Belief Model and its adaptation in the research of emigration intentions brings a relatively novel and perspective look at the topic.

According to the results presented in this publication, factors attracting students to emigrate (pull factors) are language skills and career opportunities abroad, desire for change and new experience, perceived emigration feasibility and self-efficacy. Collectivism and individualism are associated with the desire to emigrate and emigration intentions on a horizontal level. However, emigration self-efficacy fully explains the relationship of collectivism and emigration. Moreover, the promotion of autonomous decision making among women was also positively associated with emigration intentions. The association between autonomy support and emigration intentions was confirmed to be mediated by home and family satisfaction among women. The main factors repelling students from emigration (push factors) are social relationships and commitment at home. Furthermore, factors negatively associated with emigration intentions among women are life satisfaction, home/family satisfaction and religion importance. In addition, the association between satisfaction with home and family and emigration intentions is mediated through the desire to change. Furthermore, the moderation effect of gender on some of the relationships between the explored variables and emigration intentions was found. Personality and risk characteristics with the

exception of openness to experience only explained a small percentage of variance in emigration intentions. This brings the authors to the conclusion that there might be other significant factors responsible for migration intentions.

With respect to emigration plans, potential leavers are more likely to be males, with lower levels of the importance of religion, with a higher level of desire for change and new experience, and career opportunity at abroad, as well as a lower level of rootedness and social relationships and commitment at home.

Psychological health, risk behaviour of students and its change in a 3 years-time period was also a topic of this publication. Students who only participated in the first wave of data collection had higher alcohol consumption, smoked more cigarettes, scored higher on extraversion, agreeableness, self-regulation and depression and lower on consciousness. Among Czech and Slovak students, smoking and drinking decreased over time and extraversion and openness was positively associated with alcohol use change. On the other hand, smoking increased among Lithuanians and Hungarians. An increase in the frequency of condom use was observed only among Czech students, while a significant decrease was observed among the others. Finally, depressive symptoms increased among students from all countries. With respect to the associations between emigration intentions and risk behaviour, we can conclude that sexual risk behaviour among women is associated with having a plan to leave the country after studying, reporting higher intentions and more positive attitudes to emigrate, higher emigration self-efficacy and higher normative beliefs toward emigration. Regarding smoking, girls who confirmed smoking status have stronger intentions to emigrate and hold more positive attitudes towards emigration. Alcohol use seems to be negatively associated with emigration intentions among boys, while smoking among women is positively associated with intentions and more positive attitudes to emigrate.

This publication provides useful theoretical and empirical information about the factors explaining emigration intentions. Most of them have practical implications, which are outlined in the particular chapters. Nevertheless, future research is needed in this area as migration seems not to have a receding tendency in Slovakia and presents one of the greatest challenges of the 21st century worldwide.

Záver

Prvá kapitola *‘Migračné teórie. Socio-ekonomické a politologické perspektívy’* (A. Onufrák) poskytla prevažne teoretický prehľad. Napriek tomu, autor dospel k niekoľkým zisteniam, ktoré môžu byť použité v iných výskumoch. Po prvé, migrácia je jednou z najväčších výziev 21. storočia a preto je potrebný a nevyhnutný multidisciplinárny prístup. Po druhé, je nevyhnutné znižovať sociálne a ekonomické rozdiely medzi chudobnými a bohatými, najmä medzi štátmi Juhu a štátmi Severu, pretože inak môže počet migrantov v globálnom meradle výrazne rásť. V mnohých štátoch by to mohlo viesť k zvýšeniu napätia medzi domácim obyvateľstvom a imigrantmi. Po tretie, z globálnej perspektívy je nevyhnutné liberalizovať pracovné trhy rozvinutých štátov pre pracovnú silu z menej rozvinutých štátov. Zdravý ekonomický systém nastáva vtedy, ak toky tovarov a kapitálu sú v rovnováhe so spätnými tokmi práce.

Druhá kapitola *‘Psychologické koncepty emigračných zámerov’* (M. Kulanová) sa zameriavala na psychologické prístupy k vysvetľovaniu zámerov, ako aj emigračných zámerov. Kapitola sa špecificky týkala teórií motivácie a teórií behaviorálnych zámerov a ich efektívnosti vo výskume migrácie. V rámci motivačných teórií kapitola prezentovala Maslovovu hierarchiu potrieb a McClellandovu teóriu dispozičných motívov. Prístup behaviorálnych zámerov bol reprezentovaný Teóriou odôvodneného správania a jej spracovaním, Teóriou behaviorálnych zámerov. Okrem toho kapitola venovala osobitnú pozornosť relatívnej novinke vo výskume emigračných zámerov, a to “Modelu presvedčení o zdraví” a jeho adaptácii v tomto výskume. Nakoniec sa kapitola zaoberala užitočnosťou koncepcie zámerov pri predikcii budúceho správania a argumentovala ich využitie v budúcom výskume.

Cieľom tretej, výskumnej kapitoly *‘Push a Pull faktory emigračných zámerov u vysokoškolských študentov na Slovensku’* (O. Orosová, M. Kulanová) bolo skúmať vzťahy medzi rodom, socioekonomickými faktormi, dôležitosťou náboženstva, push/pull faktormi a emigračnými zámermi, ako aj podiel osobnosti a rodu na emigračných zámeroch vysokoškolákov. Štúdia ukázala, že hlavnými pull faktormi, ktoré priťahujú študentov k emigrácii, sú príležitosť jazykových spôsobilostí, túžba po zmene a novej skúsenosti, kariérne príležitosti v zahraničí, a hlavnými push faktormi, ktoré odpudzujú študentov od emigrácie, sú spoločenské/sociálne vzťahy a záväzok doma, t.j. vzťahy s rodinou a priateľmi. Okrem ďalších zaujímavých zistení poskytla kapitola užitočný popis troch kategórií študentov v dôsledku ich plánovaného odchodu alebo zostávania doma, ktorý zrkadlí rozdiely medzi nimi. Mužský rod, nižšia úroveň dôležitosti náboženstva, vyššia úroveň túžby po zmene a novej skúsenosti a kariérna príležitosť v zahraničí, ako aj nižšia úroveň zakorenenosti a sociálnych vzťahov

a záväzkov doma (priatelia, rodina) boli spojené s emigračnými zámermi (leavers) v porovnaní so "stayers". Moderačný efekt rodu bol zistený vo vzťahu faktora osobnosti extroverzia a emigračných zámerov.

Štvrtá kapitola má názov "*Psychologické kontexty migrácie študentov z hľadiska teórie sebaurčenia*" (J. Benka). Táto kapitola využíva teóriu sebaurčenia pre štúdium vzťahu medzi autonómiou a emigračnými plánmi a dôvodmi opúšťania domovskej krajiny slovenských vysokoškolských študentov. Autonómia bola adresovaná ako autonómna funkcia pozostávajúca z troch zložiek (autorstvo/ seba-kongruencia, citlivosť na kontrolu, záujem) a autonómna podpora od rodiny. Analýza odhalila zaujímavý vzor. Emigračné plány boli negatívne spojené s náchylnosťou na kontrolu ako jednu zo zložiek autonómneho fungovania. Zistilo sa však, že "obsah" emigračných plánov (napr. nové skúsenosti, spoznávanie novej kultúry, vzdelávanie ...) súvisí s ďalšími intrapersonálnymi zložkami autonómneho fungovania; autorstvo/ seba-kongruencia a záujem. To naznačuje, že zatiaľ čo rozhodnutie o odchode je užšie spojené s vonkajšími faktormi, skutočné dôvody sú spojené viac s vnútornými regulačnými procesmi. Celkovo, zistenia uvedené v tejto kapitole poukazujú na to, že koncept autonómie je relevantný pre skúmanie migrácie. Emigračné plány odhaľujú, že rôzne aspekty autonómie môžu byť v hre, podľa toho, či existuje alebo neexistuje plán odísť a a či je tento "obsah" plánu skutočný.

Piata kapitola '*Individualizmus a kolektivismus v kontexte migrácie študentov*' (M. Bačiková) obsahuje niekoľko zaujímavých záverov. Výsledky ukázali, že medzi mužmi a ženami nie sú žiadne rozdiely v úrovni individualizmu a kolektivismu, s výnimkou vyššieho skóre vertikálneho individualizmu u mužov. Na horizontálnej úrovni je kolektivismus aj individualizmus spojený s emigračnými zámermi a túžbou migrovať. Avšak, emigračná sebaúčinnosť plne vysvetľuje vzťah kolektivismu a emigrácie. Na vertikálnej úrovni sa zistil negatívny vzťah medzi individualizmom a túžbou emigrovať, pričom medzi emigračnou sebaúčinnosťou a vertikálnym individualizmom nebol nájdený žiaden vzťah. Potvrdilo sa, že individualizmus a kolektivismus, ako zástupcovia kultúrnych hodnôt, sú dôležitými faktormi pri predikcii emigračných zámerov vysokoškolských študentov a ich túžby emigrovať.

Šiesta kapitola '*Intrapersonálne a interpersonálne faktory podporujúce a brzdiace plány vysokoškolákov dlhodobo emigrovať po skončení štúdia*' (B. Gajdošová) prezentuje vzťah medzi plánmi vysokoškolákov dlhodobo emigrovať po ukončení vysokoškolského štúdia a psychologickými faktormi podporujúcimi tieto plány, ako je sebaúčinnosť, vnímaná uskutočniteľnosť, dostupnosť zdrojov a potreba zmeny. Ďalej kapitola popisuje aj vzťahy medzi plánmi vysokoškolákov dlhodobo emigrovať a psychologickými faktormi, ktoré potenciálne potláčajú tieto plány, ako je spokojnosť so životom, spokojnosť s domovom/rodinou a religiozita. Bola potvrdená signifikantnosť všetkých

skúmaných psychologických premenných pri popise emigračných plánov. Potláčajúce faktory plánov dlhodobej emigrácie, ako životná spokojnosť, spokojnosť s domovom/rodinou a dôležitosť náboženstva potvrdili svoju významnosť u žien. Podporujúce faktory emigrácie ako túžba po zmene, vnímaná uskutočniteľnosť a sebaúčinnosť sa ukázali vo vzťahu k emigračným plánom významné tak u mužov ako aj u žien.

Podľa výsledkov siedmej kapitoly *‘Mediačné analýzy súvisiace s emigračnými zámermi, faktormi zakorenenosti a autonómiou medzi slovenskými študentmi vysokých škôl’* (L. Hricová) je túžba po zmene a podpora autonómneho rozhodovania pozitívne spojená s emigračnými zámermi u žien. Spokojnosť s domovom/rodinou sa u žien naopak javí ako protektívny faktor zabráňujúci myšlienkam na emigráciu. U mužov sa zo skúmaných psychosociálnych faktorov preukázala byť významne pozitívne asociovaná s emigračnými zámermi iba túžba po zmene. Súvislosť medzi spokojnosťou s domovom/rodinou (ako faktorom zakorenenosti) a emigračnými zámermi bola obohatená o druhý faktor zakorenenosti – túžbu po zmene. U žien bol odhalený významný mediačný efekt túžby po zmene na asociáciu medzi spokojnosťou s domovom/rodinou a emigračnými zámermi, čo prispieva k predošlým výskumným zisteniam. Na základe zisteného je možné predpokladať, že vyššia spokojnosť s domovom/rodinou, prináša nižšiu túžbu po zmene, čo je súčasne spojené s nižšími emigračnými zámermi. U žien sa zároveň potvrdilo, že súvislosť medzi podporou autonómie a emigračnými zámermi bola mediovaná spokojnosťou s domovom/rodinou.

Ôsma kapitola *‘Rola osobnostných faktorov a charakteristík rizika v migračných tendenciách vysokoškolských študentov’* (J. Bavolár) prináša informácie o role faktorov modelu Big Five a charakteristikách rizika v migračných tendenciách slovenských študentov. Kým predchádzajúce štúdie skúmali tieto dve skupiny premenných osobitne, autor sa ich snažil posúdiť spoločne, kvôli ich čiastočnému prekryvaniu sa. Na rozdiel od predchádzajúceho výskumu a napriek významným vzťahom medzi osobnostnými faktormi a migračnými tendenciami, keď boli tieto faktory vložené do spoločnej lineárnej regresie, ich rola bola veľmi nízka, s výnimkou faktoru otvorenosť voči skúsenosti. Okrem toho, zatiaľ čo rizikové charakteristiky sa ukázali ako významné prediktory migračných tendencií vo všetkých prípadoch, neboli schopné vysvetliť podstatne vyšší podiel rozptylu. Tieto výsledky poukazujú na potrebu zohľadniť, okrem osobnostných faktorov a charakteristík rizika, aj ďalšie faktory migračných tendencií, ako sú push a pull faktory, demografické charakteristiky alebo socioekonomické premenné.

Deviata kapitola *‘Analýza vzťahov medzi zdravotne rizikovým správaním a emigračnými tendenciami u slovenských vysokoškolských študentov’* (O. Kalina) sa zaoberala skúmaním vzťahov medzi emigračnými tendenciami a rizikovou

konzumáciou alkoholu, vysokou mierou fajčenia a sexuálne rizikovým správaním. Pokiaľ ide o sexuálne rizikové správanie, výsledky ukázali, že dievčatá s vyšším počtom sexuálnych partnerov majú (1) vyššiu pravdepodobnosť, že majú plán opustiť krajinu po ukončení štúdia; (2) majú pozitívnejšie postoje k emigrácii; (3) vykazujú vyššie zámery emigrovať; (4) skôrjúvyššie v emigračnej sebaúčinnosti a (5) majú väčšiu pravdepodobnosť k vyšším normatívnym presvedčeniam o emigrácii. Pokiaľ ide o fajčenie, dievčatá, ktoré potvrdili status fajčenia, majú silnejšie zámery emigrovať a majú pozitívnejšie postoje k emigrácii. Pokiaľ ide o užívanie alkoholu, významne súvisí so zámermi migrovať iba medzi chlapcami. Podľa výsledkov tohto výskumu však tí, ktorí konzumujú viac alkoholu, majú menší zámer opustiť domov, čo je v rozpore s predchádzajúcim výskumom/výskumami.

Cieľom desiatej kapitoly *‘Experimentálna mortalita v SLiCE štúdii.’* (J. Bavoľár, M. Bačíková) bolo porovnať participantov medzinárodnej štúdie SLiCE podľa počtu vln zberu údajov, ktorých sa zúčastnili. Porovnávaní boli vzhľadom na ich úroveň rizikového správania, psychického zdravia a vybraných intrapersonálnych faktorov. Výsledky prezentované v kapitole poukazujú na významné rodové rozdiely a rozdiely medzi krajinami. Ženy sa zúčastnili viac ako jednej vlny zberu významne častejšie ako muži a respondenti z Českej republiky a z Nemecka sa významne častejšie zúčastnili všetkých štroch vln ako respondenti z iných krajín. Tí, ktorí sa zúčastnili len prvej vlny zberu uvádzali vyššiu mieru konzumácie alkoholu, fajčili viac cigariet, mali vyššie skóre v extroverzii, priateľovstí, vyššiu mieru sebaregulácie a depresie a nižšie skóre v svedomitosti. Významné rozdiely zistené v úrovni psychického zdravia predstavovali menej jednoznačný vzorec.

Posledná, jedenásta kapitola *‘Intrapersonálne a interpersonálne faktory spojené so zmenami zdravotne rizikového správania u vysokoškolských študentov’* (A. Janovská) sa zaoberala zdravotne rizikovým správaním a jeho zmenami v priebehu štyroch rokov. Výsledky autora ukázali pokles v počte pravidelných fajčiarov u slovenských študentov a mierny pokles frekvencie fajčenia u českých študentov. Naopak, u študentov z Litvy a Maďarska bol (nárast) v intenzite fajčenia. Pokiaľ ide o užívanie marihuany, významný nárast bol zistený u litovských študentov. Pokiaľ ide o sexuálne rizikové správanie, zistilo sa, že študenti používajú kondóm menej často, s výnimkou českých vysokoškolákov, u ktorých bol zistený nárast používania kondómu. U litovských vysokoškolákov bola v priebehu času zistená vyššia frekvencia problematického používania internetu. Zistila sa aj významná súvislosť s nárastom depresívnych symptómov. Rizikové užívanie alkoholu sa v priebehu času ukázalo významne nižšie u slovenských a českých vysokoškolákov. Extroverzia a otvorenosť voči skúsenosti sa ukázali ako pozitívne významne spojené so zmenou v užívaní alkoholu. Takisto bol u českých vysokoškolákov zistený aj negatívny vzťah medzi kompulzívnym používaním internetu a sociálnou oporou od rodiny.

Všeobecné závery

Migrácia a jej príčiny boli dlho prehliadané. Napriek tomu, v uplynulých rokoch priťahli veľa pozornosti na celom svete a stali sa prioritou aj v oblasti psychologického výskumu. Tento jav sa týka aj Slovenska, hlavne kvôli exodu mladých vzdelaných ľudí označovaných ako "únik mozgov". Za toto správanie sú zodpovedné rôzne skupiny faktorov, a preto je potrebný multidisciplinárny prístup. Táto publikácia zohľadňuje sociálne, ekonomické, politické a psychologické ukazovatele emigračného správania a emigračných zámerov ako primeraných prediktorov budúceho správania. Teórie motivácie a teórie behaviorálnych zámerov a ich efektívnosť sú v migračnom výskume populárne. Na druhej strane, Health Belief Model a jeho adaptácia pri výskume emigračných úmyslov prináša na túto tému relatívne nový a perspektívny pohľad.

Podľa výsledkov prezentovaných v tejto publikácii, sú faktory, ktoré priťahujú študentov k emigrácii (pull faktory) jazykové zručnosti a kariérne príležitosti v zahraničí, túžba po zmene a novej skúsenosti, vnímaná emigračná realizovateľnosť a sebaúčinnosť. Kolektivismus a individualizmus sú spojené s túžbou emigrovať a emigrovať na horizontálnej úrovni. Avšak, emigračná sebaúčinnosť plne vysvetľuje vzťah kolektivismu a emigrácie. Navyše, podpora autonómneho rozhodovania medzi ženami bola tiež pozitívne spojená s emigračnými zámermi. Bolo potvrdené, že vzťah medzi podporou autonómie a emigračnými zámermi je mediovaný/sprostredkovaný domácou a rodinnou spokojnosťou žien. Hlavné faktory, ktoré odpudzujú študentov od emigrácie (push faktory), sú spoločenské vzťahy a záväzok doma. Ďalšie faktory negatívne spojené s emigračnými zámermi u žien sú životná spokojnosť, spokojnosť s domovom / rodinou a dôležitosť náboženstva. Navyše, vzťah medzi spokojnosťou s domovom / rodinou a emigračnými zámermi je mediovaný túžbou po zmene. Okrem toho sa zistil moderačný efekt pohlavia na niektoré vzťahy medzi skúmanými premennými a emigračnými zámermi. Osobnostné charakteristiky a charakteristiky rizika, s výnimkou otvorenosti voči skúsenosti, vysvetľujú iba malé percento variancie/rozptylu/podielu v emigračných zámeroch. To prináša autorov k záveru, že môžu existovať ďalšie významné faktory ovplyvňujúce migračné zámery.

Pokiaľ ide o emigračné plány, potenciálni "leaveri" sa častejšie muži, s nižšou úrovňou dôležitosti náboženstva, s vyššou úrovňou túžby po zmene a novej skúsenosti, a kariérnou príležitosťou v zahraničí, ako aj s nižšou úrovňou zakorenitosti, sociálnych vzťahov a záväzkom doma/s domovom.

Psychologické zdravie, rizikové správanie študentov a jeho zmena v 3-ročnom období boli tiež témou tejto publikácie. Študenti, ktorí sa zúčastnili iba prvej vlny zhromažďovania údajov, mali vyššiu spotrebu alkoholu, viac fajčili cigarety, zaznamenali vyššiu mieru extravenzie, prívetivosti, sebaregulácie a depresie a

nižšiu mieru vedomia. U českých a slovenských študentov sa fajčenie a pitie alkoholu v priebehu času znižovalo a extravérzia a otvorenosť bola pozitívne spojená so zmenou v užívaní alkoholu. Na druhej strane, miera fajčenia sa zvýšila medzi Litovcami a Maďarmi. Zvýšenie frekvencie používania kondómov bolo spozorované iba medzi českými študentmi, pričom medzi ostatnými sa pozoroval výrazný pokles. Taktiež, medzi študentmi zo všetkých krajín sa zvýšili depresívne symptómy. S ohľadom na tieto asociácie medzi emigračnými zámermi a rizikovým správaním môžeme konštatovať, že sexuálne rizikové správanie žien súvisí s plánom opustiť krajinu po štúdiu, vyššími zámermi emigrovať, pozitívnejšími postojmi k emigrácii, vyššou emigračnou sebaúčinnosťou a vyššími normatívnymi presvedčeniami o emigrácii. Pokiaľ ide o fajčenie, dievčatá, ktoré potvrdili status fajčenia, majú silnejšie zábery emigrovať pozitívnejšie postoje k emigrácii. Užívanie alkoholu sa zdá byť negatívne spojené s emigračnými zámermi u chlapcov, zatiaľ čo fajčenie medzi ženami je pozitívne spojené so zámermi a pozitívnejšími postojmi k emigrácii.

Táto publikácia poskytuje užitočné teoretické a empirické informácie o faktoroch vysvetľujúcich emigračné zábery. Väčšina z nich má praktické implikácie, ktoré sú uvedené v jednotlivých kapitolách. Napriek tomu, v tejto oblasti je potrebný budúci výskum, keďže sa zdá, že migrácia na Slovensku nemá tendenciu ustupovať a predstavuje jednu z najväčších výziev 21. storočia na celom svete.

Emigration intentions and risk behaviour among university students

Vedecká monografia

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