Factors of school achievement in Romanian children and youth with a migration background

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Abstract: The study explores the role of gender, history of family migration and students'perceptions of their classroom environment in predicting the level of overall school achievement. Based on a specific literature review, we propose a set of hierarchal multiple regression analyses considering the three factors, by using data obtained from a sample of 174 Romanian students coming from migrant and non-migrant families. Results indicate the model considering the interaction of the three factors as the most powerful in explaining variations of overall school achievement. These findings are in line with previous work on students with a migration background, but also contradict some recent contributions searching for effects of family migration on Romanian students left behind.

Key words: School Achievement, Gender, Family Migration, Classroom Environment

THEORETICAL FRAMEWORK

The present contribution relies on two relevant lines of reflection: firstly, there is an increasing scientific interest and a growing body of research on effects of parental and/or family migration on education-related variables; secondly, a number of psychosocial variables (among which classroom environment) are explored in relation with students' school achievement, and studies resulted in promising findings for educators and policy-makers. Studies combining both approaches are rarely available, and therefore, we review independently sets of studies focusing either on effects exerted by parental or family migration on school-aged children, or on potential connections between classroom environment and school performance. Obviously, there is virtually no theoretical model which includes all factors of school achievement, regardless the group of students targeted. Factors chosen for the present study – gender, migration history of the family and classroom environment – try to cover individual, family and school facets, in an attempt to consider the complex determination of school performance.

According to EUROSTAT statistics [3], the total volume of migration in European Union increased with twelve percent in the last decade, with an absolute peak in 2007. Almost a half of the total numbers of migrants coming from EU member countries hold Romanian, Polish and Bulgarian citizenship. Romanian sociological analyses published in the last decades confirmed this situation: Romanian migration constantly grew, but new patterns of mobility are embraced lately [14; 15]. A large proportion of current Romanian migration envisaged in recent studies may be considered circular, as individuals experience high mobility, frequently return to the country of origin and continue to support their family members left behind [15].

Available research about effects of parental or family migration on children and their education mainly refer to Romanian students left behind, but approaches vaguely address explicit educational outcomes, as the level of school achievement. Diverse effects of parental migration are reported for children left behind, ranging from self-esteem, anxiety and depression, behavioural disturbances to improvement of daily life and access to resources through family remittances.

Several psychological reports [13; 16] outline high levels of depression among children left behind by migrant parents, and a tendency to internalize their psychological problems, which may lead to increased risks in terms of psychological health. However, besides larger incidence of depressive thoughts, studies indicate that higher parental support (even through remote communication strategies) has beneficial impact on students' academic achievement, and improved parental monitoring reduces children's behavioural problems. Researchers emphasize that students with migrant parents do not necessarily have high educational risks and public concerns about this issue are not entirely justified.

Romanian research reports suggest that school achievement among Romanian children left behind by their migrant parents *tend* to be reduced [18], but they seem to value education, under the pressure of their families. Migrant parents are more aware about the importance of education and acknowledge their children's need for independence and increased access to resources [1]. Parents' absence due to temporary or circular migration is not a direct risk factor for school achievement among their children, and students with a low socio-economical family background experience similar educational difficulties [8].

Although debates about causal nature of relations between school and classroom environment, and school performance are still open in the scientific community, available research suggests significant connections. Thus, studies conducted by Goh and Fraser [5; 6] indicated strong relations between students' perceptions of their elementary level classrooms, achievement in several school-subjects, attitudes towards school and schooling and self-esteem. Similarly, Kim and Kim [9] reported views of classroom related variables as important determinants of attitudes towards science subjects among middle and high-school students.

More recently, Wang and Holcombe [19] conducted a short-term longitudinal research on a representative sample of American middle-school students, and concluded that dimensions of school environment contributes to school engagement in later schooling, thus influencing directly and indirectly school achievement.

In a study on Turkish middle and high school students Telli et al. [17] revealed that high-school students (especially 9th and 10th graders) have more favourable perceptions of learning environment in biology classrooms, while girls perceive more positively equity by contrast with boys having similar perceptions of involvement. Overall, girls have more favorable perceptions of classroom environment. In an earlier study conducted on secondary school students, Lim [10] suggested similar effects of gender on perceptions of classroom environment.

Our study attempts to cover the gap between the two research trends reviewed in the previous paragraphs: effects of parental or family migration and, respectively, classroom environment on school achievement. It also takes into account gender, as an important variable in explaining different levels of school performance in today's classrooms.

OBJECTIVE AND HYPOTHESIS OF THE PRESENT STUDY

The present study investigated the degree in which some factors, namely gender, history of parental/family migration and perceptions of classroom environment explain differences in terms of school achievement among high-school students. Specifically, it was hypothesized that students' negative perceptions of their classroom environment account for lower levels of school achievement, especially if gender and family migration background are considered.

METHOD

Participants. The sample of this study included 174 Romanian high-school students, aged between 15 and 18 years, 9th to 11th graders. Forty-five of them are boys and one hundred twenty-nine are girls. In terms of migration history of their families, the sample is balanced: 82 come from families with no migration background, while 92 have at least one (circular) migrant parent.

Measures. Participants' perceptions of classroom environment were measured with an adapted version of the questionnaire *What is happening in this class*? [4], which consists in eight subscales: *student cohesiveness, teacher support, involvement, autonomy, investigation, task orientation, cooperation* and e*quity*. Each scale includes ten Lickert-scale items, and a composite mean score has been used within this study as an indicator of students' perceptions of their classroom environment. Higher composite scores indicate more positive views of classroom environment. Reliability levels for the subscales of the Romanian version have satisfactory values, ranging between .83 and .93.

Procedure. The questionnaires were self-administered in collective sessions, under the supervision of classroom teachers, and biographical information have been obtained at the same time. Overall school achievement was collected from school records, at the end of the second semester. Overall school grades in Romanian educational system may vary between 1 (poor) to 10 (outstanding).

RESULTS

Summary statistics and correlation for the continuous variables included in the study (perceptions of classroom environment and overall school achievement) are presented in Table 1 bellow. The value of the correlation coefficient indicates a significant, positive, but medium relationship between the two variables.

Table 1. Correlation, means and standard deviations for the two continuous variables

	1	2
1. Classroom environment		
2. School achievement	.31**	
Mean	34.09	8.03
SD	6.31	.73

N= 174; **p<.01

Girls (M=8.70; SD= .70) obtained significantly higher *overall school grades* than boys (M= 7.61; SD= .70), as demonstrated by the value of independent t test, t(172)= 4.26, p= .00. Similarly, students with at least one migrant parent have significantly lower *overall school grades* (M= 7.90; SD= .74) than students from non-migrant families (M= 8.16; SD= .70), t(172)= -2.34, p< .05.

Series of regression analyses were performed in order to test our research hypothesis: gender, migration history of the family and composite scores for perceptions of classroom environment have been consecutively added as predictors of school achievement, and thus, three regression models have been obtained (see results in Table 2). Gender and migration history are both dichotomous and were treated as dummy variables.

All regression models resulted from our analysis are significant, but the model which includes both gender and migration history of the family, as well as composite scores for perceptions of school environment accounts for 18% of the variations of the overall school achievement. However, the inclusion of the variable *migration history of the family* in model 2 and model 3 does not result in better explaining differences among participants in terms of overall school achievement.

Table 2. Hierarchical Multiple Regression Analysis

Regression models	Overall school achievement	
	B	**$\triangle R^2$**
Model 1		
Gender	-.31**	.09
	R^2= .09, $F_{1, 173}$= 18.22**	
Model 2		
Gender	-.28**	
Migration history of the family	-.07	.09
	R^2= .10, $F_{2, 173}$= 9.62**	
Model 3		
Gender	-.26**	
Migration history of the family	-.10	
Classroom environment/Composite score	.31**	.18
	R^2= .20, $F_{2, 173}$= 14.39**	

N= 174; **p<.01, *p<.05

DISCUSSION AND CONCLUSIONS

The study reported in this paper tested the hypothesis that gender, parental migration and perceptions of classroom environment account for differences in students' school achievement.

Although all three regression models significantly explain the dependent variable, the history of family migration is a rather poor predictor of potential variations in school performances. These findings are in line with current Romanian research suggesting that the absence of one or both migrant parents is not a very influential risk factor if levels of school achievements are considered [8, 16], but contradicts with other studies [1; 18], revealing considerably reduced educational performances among children left behind by migrant parents.

By contrast, gender and perceptions of classroom environment are proven to be significant predictors of school achievement, as various previous studies also reported [17; 10; 5; 6; 9]. However, the mechanisms through which these variables affect students' academic performances are still to be depicted in future work. Perceptions of classrooms environment may be just a moderator variable interposed in between gender and school achievement. Although gender issues and the largely discussed gender gap are highly controversial, generally, adolescent girls outperform adolescent boys if overall school grades are considered [2; 20]. Educational statistics performed in the last decade on national samples indicated that females outperform males at all levels of the school system, and obtain higher post-compulsory qualifications, including university and post-university degrees [12]. The gender gap is reversed (*i.e.*, males outperform females and achieve better) in sciences, especially mathematics, physics and chemistry [11; 7].

We argue that more in-depth investigations would be needed in order to gain additional insights about educational outcomes of students with a family migration background and larger samples should be involved in data collection. The present study has some limitations which constrain to cautious interpretation of research data: information have been collected from a convenience sample, which included mainly students with a low socio-economic status, enrolled in vocational high-schools. Therefore, the lack of variations in this respect does not allow more analyses on differences between various groups of students represented in classrooms. Additionally, the level of educational performance was operationalized in terms of overall school grades, which may also affect research findings; overall school grades in Romanian educational system represent mean scores of overall grades for subject-matters, but some school-subjects (as language and sciences) may be more relevant for research on school achievement.

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