



Predictors of educational aspirations of Roma mothers in Czech Republic, Greece, and Portugal

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Abstract

Roma communities are a disadvantaged minority in Europe which is particularly underrepresented in social and educational research. This study aimed to investigate the predictors of Roma mothers' educational aspirations for their children in the Czech Republic, Greece, and Portugal. Participants included 461 mothers with a Roma background (135 from the Czech Republic, 130 from Greece, and 196 from Portugal), with a child between 3 to 6 ($n=181$) or 9 to 12 ($n=280$) years old. Data were based on mothers' reports, obtained during a structured in-person interview. Material deprivation (microsystem level), frequency and quality of interactions with non-Roma parents, as well as the quality of parent-teacher interactions (mesosystem level), predicted Roma mothers' educational aspirations. Findings suggest that, in addition to microsystemic variables such as material deprivation, mesosystemic predictors such as those examining contact with non-Roma parents may play an important role in shaping Roma mothers' educational aspirations and need to be further examined.

Keywords Educational aspirations · Roma mothers · Interactions with non-Roma parents · Parent-teacher relationships · Material deprivation

1 Introduction

Parents' educational aspirations concerning their children's academic prospects play a critical role in children's educational attainment. They are even more relevant for young children and primary school students and potentially influence indirectly or directly the extent to which parents get involved in their children's schooling (Kim, 2022). Importantly, despite evidence regarding the effects of parents' educational aspirations on children's own aspirations, achievement, and attainment, only a few

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studies (see Seginer & Vermulst, 2002; Spera et al., 2009; Zhang et al., 2007) have attempted to identify the factors that account for variation in parental aspirations. Therefore, even though Seginer (1983) suggested the need to examine more carefully the correlates of parents' educational aspirations for their children, our understanding of the nature and formation of parental educational aspirations is rather limited. This is particularly true for minorities such as Roma communities.

The disadvantages Roma communities face across European countries result in deepening as well as perpetuating social inequalities, undermining social cohesion. Roma communities are the most disadvantaged, discriminated, and marginalised ethnic-cultural minority in Europe (Brüggemann & D'Arcy, 2017; Liégeois, 2007) facing overtly expressed prejudice (Kende et al., 2021) and othering (Crețan et al., 2021) in many life domains and across different contexts. Across Europe, several studies have repeatedly confirmed the vast socioeconomic and educational gap between Roma communities and the rest of society, including other minorities or migrants (Szalai et al., 2010). This is noteworthy because family and community resources in early and middle childhood are decisive for successful school participation, future life opportunities, and prevention of educational disadvantage, especially for socioeconomically disadvantaged groups like Roma families (Felfe & Huber, 2017; Melhuish et al., 2010).

Research on the psychological aspects of Roma families is limited and thus little is known about the proximal environment of Roma children, their parents' values, goals, and beliefs, and the way that Roma parents organise their children's everyday life (Lauritzen & Nodeland, 2018). Moreover, the relation between Roma parents' beliefs and practices and mesosystemic variables such as contact with majority teachers and parents or perceived discrimination in educational settings is under-researched. Therefore in this study, based on an ecological systems perspective (Bronfenbrenner, 1979, 1986; Bronfenbrenner & Morris, 2006), we examined the associations between microsystemic features represented mainly by Roma mothers' educational aspirations and selected sociodemographic characteristics (e.g., education level, material deprivation) and mesosystemic features represented by the frequency and quality of interactions with majority parents and teachers or perceived discrimination in educational settings. Further, we examined the perspectives of Roma mothers from three European countries, namely the Czech Republic, Greece, and Portugal, adding a macrosystemic lens, as these countries represent different European regions with socio-historical particularities as well commonalities rooted in a European tradition.

1.1 Ecological systems and intergroup contact

Ecocultural perspectives usually recognize the role of parental aspirations as part of the broader parental belief system or parental ideas about children and their upbringing and development (e.g., Edwards et al., 2006; Super & Harkness, 1986). Relatedly, within the ecological systems perspective (e.g., Bronfenbrenner, 1979, 1986; Bronfenbrenner & Morris, 2006), the developing child is seen as interacting actively, through bidirectional, reciprocal influences, with the environment. The

latter is structured in terms of concentric circles representing the microsystem (i.e., experience with the immediate, physical or social, surroundings), the mesosystem (i.e., the interactive processes between two or more settings), the exosystem (i.e., settings which do not include the individual, but that nevertheless influence him/her), and the macrosystem (i.e., general aspects of society as values and belief systems or "culture").

Parental aspirations may be considered part of parents' psychological characteristics within the family microsystem while contacts with actors of majority background in educational settings such as teachers and/or other parents fall within the mesosystem. Frequent and high-quality interactions between children's microsystems such as the family and (pre)school are assumed to provide opportunities for development at the mesosystem level (Garbarino & Ganzel, 2000). Further, inter-group contact has been identified as key for improving interethnic relations (e.g. Allport, 1954; Pettigrew & Tropp, 2006), namely for Roma communities (Ives et al., 2016; Kende et al., 2017a, 2017b) and has been proposed as a key feature of multicultural policies (Berry, 1984, 2013). For example, Kende et al., (2017a, 2017b) tested a contact-based intervention to reduce bias against Roma among non-Roma Hungarians. Specifically, face-to-face interaction with a Roma person was associated with positive changes in attitudes and contact intentions, suggesting the potential of contact-based interventions to improve interethnic relations among Roma and non-Roma communities. Thus, extending existing research on the predictors of educational aspirations of Roma mothers to the mesosystem is warranted from an ecological perspective and from a social psychological perspective.

1.2 The role of parental educational aspirations

Parental views and belief systems (see Hirsjärvi & Perälä-Littunen, 2001; Miller, 1988) are an important source of parenting practices and organisation of daily life. Part of this beliefs' system, educational aspirations are socially constructed reference points—as individuals draw their aspirations from the lives of others around them—which affect future-oriented behaviour (Selten et al., 2012). Parents' educational aspirations represent their ambitions, hopes, or wishes regarding children's future educational achievement (Gutman & Akerman, 2008; Holloway, 2010; Spera et al., 2009). Therefore, aspirations are rather idealistic and reflect what someone would like to achieve (Seginer, 1983; Yamamoto & Holloway, 2010).

Research suggests that parents' educational aspirations tend to be stable over time (Raleigh & Kao, 2010), shape their behaviours related to children's education, and play a decisive role in thinking about, planning, and (not) deciding about children's future education. Moreover, they are positively correlated with several educational outcomes including grades, test scores, and college attendance (e.g., Chiapa et al., 2012; Fan & Chen, 2001; Gregg & Washbrook, 2009; Kim, 2022; Schoon et al., 2007; Seginer & Vermulst, 2002; Villiger et al., 2014). Parents who express high educational aspirations tend to be more involved in their children's schooling and organise their children's everyday lives and environments to engage their children in various learning activities (Hoover-Dempsey & Sandler, 1997; Hoover-Dempsey

et al., 1992). Further, they spend more time and resources in school-related activities (e.g., helping with homework, volunteering in the classroom, Spera, 2006).

According to Lauritzen and Nodeland (2018), previous research on Roma families has reported mixed findings, from claims that “Roma parents (...) rate their children’s achievements and school satisfaction lower, and they have lower academic aspirations for their children” (Pahic et al., 2011, p. 275) to claims that Roma parents are increasingly positive towards their children’s education (Myers et al., 2010). Recent research found lower educational aspirations for Roma parents than for non-Roma (Želinský et al., 2021), attributing these differences to socioeconomic structural constraints (see Dalton et al., 2016) and low expectations of non-Roma teachers regarding Roma parents and children rather than to “Roma culture” or ethnicity per se (Giménez-Adelantado et al., 2002; Hellgren & Gabrielli, 2021).

1.3 Predictors of parental educational aspirations

Previous research has shown that family background variables including parental income and socioeconomic status (SES), parental education, ethnicity/minority status, as well as children’s characteristics such as age, academic achievement, gender, and emotional and behavioural dispositions are associated with parental aspirations (e.g., Beattie, 2002; Chenoweth & Galliher, 2004; Davies et al., 2002; Garg et al., 2002; Kao & Tienda, 1998; Marjoribanks, 2005; Ou & Reynolds, 2008; Schoon et al., 2007; Sosu, 2014; Teachman & Paasch, 1998). SES is typically a strong predictor of parental educational aspirations (Singh et al., 1995). Several studies indicate that most parents would prefer their children to attain high levels of formal schooling (e.g., Spera et al., 2009), with higher SES parents holding higher educational aspirations (Oketch et al., 2012; Schoon et al., 2007; Zhang et al., 2007). Relatedly, low-income and socioeconomically disadvantaged parents from diverse ethnic groups have been described as holding lower educational aspirations for their children (De Civita et al., 2004). Note, however, that “deficit discourses” (see Aikman et al., 2016) have contributed to generating and interpreting such comparative data, and more evidence is needed on the “coping strategies, existing capacities in families and communities and other supportive factors” (Aikman et al., 2016, p. 326) of socioeconomically disadvantaged parents.

Similarly, parents with higher levels of education have been found to hold higher educational aspirations for their children (e.g., Chowdry et al., 2010; Spera et al., 2009; Zhang et al., 2007). According to social-psychological perspectives, the effects of income and education level on educational aspirations are largely indirect through their effects on other factors (e.g., living conditions, role models, learning environments), that directly affect educational aspirations. Regarding ethnicity, studies in so-called western societies show that parents from minority ethnic groups are more likely to hold higher educational aspirations than their majority counterparts because they see education as a means for upward social mobility (Chowdry et al., 2010; Goldenberg et al., 2001; Spera et al., 2009). However, the educational outcomes of these minority groups suggest that parents might not access (or might be denied, see Aikman et al., 2016) the resources and opportunities to guide their

children toward achieving their wishes (Langenkamp, 2017; Spera et al., 2009). As far as Roma parents' aspirations are concerned, previous research indicates that although Roma parents have lower educational aspirations than non-Roma, SES seems to be a stronger predictor of these differences than ethnicity per se (Želinský et al., 2021).

The contextual aspects associated with parental aspirations are understudied, particularly in Roma communities. Available research has neglected potential mesosystemic predictors of parents' educational aspirations for their children, such as parent-teacher relationships, perceived discrimination by other parents and teachers, or the frequency and quality of interactions with majority families. This gap is unwarranted because there is evidence of noteworthy issues faced by Roma parents and students at the mesosystemic level, including teachers' lower trust on Roma parents to support children's learning (Peček et al., 2008), and Roma students' own reports of lower family support for learning (Moreira et al., 2022), possibly associated with Roma parents' negative experiences in and perceptions of education settings (see Zachos & Panagiotidou, 2019), and schools undervaluation of Roma parents' educational support (when it does not match school expectations).

Importantly, there is evidence that more intense intergroup contact can strengthen positive relationships among families and foster mutual trust (Rangel et al., 2020), which can affect parents' educational beliefs and aspirations regarding children's educational opportunities (Ajzen, 1991; Bracke & Corts, 2012). Moreover, previous research has shown that the quality of intergroup contact—as indicated, for example by the level of trust—can have positive effects on parental educational involvement (Santiago et al., 2016). Relatedly, there is evidence that interventions based on dialogue-based learning interactions enhancing the participation of Roma communities in the education process and school life can result in richer learning experiences as well as better learning outcomes for Roma students (Flecha & Soler, 2013). Interestingly, while perceived discrimination is negatively associated with child outcomes (e.g., Guerra et al., 2019), there are inconsistent findings regarding its associations with parents' and students' educational aspirations (e.g., Goldenberg et al., 2001; Teney et al., 2013).

1.4 Roma communities in the Czech Republic, Greece, and Portugal

Roma communities around Europe are extremely diverse (see Kostadinova, 2011; Luciak, 2004). Although often perceived by outsiders as a homogeneous entity (Csepeli & Simon, 2003), there are considerable variations across Europe, both between and within countries (a) in the way they are treated and (b) in how they define their group of origin. Such diversity derives from cultural norms and practices, and religion (Barany, 2002).

There are difficulties in monitoring the number of Roma populations for various reasons (political, economic, ideological). However, qualified estimates suggest that Roma communities consist of 0.4% of the Portuguese population (Sousa & Moreira, 2017), 1.55% of the Greek population (Hellenic Republic—Region of Central Macedonia, 2015), and 2.8% of the Czech population (Český

statistický úřad, 2017). While most of the Portuguese Roma are sedentary, there is considerable heterogeneity among Portuguese Roma communities, as a function of economic activity, level of education, religion, etc. (Mendes et al., 2014). Similarly, in Greece, the Roma are not a homogeneous group, with significant differences regarding historic course, profession, and way and place of living (i.e., permanently settled, semi-nomads, nomads). In the Czech context, there are different dialects of the Roma language that reflect the origin of different Roma communities who migrated and settled in, after the Czech and Moravian Roma were nearly exterminated during the Second World War (Nečas, 1999).

Despite these differences and inner diversity, Roma communities in these three countries have been marginalised and persecuted since their arrival, both by the local population and governments. Often, they were not considered full citizens or were treated as “second class citizens” (Casa-Nova, 2008; Davidová & Uherek, 2014; Nata, 2007). Even today, Roma communities are often the target of hate speech and discrimination (Giroud et al., 2021) in many areas of life, including education (Cviklová, 2011; Mendes, 2012).

Roma communities in all three countries face educational inequalities. The participation of Roma children in early childhood education and care (ECEC) is dramatically lower than that of children from majority populations (Klaus & Marsh, 2014; Open Society Institute, 2007, 2009; OSCE, 2010; Save the Children, 2001; World Bank, 2012). In Greece, for example, Roma families have limited access to ECEC (Dragonas, 2012; Ministry of Employment & Social Protection, 2009). There are almost no ECEC programs in settlements. However, ECEC programs exist in more than half of the urban areas, where Roma communities live in apartments or houses. Yet, even there, only 20% of Roma children attend. Recent data (FRA, 2022) show that only 32% of Roma children aged 3–5 years, living in Greece, attend ECEC, compared to 69% of the majority population. The same pattern is evident in the Czech Republic, where 51% of Roma children between 3 and 5 years old attend ECEC, compared to 86% in the majority population (FRA, 2022; c.f., Ivatts et al., 2015). In Portugal, approximately 29% of Portuguese Roma children between 3 and 5 years old participate in ECEC (FRA, 2022). Further, the percentage of Roma aged between 20 and 24 years who completed at least upper secondary education is very low: 22% in the Czech Republic, 16% in Greece, and 10% in Portugal (FRA, 2022).

Ethnic segregation in education and material deprivation are also important indicators of country differences. The percentage of Roma children aged 6 to 15 years attending schools in which all or most schoolmates are also Roma varies between 49% in the Czech Republic, 34% in Greece, and 2% in Portugal (FRA, 2022). Czech Roma children are often channelled to special-needs schools, despite concerns raised by the European Court of Human rights and other European institutions. Regarding material deprivation and socioeconomic exclusion, available data suggests that 96% of Greek as well as Portuguese Roma live at risk of poverty, in comparison with 77% of Czech Roma (FRA, 2022).

1.5 Current study

Understanding the predictors of parental aspirations is important to design appropriate interventions to support parents in developing higher educational goals for their children. Few studies have focused on the predictors of parental aspirations of Roma parents (e.g., Dimitrova et al., 2018), with most investigating the educational aspirations towards primary and/or older school children (Dimitrova et al., 2018; Sime et al., 2018) in single cultural contexts. Therefore, this study aimed to examine the predictors of Roma mothers' educational aspirations, in the Czech Republic, Greece, and Portugal. We focused on mothers because, within Roma communities, they are typically the main caregivers and supporters of their children (e.g., Levinson & Sparkes, 2006). In addition, most studies on parental aspirations of minority children focus on child and family sociodemographic characteristics and microsystemic (Bronfenbrenner & Morris, 2006) predictors (Areepattamannil & Lee, 2014; Sosu, 2014) and neglect mesosystemic predictors such as parent-teacher relationships, Roma parents' interactions with majority families, or perceived discrimination. This study aimed to address this gap, by testing the following hypotheses: Roma mothers with lower material deprivation (H1) and higher education levels (H2) report higher educational aspirations for their children; Roma mothers with more frequent (H3) and higher quality (H4) interactions with non-Roma parents report higher educational aspirations for their children; Roma mothers who report higher discrimination report lower educational aspirations for their children (H5); and Roma mothers who report higher quality parent-teacher relationships report higher educational aspirations for their children (H6). Finally, considering the above-mentioned differences regarding school segregation and socioeconomic deprivation among the Czech Republic, Greece, and Portugal, we expected country to have a moderator effect on the pattern of associations (H7). Based on extant research on the educational experiences of Roma children, as a function of age and gender (e.g., Mendes et al., 2014; Sime et al., 2018), these child characteristics were added as covariates in all analyses.

2 Method

2.1 Participants

Participants were 461 mothers with a Roma background. These mothers reported data for 339 girls and 317 boys, who attended (pre)school. In total, 135 mothers participated in the Czech Republic, 130 in Greece, and 196 in Portugal. Interviewed mothers had a child in the 3 to 6 ($n=235$) and/or 9 to 12 ($n=226$) years age-range. Table 1 presents sociodemographic information regarding participating mothers and target-children across the three countries.

Almost all mothers in Greece (96.2%) and Portugal (96.9%) were native-born whereas in the Czech Republic the percentage was 78.4%, with the remaining mothers born mainly in Slovakia. In all countries, most mothers had low education levels (81.3% in Portugal, 75.9% in the Czech Republic, and 86.1% in

Table 1 Descriptive statistics for the whole sample and bivariate correlations among study variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
Gender (child) ^a	.51	—	—							
Age (child)	7.97	2.73	—.00	—						
Mother's educational level	1.20	.42	.03	—.04	—					
Material Deprivation Index	6.47	3.27	—.03	.09	—.10*	—				
Contact frequency	3.32	.77	.03	—.06	.09*	—.14**	—			
Contact quality	2.87	.80	—.01	—.04	.17***	—.16***	.38***	—		
Parent-teacher relationships	4.56	.72	—.05	—.23***	.02	—.16***	.25***	.23**	—	
Mother's perceived discrimination	1.55	.73	.11*	.16***	—.01	.30***	—.11*	—.14**	—.36***	—
Educational Aspirations	2.59	1.08	.13**	—.10*	.02	—.15**	.19***	.17**	.16**	—.02

M=mean; *SD*=standard deviation. Response ranges of the constructs: Mother's educational level 1–4; 1=ISCED 1–2, primary to lower-secondary education; 2=ISCED 3, upper secondary education; 3=ISCED 4–6, post-secondary non-tertiary education to Bachelor or equivalent; 4=ISCED 7–8, Master to PhD or equivalent); Material Deprivation Index (0–13); Contact frequency (1–4; 1=never to 4=often); Contact quality (1–4; 1=I don't enjoy it to 4=I enjoy it a great deal); Parent-teacher relationships (1–5; 1=Disagree to 5=Agree); Mother's perceived discrimination (1–4; 1=never to 4=often); Educational Aspirations (1–5; 1=Finish lower secondary education or second stage of basic education, ISCED 2; 2=Finish upper secondary education, ISCED 3; 3=Finish postsecondary non-tertiary education/short-cycle tertiary education, ISCED 4 or 5; 4=Bachelor degree or equivalent, ISCED 6; 5=Master 's degree or equivalent, or doctoral degree or equivalent, ISCED 7 or 8)

^a1=male and 0=female; the proportion of females is reported

****p*<.001. ***p*<.001. **p*<.05

Greece), were unemployed (98.5% in Portugal, 87.6% in Greece, and 74.8% in the Czech Republic), and reported high household material deprivation. Around 80% of Roma mothers in Portugal and Greece, and around 70% in the Czech Republic, were living with a partner. Based on Roma mothers' report, pre(schools) in the Czech Republic were more ethnically segregated than in Portugal and, especially, Greece (e.g., almost none non-Roma children in the (pre)school for 18.7% of Czech children, 1.0% of Portuguese children, and 0.0% of Greek children).

2.2 Procedures

Data came from a large-scale structured interview study with parents with a disadvantaged background in ten European countries (Broekhuizen et al., 2018) and was designed within the Inclusive Education and Social Support to Tackle Inequalities in Society project (ISOTIS, <https://www.isotis.org/en/home/>). Mothers were recruited from two sites in each country, with the following criteria: (1) the mother self-identified as Roma; and (2) the mother may or may not have been born in the country. The ethnic-cultural background of the mother's partner was not a sampling criterion. Regarding the procedures to ensure the first criteria, each mother was firstly identified by recruiters as belonging to a Roma community, and secondly, she self-identified as belonging to a Roma community at the beginning of the structured interview. Recruitment occurred typically in urban socially deprived neighbourhoods across sites with large Roma communities. In the Czech Republic data collection was conducted in Brno and Ústí nad Labem. In Greece, data were collected in West Athens sector (Aghia Varvara and Ilion municipality) and West and East Attica region (Fyli and Acharnes municipality). Finally, in Portugal, data were collected in the Metropolitan Area of Lisbon and in the Metropolitan Area of Porto. Participants were recruited through ECEC centres, schools, community centres, parent organisations, and Roma mediators. Often, these institutions served a high proportion of families receiving social benefits (e.g., access to free school meals). See Broekhuizen et al. (2018) for detailed information on participant recruitment procedures and on key features of the localities where data collection occurred.

Structured interviews were conducted by researchers with the assistance of Roma mediators, as needed, in the languages spoken by mothers, aligned with their needs or preferences. Interviewers used an online survey presented on a laptop or, in case of technical issues, a paper-pencil version. The survey was available in the majority languages of all countries, as well as Romani, and mothers could switch between languages while completing the survey. For most questions, the interviewers read the question to the mother, the mother answered, and the interviewer recorded the response. For more sensitive questions (e.g., perceived discrimination), mothers could enter the answers themselves. The full survey took between 45 and 60 min. Mothers received an incentive after

participating in the interview (e.g., a 5-euro voucher and a children's book). Data-collection occurred between December 2017 and July 2018.

2.3 Measures

2.3.1 Educational aspirations

Aspired level of educational qualification, was measured using the mothers' responses to the question "What level of qualification would you like [Target child] to complete?" on a 5-point ordinal scale according to International Standard Classification of Education [ISCED] 2011 levels, appropriately adjusted according to the educational system of each country (1 = *Finish lower secondary education or second stage of basic education, ISCED 2*; 2 = *Finish upper secondary education, ISCED 3*; 3 = *Finish postsecondary non-tertiary education/ short-cycle tertiary education, ISCED 4 or 5*; 4 = *Bachelor degree or equivalent, ISCED 6*; 5 = *Master's degree or equivalent, or doctoral degree or equivalent, ISCED 7 or 8*).

2.3.2 Material deprivation

The Material Deprivation Index was used as a measure of family economic status. This 13-item indicator is used for social monitoring purposes at both national and EU levels (Guio et al., 2016). The 13 items consist of five 'adult' (e.g., Do you get together with friends/family (relatives) for a drink/meal at least once a month?) and eight 'household' items (e.g., Do you have an internet connection for personal use when needed?). If parents indicated that they could not afford the item, this would increase the indicator by one point. This measure ranges from 0 to 13. A family is considered materially deprived when scoring at least 5.

2.3.3 Mothers' educational level

Regarding mothers' educational level, to differentiate between parents with a low, medium, and higher educational level, the ISCED 2011 level codes were used, with the following cut-off points (adjusted according to country's educational structure/system): 1 = *ISCED 1–2, primary to lower-secondary education*; 2 = *ISCED 3, upper secondary education*; 3 = *ISCED 4–6, post-secondary non-tertiary education to Bachelor or equivalent*; 4 = *ISCED 7–8, Master to PhD or equivalent*.

2.3.4 Interactions with non-Roma parents at school

To measure the frequency of interactions with non-Roma parents, we used one item (How often, if at all, do you interact with non-Roma people at the (pre)school of

your child?), rated on a 4-point response scale: 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*). To measure the quality of the interactions with non-Roma parents, we used one item (How do you feel about interacting with parents with a non-Roma background at the (pre)school of your child?), rated on a 4-point response scale: 1 = *I don't enjoy it*, 2 = *I enjoy it a little*, 3 = *I enjoy it quite a bit*, 4 = *I enjoy it a great deal*.

2.3.5 Parent-teacher relationship

The parent-teacher relationship was measured through a rating scale composed of 7 items, rated on a 5-point Likert-type scale (1 = *Disagree* to 5 = *Agree*), to reflect the mothers' level of trust regarding the way teachers work with children, based on their current experience. The first four items were selected from the Parent-Teacher Relationship Scale (Petrogiannis & Penderi, 2013). Items 1, 2, and 3 reflect Trust, while item 4 reflects Communication. Items were rephrased, so that they applied to all the teachers that children might have. The second part consisted of items 5 to 7 which were designed specifically for this study, though inspired by other questionnaires (e.g., Marx & Byrnes, 2012). Based on the composite score used in this study (score range = 7–35), computed as the sum of all 7 items, higher scores indicate higher trust towards teachers. Cronbach's alpha was satisfactory for the three samples: the Czech Republic ($\alpha=0.84$), Greece ($\alpha=0.89$), and Portugal ($\alpha=0.75$). To examine whether trust in parent-teacher relationships had the same meaning across the three countries, we tested the measurement invariance of this measure across the three groups, using AMOS (v. 18; Arbuckle, 2021). First configural invariance was tested by fitting the parent-teacher relationship measurement model without any equality constraints. The good model fit indices obtained in this analysis supported the measure configural invariance, $\chi^2(39)=150.62$, $p<.001$, CFI = 0.93, RMSEA = 0.07, SRMR = 0.07, thus indicating that participants from the three groups conceptualized the construct in the same way. Next, to test for metric invariance, the factor loadings were constrained to be equal across the countries. Model fit for the constrained model was worse than that of the unconstrained model, $\chi^2(53)=291.16$, $p<.001$, CFI = 0.84, RMSEA = 0.09, SRMR = 0.15 ($\Delta\chi^2=14.54$, $p<.001$), thus indicating noninvariant items within the construct (Kline, 2011).

2.3.6 Mothers' perceived discrimination

To assess perceived discrimination, we used three items (How often do you feel discriminated or unfairly treated because of your ethnic-cultural background, by people in your neighbourhood/parents in the (pre)school of your child/teachers in the (pre)school of your child?), rated on a 4-point scale (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*). Cronbach's alpha for the Czech and Greek groups was satisfactory (respectively $\alpha=0.71$ and $\alpha=0.84$). For the Portuguese sample, Cronbach's alpha was $\alpha=0.54$, thus falling below the 0.70 benchmark, usually considered to establish acceptable reliability. Thus, following Clark's and Watson's (1995) recommendation, we additionally calculated the mean inter-item correlations for this sample, which was within the 0.15–0.50 recommended range (0.30). Additionally, to examine whether perceived discrimination

had the same meaning across the three countries, we tested the measurement invariance of this measure across the three groups, using AMOS (v. 18; Arbuckle, 2021). First configural invariance was tested by fitting the perceived discrimination measurement model without any equality constraints. The good model fit indices obtained in this analysis supported the configural invariance of this measure, $\chi^2(3)=10.93, p=.012$, CFI=0.98, RMSEA=0.07, SRMR=0.06, indicating that participants from the three groups conceptualized the construct in the same way. Next, to test for metric invariance, the factor loadings were constrained to be equal across countries. Model fit for the constrained model was worse than that of the unconstrained model, $\chi^2(7)=58.21, p<.001$, CFI=0.90, RMSEA=0.11, SRMR=0.06 ($\Delta\chi^2=47.28, p<.001$), thus indicating noninvariant items within the construct (Kline, 2011), $Z=-4.17, p=.001$.

2.4 Data analysis

First, we computed descriptive statistics and bivariate correlations among variables. Then, a missing value analysis of the model variables was conducted, using IBM SPSS v28. The amount of missing data was small (Widaman, 2006): 0.0% for child's gender, frequency of interaction with non-Roma parents in the child's (pre)school, and perceived discrimination, 0.2% for material deprivation and quality of parent-teacher relationships, 0.4% quality of interaction with non-Roma parents in the child's (pre) school, 1.3% for children's age, 3.9% for mothers' educational aspirations, and 5.2% for mothers' education level. Little's (1988) Missing Completely at Random (MCAR) test, $\chi^2=118.825, df=78, p=0.002$, revealed a normed chi-square (χ^2/df) of 1.52, so <2, which, according to Bollen (1989), indicates that missing data were mostly at random and, thus, missing values could safely be imputed. Therefore, the expectation maximisation algorithm was used to impute missing data using all information available from observations on the other model variables.

To examine the predictive role of family characteristics (material deprivation and mothers' educational level) and mesosystemic variables (e.g., quality and frequency of interactions with non-Roma parents, parent teacher interactions, and perceived discrimination), while controlling for children's age and gender, a multiple regression model was tested, using AMOS (v. 28) (Arbuckle, 2021). Significant covariances among the predictor variables were allowed in the model, based on inspection of the modification indices and theoretical interpretability (Fig. 1). Then, to test the moderating role of country, a multiple group analysis with AMOS (v. 28) (Arbuckle, 2021) was performed. An unconstrained multiple group model, with all paths allowed to be freely estimated across Czech, Greek, and Portuguese participants, was compared to a model where all paths were constrained to be equivalent across both groups. To evaluate model fit, the following fit indexes and criteria were used as indicative of a good fit: the comparative fit index (CFI) and the goodness of fit index (GFI) approaching 1, the root mean square error of approximation (RMSEA)<0.05, and the standardised root mean residual (SRMR)<0.08 (Hu & Bentler, 1999; Kline, 2011).

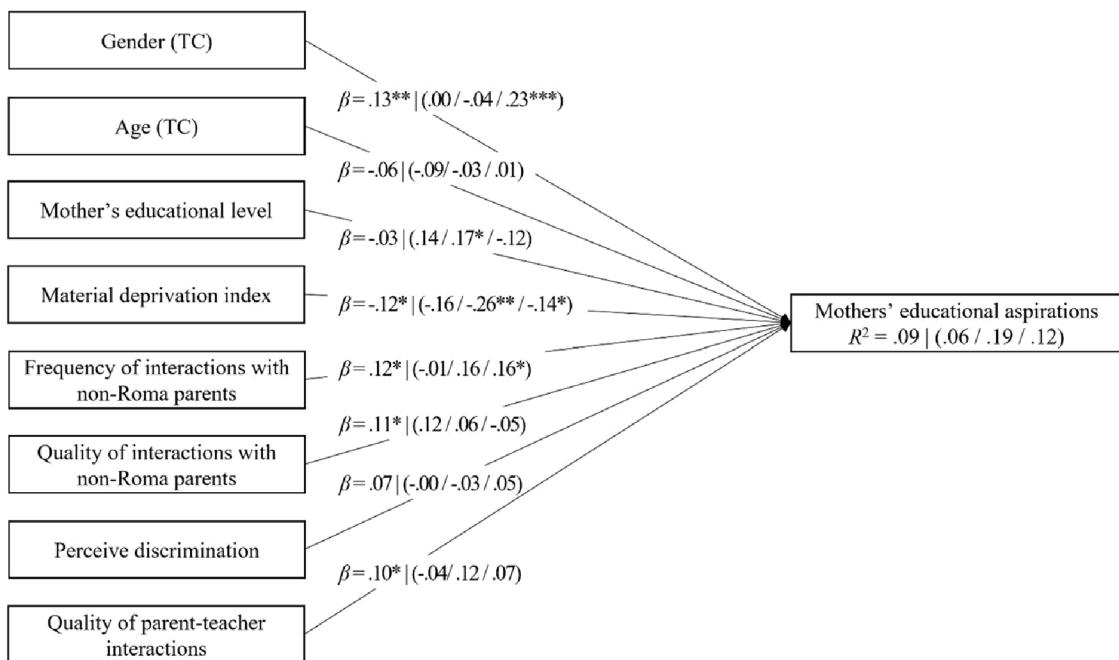


Fig. 1 Predictive model examining the associations between child and mother characteristics, and mesosystemic links to teachers and other parents, and mothers' educational aspirations for their children, considering participating country group as a moderator. Note. Estimates for the whole sample model and the moderation model are presented in the figure according to the following scheme: Whole sample | (The Czech Republic/Greece/Portugal). * $p < .05$. ** $p < .01$. *** $p < .001$

3 Results

3.1 Descriptive statistics and bivariate correlations

The means, standard deviations, and bivariate correlations among study variables for the whole sample are presented in Table 1. Table 2 presents the descriptive statistics of the study variables for each country. Considering zero-order correlations, the gender of the child was positively correlated with mothers' perceived discrimination and mothers' educational aspirations. Specifically, having a son instead of a daughter was related to more perceived discrimination and higher educational aspirations. Mothers' education level was negatively correlated with material deprivation index and positively correlated with both frequency and quality of interactions with non-Roma parents. Material deprivation was positively correlated with perceived discrimination, and negatively correlated with frequency and quality of interactions with non-Roma parents, quality of parent-teacher relationships, and mothers' educational aspirations. Frequency and quality of interactions with non-Roma parents were positively interrelated, positively correlated with quality of parent-teacher relationships and mothers' educational aspirations, and negatively correlated with mothers' perceived discrimination. Finally, the quality of parent-teacher relationships was positively correlated with mothers' educational aspirations.

Table 2 Descriptive statistics for each country

	The Czech Republic		Greece		Portugal	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Gender (child) ^a	.58	—	.45	—	.51	—
Age (child)	8.34	2.62	8.21	2.66	7.55	2.81
Mother's educational level	1.26	0.47	1.16	0.41	1.19	0.39
Material deprivation index	5.86	3.01	7.34	4.07	6.32	2.70
Contact frequency	3.15	0.90	3.22	0.67	3.51	0.68
Contact quality	2.66	0.98	2.99	0.75	2.94	0.65
Mother's perceived discrimination	1.51	0.71	1.89	0.87	1.36	0.55
Parent-teacher relationships	4.34	0.85	4.42	0.74	4.80	0.51
Educational aspirations	1.90	0.96	2.91	0.77	2.80	1.13

M = mean; *SD* = standard deviation

^aThe proportion of girls is reported

3.2 Predictors of educational aspirations

The model examining material deprivation, mothers' educational level, frequency and quality of interactions with non-Roma parents at school, quality of parent-teacher relationships, and perceived discrimination, as predictors of mothers' educational aspirations for their children (controlling for children's age and gender) presented good model fit, $\chi^2(21)=57.333$, $p<.001$; GFI=0.97; CFI=0.88; RMSEA=0.061; SRMR=0.067. Model results showed that mothers' educational aspirations were significantly predicted by material deprivation, $\beta=-0.12$, $p=.013$, frequency, $\beta=0.12$, $p=.014$, and quality of interactions with non-Roma parents at the child's (pre)school, $\beta=0.11$, $p=.031$, and parent-teacher relationships, $\beta=0.10$, $p=.017$. Child's gender was also associated with mothers' educational aspirations, $\beta=0.13$, $p=.004$. In other words, having a son instead of a daughter, higher frequency and quality of interactions with non-Roma parents at the child's school, and better parent-teacher relationships predicted higher educational aspirations, while higher levels of material deprivation predicted lower educational aspirations (see Fig. 1).

3.3 The moderating role of participants' country

The multiple group model analysing the moderating role of participants' country showed a significant chi-square difference between the unconstrained and constrained models: $\Delta\chi^2(16)=26.279$, $p=.050$, indicating that the overall model varied significantly between the Czech, Greek, and Portuguese groups. A Z test of the equality of the structural weights revealed that the effects of child's gender and mother's education level were significantly different between Portuguese and both Czech, $Z_{(\text{child's gender})}=2.349$, $p=.019$; $Z_{(\text{mother's education level})}=-2.339$, $p=.019$, and Greek participants, $Z_{(\text{child's gender})}=2.981$, $p<.003$; $Z_{(\text{mother's education level})}=-2.638$,

$p=.008$. Specifically, the effect of child's gender was significantly stronger for the Portuguese group, as compared to both the Czech and the Greek groups (Fig. 1). Regarding mothers' education level, its effect was significantly stronger for the Portuguese group as compared to the Czech group, but significantly weaker as compared to the Greek group (Fig. 1).

4 Discussion

Parents' educational aspirations regarding their children's future educational paths play a critical role in children's academic outcomes as well as other school-related processes (e.g., Chiapa et al., 2012; Fan & Chen, 2001; Gregg & Washbrook, 2009; Kim, 2022; Schoon et al., 2007; Seginer, 1983; Villiger et al., 2014). While previous research focused mainly on the associations between parental educational aspirations and child outcomes, the socio-psychological factors that account for variation in parental aspirations have not received adequate attention (Rutchick et al., 2009). This is particularly true for Roma communities who are the most disadvantaged and marginalised minorities in Europe and are frequently excluded from the benefits of education. Therefore, based on an ecological perspective (Bronfenbrenner, 1979, 1986; Bronfenbrenner & Morris, 2006), and informed by socio-psychological perspectives focusing on the role of intergroup contact (e.g., Allport, 1954; Ives et al., 2016; Kende et al., 2017a, 2017b), we examined the associations between micro and mesosystemic predictors and the educational aspirations of Roma mothers from three European countries, namely the Czech Republic, Greece, and Portugal. Overall findings suggest that material deprivation (microsystem level), frequency and quality of interactions with non-Roma parents, as well as the quality of parent-teacher interactions (mesosystem level), predict Roma mothers' educational aspirations. However, the pattern of findings varied somewhat as a function of country.

4.1 Microsystemic predictors of educational aspirations

As predicted, we found an association between material deprivation and the educational level mothers aspired their children to complete, thus confirming H1 for the entire sample. Previous research has evidenced SES as a strong predictor of parental aspirations (e.g., Dalton et al., 2016; Singh et al., 1995), portraying parents with higher SES backgrounds as holding higher educational aspirations (Oketch et al., 2012; Schoon et al., 2007; Zhang et al., 2007) than those experiencing socioeconomically disadvantage (Lareau, 2011). Moreover, previous findings suggest intersections between socioeconomic status and ethnic background in parental aspirations, with some studies indicating stronger effects of socioeconomic status than of ethnicity on the educational outcomes of Roma students (Kertesi & Kézdy, 2016) and on Roma parents' aspirations (Želinský et al., 2021). Importantly, when considering the multi-group analysis, the effect of material deprivation did not vary significantly across the three countries. Relatedly, Roma in all three countries face severe material deprivation and socioeconomic exclusion (FRA, 2022), as reflected

in characteristics of the participants in this study. Therefore, even when presenting higher educational aspirations for their children, the capacity of these low-income Roma mothers to guide their children in achieving their high aspirations, while facing the lack of necessary resources (Dalton et al., 2016; Sime et al., 2018), may be limited.

Contrary to our expectations (H2), we did not find an association between Roma mothers' education and their educational aspirations for children, when considering the whole sample. This finding is not consistent with previous studies reporting associations between Roma parents' educational background and educational aspirations for children (e.g., Želinský et al., 2021). However, the multigroup analysis suggested that the effects of mothers' education level were statistically significantly different across countries, and specifically stronger (statistically significant) for Greek mothers. This finding is consistent with H7 (partially confirmed), supporting the view that Roma communities across Europe are heterogeneous and, thus, it is likely that the predictors of educational aspirations are specific to each country/community. In formulating H7, we did not specify the direction of the moderation effects, due to the exploratory nature of our analyses. It is possible that mothers' education is more consequential towards educational aspirations in the Greek sample due to a specific configuration of factors including higher material deprivation and higher perceived discrimination. However, our research design does not allow us to explain these differences and additional research is needed in this regard.

4.2 Mesosystemic predictors of educational aspirations

Consistent with our hypotheses, we also found associations between mesosystemic variables and Roma mothers' educational aspirations, when considering the whole sample. Specifically, we found that Roma mothers' educational aspirations were predicted by more frequent and higher-quality interactions with non-Roma parents as well as higher-quality parent-teacher relationships, thus confirming H3, H4, and H6, respectively. Importantly, the multigroup analysis indicated that the effects of these variables were not significantly different across countries. These findings are consistent with intergroup contact theory (e.g., Allport, 1954; Pettigrew & Tropp, 2006) and expand current knowledge in the field, as most studies on parental aspirations of minority children focused on microsystemic predictors (Areepattamannil & Lee, 2014; Sosu, 2014). These associations suggest that frequent and high-quality interactions and relationships with non-Roma parents and teachers may play a key role in shaping Roma mothers' beliefs about education, and specifically, their educational aspirations for their children. Previous research has shown that more frequent intergroup contact can strengthen positive relationships among low-income families, fostering mutual trust (Rangel et al., 2020). Further, the quality of the relationships between parents and teachers, as indicated by the level of trust, can have positive effects on parental educational involvement (Santiago et al., 2016).

Importantly, the frequency of contact can be insufficient if it is not of a certain quality and does not occur under certain conditions (Allport, 1954; Williams, 1964) and, conversely, previous studies show that more frequent contact between Roma

and non-Roma under suboptimal conditions is a source of conflict rather than of prejudice reduction (Kende et al., 2017a, 2017b). The current work suggests that both frequent and high-quality interactions with non-Roma parents and trusting relationships with teachers matter in shaping educational aspirations in a sample of Czech, Greek, and Portuguese Roma mothers. An important issue, however, is the extent to which Roma families experience school-based hostility and discriminatory practices (Bhopal, 2011; Cviklová, 2015; Hellgren & Gabrielli, 2021; Zachos & Panagiotidou, 2019), while Roma students face career stereotyping, low expectations (Forster & Gallagher, 2020), and long term academic failure (Giménez-Adelantado et al., 2002), and the detrimental effects of such experiences. Further, even though teachers may hold positive views about cultural diversity, they often find it difficult to translate these views into professional practice (López López & La Malfa, 2020).

At the mesosystemic level, still, we did not find an association between perceived discrimination at (pre)school and Roma mothers' educational aspirations for their children and, thus, did not confirm H5. Further, the multigroup analysis did not indicate significant differences across countries. It could be relevant that we used data on perceived personal discrimination, which has been found to be lower than awareness of discrimination towards other group members (see Civitillo et al., 2021) and controlled for features of interactions and relationships with non-Roma parents and teachers. Nevertheless, these results add to inconsistent findings on the complex associations between perceived discrimination and minority parents' and students' educational aspirations (e.g., Goldenberg et al., 2001; Hellgren & Gabrielli, 2021; Teney et al., 2013).

4.3 Limitations and future research

Although this study contributes to the knowledge about educational aspirations of Roma mothers, it has several limitations. Firstly, we only considered mothers' reports. Thus, we were unable to grasp perspectives of other caregivers such as fathers, grandparents, foster parents, or siblings. However, our selection strategy was in line with the predominant pattern of Roma mothers being the main caregivers (Levinson & Sparkes, 2006). Also, our recruiting strategies relied on mediators from schools or non-governmental organisations who were more likely to reach Roma mothers, who are typically in contact with these institutions. Nevertheless, examining Roma fathers' perspectives on their child's education represents a significant gap in the research on Roma communities' education and remains open for further research. Secondly, we relied on self-reported data following the survey design of the ISOTIS project. We were not able to contrast Roma mothers' educational aspirations with other data focused on their practices (e.g., observations of the home environments and educational activities), which could enhance the validity and robustness of the findings. Relatedly, future research could apply qualitative approaches to examining Roma parents' educational aspirations or mixed methods designs which could contrast qualitative and quantitative data. Thirdly, some important variables were not part of the analysis (e.g., children's outcomes), as we did not have access to this information. Importantly, this cross-sectional and correlational study cannot

be used to infer causality and other variables may be associated with Roma mothers' educational aspirations for their children, as reflected in the low percentage of variance explained by our model. Relatedly, we acknowledge that Roma mothers' educational aspirations might also predict parental behaviours at the mesosystem level such as the frequency of interaction with non-Roma parents and the quality of their relationships with teachers and, therefore, this work does not allow us to disentangle the direction of these associations.

4.4 Conclusion

To summarise, we add to the current knowledge in the field of Roma communities' education by examining the predictors of mothers' educational aspirations for their children and, thus, going beyond dominant research on the associations between educational aspirations and child outcomes. We fill several research gaps by studying underrepresented Roma mothers (for exceptions, see Dimitrova et al., 2018; Sime et al., 2018) of preschool as well as school-aged children, in the Czech Republic, Greece, and Portugal. Our findings add to previous research about the major role of poverty in shaping educational outcomes, including attitudes towards school (see García et al., 2019), and add to evidence on the need for strong anti-poverty policies focusing on Roma communities (Ivanov et al., 2015). We emphasise the role of mesosystemic predictors such as contact with non-Roma parents which may play a key role in shaping Roma mothers' beliefs about education. Therefore, we add to previous research which has accentuated microsystemic and sociodemographic characteristics of families by showing the role of mesosystemic variables.

There is evidence of differences between Roma and non-Roma low-income parents' involvement in (pre)school formal (Pahic et al., 2011) as well as informal activities and events, with Roma parents participating less than non-Roma (Ferreira et al., 2021; Frew et al., 2012). Therefore, understanding what Roma mothers think about their children's education or their aspirations is key to helping those who are directly (e.g., teachers) or indirectly (e.g., policymakers) involved with Roma children's education by tackling persistent disadvantages and marginalisation. Mothers' views can inform national and European policymakers regarding improvements in educational systems and support services, based on culturally informed research.

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Declarations

Conflict of interest The authors have no competing interests to declare that are relevant to the content of this article.

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