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## Psychological well-being and self-esteem in Slovak adolescents

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# Design of the study and data sources

The present study, entitled '*Psychological well-being and self-esteem among Slovak adolescents*', is carried out in cooperation between the University of Groningen in The Netherlands and PJ Safarik University in Kosice, Slovakia. The study focuses on mental health, specifically on psychological well-being and self-esteem among Slovak adolescents. This chapter provides the study context, data sources and measures.

## 2.1 Study context

This study presents the three following complementary projects.

In 1993, in the framework of the European Network of Health Promoting Schools (ENHPS), a joint project of the European Commission, the WHO Regional Office for Europe and the Council of Europe, a new intervention programme called 'Promoting mental and emotional health of children in school environment' was developed (Weare & Gray, 1994). This social-psychological programme was aimed at teachers (Weare & Gray, 1992), and its objective was to give more attention to mental and emotional health, which would lead to a better mental health status in schools and decrease the levels of distress. In 1999, two Central European countries which were not yet EU member states at that time – Slovakia and Hungary – applied this project on a local scale in Kosice, Miskolc and Debrecen using an identical study design and with a comparable sample among 11 years old early adolescents. An evaluation study of this intervention on children's mental and emotional health was carried out by Katreniakova (2001). The study focused on the development and implementation of strategies of health promotion, aiming at specific aspects of early adolescents' mental and emotional health as measured by such self-reported indicators as psychological well-being, self-esteem, affective balance, life events and social skills. An assessment of the mental and emotional health of the respondents was done three-times (baseline, first follow-up after 6 months, and a second follow-up 4 months later) during one school year (1999/2000) in an experimental group and a control group among 6th grade elementary school students. Teachers from the experimental group underwent 26-hours of training under the supervision of school psychologists and psychology students from September to November 1999. The leading line of the training programme was to increase the teachers' self-confidence and self-esteem, which would

then have a supposed subsequent positive influence on their pupils. The participants in the training programme consisted of 40 teachers (5 men and 35 women) from the four experimental elementary schools. The early adolescents' respondents consisted of 519 pupils (264 boys and 255 girls) from the four experimental (207 children) and the four control (312 children) elementary schools in Košice, Slovakia. In this study the General Health Questionnaire-12 and the Rosenberg Self-esteem Scale were used for evaluating the psychometric parameters of psychological well-being and self-esteem in Hungarian and Slovak early adolescents (Chapter 3).

With the aim of comparing psychological well-being and self-esteem with the above mentioned study among 11.5 year-old early adolescents, a third follow-up data collection was performed in Slovakia in 2003 among 15 year-old middle adolescents. Based on both mentioned projects, changes over time—the differences in magnitude and direction of changes in psychological well-being and self-esteem between the age of 11.5 and 15-year olds—were explored (Chapter 5).

On the basis of the data collected in Slovakia and Hungary, the association between nationalities as a criterion for socio-cultural background and psychological well-being on the one hand and self-esteem of respondents from both countries on the other hand was studied. In addition, the differences in self-esteem of adolescents between Central and Eastern European countries were explored (Chapter 4).

The 2003 project was also enlarged with new indicators – school connectedness and bullying – for a deeper understanding of the factors related to psychological well-being and self-esteem (Chapter 6 and 7).

In line with similar studies focusing on factors related to mental health in the target group, the school environment was identified as an important factor (Rigby, 2000; Due et al., 2005). In consideration of this, the dataset of a project entitled 'Individual, interpersonal social and societal factors of risk behaviour among adolescents and young adults' in 2006 offered a set of variables related to school level. The main attention was given to psychological well-being and self-esteem within the context of the school. A specific emphasis was devoted to the relationships which pupils experience with teachers and peers in this environment. The part played by bullying behaviour was created in more detail, and specific forms of this risk behaviour were added (Chapter 8).

## **2.2 Data, data collection procedure, samples**

Several samples are included in this study. The first sample (1a) in this thesis consists of the respondents from the project 'Promoting mental and emotional health of children in the school environment' (Weare & Gray, 1994; Katreniakova, 2001). Respondents were 519 pupils aged 10 to 14 years

(mean age 11.5 years; 50.9% boys, 49.1% girls) from 8 elementary schools located in the city of Kosice, Slovakia. The response rate of the research sample was 88.8%. All schools were state schools and were selected randomly. Respondents completed the questionnaires in their classrooms at school during one 45 minutes regular class in absence of the teacher on a voluntary basis and under the guidance of the research assistant. Data were collected in September 1999 (response rate was 88.8%), February 2000 (response rate was 73.6%), and June 2000 (response rate was 80.9%). This sample is used in the Chapters 3, 4 and 5.

From April to June 2003 all schools from the first wave were asked to participate in the third follow-up measure. Respondents were 461 pupils aged 14 to 17 (mean age 14.9), however the response rate achieved due to the absence of students from school on the day of data collection was 71.4%. This sample is used in Chapter 5, and more details can be found in Table 2.1.

The second sample, similar to the first sample, is a part of the international comparative project "Promoting Mental and Emotional Health in the ENHPS". This sample consists of 329 pupils (52.7% boys, 47.3% girls) with a mean age of 11.5 years (range 10 - 14 years) from Hungary. The response rate in this sample was 71.4%. Data were collected at 10 elementary schools, 4 schools situated in the city of Miskolc and 6 schools in the city of Debrecen, in October 2000, January 2001 and June 2001. The schools were selected at random and all were state schools. Respondents completed the questionnaires at school, in their classrooms in absence of their teacher and under the guidance of the research assistant. This sample is used in the Chapters 3 and 4.

The third sample consists of 1023 students (487 boys - 47.6%) from 18 elementary schools in Kosice, Slovak Republic. The age of the respondents ranged from 14 to 17 years, with a mean age of 14.9 years (standard deviation 0.51). The selected schools were located in different parts of Kosice in order to achieve a representative sample of the city. The selection of schools was influenced by previous cooperation with 8 of the schools and by the willingness of a further 10 schools to support the study. Data were collected from April to June 2003. The questionnaires were completed by respondents on a voluntary and anonymous basis during one regular 45-minute class in the absence of a teacher in the presence of a trained researcher. As a result of the absence of students from school, the response rate was 82.6%. This sample is used in the Chapters 6 and 7.

The fourth sample consists of 3694 students ranging from 13 to 16 (mean age 14.3 years; 49% boys, 51% girls). An overall response rate of 93.5% was achieved. Data were collected in 2006 at 46 elementary schools in major Slovak cities representing different parts of the country: Bratislava (Western Slovakia), Zilina (Northern Slovakia), Kosice (Eastern Slovakia) and other smaller cities in the eastern region of Slovakia.

Research assistants administered questionnaires during two regular 45-minute lessons in a complete 90-minute period of time. Students filled out the questionnaires on a voluntary and anonymous basis in the absence of the teachers. This sample is used in Chapter 8.

A brief description of the present samples is provided in Table 2.1.

**Table 2.1** The characteristics of the study samples

		Sample 1a	Sample 1b	Sample 2	Sample 3	Sample 4
Chapter(s)		3, 4, 5	3, 4	5	6, 7	8
N		519	465	461	1 238	3 725
Number of respondents		461	431	329	1 023	3694
Gender	Male	50.3%	52.7%	52%	47.6%	49%
	female	49.7%	47.3%	48%	52.4%	51%
Age	Mean (SD)	11.5 (0.58)	11.5	14.9 (0.45)	14.9 (0.51)	11.3 (0.65)
	Range	10 - 14	10 - 14	14 - 17	14 - 17	11 - 17
Response rate		88.8%	92.5%	71.4%	82.6%	93.5%
Loss to follow up				28.6%		
Year of data collection		1999	2000	2003	2003	2006
Country		Slovakia	Hungary	Slovakia	Slovakia	Slovakia

## 2.3 Measures and statistical analysis

### 2.3.1 Measures

The central dependent variables of this thesis were psychological well-being and self-esteem.

**Psychological well-being** is described as an individual's mood and is often covered by four identifiable elements of distress: depression, anxiety, social impairment and hypochondria (McDowell & Newell, 1996). **Depression/anxiety** was used as an indicator of feelings of distress and **social dysfunction** as an indicator of the inability to carry out one's normal 'healthy' functions; both factors are part of the GHQ-12, a shortened version of the General Health Questionnaire-60 (Goldberg & Williams, 1988; French & Tait, 2004; Martin & Newell, 2005; Penninkilampi-Kerola et al., 2006). Two factors (**positive self-esteem factor** and **negative self-**

**esteem factor**) from the Rosenberg Self-esteem Scale – RSE were used for measuring **self-esteem**, which can be defined as a person’s global appraisal of his/her positive or negative value (Rosenberg, 1965; Marsh, 1996; Schmitt & Allik, 2005; Halama, 2008).

The following independent variables were used in the separate chapters. **Cultural background** was operationalised as nationality (Chapter 4). Parental education was employed as an indicator of **socioeconomic status** in chapter 5. The respondents answered two questions on ‘What is the highest completed education of your father (mother)?’, and the four basic categories were recoded into three categories as follows: ‘post-secondary vocational’ (uncompleted/completed primary school, post-secondary vocational programmes), ‘accredited post-secondary vocational’ and ‘university and postgraduate’. **Assertiveness**, which plays an important role in the well-being and self-esteem of adolescents, was measured by the 47-item Scale for Interpersonal Behaviour -SIB (Arrindell & van der Ende, 1985) and used in chapter 6. Four subscales: (1) display of negative feelings or negative assertion, (2) expression of and dealing with personal limitations, (3) initiating assertiveness, and (4) a display of positive assertion were applied. Respondents had to indicate to what extent such situations made them anxious (the distress dimension) and how often they engage in such situations (the performance dimension). **School connectedness** was assessed using the School Connectedness Score (SCS), which consists of five statements ‘I feel close to people at this school’, ‘I feel like I am part of this school’, ‘I am happy to be at this school’, ‘The teachers at this school treat students fairly’ and ‘I feel safe in my school’ (Bonny et al., 2000) (Chapter 7). Eight statements—‘My classroom is placing where.... (1) I don’t feel a part of the group, (2) I make friends easily, (3) I feel I belong, (4) I feel awkward and inconvenient, (5) others pupils obviously like me, (6) I feel alone, (7) I am often bored, and (8) I don’t like to go’—were used as indicator of the **pupil - peer relationships** (question number 27 from the Pupils’ questionnaire of the OECD Programme for International Student Assessment 2003) in chapter 8. **Pupil-teacher relationships** recorded using fifteen statements such as ‘they like me a lot’, ‘they are very conscionable’, ‘they usually praise me’, ‘and they help me a lot’, from the question ‘When you think about your study in elementary school, how do your teachers behave towards you?’ were used in the chapter 8. **Bullying** used in chapter 7 was measured using two questions: ‘How often have you been bullied in the current school year?’ and ‘How often have you taken part in bullying others in the current school year?’ (Currie et al., 2004). In chapter 8 bullying behaviour was divided into six bullying categories (1) physical assault, beating; (2) unpermitted borrowing of things; (3) enforcement of senseless orders; (4) ridicule or cruel nicknames; (5) threats, verbal insults; (6) intimidation. Depending on whether the respondents had ever taken part in these

situations or if these situations had ever happened to them, respondents were divided into four distinguishable character profiles: normative contrasts (those who neither bully nor are bullied); passive victims (those who are/were bullied); aggressive non-victims (those who bullied); and aggressive victims (those who bullied and who are also bullied). **Gender** was used as independent variable in the chapters 4, 5 and 7. In the chapter 6 and 8 gender was put in the linear regression models as possible covariate.

### **2.3.2 Statistical analysis**

All analyses used in the present study were performed using the statistical software package SPSS versions 10.1., 12.0. and 14.0. A detailed description of the analyses can be found in the Statistical analysis sections of the separate chapters.

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