

EDUCATIONAL RESILIENCE IN AT-RISK STUDENTS

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Abstract: Educational resilience is the ability to succeed in school in spite of adverse conditions such as poverty or health problems. The study of educational resilience of at-risk students has important implications for the educational process and its optimization. Knowing the personality traits and the coping strategies that differentiate educational resilient at-risk students from those who do not succeed in school is a condition for designing and implementing efficient educational interventions. The main objective of this paper is to identify the factors that support educational resilience in at-risk Romanian students. The results have implications for education professionals that are motivated to develop students' educational resilience.

Keywords: educational resilience, students, personality, risk factors.

1. Introduction

The construct of resilience is a widely applied notion in psychology and education sciences and it is defined as a “dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti, & Becker, 2000, p. 543). There are two critical conditions to this notion: the exposure to significant threat or to severe adversity, and the attainment of positive adaptation despite major attacks on the developmental process.

In a more exhaustive point of view, Ungar & Liebenberg (2013) understand resilience as a social ecological construct, defining it as “the capacity of individuals to navigate their ways to resources that sustain well-being”, as well as “the capacity of individuals' physical and social ecologies to provide those resources” (p. 3). Research on resilience has contributed to a better understanding of factors that protect individuals from negative outcomes and it facilitated the design of appropriate prevention and intervention strategies for those facing adversity.

Educational resilience is defined as students' ability to effectively deal with setback, stress or pressure in the academic setting (Martin & Marsh, 2003) and with problems caused by poverty, health, and other social conditions (Waxman, Gray, & Padron, 2003). Educational resilient students sustain a high level of learning motivation and performance despite the presence of stressful conditions and events that place them at risk of failing (Alva & Padilla, 1995). Numerous studies have identified pupils who are academically successful despite their adverse background (Cunningham & Swanson, 2010; Sandoval-Hernandez & Cortes, 2012).

Educational resilience is not a universal feature, but a dynamic characteristic that varies according to the individual's psychological traits, environmental conditions, social circumstances, developmental processes and cultural background. Many studies have explored the risk factors, the individual characteristics or contextual conditions that elevate the probability of a negative academic outcome, such as poverty, racial minority, psychiatric or physical illness, criminal involvement, lack of family support or involvement, behavioral problems, less-qualified or less experienced teachers, lower expectations for academic performance, resource disparities, negative peer pressure etc. (Fraser, 2004; Williams, 2011). By identifying the risk factors that contribute to school failure, educators may be able to develop and implement prevention and intervention measures to promote academic success. Educational policies and practices can be modified in order to address the specific needs of students who are at risk of academic failure.

Research on educational resilience hypothesizes that there are protective factors that facilitate resiliency among at-risk students. A representative model that identifies protective factors was constructed by Casillas in 2008, encompassing: (1) personal factors – self confidence, effort and motivation in education; (2) family factors – emotional support, material/economic support, example (resilience); (3) school factors – emotional support/social recognition, logistic support/administrative management, student-teacher relationship/example; (4) community factors – economic distracters and infrastructure (*apud* Sandoval-Hernandez & Cortes, 2012). According to the author, personal resources are essential for the process of resilience and even if the other factors present favorable conditions, educational resilience would not function without the manifested determination of the individual.

Other personal characteristics that facilitate child resiliency are: social and adaptable temperament, good cognitive abilities, problem solving skills and executive functions, ability to

form and maintain positive peer relationships, effective emotional and behavioral regulation strategies, positive view of self (self-confidence, high self-esteem, self-efficacy), positive outlook on life (hopefulness), faith and a sense of meaning in life, characteristics valued by society and self (talents, sense of humor, attractiveness to others), internal locus of control, personal responsibility and coping ability (Fallon, 2010; O'Dougherty et al., 2013).

There are researchers that underline the importance of environmental protective factors and the individual's interaction with them (Tufiş, 2008; Cunningham & Swanson, 2010). Protective factors that promote positive school outcomes are rooted in environmental interactions among the three systems: family, community, and school (Bronfrenner, 1979). The construct of educational resilience is not viewed as a fixed attribute, but as something that can be promoted by focusing on "adjustable" factors that can impact an individual's success in school (Waxman, Gray, & Padron, 2003). Identifying the factors that promote and sustain educational resilience has important implications for the educational improvement of students who are at risk of academic failure.

The main objective of this study is to investigate personality traits and coping strategies which predict academic performance among at-risk Romanian urban adolescents. Numerous Romanian students face adverse circumstances that endanger their personal, educational and social development. We intend to validate the personal protective factors that are inherent to Romanian students. Knowing the personality traits and coping strategies that support academic success allows education specialists to focus their actions on strengthening and developing them. Identifying the factors that influence school performance is necessary in order to plan and implement effective educational interventions, considering that academic achievement has been proved to be associated with multiple positive outcomes.

2. Method

2.1. Participants

The participants were students studying in five high schools in Bucharest, from different zones of the city and with diverse levels of academic success rate. Participants' selection was based on

grade, age and consent. Approximately 100 teenagers from each institution were initially targeted. Exclusionary criteria included: extensive missing data and diagnosis of current clinical mood disorder. Eighty seven adolescents from the targeted sample did not get the signed informed consent forms from their parents, 39 refused to complete the questionnaires and 45 handed out incomplete forms. Data was collected among a final sample of 329 ninth through twelfth grade urban Romanian adolescents. The final sample of teenagers ranged from the ages of 14 to 19 ($M = 16.1$ years, $SD = .91$) and included 62.6% females and 37.4% males. They experienced on average 2.15 risk factors ($SD = 2.03$).

2.2. Measures

The Stressful Events Scale is a measure adapted from the modified Holmes and Rahe stress scale for non-adults – used to identify the existence of risk factors. It is a 40-item scale that assesses several problematic life aspects: family difficulties (death of a parent, parent working abroad, violent parents etc.), medical issues (chronic disease, disability, long hospitalization etc.), school problems (grade failure, suspension etc.), financial problems (debt, low family income etc.), and friend problems (death of a close friend, becoming involved in gangs, unplanned pregnancy/abortion, drug consumption). Students responded by placing a check next to the event/events that they had experienced at some stage in the past years and felt it difficult to cope with. The scale also included a completion item, where the students could write their stressful experiences that were not formerly mentioned. At-risk students are characterized by the presence of one or more stressful events.

The Educational Resilience Scale is a 6-item uni-dimensional psychometric instrument developed by Martin & Marsh (2006), found to have high internal consistency (Cronbach's Alpha = .89).

The IPIP-NEO-PI scales (International Personality Item Pool representation of the NEO PI-R) (Goldberg, 1999) were developed to assess Big Five personality traits, each trait domain being operationalized in terms of six facet traits: Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness. A selection of the facets was included in the questionnaire: Warmth, Competence, Assertiveness, Feelings, Self-Consciousness, Activity,

Actions, Compliance, Achievement Striving, Excitement-Seeking, Ideas, Self-Discipline, Vulnerability, Positive Emotions, and Deliberation.

The COPE Questionnaire (Carver, Scheier, & Weintraub, 1989) is a 60-item questionnaire designed to measure 15 different coping mechanisms: Planning, Active approach, Deletion of concurrent activities, Positive interpretation and growth, Acceptance, Restraint, Religious approach, Humor, Use of socio-instrumental support, Use of socio-emotional support, Expressing the emotions, Mental disengagement, Behavioral disengagement, Denial and Substance consumption. It was translated, adapted and validated on Romanian population (Craşovan & Sava, 2013) with internal consistency values ranging from .48 to .94 for the initial scales.

2.3. Procedure

The questionnaires were applied in a pen-and-paper form, after acquiring informed consent from the students and their parents. The questionnaires were completed in the classrooms, with permission from the form masters. All participants were informed that the collected personal data was confidential and that they could withdraw from the study at any time.

3. Results

Data was analyzed using SPSS 20. A number of 252 students indicated experimenting at least one risk factor (76.6%) and were included in the at-risk category and 77 students (23.4%) denied experiencing any form of stress, therefore being included in the low-risk category. We verified the existence of a statistically significant difference between the educational resilience of low-risk and high-risk students. Considering the considerable difference in group size, A Mann-Whitney U Test was used, which revealed that the high-risk students (Mdn = 32) have a significantly lower educational resilience score than the low-risk students (Mdn = 34), $U = 7578.5$, $p(\text{two-tailed}) = .004$.

In order to examine the factors that predict at-risk students' educational resilience, the cases with one or more risk factors were selected for further analysis (Tiet, Huizinga & Byrnes, 2010; Terzi, 2013). In the view of identifying the factors that may predict educational resilience, preliminary bivariate Pearson correlations were computed between Educational resilience and all

the assessed personality traits and coping mechanisms. The results revealed that educational resilience is positively associated at a .001 level (two-tailed) with the following personality facets: Friendliness $r(252) = .28$, Self-Efficacy $r(252) = .44$, Assertiveness $r(252) = .22$, Self-Consciousness $r(252) = -.36$, Achievement-Striving $r(252) = .27$, Intellect $r(252) = .28$, Self-Discipline $r(252) = .38$, Vulnerability $r(252) = -.48$, Cheerfulness $r(252) = .30$, Cautiousness $r(252) = .16$, and coping mechanisms: Positive reinterpretation and growth $r(250) = .34$, Expression of feelings $r(250) = -.26$, Active approach $r(250) = .27$, Behavioral disengagement $r(250) = -.26$, Planning $r(250) = .20$.

In the view of determining the personality traits that predict educational resilience, several linear regression models were computed. The necessary assumptions for distributions normality, multicollinearity and outliers were established. The best model is presented in Table 1, and the personality factors identified explain 29.9% of the educational resilience variance. It should be noted that the trait Vulnerability has a negative influence on educational resilience, which is consistent with previous research.

Table 1 Standard linear regression analysis: Predicted influence of personality facets on educational resilience

Predictors	β	Sig.	F	R	ΔR^2	Adjusted R ²	SE
Cheerfulness	.220	.000	36.65	.554	.307	.299	5.75
Vulnerability	-.371	.000					
Self-Discipline	.168	.005					

$p < .01$

Next, standard linear regression models were conducted in order to identify the coping mechanisms that predict students' educational resilience. The best model is presented in Table 2 and it explains 24.8% of the educational resilience variance.

Table 2 Standard linear regression analysis: Predicted influence of personality facets on educational resilience

Predictors	β	Sig.	F	R	Δ R ²	Adjusted R ²	SE
Positive reinterpretation and growth	.662	.002	18.39	.48	.23	.218	6.07
Active approach	.610	.003		1	1		
Behavioral disengagement	-.387	.015					
Expression of feelings	-.618	.000					

p < .01

As it can be observed, Positive reinterpretation and growth and Active approach have a positive effect on the educational resilience variance, while Behavioral disengagement and Expression of feelings have a negative effect.

4. Discussions

The purpose of this study was to identify the personality traits and the coping mechanisms that predict educational resilience in at-risk students. Educational resilient students manage to achieve academically despite adverse life circumstances and knowing the personal factors that support their educational success may be very useful to education specialists in order to design and implement efficient intervention programs.

The results of this study present several important implications for education professionals that research the educational resilience of at-risk Romanian students, and for those working with vulnerable students. While some personal protective factors that were mentioned in the literature as predictive of educational resilience were confirmed by our results, others were not found to have a significant effect. Only three personality traits and four coping mechanisms proved to have a statistically predictive effect on the variance of educational resilience.

The personality trait with the most predictive effect is Vulnerability, which is consistent with the previous research. Being described as a general susceptibility to stress, Vulnerability has a negative influence on the ability to positively adapt. The personality trait Cheerfulness, described as the tendency to experience positive emotions, was also found to significantly predict educational resilience. The predictive power of the personality trait Self-Discipline was lower, but it proved to be statistically significant. It should be noted that, in this study of at-risk Romanian students, personality traits as Achievement-Striving, Self-Efficacy or Openness to Intellect did not have a statistically significant effect on their educational resilience. That may suggest that the school success of Romanian at-risk students is influenced by different personal characteristics that need to be further investigated.

The coping mechanisms that have a statistically significant predictive effect on Romanian students' educational resilience are: Positive reinterpretation and growth, Active approach, Behavioral disengagement and Expression of feelings, with a negative influence from the last two. Positive reinterpretation and growth is a type of emotion-focused coping, aimed at managing distress emotions rather than at dealing with the stressor per se. Active approach refers to the process of taking active steps to try to remove or circumvent the stressor or to ameliorate its effects. Behavioral disengagement means reducing one's effort to deal with the stressor and even giving up the attempt to attain goals with which the stressor is interfering. The expression of feelings means focusing on, and venting, emotions, the tendency to focus on whatever distress one is experiencing, and to ventilate those feelings. Such a response may sometimes be functional, but it also may impede adjustment (Carver, Scheier & Weintraub, 1989). These results provide important information about the strategies that educational resilient students use in order to positively adapt to the encountered adversities.

An interesting result is the fact that Expression of feelings has a negative influence on educational resilience. It indicates that Romanian students that succeed academically do not communicate or manifest their negative emotions, but rather focus on understanding their problems and resolving them. These coping mechanisms ought to be taught and developed in vulnerable students.

These findings are to be considered in light of their limitations. To begin with, the measure of the stressful events that the students experienced is based on previously identified adverse events, so it is possible to be incomplete. A wider range of stressful events might have been acquired if requested from the participants. In addition, The Stressful Events Scale is a self-report assessment instrument, which may involve reporting biases. Some of the students may not have reported shameful or very stressful events. Also, the study was cross-sectional and consequently no clear temporal order of predictors and outcomes can be concluded. Furthermore, the age of the participants to the study does not allow a generalization of the results to all students, but only to adolescents. The geographical validity of the findings is also reduced, considering the results are based on a sample of youth restricted to the city of Bucharest. Consequently, further research is needed in order to verify the replication of these results.

Important implications for educational research and practice may be drawn from this study. Educators who work with at-risk students ought to base their interventions on scientific results and recent data that characterize the student's educational needs. Understanding the factors that predict educational resilience is very important in the process of improving at-risk students' school success.

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