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## Social connectedness, life satisfaction and school engagement: moderating role of ethnic minority status on resilience processes of Roma youth

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### ABSTRACT

We examined the influence of connectedness on school engagement and life satisfaction among Roma ( $n = 121$ ) and Bulgarian ( $n = 143$ ) mainstream adolescents (mean age 15.89,  $SD = 1.18$ ). A set of measures on family, peer, school and neighbourhood connectedness were administered alongside life satisfaction and school engagement scales. Multigroup path analysis indicated that while the relationship between connectedness, life satisfaction and school engagement was largely the same across groups, the strength of such relationship differed among groups. A closer inspection of the model indicated that when it comes to school engagement, there was a salient difference in the role of different forms of connectedness between Roma and mainstream adolescents. For Roma adolescents, familial connectedness was especially salient for school engagement. The practical and theoretical implications of our findings for strengths and adaptive processes among Roma adolescents in Bulgaria are discussed.

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**KEYWORDS** Connectedness; resilience; school engagement; Roma; Bulgaria

### Introduction

The Roma population is the most vulnerable minority group in Europe (Csepeli & Simon, 2004). Due to historical and current socio-cultural contexts, they experience discrimination and exclusion which has contributed to them being at the margins of economic, political and social ladders of society (Kostadinova, 2011). Consequently Roma youth are at an elevated risk of experiencing various negative life outcomes such as mental health problem, drug dependence, and school

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 Supplemental data for this article can be accessed [here](#).

dropout among others (Falcon, Garcia, & Berrio, 2014; Gerevich, Bácskai, Czobor, & Szabó, 2010) although this observations has not been consistently reported (Kolarcik, Geckova, Reijneveld, & van Dijk, 2014). Despite this highly visible risk not all Roma youth perform poorly in life. Coming from a resilience and positive youth development frameworks (Masten, 2014), we are interested in examining factors that may contribute to 'optimal adjustment and functioning' among Roma youth. Specifically, we are interested in the construct of connectedness. Connectedness has been observed to promote resilience in adolescents and has been associated with positive mental, physical, psychological and educational outcomes (Abubakar, van de Vijver, Mazrui, Murugami, & Arasa, 2014; Dang, 2014; Jose & Lim, 2014). Among adolescents from highly marginalized community such as Roma, connectedness may be a salient source of resilience since it moderates the impact of exposure to adverse conditions. Nevertheless, elucidating the processes that foster engagement and adaptation among Roma youth is an area that has received insufficient attention. In the next sections of this article we are going to first, describe our conceptualization of resilience, then look at the risk factor according to this study (i.e., the Roma context) before discussing the evidence pointing to connectedness as a potentially powerful protective factor. The introduction will end with a presentation of our study hypotheses and predictions.

Resilience has been variously defined in the literature. For instance, Ungar and Liebenberg (2011) state that in the face of adversity, resilience is an individuals' ability to navigate their way to psychological, social, cultural, and physical resources as to sustain their well-being and to negotiate for these resources to be provided and experienced in culturally meaningful ways. Masten (2011) defines resilience as 'the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development'. She goes ahead to explain that in psychology, resilience in individuals is always examined with the intent to understand the process that may explain individual differences in functioning even when people face similar levels of threat. Fletcher and Sarkar (2013) note that although there are many different ways in which resilience is conceptualized and defined, the shared common trend is the existence of two key issues; risk or adversity, and positive adaptation. Risk/adversity can be conceptualized and measured at both individual and group level. At a group level, one can be considered to be high risk if membership to a group such as a racial, or ethnic group implies that this person is exposed to more adverse and disadvantages compared to peers who are not members of the group. So here the ethnic group membership is used as a proxy measure for a myriad of social and economic disadvantage that a large proportion of members of that ethnic group face. In line with kind of thinking, in this article, *adversity/risk* is assumed to be membership to an ethnic group that faces chronic and severe hardships. Since youth of Roma background are exposed to significant difficulties including marginalization, discrimination, low parental education

and chronic poverty, they are a population at high risk of experiencing poor outcome (Erjavec, 2001; Lee et al., 2014; Maeso, 2015). Positive adaptation is a multidimensional construct with three main domains, socio-cultural, psychological and school adjustment. In the context of this study, positive adaptation is defined by a high level of life satisfaction and being actively engaged in school. These two variables capture aspects of psychological and school adaptations, two aspects of adaptation that are salient both for short-term and long-term functioning of these adolescents. Therefore, we perceive Roma adolescents who report high levels of life satisfaction and school engagement as being resilient.

Various personal, environmental and socio-cultural factors contribute to resilience by buffering against negative effects of potential risk factors. Protective factors are either personal attributes or socioecological resources that lessen the impact of adverse personal situation. We were interested in one such potentially powerful construct, i.e., social connectedness. According to Karcher (2005) 'connectedness reflects youths' activity with and affection for the people, places, and activities within their life (e.g., school, family, and friends)' (p. 66). Ecological connectedness is a salient aspect of adolescent connectedness (Karcher, Holcomb, & Zambrano, 2008). The ecology of adolescent connectedness involves all important micro, macro and mesosystems that the adolescent experiences (Karcher, 2011). The micro-system is made up of salient relationships such as parents, siblings, teachers and peers, whereas the macro-system is made up of institutions in the youth's life that he or she experiences on a day-to-day basis, such as family, school, and once neighborhood (Karcher et al., 2008). Social connectedness among adolescents has been linked to a host of youth outcomes including reduced problem behaviors, and better mental health outcomes (Abubakar et al., 2014; Crespo, Kieplikowski, Jose, & Pryor, 2010; Jose & Lim, 2014). Oberle, Schonert-Reichl, and Zumbo (2011) observed that ecological assets (i.e., school connectedness, perceived neighbourhood support, parental and positive peer relationship) significantly and positively predicted early adolescents' life satisfaction. The positive influence of connectedness on well-being is thought to arise from the fact that connectedness serves the motivational need to belong (Townsend & McWhirter, 2005). In the context of this study, we worked from the presumption that the need to belong is universal social connectedness will be protective for both mainstream adolescents and Roma adolescents. However, since Roma adolescents are a 'high' risk group social connectedness will be especially salient for them, thus the strength between social connectedness and functioning among Roma adolescents is expected to be stronger than what we see in the mainstream sample.

Familial social economic status plays a salient role in shaping both social connectedness and school engagement (Waithaka, 2014). This influence can best be explained from the family capital theory, where it is proposed that families can invest economic, social and cultural resources to stimulate optimal development of their children (Waithaka, 2014). In our case, we expect that families with more resources will invest more into providing an environment both at home

and outside the home that ensures their adolescents feel socially connected, engaged in their school settings and experience high life satisfaction. These effects are expected regardless of ethnicity. In our study, parental education is used as a proxy indicator of family resources as it is expected to capture both economic and non-economic aspects of family capital.

This study targets Roma adolescents in Bulgaria—a post-communist country in Eastern Europe hosting one of the largest Roma settlements in Europe. The Roma population estimates in Bulgaria range between 325,343 and 800,000 people out of the nearly 7 million national population (National Statistics Institute [NSI], 2011). In Bulgaria, as well as in other Eastern European countries, Roma represent the largest, most prominent ethnic minority with lower educational and socioeconomic levels compared to the mainstream population (Barany, 2002). Interestingly, Bulgaria represents distinctive acculturation context of Roma community that has been historically accompanied by intensive assimilation efforts during the communist regime. Roma as well as other national minorities (e.g., Turkish-Bulgarian and Muslim-Bulgarian) have repeatedly experienced extensive assimilation campaigns in the late 1980s during the communist regime (Prieto-Flores, 2009). Compared to other national minority groups, like Turkish-Bulgarians, Roma have weaker socioeconomic, political, and cultural network and resources (Dimitrova, Chasiotis, Bender, & van de Vijver, 2013). It is also of interest for the purposes of the present study, that Roma ethnic minority is characterized by a strong social cohesion and adherence to Roma cultural traditions (Ringold, 2000). Roma are particularly interesting and unique group to study connectedness because of the salience of their family and social network, representing essential features of the Roma community (Durst, 2002). Evaluating factors contributing to school engagement and achievement among Roma youth in Bulgaria is especially salient given their extremely low academic achievement (89% have primary education or less as their highest educational level) even when compared to Roma youth in other Central and Eastern European Countries (European Union Agency for Fundamental Rights, 2010) and official policies on improvement of their school engagement are rather scarce (Amnesty International, 2013). There is much interest in understanding resources for better school engagement and achievement of Roma students in line with the current European Union priorities and the Framework for National Roma Integration Strategies (European Commission, 2013). Therefore, the main focus of this study is on Roma adolescents in Bulgaria as this is a marginalized social group particularly relevant in the framework of resilience. Yet, scholars have acknowledged the importance of understanding intersections between minority and dominant groups as a way to work against the tendency to take only dominant groups as the lone representation of normativity (Yuval-Davis, 2006). Other studies in both American and European contexts with ethnic minority samples also use some mainstream groups, which is a good example that researchers in other parts of the world have also used

this strategy, providing an empirical precedence for the study reported here (Güngör, Fleischmann, & Phalet, 2011; Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009). We acknowledge this argumentation by taking into account a group of mainstream youth with Bulgarian ethnic heritage in comparison to their peers with Roma ethnic background.

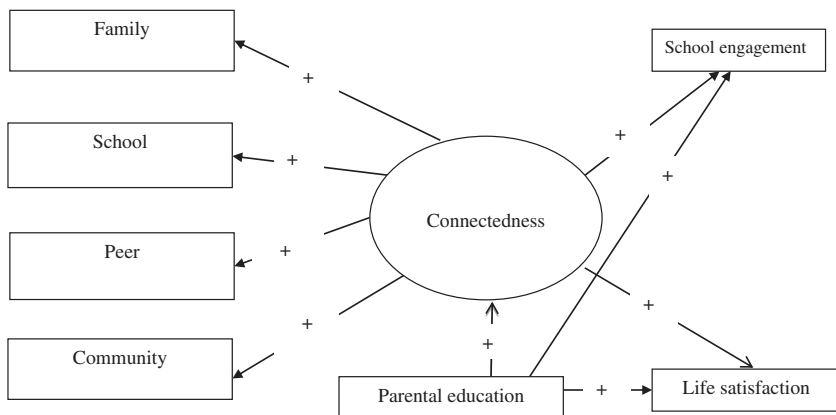
## Current study

We aimed at addressing three main research questions by evaluating whether (1) there were significant group differences between Roma and mainstream adolescents regarding measures of connectedness and resilience (life satisfaction and school engagement); (2) there was a positive relationship between connectedness, life satisfaction and school engagement; (3) this relationship would be moderated by ethnicity. We postulated a partial mediational model where parental education directly and indirectly positively influences both life satisfaction and school engagement. The indirect effects would be observed through connectedness (see Figure 1 for the hypothesized model). Based on the reviewed literature and the sociocultural context of the study, we set out to test the following specific hypotheses:

**Hypothesis 1:** There are significant differences between Roma and mainstream Bulgarian adolescents in scores of social connectedness and positive adaptation with mainstream adolescents scoring significantly higher than Roma adolescents.

**Hypothesis 2:** There is a positive association between social connectedness, life satisfaction and student engagement across all groups.

**Hypothesis 3:** The association between connectedness, life satisfaction and student engagement is moderated by ethnicity, with adolescents of Roma background showing a stronger association between social connectedness, life satisfaction and school engagement.



**Figure 1.** Hypothesized path model.

Hypothesis 4: Social connectedness partially mediates the relationship between parental education, life satisfaction and school engagement across all groups.

## Method

### *Sample and procedure*

We compare Bulgarian mainstreamers with Roma minority youth because it is relevant to the study questions (i.e., group differences and relationship between connectedness, life satisfaction and school engagement among groups). For that purpose, we used criterion sampling (Palys, 2008) by including youth who were aged 14 to 18 and were either with Roma and Bulgarian background. From all participating schools students that met the criterion were invited to fill out the surveys. Usually students are grouped in classes based on their age so all classes were mixed (Roma and Bulgarian) and had students that fit our criterion. Participants of this study were sampled from four public urban schools in Bulgaria (e.g., the capital city Sofia and cities of Simeonovgrad and Haskovo). Prior to data collection, school authorities, teachers and families were informed about the purpose and methods of the study. Upon approval, pupils were recruited in classrooms during normal teaching time. In addition to written instructions enclosed in the questionnaires, detailed verbal instructions were given in each class. Pupils were assured that participation was entirely voluntary and confidential and that they could discontinue their participation at any time. Filling out the questionnaire took approximately 30–45 min. All measures were translated from English into Bulgarian by four bilingual speakers while adhering to the standard guidelines to ensure linguistic equivalence (Van de Vijver & Leung, 1997). The questionnaires were presented only in Bulgarian, because all Roma pupils acquire literacy skills exclusively in Bulgarian. The sample was recruited by the second author and one mainstream and one Roma research assistants. Table 1 presents a description of the sociodemographic characteristics of our participants. There were no significant differences between Roma and mainstream adolescents in age and gender distributions. However, there were significant differences in parental education with mainstream Bulgarian adolescents reporting significantly higher levels of parental education compared to Roma adolescents.

### *Measures*

A set of measures to capture the constructs of interest was administered. In this section, we describe each of the measures. Given that one of our research questions aimed comparing group means we carried out detailed equivalence analysis as per recommendations in cross-cultural psychology. The procedures and results are presented in the online supplementary appendix.

**Table 1.** Sample descriptives by ethnic group.

	Roma <i>n</i> = 121		Mainstream <i>n</i> = 143		Group comparison
	<i>N</i>	%	<i>N</i>	%	
Age					
Range	10–18		14–17		$t(1, 264) = .681, p = .497$
Mean (SD)	15.83	1.36	15.94	1.00	
Gender					
Male	55		62		$\chi^2(1, N = 264) = .117, p = .732$
Female	66		81		
Maternal education					
No education	9	7.4	1	.7	$\chi^2(5, N = 264) = 162.79, p < .001$
Primary	20	16.5	0	0	
Secondary	51	42.1	0	0	
High school	38	31.4	49	34.3	
Undergraduate studies	3	2.5	45	31.5	
Post graduate (MA/PhD)	9	7.4	48	33.6	
Paternal education					
No education	8	6.6	0	0	$\chi^2(5, N = 264) = 126.74, p < .001$
Primary	12	9.9	0	0	
Secondary	44	36.4	3	2.1	
High school	55	45.5	63	44.1	
Undergraduate studies	2	1.7	38	26.6	
Post graduate (MA/PhD)	8	6.6	39	27.3	

### Ethnic self-categorization

Students were requested to self-identify their ethnic group. The options provided were representing the three largest ethnic groups in Bulgaria—Bulgarian, Roma and Turkish. Moreover, we used teacher reports and school records in addition to youths' self-defined ethnic background.

### Social connectedness

To evaluate social connectedness, we used the same items as those published by Jose, Ryan, and Pryor (2012). The social connectedness measure has four subscales referring to family, peers, community and neighbourhood connectedness, scored on a 5 point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). *Family connectedness* sub-scale has 11-item measuring various components of family connectedness including cohesion, identity and mutual activities. Sample item is 'For my family, spending time together is very important'. *School connectedness* sub-scale consists of six items and evaluated aspects such as student relationship with teachers, and sense of school community. Sample items include 'I always get an opportunity to talk with my teacher(s)' and 'I feel proud about my school'. *Peer connectedness* sub-scale has seven items examining relationships with peers at school, happiness with number of close friends, and support from friends. Sample items include 'I am happy with the number of close friends I have in school' and 'I can trust my friends with personal problems'. *Community connectedness* sub-scale administered seven items to tap community connectedness. Sample item is 'My family and me know at least some of the people who live in our street'.



### *School engagement*

To evaluate school engagement, we used the measure by Salmela-Aro and Upadaya (2012) which has seven items scored on a seven-point Likert scale (0 = *never* to 6 = *daily*). The scale evaluates three major components of school engagement including energy, absorption and dedication. Sample item is 'At school I am bursting with energy'.

### *Life satisfaction*

The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was applied. The scale is made up of five items evaluated on a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Sample items are 'In most ways my life is close to my ideal', and 'If I could live my life over, I would change almost nothing'.

### *Social demographics*

We collected data on student's background including age, gender, and parental education. Mother and father education was scored on a six-point scale from 1- *no education* to 6—*having a MA/PhD*. In our analysis, we summed up maternal and paternal education to get a total parental education score.

### *Analytic strategy*

Prior to using path analytic procedures we evaluated the relationship between variables under study using bivariate correlation analysis. A path analysis using AMOS 19 (Arbuckle, 2009) was used to evaluate the goodness of fit of the hypothesized model (Hypothesis 2). Following suggestions from the literature (Hu & Bentler, 1999), we assessed the goodness of fit for each model using Chi-Square, the Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI). Values greater than .95 for the TLI and CFI are considered to reflect acceptable model fit (Hu & Bentler, 1999). The root mean square error of approximation (RMSEA) is also reported since it has been shown to be sensitive to model misspecification: values of less than .06 are considered indicative of a good model fit (Hu & Bentler, 1999) while those of .08 are indicative of a fair fit. Lastly, to examine Hypothesis 3, a multigroup path analysis was carried out. To evaluate the level of equivalence between the two groups, we used the recommended standards of not only checking the fit indices as in a single group analysis, but also evaluating the differences between successive models with a special focus on the change in CFI. It is generally recommended that in nested model's CFI change from one model to the next should not be greater than .010 (Milfont & Fischer, 2010).

**Table 2.** Correlations among study variables per ethnic group.

	1	2	3	4	5	6	7	8	9
1 School engagement	–	.342**	.441**	.422*	.422*	.329**	.163	–.002	.193*
2 Life satisfaction	.284**	–	.522**	.577**	.568**	.399**	.179*	–.026	.028
3 Family connectedness	.119	.377**	–	.519*	.571**	.512*	.145	.024	.097
4 School connectedness	.604**	.403**	.282**	–	.720**	.629**	.264**	.011	.048
5 Peer connectedness	–.022	.245**	.069	.046	–	.630**	.315**	.051	.161
6 Community connectedness	.092	.161	.297**	.246**	.120	–	.330**	.105	.081
7 Parental education	.011	–.086	.018	–.036	.017	–.003	–	.140	.122
8 Gender	–.047	–.062	–.007	.014	–.036	.058	.055	–	–.038
9 Age	–.019	.091	.057	–.137	.196*	–.048	–.047	.058	–

Note. Italicized correlations are those for Roma adolescents.

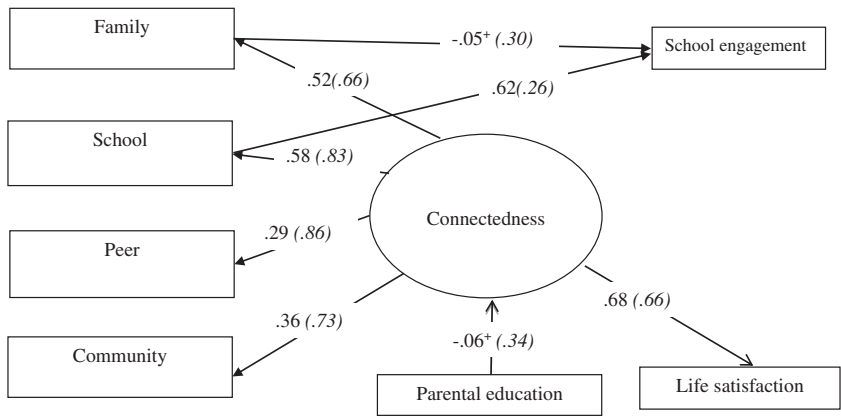
\*  $p < .05$ ; \*\*  $p < .01$ .

## Results

### *Relationship between connectedness, school engagement and life satisfaction*

As can be seen in the online supplementary appendix, our measures did not achieve scalar invariance. Consequently we could not compare the means from Roma and mainstream Bulgarian adolescents. However, having achieved measurement invariance, we are in a position to address the other hypotheses. Table 2 presents the correlation matrix for the variables in the study by ethnicity. The matrix indicates that gender and age have minimal influence on connectedness, life satisfaction and school engagement. While parental education had no associations with connectedness, school engagement and life satisfaction among mainstream Bulgarians, it was associated with several domains of connectedness and with life satisfaction among Roma adolescents. We therefore do not include gender or age in any further analysis but include parental education in our path analysis.

We postulated a partial mediated model in which parental education had a direct association with connectedness, school engagement and life satisfaction; connectedness has a direct association with school engagement and life satisfaction. While the hypothesized model showed a good fit to the data with the exception of the TLI, several of the path coefficients were not significant,  $\chi^2(22, N = 264) = 52.00, p < .001, \chi^2/df = 2.365, TLI = .871, CFI = .932$ . The model was modified so as to exclude path coefficients that were not significant. The excluded paths were from connectedness to school engagement, parental education to life satisfaction and school engagement. Additionally, we included paths where the modification indices indicated a strong association (i.e., direct path from school connectedness and family connectedness to school engagement). Figure 2 shows the final model. Results of the model indicate that our best model is the configural model (see Table 3 for the fit indices), which suggests that the structure of the model is similar across groups; while the rejection of the measurement model indicates that the factor loadings differed across ethnic



**Figure 2.** Path model of connectedness, life satisfaction and school engagement across ethnic groups.

Note. The coefficient in brackets presents the loadings of Roma youth. \*Statistically insignificant coefficient.

**Table 3.** Fit statistics for the multigroup model on the relationship between connectedness, life satisfaction and school engagement.

Model	$\chi^2$	df	$\Delta\chi^2$ (df)	$\chi^2 / df$	RMSEA	TLI	CFI	$\Delta CFI$	AIC
<i>Configural model</i>	26.589	24	–	1.108	.020	.990	.994	–	90.589
Measurement weight model	48.087	28	21.48 (4)	1.717	.052	.932	.955	.039	104.087
Structural weights models	69.225	31	21.13 (3)	2.233	.069	.883	.914	.041	119.225
Structural covariance	73.387	32	4.16 (1)	2.293	.070	.877	.907	.007	121.387

Note. Selected model is in italics.

groups. An inspection of the model indicates that this may have resulted from the influence of school engagement. In this model, we find that for mainstream Bulgarians, only school connectedness was significantly associated with school engagement, whereas for Roma both school and family connectedness were associated with school engagement. Among mainstream Bulgarian adolescents our model explained 36.7% of the variance in school engagement and 47.1% in life satisfaction, while among Roma adolescents it explained 25% in school engagement and 43.8% in life satisfaction.

## Discussion

Is there a difference between Roma adolescents and the mainstream Bulgarian adolescents in life satisfaction, social connectedness and school engagement? This would have been an interesting question to answer. However, our measures did not achieve scalar invariance [a statistical prerequisite for comparing means across cultural groups] (Milfont & Fischer, 2010), we can therefore not answer this question. The lack of scalar invariance may have arisen from different

aspects such as differential item functioning or construct bias (He, & Van de Vijver, 2015). The disentangling of the source of this bias is beyond the scope of this article; however our results provide the impetus for more work to be carried out to develop culturally appropriate and contextually relevant scales of connectedness and outcome. The use of mixed method approaches where emically-informed (culturally informed) scales are developed is likely to enhance the validity of the measurement scale. This is especially important given recent evidence that culture and context shapes people's perception of resilience and process by which it is operated (Theron et al., 2011).

Numerous earlier studies had reported that social connectedness contributes to positive youth development and resilience both in high risk and low risk populations (Crespo et al., 2010; Jose & Lim, 2014). In confirmation of our second hypothesis, we also make the same observations. Our study goes beyond earlier studies by not only investigating this prediction in an under-researched population but by also looking at more than one domain of functioning so as to elucidate whether or not the same mechanism shape resilience in school and out of school. We observed a differential function of social connectedness for life satisfaction compared to school engagement. These observations confirm earlier suggestions that resilience may be content- and context-specific and that different developmental assets may be associated with different risk and outcome pairings (Fergus & Zimmerman, 2005). Additionally, we had originally hypothesized social connectedness to be a protective factor. However, our results indicate that this is not strictly correct. In terms of life satisfaction, a component of subjective well-being, social connectedness works more of a promotive factor, where it seemed that both the strength and patterns of association between variable were same for mainstream Bulgarian adolescents, presumably a low risk group and the adolescents of Roma background a 'high risk group'.

School connectedness was predictive of mainstream Bulgarians' school engagement, while for the Roma adolescents - family and school connectedness were. Given that school connectedness is directly associated with school engagement, it reflects the domain specificity of our measurement approach. The question which then arises is; why is familial connectedness important for school engagement of Roma adolescents? Two factors may potentially explain this. The Roma family connectedness influence on school engagement may present an aspect of their cultural context or the school environment or both. Adolescents of Roma background have strong family oriented cultural values relative to the mainstream Bulgarians. This family orientedness is shown to lead to interdependency. It may therefore mean that the Roma adolescents are more dependent on family to guide and get them through the school systems and enhance their engagement with school. Another potential reason is the school climate. Earlier research indicates that aspects of school climate such as adolescent-adult relationships, quality of the school, available infrastructure and

opportunity for adolescents to participate in the day-to-day running of the school affairs have an impact of the extent to which adolescents may feel connected to their school (Shochet & Smith, 2014; Waters, Cross, & Runions, 2009; Wilson, 2004). The UNICEF (2011) position paper on education among Roma, noted that Roma children are more likely to be segregated in classrooms, and to be placed in rundown settings. Moreover, teachers handling them are likely to lack training, can be biased against Roma students and have lower expectations of them. In addition, these children often face stigmatization and hostility from the majority students (UNICEF, 2011). These kinds of inequity in the school environment are likely to lead to both poor school connectedness and lowered school engagement, as have been observed in other settings (Debnam, Johnson, Waasdorp, & Bradshaw, 2014; Wilson, 2004).

Our fourth hypothesis was largely disconfirmed. Parental education was not salient for mainstream Bulgarian adolescents. Among Roma adolescents, the influence of parental education was fully mediated through social connectedness. Not surprising is the evidence that some of the differential effects we see between Roma and mainstream Bulgarian adolescents arise from SES factors (Waithaka, 2014). For instance, it has been observed earlier that part of the difficulties experienced by children of Roma background in school may arise from the fact that their parents, who have low educational level, may find it hard to guide them through school and provide the necessary support to ensure educational success (UNICEF, 2011). Moreover, parents with limited education are less likely to be able to afford to live in thriving neighbourhood, and take their children to a good school. This is in line with the parental investment theory, where families with more social capital invest in their children, while those with limited capital lag behind (Waithaka, 2014). This implies that efforts targeted at positive youth development need to consider investing into families so as to improve their social capital.

### Practical implications

It has been previously argued that the salience of studying resilience lies in its ability to advice service ecologies (Masten, 2004). Given this suggestion, we would like to highlight some of the practical implications of our work. Earlier research indicates that various forms of interventions within the school such as peer mentoring can contribute greatly towards fostering connectedness (Karcher, 2005; Karcher, 2011). Given the observed overall benefits of connectedness to both life satisfaction and school engagement, implementing these interventions needs to be considered a priority for Roma adolescents. Additionally, familial involvement in adolescent's school life especially for the Roma adolescents seems to be another area of potential benefit in enhancing their school engagement. Put together, what these two practical recommendations seem to suggest is that to enhance life satisfaction, school engagement and positive

youth development among Bulgarian Roma and other similarly marginalized populations, there is a need to implement school based programmes that involve their parents and target enhancing different facets of connectedness.

## Limitations and conclusions

Despite possessing several strengths, the current study has its limitations. First, we only use self-report measures. This does not afford us an opportunity to triangulate the findings based on parent or teacher reports on adolescent's connectedness and well-being. Secondly, this was a cross-sectional study; consequently we can only talk of associations, we can hardly draw any conclusions on causality and long-term impact. Future studies using multi-modal approaches and longitudinal designs are urgently needed. We also acknowledge as a limitation of the study the need to include other urban regions with more representation on mainstream Bulgarians.

Despite these limitations, this is the first comparative study to offer unique insights into social connectedness of Roma youth and how it relates to their psychological and school engagement outcomes. Our study advocates the relevance and salience of family connectedness and its relation to well-being of Roma youth. Fostering connectedness to different persons and institutions can be an important point of intervention when we aim at enhancing resilience well-being among adolescents of Roma background. To enhance academic and engagement targeting families and specifically those with socially disadvantaged and marginalized background such as Roma would be a key component.

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