

## SOCIAL SELF-REGULATION IN THE CONTEXT OF APPLIED PARENTAL STYLES AND PREFERRED STYLES OF COPING IN EARLY AND MIDDLE ADOLESCENCE – PILOT STUDY



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### Abstract

The study was realised as a part of an extensive research plan, which aims at tracing a developmental trend in the development of self-regulation of an individual in the context of coping, self-efficacy and self-esteem, by monitoring selected connections between social self-regulation, applied parental educational styles and preferred strategies of coping in the period of early and middle adolescence. Since this is already a widely held belief this study may be considered unnecessary unless the writers say that this study hopes to provide further empirical evidence to support this belief. In order to execute the above mentioned research plan, we have chosen a quantitative research design realised through a one-time interview survey by using a combination of questionnaire methods: Social selection, optimisation and compensation questionnaire (Social SOC; Geldhof, Little, Hawley, 2012), Parents Perception Scale (Niemic, Ryan & Deci 1991; adapted Robbins 1994) and Children’s Coping Strategies Checklist (Ayers et al., 1996). This study included 229 respondents aged 13 to 15 (M=14,7; sd=0,712), from which 53.3% were girls (N=122) and 46.7% were boys (N=107). The results of the study generated many findings related to self-regulation and coping strategies with a focus on significant gender differences in social self-regulation and also differences in preferred coping strategies ( $r=44,21, sd=7,896$ ). From a practical point of view, the study generated valuable conclusions about differences in preferred styles of coping in relation to applied parental educational styles – e.g. the group of respondents with low average scores in Parents Perception Scale had statistically considerably lower score in several fundamental coping strategies (COP\_ACT ( $p<0,001$ ) and COP\_SUP ( $p<0,001$ )).

*Keywords:* Adolescence, self-regulation, parental educational styles, coping, gender adolescence, seberegulace, rodičovské výchovné styly, coping, gender

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## **1. Introduction**

The presented pilot study was realised as a part of an extensive research plan, which aims to map the developmental trend in developing self-regulation of an individual in the context of coping, self- efficacy and self-esteem, by monitoring selected connections between social self-regulation, applied parental educational styles and preferred strategies of coping in the period of early and middle adolescence.

It is typical of the period of adolescence that the adolescent gradually gains more and more possibilities to actively influence his or her own development and slowly starts to learn how to handle them. Along with the extensive changes in the field of physical, psychical and social context of one's own development, to which he or she needs to adapt, it can be classified as exceptionally burdensome, which imposes high demands on the effective use of coping strategies and self- regulation mechanisms. A number of authors highlight the strong interconnectedness between coping and self-regulation in this context, coping being mostly described as the effort of an individual to mobilise, regulate and manage one's emotions and behaviour in a stressful situation (Compas et al., 2001). Nevertheless, the question of deliberate self-regulation as the basic aspect of human functioning, which involves specific modulation of one's own thoughts, concentration, emotions and behaviour, such as particularly reactions to the demands of one's environment (Gestsdóttir, et al. 2009) and coping, has not yet been sufficiently clarified mainly due to a considerable overlap of automatic and deliberate processes. In general, coping strategies are perceived as a behavioural component of self-regulation (Baltes et al., 1998).

The theoretical basis of this study is grounded in the presumption that the ways of regulating behaviour of an individual develop throughout the whole life of the individual. The theory of selection, optimisation and compensation (SOC) (Baltes, 1997), which is essential for the presented study, describes three basic self-regulation mechanisms: 1. selection: the choice of goals, which is voluntary (elective selection) or it is caused by the lack of sources (loss-based selection); 2. optimisation: enhancing resources and reserves of an individual; 3. compensation: achieving one's goal in an alternative way. These components of the SOC model represent significant self- regulation mechanisms, which keep changing during one's life. Adolescence is a developmental period in which self-regulation gradually starts to internally differentiate (Gestsdottir & Lerner, 2008) and the model of selection, optimisation and compensation by Baltes and his colleagues (Baltes, 1997; Freund & Baltes, 2002) seem to be a suitable tool for researching this process (Lerner, 2008). In the period of early adolescence, strategies of self-regulation are still unstructured, whereas in adulthood they are three separate processes, which become more and more distinct during the development in

adolescence and early adulthood (Gestsdóttir et al., 2009, 2010). In the context of social relationships, the above mentioned selection is related to getting new friends (elective selection), replacing old friendships (loss-based selection), improving the quality of social relationships (optimisation) and maintaining relationships (compensation) (Geldhof et al., 2012). One of the most significant factors with a great impact on the success of this process in terms of social development of an individual during adolescence are the broader conditions of one's family environment, where the process of empowerment and gradual disengagement from emotional and cognitive dependence on one's family. This process is also closely related to the development of self-regulation and its healthy and successful progress can be significantly supported by the parental educational style (Bowers et al., 2011).

Therefore, the study is based on the presumption that a positive relationship with parents provides a certain form of social support and thus enhances psychological resources of adolescents necessary for coping in difficult and stressful situations (Wolfradt et al., 2003). Within the Czech part of the ELSPAC (European Longitudinal Study of Pregnancy and Childhood) study, adolescents between thirteen and fifteen years of age identified as stressful these groups of problems in the following order: 1. relationships with peers; 2. maintaining personal space; 3. problems related to the need of recognition and appreciation; 4. conflicts with adults; 5. problems with life changes, social relationships and identity; 6. problems in the family; 7. negative life events (Kohoutek et al., 2009), which illustrates the importance of researching these issues. Although it has not yet been sufficiently explored to which extent adolescents adopt coping and self-regulation strategies applied by their parents, it is obvious that the development and efficiency of their own coping and self-regulation strategies is considerably influenced by the parent-child relationship and the educational style (Nikkerud & Frydenberg, 2011), and we believe that also the level of maturity of self-regulation mechanisms of an adolescent plays an important role in this process.

## **2. Objectives and Design**

The primary aim of this study is to map which self-regulation and coping strategies are used by adolescents the most and also to attempt to trace a possible relationship between these mechanisms and the applied parental educational style. In order to execute the objectives, we chose a quantitative research design in the form of a correlation study, which includes one-time interview survey. We have also aimed to obtain some other selected information about the adolescents, e.g. age, gender, their parents' education, number of siblings, school results and the way they spend their free time, because this information in the context of self-regulation is considered to be significant.

## 2.1. Methods

### 2.1.1. The basic information about probands

The present study mapped several issues aimed at basic demographic data, like gender, age, sibling and family constellation, parents' education and the size of the place of residence. The achieved school's results were given by the respondents in the form of grades they received from their mother language and mathematics on their last report card and also as self-assessment by responding to the question of what their usual grades at school are (in those subjects). Very good results in these basic subjects are highly correlated with student success at other levels of education, and as a result not only of high-quality talent, but also increased studying efforts. We simultaneously explore further detailed conditions for self-regulation - respondents answered questions about the ways they spend their free time, where they also marked the amount of time they daily spend on the given activities.

### 2.1.2. Social Selection, Optimisation and Compensation Questionnaire (Social SOC; Geldhof, Little, Hawley, 2012)

Used method is a revised version of the original questionnaire SOC (Baltes, Baltes, Freund, & Lang, 1999), adapted to the specifics of adolescent respondents. The questionnaire contains 28 items related to elective selection (4 items), loss-based selection (5 items), optimisation (9 items) and compensation (10 items). The statements are evaluated with the help of seven-point Likert scale. There is a significant difference from the original questionnaire in the concept of loss-based selection. Since in the developmental stage of adolescence, adolescents do not experience so many age-related losses (meaning losing of skills), what is here understood by losses are failures, setbacks or substantial obstacles in achieving goals (Geldhof et al., 2012).

### 2.1.3. Perception of Parents Scale (Niemic, Ryan & Deci 1991; adapted Robbins 1994)

The scale, which was created by their original authors (Niemic, Ryan & Deci, 1991) for children, was adapted to the adolescent age group and it consists of two original subscales - Autonomy support and Involvement – and the third added subscale Warmth, which reflects how adolescents perceive their parents' warmth towards them (therefore their emotional relationship). The questionnaire consists of 21 items related to the mother and 21 items related to the father.

#### 2.1.4. *Children's Coping Strategies Checklist - CCSC (Ayers et al., 1996)*

It is a questionnaire based on four-factor model of coping, where each of the four factors includes several ways of coping: Active strategies of coping (Cognitive decision-making, Direct problem-solving, Searching for understanding, Positive re-evaluation), Support searching strategies (Support focused on the problem, Support focused on emotions), Diversionary strategies (Diversionary activities, Physical release of emotions) and Strategies of avoiding (Cognitive avoiding, Escapist activities). The questions are very concrete and clear and respondents answer using a four-point scale.

#### 2.2. *Research sample*

The study included 229 respondents aged 13 – 15 ( $M=14.7$ ;  $sd=0.712$ ), of which 53.3% were girls ( $N=122$ ) and 46.7% were boys ( $N=107$ ), all of them attended primary school. The question about their parents' education was answered by choosing one of the given options according to the highest level of parents' education: primary school (3.1% mother; 2.6 % father), apprenticeship certificate (22.7% mother; 13.5% father), secondary school (38.0% mother; 48.5% father), or university degree (34.9% mother; 34.5% father). We couldn't get closer socio-economic data, because the probands had an idea of the financial income of their parents.

### 3. Results

Based on the analysis of the research data, only results directly related to the research goals of the study are presented here.

#### 3.1. *Descriptive statistics - the basic information about probands*

The group was divided according to the place of residence in the following way: 47.6% of respondents live in a village ( $N=109$ ), 29.7% ( $N=68$ ) live in a small town, and 21.8% ( $N=50$ ) live in a big town. More than a half of respondents (58%;  $N=133$ ) stated that they have one sibling. The second biggest group were the respondents with two siblings (17.9%;  $N=41$ ) and then followed the group of only children (11.4%;  $N=26$ ).

In the context of self-regulation we consider important a statistically significant difference between boys and girls was in the average of the grades they most frequently obtain ( $t=4.25$ ;  $df=227$ ;  $p<0,001$ ) – in grades from their native language ( $t=5,14$ ;  $df=227$ ;  $p<0,001$ ) and also in grades from mathematics ( $t=3,00$ ;  $df=227$ ;  $p=0,003$ ) – where girls achieved a lower average (it means better grades) in all the mentioned areas. As it also follows from the results,

what adolescents feel about the importance of their achieved results is that their parents are more concerned about them getting good results than they are ( $t=84.76$ ;  $df=228$ ;  $p<0,001$ ). No statistically significant difference in gender was observed in the presented sample in the importance of achieved results.

The level of self-regulation could be reflected in the way of leisure. Adolescents daily spend the most time on using the internet, and the activities that follow are sports, watching TV, and hanging out outside or at home without the presence of adults. In terms of gender differences, we used the t- test for independent averages to observe those activities where we had found statistically significant differences at the 1% level of significance. Girls from the surveyed group stated that they spend more time on reading, looking after siblings, doing homework and sports. In contrast, boys spend considerably more time on playing computer games. We also compared the average number of interest groups, which respondents attend, and we found another statistically significant difference – girls stated a greater number of interest groups and hobbies ( $t=-4.274$ ;  $sv=227$ ;  $p<0.001$ ). Most of the respondents stated to be a member of 0 – 3 interest groups ( $M = 1.55$ ;  $Sd=1.41$ ).

### *3.2. Self-regulation mechanisms in the social field*

We assumed that the increased level of self-regulation in the social sphere is reflected in the preferences of certain self-regulatory mechanisms. In the social field, the most frequently applied strategy in the surveyed sample was Optimisation and the average score in this item differed from the following Compensation score at the level of significance  $p < 0,001$  ( $t=5,39$ ;  $df=226$ ). The third most frequently applied strategy was Elective selection, which also considerably differed from compensation at the level of significance  $p<0,001$  ( $t=4.14$ ;  $df=226$ ). The items of Loss-based selection reached the lowest average, and it also differed considerably from Elective selection at the level of significance  $p<0,001$  ( $t=8.83$ ;  $df=227$ ).

#### *3.2.1. Gender differences in self-regulation mechanisms in the social field*

In terms of the social field the procedure, t-test for independent samples, was used to show statistically significant gender differences on more than one scale as shown at Table 1.

**Table 1.** Gender differences in self-regulation mechanisms in the social field (N=228)

Social SOC	Gender	N	Average	sd	t	sv	P
Elective selection	Boys	106	5,11	1,10	-0,09	226	0,932
	Girls	122	5,12	1,13			

Optimisation	Boys	107	5,40	0,88	-3,37	227	0,001
	Girls	122	5,77	0,78			
Compensation	Boys	106	5,23	0,74	-2,97	225	0,003
	Girls	121	5,53	0,76			
Loss-based selection	Boys	107	4,40	1,11	2,72	227	0,007
	Girls	122	4,02	1,03			
Total score	Boys	106	5,14	0,56	-1,68	225	0,094
	Girls	121	5,27	0,60			

Girls reached higher average scores in Optimisation ( $t=3.37$ ;  $sv=227$ ) and Compensation ( $t=2.97$ ;  $sv=225$ ), both at the 1% level of significance. Boys scored higher on the Loss-based selection scale ( $t=2.27$ ;  $sv=227$ ), also at the 1% level of significance.

### 3.3. Coping strategy

The highest average score was identified in the factors of Active strategy and Strategy of avoiding, where the values were almost identical. They were followed by Distracting actions with the average score statistically significantly different at the level  $p<0.001$  ( $t=9.56$ ;  $df=225$ ), and the lowest average score was found in Support seeking strategies. Support seeking also differed from diversionary strategies at the 1% level of significance  $p<0.001$  ( $t=8.43$ ;  $df=225$ ). Active strategies of coping were revealed to have the closest relationship to the factor of Support seeking, which to a certain extent also requires one's own activity.

#### 3.3.1. Gender differences in coping

According to the t-test for independent samples, girls use Support seeking as a coping strategy statistically significant more frequently ( $t=3.22$ ;  $sv=224$ ;  $p=0.001$ ). Their tendency to react to stress by Avoiding is right below 5% level of significance ( $p=0.066$ ).

**Table 2.** Gender differences in the choice of coping strategies (N=226)

Coping strategy	Gender	N	Average	sd	t	sv	P
Active strategies	Boys	104	2.61	0.49	0.15	224	0.881
	Girls	122	2.60	0.44			
Support seeking	Boys	104	1.72	0.46	-3.22	224	0.001
	Girls	122	1.94	0.55			
Diversionary strategies	Boys	104	2.15	0.49	-1.21	224	0.227
	Girls	122	2.23	0.50			

Avoiding	Boys	104	2.52	0.54	-1.85	224	0.066
	Girls	122	2.65	0.51			

Girls' frequent tendency to react to stress by Avoiding is right below 5% level of significance ( $p=0.066$ ).

### 3.4. The relationship of the level of self-regulation mechanisms in the social field and the choice of coping strategies

We have verified closeness of these relationships by Pearson's correlation coefficient, and the statistically significant relationships were proved to be in Active strategies of coping and Support seeking – also these results differed in terms of gender.

**Table 3.** Correlations between social self-regulation and strategies of coping (N=224)

Social self-regulation mechanisms					
Coping strategy	Elective selection	Optimization	Compensation	Loss-based selection	Total score
Active strategies	.279**	.408**	.326**	.087	.416**
Support seeking	.222**	.259**	.257**	.049	.332**
Diversionsary strategies	.180**	.134*	.097	-.003	.138*
Strategies of avoiding	-.014	-.141*	.070	-.105	.061

Notes: \*\* 1% level of significance; \* 5% level of significance

The above stated strategies of coping correlated at the 1% level of significance with all the components of social self-regulation, except for Loss-based selection. Distracting strategies correlated at the 1% level of significance with Elective selection and at the 5% level of significance with Optimisation, similarly to Avoidance strategies.

**Table 4.** Correlation between social self-regulation and the strategy of social support (gender)

Social self-regulation mechanisms					
Support seeking strategy	Elective selection	Optimization	Compensation	Loss-based selection	Total score
Boys (N=103)	.056	.103	.049	.225*	.167
Girls (N=121)	.296**	.325**	.333*	.049	.393**

Notes: \*\* 1% level of significance; \* 5% level of significance

The Support seeking strategy in girls correlated in a statistically significant way with all the self- regulation strategies, except for Loss-based selection; however, in boys, this strategy of coping correlated at the 5% level of significance with Loss-based selection.

### 3.5. Parental educational styles

In terms of applied parental styles, we have found several interesting connections. In the surveyed group, we have identified three most frequent parental styles: 1. the overall average score of both the mother and the father in the parental style was high, 2. the mother had a considerably higher overall score than the father, 3. both the mother and the father had a low overall score. These parental educational styles, when compared with the applied coping strategies of adolescents (ANOVA), brought a significant result – the group of respondents with low average scores in the Parents Perception Scale also had statistically significantly lower score in two fundamental coping strategies: Active strategies of coping COP\_ACT ( $p < 0.001$ ) and Support searching strategies COP\_SUP ( $p < 0.001$ ). Some interesting differences were also identified in the area of social self- regulation.

**Table 5.** Correlation between Perception of Parents Scale and SOC in social field

	Elective selection	Optimization	Compensation	Loss-based selection	SOC_S_total
Involvement in the mother (N=227)	.108	.183**	.186**	.024	.231**
Autonomy support in the mother (N=227)	.111	.156*	.150*	.024	.209**
Warmth in the mother (N=227)	.166*	.227**	.156*	.057	.255**
Involvement in the father (N=224)	.153*	.157*	.233**	-.032	.224
Autonomy support in the father (N=224)	.120	.073	.222**	-.025	.191**
Warmth in the father (N=224)	.108	.161*	.199**	-.005	.193**

Notes: \*\* 1% level of significance; \* 5% level of significance

Autonomy support from the mother correlated at the 5% level of significance with self-regulation strategies of Optimisation and Compensation, and in the father at the 1% level of significance with Compensation. Involvement in the mother correlated again with self-

regulation strategies of Optimisation and Compensation, this time at the 1% level of significance; in the father it correlated at the 5% level of significance with Elective selection and Optimisation, and at the 1% level of significance with Compensation. Warmth in the mother correlated at the 5% level of significance with Elective selection and Compensation, and at the 1% level of significance with Optimisation. In the father, it correlated only with Optimisation (at the 5% level of significance) and with Compensation at the 1% level of significance.

### *3.6. Other significant results*

Spearman's coefficient of rank-order correlation of individual free-time activities with self-regulation mechanisms in the social field revealed a negative relation at the 1% level of significance between the time spend on playing computer games and Optimisation in the social field ( $r = -0.245$ ;  $N=227$ ). It follows that the respondents who spend a great amount of time playing computer games (this activity was considerably more frequent in boys) are less inclined to search for and start new friendships and maintain the current ones. Also, there has been a significant positive relation at the 1% level of significance between the time spend hanging out outside in the place of residence and the overall SOC score in the social field in girls ( $r = 0.261$ ;  $N=122$ ). So, it is the opposite tendency, and the girls in this surveyed group who spend a lot of time outside in their place of residence tend to attach higher importance to friendship.

## **4. Discussion**

Adolescence is a key period for the development of deliberate self-regulation, in which a gradual internal differentiation of SOC mechanisms is expected to take place (Gestsdóttir & Lerner, 2007; 2008). The current research precondition that at the beginning of early adolescence, deliberate self-regulation is still formed by only one factor (Gestsdóttir & Lerner, 2007; Zimmerman et al., 2008). Apart from the single-factor model of self-regulation, the data already sufficiently reflected also the three-part model of self-regulation at the beginning of middle adolescence (Gestsdóttir et al., 2009), but individual SOC mechanisms were still in a very close relationship. The highest correlations between the factors of optimisation and compensation then prevail also in the following developmental stages (Geldhof et al., 2014). Considering the parameters of the surveyed group, the results of the presented research cannot reflect the developmental trend of internal differentiation of individual SOC mechanisms, but they confirm a close relationship between optimisation and compensation in the social field ( $r = 0.66$ ;  $p < 0.01$ ), where adolescents reached the highest average scores. In the social field,

adolescents used Optimisation ( $M = 5.60$ ;  $sd = 0.85$ ) more than Compensation ( $M = 5.39$ ;  $sd = 0.77$ ) and the least applied strategy was loss-based selection ( $M = 4.20$ ;  $sd = 1.08$ ). The overall frequent tendency to optimise and compensate connected with mobilisation of sources and efforts for reaching goals, as opposed to their selection and considering their importance, again gives evidence about the situation conditioned by development and thus proves that the goals of adolescents are only partially structured by external influences and adults, and the mechanisms of their own selection are still being shaped (Moilanen, 2007). In terms of self-regulation mechanisms in the social field, girls reached statistically significantly higher scores in optimisation and compensation mechanisms, while boys scored higher on the Elective selection scale. This shows that girls tend to invest a greater amount of sources and efforts into maintaining and safeguarding friendship. In case of fundamental obstacles to maintaining a friendship, boys attempt to re-evaluate its importance and possibly replace it with a new one.

Extensive changes in the fields of physical, psychical and social context of one's own development, to which adolescents need to adapt, can be regarded as exceptionally burdensome, and along with other factors, this can impose high requirements on the effective use of coping strategies. Our goal was to broaden the view on coping in difficult stressful situations in the period of early and middle adolescence by including its connections with deliberate self-regulation based on SOC model mechanisms. The strategies most frequently used by the adolescents in our research group were active strategies of coping and strategies of avoiding; less frequently the diversionary strategies and the least frequently the support seeking strategy, which was significantly more frequent in girls – that is a gender difference that is relatively often verified (Gröer et al., 1992; Frydenberg & Lewis, 2000).

The theoretical grounds for coping and self-regulation mechanisms overlap in many respects (Aldwin et al., 2011; Haase et al., 2012). Some authors who are trying to bring an integrative view also state that it is possible to understand coping as self-regulation in difficult situations (Compas et al., 2001). You can also see a similarity in overlapping of deliberately controlled and subconscious component of coping and also deliberate self-regulation (Skinner & Zimmer-Gembeck, 2007; Gestsdottir & Lerner, 2008). An important reaction between deliberate self-regulation and strategies of coping was partially confirmed also by the presented pilot study. In the field of social SOC, active strategies of coping correlated with all the self-regulation mechanisms, except for loss-based selection. The same situation was with support seeking strategies, where all relations with social SOC self-regulation mechanisms were significant only in girls. On the whole, we can say that correlation between the factor of the active strategies of coping and the components of SOC in the social field imply that already at this age adolescents with a higher level of SOC mechanisms start to take responsibility for

their own behaviour, set their own goals, try to overcome obstacles to achieving these goals and plan in more detail. Also their strategies of coping are then based on purposeful effort to cope with stress in an active way.

This result can influence a whole cascade of positive influences on the development of adolescents, e.g. boost competence to solve problems and support greater engagement in establishing and maintaining quality relationships. From this perspective, it can be said that in certain respects the confirmed relationship between active strategies of coping and SOC mechanisms corresponds to the relation with positive development of adolescents confirmed in the “4H Study of PYD” in the USA (Gestsdóttir & Lerner, 2007; Gestsdottir et al., 2009; Bowers et al., 2011; Lerner et al., 2011; Napolitano et al., 2011; Schmid et al., 2011).

What we also find significant in this context is exploring possible connections between the impact of parental styles and the development of coping strategies and self-regulation skills. In terms of the surveyed group, we have identified three most frequently applied parental styles: 1. the overall scores of both the father and the mother were high, 2. the mother had a considerably higher overall score than the father, 3. both the mother and the father had an overall low score; these differences according to the parental education, when compared with applied coping strategies, brought an interesting result – the group of respondents with low overall scores on the Parent Perception Scale also had statistically significantly lower score in two fundamental coping strategies, Active strategy of coping and Support seeking strategy, which could imply a close relationship with the impact of applied parental styles on an appropriate development of desirable coping strategies. A positive relationship with parents clearly provides a certain form of social support and so it enhances psychological resources of adolescents for coping in stressful situations, which is in accordance with the conclusions of studies carried out in this area (Wolfradt, Hempel, & Miles, 2003). This conclusion is also supported by Nikkerud & Frydenberg (2011).

The results we gained in our study also illustrate that adolescents probably adopt various self-regulation mechanisms from their parents, and it happens according to the applied educational style or according to prevalence of its individual components (Autonomy support, Involvement and Warmth). Those children who have a rather positive relationship with their parents (they perceive their parents involvement, their warmth, support, clear advice and they have space for independent 2024 decision-making) tend to use self-regulation mechanisms more actively, which is in accordance with the findings of Zimmer-Gembeck & Lock (2007). Other authors (Bowers et al., 2011; Napolitano et al., 2011; Moilanen et al., 2014, Farley & Kim-Spoon, 2014; Rasmussen, & Padilla- Walker, 2014 et al.) also draw attention to the

significant impact of parental educational style on the development of self-regulation in early adolescence.

A number of research studies confirm that the level of self-regulation strategies can predicate a positive development of adolescents and it can also be reflected in the quality of social relationships (Farley & Kim-Spoon, 2014). That is why we see a great potential in creating preventive programmes aimed at supporting the development of self-regulation and adaptive strategies of coping. Similar efforts have already brought promising results (Kadhiravan & Kumar, 2012; Matos et al., 2012). The aim of prevention and also possibly intervention in the development of self-regulation strategies therefore should be a responsive guidance of adolescents to independent searching for and setting of their own achievable goals, which at the same time would be a sufficient challenge to them (Carroll et al., 2013). When making effort to support a healthy development of self-regulation mechanisms of adolescent individuals, it could be very appropriate to use research results related to developmental trends of gradual differentiation of individual SOC model mechanisms and thus adapt the preventive or intervention programmes to the level of development of the targeted group of adolescents.

## **5. Conclusion**

The aim of this study was a pilot mapping of the achieved level and the structure of self-regulation mechanisms in the social field in early and middle adolescence, tracing the ways in which adolescents apply strategies of coping and broadening the view of coping in this developmental stage by drawing attention to connections with deliberate self-regulation based on SOC model mechanisms. A sub-goal of the research was to explore the relationship of self-regulation mechanisms and the ways of spending free-time.

The results of the data analysis received from 229 respondents confirmed the main research assumption that individual SOC mechanisms only start to internally differentiate in this period and some of them display rather close interconnected relations. The self-regulation mechanisms, which correlated the most with each other were Optimisation and Compensation. Girls scored higher in these self-regulation mechanisms, while boys we inclined to use Loss-based selection more often. The adolescents included in our research group also used Active strategies of coping in difficult situations and strategies of Avoiding difficult situations the most frequently; Diversionary strategies less frequently, and the least used was the Support Seeking strategy, which was significantly more dominant in girls. On the whole, an important reciprocal relationship between active strategies of coping and self-regulation mechanisms in the social field came to light. As it follows from the results, we can conclude that the development of self-regulation and effective coping strategies has a significant impact on

successful functioning and future positive development of adolescents. The results of the research can be successfully applied in counselling, in pedagogical or school psychology, and last but not least, in the field of clinical psychology.

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