From Resilience to Wellbeing at School among Romanian Students. Examining the Role of Social-Economic Status

Elena COCORADĂ¹,
Anca Daniela FĂRCAȘ²,
Ioana Emanuela ORZEA³

¹ Professor PhD, Transilvania University of Brașov, Brașov, Romania,
elena.cocorada@unitbv.ro

² Lecturer PhD, University of Medicine and Pharmacy Iuliu Hatieganu, Cluj-Napoca, Romania,
ancafarcas@yahoo.com, corresponding author

³ School counsuler PhD, Radu Negru High School, Făgăraș, Romania,
ioana_orzea@yahoo.com

Abstract: Well-being in school is a dimension for overall life satisfaction and quality of life and is important for adolescents who are in a critical period of development and exposed to a variety of risk factors. This paper aims to analyze the relationship between resilience and well-being at school, focused on the role of socioeconomic status, using a quantitative approach. The results show that students who have the achievement motivation and grades significantly higher come from favoured families. These students tend to be more resilient, have a positive orientation towards the future, a better well-being expressed by positive indicators than those students belonging to medium or low-income families. But socio-economically favoured students are less satisfied with school than with underprivileged students. Achievement motivation is an important predictor of well-being at school, both in middle and high schools. In high school students' sample, well-being (positive indicators) significantly explains satisfaction with school. In middle school students' sample, satisfaction with school is explained by resilience and, indirectness, through well-being expressed by negative indicators. Age-differentiated interventions that generate a supportive environment must be implemented for all: for students with low socio-economic status because they are less resilient and with lower overall well-being, but also for socio-economically favoured students, because they are less satisfied with school.

Keywords: *achievement; resilience; secondary school; socio-economic status; wellbeing;*

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1. Introduction

Well-being is a feature of each age, and it is necessary for students to enjoy all human rights (Ben-Arieh, Casas, Frønes & Korbin, 2014). For a long time, education has focused only on academic acquisition and student training to become adults, sacrificing the present for the future. In the last decades, the development of a personality able to overcome adversities, opposing threats and being happy, has been added in defining school success. Adolescents, which are in a critical stage of development, are exposed to a variety of risk factors, are threatened by lower self-esteem, psychological disorders, decreasing life satisfaction (Goldbeck, Schmitz, Besier, Herschbach & Henrich, 2007) or dropping out of school.

The well-being provides a measure of quality of life, and resilience is a resource for it and an indicator for the equity of the education system. Over the years, in Germany, Portugal, Japan, Spain, Poland, Slovenia, and Norway, the number of resilient pupils from socio-economically disadvantaged categories has increased, while in Finland, and Korea, their percentage has fallen. In Romania, the percentage of resilient pupils from socio-economically disadvantaged categories is around five, the variation over the years being insignificant (OECD, 2017).

2. Literature review

2.1. Psychological resilience in adolescence

Psychological resilience is defined as the ability to cope with adversity, to provide protection and improve individuals' ability to deal with potential threats (Hu, Zhang, & Wang et al., 2015; González-Torres & Artuch, 2014; OECD, 2017). Resilience is directly related to achievement, self-regulation (Artuch-Garde et al., 2017), and academic engagement, being an antecedent of student wellbeing (Turner, Scott-Young & Holdsworth, 2017). Trait resilience is negatively correlated to negative indicators of mental health (Hu et al., 2015). Some children may be more resilient in a field (e.g. social relationships) and less resilient in another (e.g. the academic field) (Fergus, & Zimmerman, 2005; Zolkoski, & Bullock, 2012). Especially in high-risk groups and facing with accumulation of academic or psychosocial challenges, depression and emotional distress are associated with a deficiency of resilience (Artuch-Garde, et. al., 2017; Suria, 2016). Moreover, in adult life, this deficiency can have consequences such as the occurrence of burnout syndrome in the workplace, especially when demands

from the professional area and personal capacities are unbalanced for a long time (Năstasă & Farcaș, 2015).

Some studies showed that girls scored higher on resiliency because of higher levels of socio-emotional development and goals for aspirations, empathy, more positive relationships with parents, peers and teachers (Dias & Cadime, 2017, Wasonga, Christman & Kilmer, 2003). Contrary to those, other studies found no gender differences in resilience (Conner & Davidson, 2003). Resilience varies depending on the urban and rural area, socio-economic status, and age of the adolescent (Fergus & Zimmerman, 2005; Zolkoski, & Bullock, 2012). In many educational systems, previous studies indicated that resilience is low among socio-economically disadvantaged students or in negative school climate (OCDE, 2016). Poverty, low education level of parents, and negative experiences can be risk factors for students (Lynch, & Kaplan, 1997).

Resilience is relatively stable, but is influenced by environmental factors, culture and national context (Hu et al., 2015). Asian children are more self-reliant (Lee & Ng, 2008), they have a stronger emphasis on effort and persistence, and highly appreciate education and success comparing with Western children (Li, Martin & Yeung, 2017; Lau & Chan, 2001). According to ecological theories of human development (e.g. Bronfenbrenner, 2005), individual experiences are connected to significant others and are influenced by nested social systems, family, peers groups, and school. Additionally, health-compromising behaviours increase with age (Dick & Ferguson, 2015; WHO, 2014).

2.2. Well-being in adolescence

Psychological well-being is a multidimensional construct (Borgonovi & Pal, 2016), defined as satisfaction, a desirable state of being happy, healthy, or prosperous. It is considered a component of quality of life and is associated with self-esteem, positive and negative emotions, strength of personality, and an optimistic concept of self (Ben-Arieh, et. al., 2014). The scales that evaluate well-being include both positive and negative indicators; the latter indicators were negatively correlated with resilience (Hu, et al., 2015).

The well-being in school is considered as an important dimension for overall life satisfaction. Some studies show that it is related to achievement motivation, dominant behavior and perseverance, and can predict academic performance (Gilman & Huebner, 2006; Soutter, 2011). Social dimension of well-being includes belonging to school, positive relationships with colleagues, teachers, and parents. Mental health is an

important factor of adaptation and development for students and positive emotional state result from the meeting of personal needs and expectations, good impression of themselves (Engels, Aelterman, Van Petegem & Schepens, 2004). An adolescent can have good well-being in a domain and poor well-being in another domain (Ben-Arieh et al., 2014), interaction of social contexts and personal factors influencing them (Tian, Zhao & Huebner, 2015).

The well-being at school is influenced by the reference groups and socio-economic status (Ferrer-i-Carbonell, 2005), but other studies point out that there is no obvious relationship between the well-being of teenagers and the level of economic development in the country of adults, but there are certain cultural differences (OECD, 2017). According to the theory of social and cultural capital (Coleman, 1990) and the expectancy value model (Wang & Eccles, 2012), highly educated parents have higher expectations regarding school outcomes and they provide more resources for their children (Simpkins, Fredricks, & Eccles, 2012). Higher and middle-class parents have cultural resources to navigate the complexities of educational opportunities more effectively than do the working-class parents (Alves et al., 2017).

Satisfaction with school, named too well-being at school, seems to be higher in the older age group and is one of the contextual factors of the students' subjective overall well-being, but the two are not always positively associated (Ratnik & Rüütel, 2017). These cited authors look for predictors of well-being, calculating the regression for middle and high school students: predictors and coefficients are similar, support offered by school is important for both levels. Other studies (Casas, et al., 2012) suggest that school satisfaction is highly related to satisfaction with teachers, school friends and classmates, but is poorly associated with general life satisfaction. In Chinese primary and secondary school, a medium positive correlation between resilience and psychological well-being was obtained. Resilience mediates between psychological well-being and the ability of an individual to consider challenges as opportunities for intellectual growth (Mak, Ng, & Wong, 2011; Zeng, Hou, & Peng, 2016).

3. Method

3.1. Objective and hypotheses

The research aims to analyze the relationship between resilience and well-being for Romanian secondary school students in the urban area, examined from the perspective of the family's socio-economic status. A correlational design was used to achieve the goal. The research hypotheses

are as follows: (1) It is expected that resilience and well-being vary depending on family socioeconomic status (SES) and gender; (2) Total resilience and its components were expected to be significantly associated with well-being and its components; (3) We assume that the resilience, overall well-being, academic results, age, gender and family SES would be predictors of school satisfaction.

3.2. Tools

The Adolescent Resilience Scale, developed by Oshio and his collaborators (2003), contains 21 items with a 5-point Likert scale, from total disagreement (1) to total agreement (5). The items are grouped by the cited authors into three scales: Novelty seeking ($\alpha = .79$), Emotional regulation ($\alpha = .77$) and Positive orientation towards the future ($\alpha = .81$). The whole scale has a very good internal consistency ($\alpha = .85$).

The Well-Being Scale, developed by Birlleson (1980), contains 18 items, some negative (anger, sadness) and other positive (joy). The factorial analysis, performed by us on the investigated sample, identified two factors: (i) Well-being positive indicators (regarding positive social relations, joy, enthusiasm etc. with $\alpha = 0.93$ for 10 items), (ii) Well-being negative indicators (regarding sadness, crying, loneliness, physiological ailment, with $\alpha = .0.89$ for seven items). The first factor explains 70% of the variance, the second – 30%. Both factors correlate significantly with overall well-being ($r = .64$, $p < .05$ and $r = .36$ $p < .05$, respectively). Items are measured on a 4-point Likert-type scale (1 = almost never to 4 = almost always). The item ‘I feel very bored’ was excluded, having a smaller than .3 loading.

Two scales have been extracted from the School Climate Questionnaire - SCQ (Cocoradă, Cazan, & Orzea, 2018): (i) School satisfaction scale (experiencing positive emotions, school belonging) with eight items and alpha Cronbach coefficient (.88) and (ii) Achievement motivation (learning engagement, effort) with alpha Cronbach coefficient .81 and five items. All items are measured in 5-point Likert-type scale (1 = totally untrue to 5 = totally true). Examples of items included in School satisfaction scale: ‘During holidays, I miss everything related to school’, ‘I like school’. Examples of items included in Achievement motivation scale: ‘I would like to be among those successful at school’ and ‘I know that I will use the things I've learned at school in my life’.

Socio-demographic questions were used to collect information about gender, age, school grades in the semester prior to the survey, school level, parents’ education and occupation. All tools were administered in pencil-paper format, during the school day and in the classroom setting,

after the oral informed consent of students and school manager. The informed consent from parents and tutors is obtained by the school counselor. The participation was voluntary and anonymous.

3.3. Participants

The sample comprise 507 students, girls (56.1%) and boys, mean age 16.77 (SD = 1.22). They are enrolled in lower secondary education, grades 7-8 (*aged* between 13 *years* old and 15 *years* old) and in upper secondary education, 9-12 grades (*aged* between 16 *years* old and 19 *years* old). High-school students comprise 59.6% of the sample.

4. Results

All data was analyzed using the SPSS package version 20.0. The results will be presented in the order of hypotheses.

4.1. Characteristics of sample

School grade average is 8.9 (SD = 0.7). In Romanian education system, grades range from 1=lowest to 10=highest and passing threshold is 5. Mother and father studies of the participants are predominantly secondary (54.7% and 59.5% respectively), followed by higher education (41.2% and 36.9% respectively). In both cases, lower secondary studies are poorly represented. Parents' distribution on occupations is as follows: domestic / non-occupation (mother - 16.1%, father - 5.1%); worker, trade worker (mother - 20.2%, father - 28.6%); middle-aged worker (mother - 25.1%, father - 24.4%); functionary/ clerk (mother - 13.8%, father - 14.3%), intellectual occupations (mother - 20.7%, father - 21.7%); and manager / entrepreneur (mother - 3.7%, and father - 6%).

SES is presented as an index, calculated by summing the educational levels of the parents and their occupational level, considered here as continuous. In the first quartile of SES there are 29.2% students, named by us underprivileged/ disfavoured students, and in quartile 4, there are 23.3% of sample students, named by us privileged/ favoured students. Middle SES includes 47.5% of participants.

4.2. Differences connected to SES index categories

There is a wide variation in self-reported levels of resilience, well-being, school satisfaction, and motivation of learning (Table 1). The values for asymmetry and kurtosis, being between -2 and +2, are considered acceptable for a normal distribution (Gravetter, & Wallnau, 2014). In the investigated sample, the following percentages of the participants are placed

in the mean minus one standard deviation category: resilience - 13.2; overall well-being - 15.2; achievement motivation - 17.6; and satisfaction with school - 19.7. The percentage of poorly resilient pupils from socio-economically disadvantaged categories is 3.7. These are the highest vulnerable students.

One way ANOVA for SES index categories, with Games-Howell post hoc comparisons, indicates significant differences only for some variables as follows:

- Positive orientation toward the future (a resilience component) is more pronounced for students in favoured families (sig. <05), as well as total resilience (sig. = .06, a marginal significance).
- Well-being (positive indicators) and overall well-being are higher for students from disadvantaged families and favoured families compared to students from families with medium socioeconomic status (sig. <0.01).
- Achievement motivation is higher at the extremes of the SES, for favoured students (sig. <.05) and for underprivileged students (sig. <.001) compared to students with medium SES.
- Well-being (negative indicators) is significantly better for students from families with medium SES than disadvantaged students and those from favoured students (Sig. <.05).
- Satisfaction with school is significantly higher among pupils in disadvantaged families compared to those from families with medium SES (sig. = .001) and compared to participants with higher SES (favoured students) (sig. = .06, is marginal in this case).

Statistically significant gender-related differences concern the Emotion-regulation ($t = 2.03$, $p < 0.05$, Cohen's $d = .3$), School satisfaction ($t = 1.97$, $p < 0.05$, Cohen's $d = .17$), Achievement motivation ($t = 1.98$, $p < .05$, Cohen's $d = .19$), all higher in girls sample. Effect size is small for Emotion regulation and negligible for other two variables (Cohen, 1988).

4.3. Major correlations

Pearson correlations are calculated for investigated variables. For each, the table 1 shows mean and standard deviation and displays the significant levels.

Table 1. Correlation between investigated variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Index of SES	11.3	3.2	1											
2. Age	16.69	1.1	.10	1										
3. Average of grades	8.9	.70	.30**	.24**	1									
4. Novelty seeking (1)	26.89	4.17	.07	-.08	.30**	1								
5. Emotional regulation (2)	28.10	4.29	.07	-.03	.12**	.18**	1							
6. Positive orientation for future (3)	20.65	3.33	.07	.03	.13**	.32**	.15**	1						
7. Total resilience (1+2+3)	75.67	8.20	.11	-.04	.28**	.74**	.68**	.65*	1					
8. Well- being, positive indicators (1)	27.35	6.13	.16*	.26**	.18**	-.12**	.03	.23*		1				
9. Well- being, negative indicators (2)	15.72	5.03	-.01	-.13*	-.09	.06	.12**	-.04	.08	-.49**	1			
10. Overall well-being (1+2)	43.10	5.71	.14*	.19**	.11*	-.08	.14**	.22*	.12*	.64**	.36*	1		
11. Satisfaction at school	21.03	6.7	-.18**	-.06	.08	.24**	.004	.32*	.27*	.12*	.09	.21*	1	
12. Achievement motivation	17.51	4.30	-.12	-.13*	.20**	.33**	.07	.30*	.34*	.07	.17*	.22*	.63*	1

Note: N=502, ** p< 0.01 level (2-tailed). *p< 0.05 level (2-tailed).

4.4. Variables that explain the satisfaction in school

Three models of hierarchical regression have been estimated, separately for the sample of upper secondary education students and for the sample of lower secondary education students (Table 2).

Table 2. Regression for dependent variable – satisfaction in school

Predictors	Sample of upper secondary school Model 3, $R^2=.47$, $F=33.78$, sig. $<.001$				Sample of lower secondary school Model 3, $R^2=.31$, $F=18.7$, sig. $<.001$			
	Coefficients				Coefficients			
	b	Beta	t	Sig.	b	Beta	t	Sig.
Mean of grades	-.625	-.056	-1.12	.26	-.782	-.101	-1.533	.127
Resilience	.012	.014	.275	.78	.130	.181	2.728	.007
Well-being, negative indicators	.083	.065	1.23	.22	-.211	-.115	1.9	.059
Well-being, positive indicators	.115	.112	2.05	.04	.080	.068	1.114	.267
Achievement motivation	1.08	.655	12.6	.01	.731	.472	7.435	.001

According to our hypothesis and previous studies, in the first model, tested predictors were gender and age, in the second model, we have added grades in previous semester, and in the third model we have added all investigated psychological variables. These are the two subscales of overall well-being, resilience, and achievement motivation. The psychological variables increased strongly R^2 for both samples, but the regression models are different. The best model was the third (Table 2).

5. Discussions

This paper examines the relationships between resilience, well-being and satisfaction with school to secondary school students in the urban area. The focus of the analysis is on the socio-economic status of the family, complemented by the investigation of the role of age, gender school performance, and the achievement motivation.

4.1. The resilience and well-being differ depending on family SES and gender

Students in families with high SES have a more positive orientation towards the future, tend to be more resilient (related to total score) and have

a better general well-being compared to students from families with medium SES. The result confirms other studies (e.g. Ferrer-i-Carbonell, 2005) which show that poverty and education level of parents are associated with a deficiency of resilience in student populations, although the relationship is not universal (OECD, 2017).

The achievement motivation is significantly higher among students from advantaged family compared to those in families with medium SES. The explanation may be provided by Coleman's cultural capital theory: students from socio-economically-favoured families have economic and financial resources, a high cultural capital, set long-term goals and persist in reaching the pre-established plan (Finkelstein, Kubzansky, Capitman, & Goodman, 2007), parental support and high expectations being a key factor in school engagement (Veiga, 2016). Their resilience is increased by protective factors, some aspects of experience and personality, self-esteem and self-efficacy (Artuch-Garde et al., 2017; Edwards, Catling & Parry, 2016; Martin, 2013), optimism, social competence, and sense of autonomy (Zolkoski, & Bullock, 2012).

Students in families with high SES have a low satisfaction at school that can be explained by higher cognitive or cultural expectations that can not be provided by school. Compared with students from advantages family, students with low SES have a higher satisfaction at school. Probably, they have lower expectations, and can activate other needs (Ferrer-i-Carbonell, 2005): they perceive the school environment not as a cognitive learning environment, but as an environment of social affirmation, meeting with friends.

In terms of gender differences, the resilience is higher in female than in males, confirming studies that explain it through higher levels of communication, more positive connections with parents and teachers, empathy, presence of goals for future (Fernández-Zabala et al., 2016; Dias & Cadime, 2017). Additionally, this result has been explained by relationship between school roles and gender roles (Randolph et al., 2008; Samdal, et. al., 1998). Girls report more motivation and satisfaction to school, results supported by other studies (Lam et al., 2012; Salmela-Aro & Upadaya, 2012; Wang, Willett & Eccles, 2011). In our study, the overall well-being is not gender-related, confirming other research (Huebner, 2004).

5.2. Correlated of resilience and well-being

Resilient students have higher overall well-being, satisfaction at school, achievement motivation and grades, as expected, but these features not depend on SES Index, or age. Instead, well-being (positive indicators)

and general well-being are depending on the family SES Index, student age and grades. The PISA 2015 results, obtained on the sample of 15-year-old students, indicate a negative correlation between school and life satisfaction, also recorded on our sample, but it is very weak and insignificant.

Psychological well-being and school performance are not associated in the investigated sample. The link is also variable in others researches: there are countries in which it is direct (Netherlands, Switzerland, Finland) and others where it is indirect (Turkey) (OCDE, 2018).

Students with higher socioeconomic status have higher unsatisfied expectations towards school, but have private routes to compensate for insufficient teaching (Birzea & Furtasiuc). Satisfactions at school increases in resilient students with higher well-being, witches are less likely to engage in much risky behaviour. Students from family with low SES are low motivated in school work. Older students have a better overall wellbeing, explained by good social skills, more efficient coping strategies and self-confidence. Contrary, younger students are struggling to cope with puberty hormonal changes, being less engaged in learning, in accordance with other studies (Fernández-Zabala et al., 2016; Wang & Eccles, 2012).

5.3. Predictors of satisfaction at school

Our hypothesis is partially supported. In both samples, motivation achievement is an important predictor that directly predicts satisfaction at school. School satisfaction can be predicted by overall well-being, but their components are different involved: in the high school sample, well-being (positive indicators as good relationships with peers, joy and involvement in numerous activities) significantly explains satisfaction with school; in the case of middle level, the satisfaction at school is explained by negative indicators of well-being and by resilience. The pubertal period is characterized by biological changes and might intensify negative emotions, hostility, suffering and distress, low capacity to experience pleasure.

In our study, socio-economic status, gender, and age do not explain satisfaction at school in any of the educational levels. Probably, other individual factors or their interactions with different settings are involved in explaining them. Contrary to other studies (Alves et al., 2017; Gilman & Huebner, 2004; Soutter, 2011), in our sample, academic results do not explain the satisfaction at school. These results raise a lot of questions about the extent to which the school meets the needs and expectations of the students, as well about the convergence between the aims of families and those of their children's.

5.4. Research limitations

Although our results confirm many other studies in many cases, they must be viewed with caution. There may be bias due to imbalanced sample concerning age and gender. Regarding resilience and well-being, there may be patterns of responses that reflect more modesty in self-representation or extreme responses. Well-being has a strong subjective component, by definition; their criteria would be based on personal standards and perceptions of (school) experiences. Deficiencies in health (as sadness, crying) or loneliness can be estimated as stigma by some students and their recognition is avoided. Defining the SES Index only by education and occupational level and the absence of others descriptive variables of the family is another limitation of this study. Other variables, such as positive relationships with colleagues, teachers, and parents, or temperamental traits can explain the well-being in school.

6. Conclusions

Well-being is considered as a major objective of the current school, as a component of quality of life, from different perspectives: juridical, humanitarian, pedagogical and psychological. In our research, well-being at school is largely explained by learning motivation in both school levels. Additionally, to high-school sample are involved the positive indicators of well-being, while at puberty students are involved the resilience and negative indicators of well-being. Resilience and positive social relationships must be developed by different strategies of learning, extracurricular activities or by special interventions, health-compromising behaviours increasing with age.

Age-differentiated procedures and resources that generate a supportive environment must be implemented for all. For students with low socio-economic status because they are less motivated, less resilient and with lower life satisfaction, and experience more environmental risk factors. Simultaneous, for students with high socio-economic status because they are less satisfied with school.

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