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Psychological well-being and self-esteem in Slovak adolescents

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Conclusion, general discussion and implications

Psychological well-being and self-esteem, which are mutually connected and influence each other, are essential aspects of mental health and are associated with physical, mental and social developmental factors. This study focused on the adolescence period to explore the associations between the study variables—psychological well-being and self-esteem—and several factors such as age, gender, assertiveness, school connectedness, and relationships and bullying in the school environment. The final chapter provides a summary of the main findings, a discussion, the study's strengths and limitations and implications for future research and practice.

9.1 Main findings

Factor structure of GHQ-12 and RSE

The first research question analyzed the factor structure of the General Health Questionnaire-12 (GHQ-12) and the Rosenberg Self-Esteem Scale (RSE) in Hungarian and Slovak early adolescents aged 11.5 years. In both samples two factors in the GHQ-12 were identified, one of which can be labelled as depression/anxiety and the other as social dysfunction. Similarly, the RSE appears to be an instrument with a two-factor structure, with the subscales negative self-esteem and positive self-esteem in both samples.

Self-esteem among Slovak and Hungarian adolescents

The second research question addressed the substantial differences in self-esteem among boys and girls in adolescence from 22 countries in Eastern and Central Europe, making a comparison of how large these differences are and looking at the association of gender, cultural background and two factors of psychological well-being (depression/anxiety and social dysfunction) with positive, negative and overall self-esteem. Among other issues, this research question focused on the positive correlations between psychological well-being and self-esteem. Large differences

were found between Slovakia and Serbia, Slovenia and Croatia in overall, positive and negative self-esteem among boys and girls, with exception of Croatian boys in positive self-esteem. Large differences were also found between Slovak and Austrian adolescents in negative self-esteem and between Slovak and Hungarian girls in positive self-esteem. The findings from linear regression indicate that cultural background and two factors, depression/anxiety and social dysfunction, of psychological well-being significantly associate with self-esteem.

Development of psychological well-being and self-esteem from age 11.5 to 15 and its predictors

The third research question was based on a longitudinal school-based study and focused on changes over time through answering the following questions: 1. Is there a difference in the magnitude and direction (improved, stable or deteriorated) of change in the domains of psychological well-being and self-esteem between the ages of 11.5 and 15 between boys and girls? 2. Are gender and parental education predictors of psychological well-being and self-esteem at the age of 15?

Both genders significantly deteriorated in depression/anxiety, with a substantially higher change over time among girls compared to boys and a significant improvement in overall self-esteem and in negative self-esteem. Only girls deteriorated significantly in overall psychological well-being. Both gender and educational level of the mother were the strongest factors associated with depression/anxiety at the age of 15, adjusted for the baseline (depression/anxiety) scores.

Assertiveness, psychological well-being and self-esteem in adolescents

Associations between the distress and performance dimensions of assertiveness and adolescents' psychological well-being (GHQ-12) and self-esteem (RSE) were explored while controlling for gender. Firstly, the relationship between the levels of anxiety felt in assertive situations (the distress dimension) and the frequency of engagement in these situations (the performance dimension) was examined. Secondly, the association between the assertive dimension and psychological well-being and self-esteem was explored. Thirdly, the influence of the distress dimension on psychological well-being and self-esteem, controlling for the performance dimension, was explored.

Assertiveness was found to play an important role in the well-being and self-esteem of adolescents. Findings showed that (1) the more anxious respondents felt in assertive situations, the less frequently they engaged in these situations; and that (2) both dimensions of assertiveness predicted psychological well-being and self-esteem. However, the negative effect of the distress dimension on psychological well-being and self-esteem

did not change after controlling for the performance dimension. The frequency of engagement in these situations did not influence the levels of anxiety felt in assertive situations. Nonetheless, the results showed that increasing assertiveness among adolescents' outcomes has significant positive consequences for psychological well-being and self-esteem.

Contribution of gender, bullying, school connectedness and self-esteem to psychological well-being

The fifth research question focused on gender differences in bullying, school connectedness, self-esteem and psychological well-being and their interrelations. Also their joint contribution to psychological well-being in adolescents was analyzed. All studied variables—gender, bullying, school connectedness and self-esteem—were found to be significant independent predictors of psychological well-being. Findings showed that boys more frequently took part in bullying others, had higher self-esteem and better psychological well-being. On the contrary, in girls a higher frequency of taking part in bullying others was significantly associated with a worse psychological well-being. In addition, higher frequency of being bullied, lower school connectedness and lower self-esteem were significantly associated with a worse psychological well-being in both sexes. Self-esteem was found to be the most important and potentially modifiable factor contributing to the psychological well-being of the respondents.

Adolescents' psychological well-being and self-esteem in the context of relationships at school

Research question number six explored whether (1) there is an association between pupil-peer relationships and psychological well-being and self-esteem, (2) there is an association between pupil - teacher relationships and psychological well-being and self-esteem, and (3) whether this association varies according to pupils' experience of bullying or being bullied. Findings show that relationships in the school context are strongly associated with psychological well-being and self-esteem among adolescents. In particular, for the whole sample, depression/anxiety and social dysfunction of psychological well-being as well as positive and negative self-esteem are statistically significant regarding pupil-peer and pupil-teacher relationships. Those who reported better relationships had better psychological well-being, higher positive self-esteem and lower negative self-esteem. The classification of the sample into four categories associated with bullying behaviour (normative contrasts, passive victims, aggressive non-victims and aggressive victims) allowed the association between pupil-peer and pupil-teacher relationships and the dependent variables to be explored further. The findings showed that pupil-peer relationships were significantly associated with all of the studied factors

among all groups. Thus, it appears that pupil-teacher relationships do not play an important role in psychological well-being and self-esteem for pupils that bully.

9.2 Discussion of the main findings

The main findings will be discussed in the framework of the general aims formulated in Chapter 1. These aims were 1) to unravel the factor structure of measures for psychological well-being and self-esteem; 2) to explore determinants of psychological well-being and self-esteem at a certain moment in adolescence; and 3) to explore the change over time of psychological well-being and self-esteem.

9.2.1 The factor structure of measures for psychological well-being and self-esteem

The reliability and factor structure of the General Health Questionnaire-12 (GHQ-12) and the Rosenberg Self-Esteem Scale (RSE) were evaluated in various languages and samples. Both of these measures come from a valid theoretical background and are high quality tools measuring specific aspects of mental health. However, the factor structures of both measures are not clear and there is an ongoing discussion about their one, two- or three-factor solutions. The results of the study presented in Chapter 3 showed the existence of two factors (depression/anxiety and social dysfunction) in both the Hungarian and Slovak version of the GHQ-12. A similar two-factor solution was found in an Italian study among young males (Politi et al., 1994), in 10 centers of a WHO study (Werneke et al., 2000), in an Iranian study among young people (Montazeri et al., 2003, Gao et al., 2004) and in a French study among elderly people (Salama-Younes et al., 2009). Also, there are studies in which the two factors of GHQ-12 were used to examine psychological well-being (Allison et al., 2005; Sarkova et al., 2006). It is important to mention that multi- or three-factor solutions have been found in recent studies (Werneke, 2000; French & Tait, 2004; Gao et al., 2004; del Pilar Sánchez-López & Dresch, 2008).

At the same time the factor analysis of the RSE in the Chapter 3 showed two-factor solutions in both the Hungarian and Slovak samples. While psychometric studies generally supported the one-factor solution of this scale (Corwyn, 2000; Mimura & Griffiths, 2007), the present study appears to be in line with a significant number of studies showing evidence of a two-factor construct (Marsh, 1996; Schmitt & Allik, 2005; Roth et al., 2008; Halama, 2008). Using two factors of the RSE seems to be adequate for measuring an association between self-esteem and other aspects of health (Sarkova et al., 2006; Gajdosova, 2007; Veselska et al., 2009). The two-factor solutions for both instruments enable researchers to

have a closer look into their data and to show associations which are not visible when the instruments are used as a whole.

9.2.2 Determinants of psychological well-being and self-esteem in adolescence

The present study has explored selected determinants of psychological well-being and self-esteem, such as gender, cultural background and school environment. As findings in particular chapters have shown, all mentioned variables are statistically significant determinants of psychological well-being and self-esteem in adolescence.

The association of gender differences, as a biologically as well as a socially based category, with various aspects of adolescent mental health are well-known and have been presented in several studies (Currie et al., 2004; Mittendorfer-Rutz, 2006). At the same time a number of studies have shown significant gender differences in well-being and self-esteem during this period of life (Bolognini et al., 1996; Modrcin-Talbott et al., 1998; Huurre & Hillevi, 2000; Piko & Fitzpatrick, 2001; Geckova, 2002; Tait et al., 2003; Sweeting & West, 2003; Birndorf et al., 2005). However, findings about gender differences in the present study are not that clear. Significant gender differences were noted in taking part in bullying others, with higher participation by boys in Chapter 7. In addition, findings from the mentioned chapter show that boys also reported significantly higher self-esteem and better psychological well-being than girls. On the other hand, only weak associations were found regarding gender differences between factors of psychological well-being and self-esteem and assertive behaviour in 15-year olds (Chapter 6). This indicates only small differences between boys and girls and the way assertive behaviour associates with psychological well-being and self-esteem among these groups. At the same time, no significant gender differences were found in the frequency of being bullied among 15-year old adolescents as well as in the frequency of bullying at the same age.

In a different sample however, it has been shown that there are differences between Slovakia and other Central European countries regarding self-esteem and that these differences were not trivial in size. At the same time, the findings from the present study indicate that cultural background (Slovak vs. Hungarian) significantly associates with self-esteem. Significant differences between Slovak and Hungarian adolescents could be a consequence of the tool used, which might measure a slightly different reality in different cultural settings. However, there are some international comparative studies which, like this study, have confirmed that although Slovak adolescents have better psychological well-being in comparison with Hungarians, Hungarian adolescents actually have higher self-esteem than Slovaks (Currie et al., 2004; 2008).

Exploring only the gender and cultural differences on psychological well-being and self-esteem in school-aged adolescence is insufficient.

Therefore the research question also focused on a different important determinant of adolescents' mental health—the school environment. Our findings are in line with numerous studies which have shown that school connectedness, relationships with peers and also with teachers, as well as risk behaviour at school play a significant role in pupils' psychological well-being and self-esteem (Marinoni et al., 1997; Hawker & Boulton, 2000; Ma, 2002; Rigby, 2003). Generally speaking, our findings, like other studies, confirmed that when students feel that they belong and have supportive and fair relationships with their teachers and classmates and do not bully, they have better psychological well-being and higher self-esteem. They are also less likely to participate in risk behaviour such as bullying (Hawkins et al., 1992; Hughes & Kwok, 2007). A more detailed view (Chapter 8) on the relationships between pupils who bully and those who do not bully and their relationships with teachers have shown significant differences between these two groups regarding psychological well-being and self-esteem. Findings have indicated that for all pupils, regardless of the participation or experiences with bullying, significant associations existed between pupil-peer relationships and all of the studied factors. On the other hand, in the aggressive victims and aggressive non-victims group the relationship with teachers does not play a significant role in adolescents' psychological well-being and self-esteem. Therefore, the association between risk behaviour and psychological well-being and self-esteem does not seem to be so simple and is actually more complicated than was hypothesised. It could be assumed, therefore, that there are more parts of the mental health puzzle at school which have yet to be unravelled.

9.2.3 Psychological well-being and self-esteem over time

The present study also examined the changes in psychological well-being and self-esteem in a group of adolescents over time at an intra-individual level and the findings have shown there was significant difference between 11.5-year-old boys and also girls in both variables. Larger changes over time were found in terms of deterioration in the depression/anxiety domain of psychological well-being in girls compared to boys, thus supporting evidence of increased gender difference as age increased from 11.5 to 15. Similar trends were noted by Sweeting and West (2003) and Tait et al. (2003). Findings of proportionally larger changes over time among girls, who deteriorated, and boys, who improved in the depression/anxiety domain of psychological well-being, raise questions regarding what is behind these changes and what factors trigger these changes. Firstly, for boys physical and maturational changes are generally regarded as positive, but for girls they are associated with both physical and psychological problems. Secondly, from a mental health perspective,

early to middle adolescence is recognised as the time of emergence of an excess of internalising disorders in girls (depression and anxiety), in comparison with childhood, where boys predominated as a result of the excess in the diagnostic categories of behavioural and attention disorders (Patton & Viner, 2007).

In self-esteem, both genders improved significantly in overall self-esteem and in negative self-esteem. The present findings of changes over time, in terms of improvement, on overall self-esteem and on negative self-esteem in both genders can be compared with studies suggesting that self-esteem changes during adolescence (Bolognini et al., 1996; Baldwin & Hoffmann, 2002; Birndorf et al., 2005).

9.3 Strengths and limitations of the study

The study has strengths and limitations. Two factors of psychological well-being as well as self-esteem were analysed; this enabled a deeper understanding of the associations between all study variables. As was found in a study by Veselska et al. (2009), by using the two factors of self-esteem it was possible to recognise that health compromising behaviour (smoking and cannabis use) was connected with negative but not with positive self-esteem. Furthermore, follow-up data were used which allowed us to assess psychological well-being and self-esteem over time. Knowledge about longitudinal changes in psychological well-being and/or self-esteem during adolescence remains limited, since the majority of the previous studies were cross-sectional or because results from longitudinal observational studies were, to our knowledge, restricted to behaviour in 'clinical' settings. Furthermore, studies targeted on 'healthy' adolescents evaluated changes in psychological status from childhood to early adolescence, from late adolescence to young adulthood, or focused on a separate adolescence sub-stage or were not sampled from an appropriate age range. Data from two nations (Slovak and Hungarian) were used which enabled us to compare our data in-depth from the perspective of a country-specific European context. Aside from similarities or differences between these two countries, it is necessary to keep in mind the potential influence of cultural background on the explored variables and their associations, a fact that may partially explain the contrasting findings in the literature.

A limitation is the cross-sectional design of some of the previous chapters, which limited a deeper understanding of the relevant pathways. A longitudinal study, especially on bullying, would have provided greater insight into the issue. Another limitation is missing information from the teachers and parents involved in school process. In addition, school and family background information could contribute to the explanation of

the associations. A better understanding of country differences might provide a more detailed insight into the relevance of the sociodemographic background across the involved countries.

9.4 Implications of the study

9.4.1 Implications for future research

The findings offer several possibilities for future research focusing mainly on the factors of psychological well-being (depression/anxiety and social dysfunction) and self-esteem (positive and negative self-esteem) with the school environment. This two-factor solution of both instruments enables researchers to have a closer look into their data and to reveal associations which are not visible when the instruments are used as a whole, also in the school environment. The model of well-being at school is based on four categories: school conditions (having), social relationships (loving), means for self-fulfilment (being) and health status (health) and could be used for a better understanding while at the same time bringing more precise information about pupils' well-being at school. The longitudinal design of future research could follow not only specific variables representing aspects of mental health or various aspects of the school environment, but also changes in these aspects over time, which could shed more light on the causal pathway of variables influencing the mental health aspects of the pupils included. Such national findings could be used for comparison within the framework of international studies such as HBSC and also offers the possibility of measuring the effects of intervention, focusing on increasing mental health and diminishing bullying.

9.4.2 Implications for practice

The present findings could be framed within the results of Slovak adolescents in the international HBSC study. The HBSC study has shown that Slovak adolescents have a high level of well-being and life satisfaction. On the other hand, school connectedness and the peer relationships at school of Slovak adolescents were reported as one of the worst in comparison with other countries. These findings are in line with the results of our study, which underlines the importance of the school environment and school relationships. In regard to findings that indicate that better pupil-peer and pupil-teacher relationships are significantly associated statistically with better psychological well-being as well as higher self-esteem, such knowledge could be the starting point for improvement in the school environment, the climate, and relationships at school while at the same time for the reduction of risk behaviour such

as bullying through the enhancement of social skills. Building the space for open communication between pupils and teacher and their mutual confidence could help with earlier recognition of bullying as well as the prevention of such risk behaviour. Since a school is a complex structure, various ways of implications for practice could be designed. Programmes focusing on training for better communication and cooperation, increased empathy and assertiveness skills for students could contribute to a friendlier climate where programmes aiming at a reduction in risk behaviour are more effective. At the same time, intervention programmes for teachers focused on training their social skills and enhancing their mental health could also have an indirect effect on school connectedness and on pupils. Finally, programmes oriented on making a place in the school shared by teachers and students could offer more opportunities for open communication and could contribute to reducing possible problems and improving of community life of a school. However, it is important to keep in mind that such interventions may be effective in practice only if the whole community, including both schools and families, is involved.

9.5 Conclusion

The focus of this study was to examine the associations between psychological well-being and self-esteem and several factors such as age, gender, assertiveness, school connectedness, relationships and bullying in the school environment of Slovak adolescents. The present findings show significant associations between these variables and explore these associations. At the same time, the current study examines the differences on psychological well-being and self-esteem of Slovak adolescents in comparison with Hungarian adolescents. The already existing knowledge about the associations between well-being and self-esteem and the school environment from various aspects, particularly pupil-peer and pupil-teachers relationships, school connectedness and bullying behaviour, was extended.

Interest in this topic and in the relationship between school and mental health has increased in recent years. Continuing socioeconomic changes, political events such as the expansion of the European Union and changes in the positions and possibilities of adolescents related with this expansion, offer new issues and avenues of research in this field for the future.

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