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# Immigration status and bullying victimization: Associations across national and school contexts



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#### ABSTRACT

This study examined whether the association between immigration and bullying victimization differed across immigrant generation, age and national and school context. Data were used from the 2013–14 Health Behavior in School-Aged Children study among nationally-representative samples of young people in 26 countries/regions. Multilevel logistic regression analyses showed that first- and second-generation immigrants were more likely to report bullying victimization than non-immigrants. However, differences according to immigration status were more pronounced for first- than second-generation immigrants. For both immigrants and non-immigrants, bullying victimization was less prevalent at older ages. Strikingly, all immigration effects were similar across countries, and only differences in bullying victimization between second-generation immigrant and non-immigrant youth varied across schools. This variation was not related to school-level classmate or teacher support. Findings point to the vulnerability of immigrant youth for bullying victimization throughout Europe.

#### Introduction

Given the high prevalence of bullying victimization throughout Europe (Inchley et al., 2016), and the short- and long-term problems associated with this (e.g., Copeland, Wolke, Angold, & Costello, 2013; Kretschmer, Veenstra, Deković, & Oldehinkel, 2017), research has given considerable attention to identifying individual-level risk factors for bullying victimization. One of these factors is immigration status. Theoretically, it has been proposed that immigrant youth may experience more bullying victimization than their non-immigrant peers because immigrants are easy targets for bullying since they may look, dress and talk differently than non-immigrant youth, they have a relatively low social standing because of prejudices toward their ethnic group (Mendez, Bauman, & Guillory, 2012), and they sometimes have less well-developed support networks (Oppedal, Røysamb, & Sam, 2004). In line with this, several studies found more bullying victimization among immigrant than non-immigrant youth (e.g., Alivernini, Manganelli, Cavicchiolo, & Lucidi, 2019; Borraccino et al., 2018; Strohmeier, Kärnä, & Salmivalli, 2011; Walsh et al., 2016). In contrast, several other studies revealed similar levels of bullying victimization among youth with and without an immigrant background (Fandrem, Strohmeier, & Roland, 2009; Stefanek, Strohmeier, de van Schoot, &

Spiel, 2012; Jugert & Titzmann, 2017; Vervoort, Scholte, & Overbeek, 2010)

These inconsistent findings might indicate that the immigrationvictimization link depends upon the context in which immigrant youth and their parents grow up. However, as outlined below, it remains an open question as to whether differences in bullying victimization between immigrant and non-immigrant youth depend on the country of residence, and the same accounts for the school context. In addition, the interplay between developmental and immigration processes (Titzmann & Lee, 2018) has not been addressed satisfactorily. In this study, we contribute to the literature by investigating the association between immigration status (distinguishing between immigrants of the first and second generation) and bullying victimization in a large nationally representative cross-national, school-based sample of young people. In doing so, we investigate whether the lower prevalence of bullying victimization at older ages occurs for first- and second-generation immigrants as for non-immigrants. Moreover, we study whether the national and school context of immigrant youth influences the association between immigration status and bullying victimization.

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## Immigrant generation, age and the immigration – bullying victimization link

On the individual level, both the immigrant generation and the age of the youngster may influence the link between immigration and bullying victimization. For immigrant generation, two contradictory hypotheses can be formulated. First, second-generation immigrants, who are born in the receiving country, are more likely to be socially and culturally integrated and are more proficient in the receiving-country language than first-generation immigrants (e.g. Barban & White, 2011). Consequently, this immigrant generation may have a higher social status and may be perceived as less 'different' than first-generation immigrants. Combining this with the notion that bullving involves differences in power and status, with the bully holding higher levels of power than the victim (Olweus, 1997), the immigration-bullying victimization link may be stronger for first- than second-generation immigrant youth. Second and in contrast, the 'immigrant paradox' presupposes that immigrants from later generations face more stressors (Fuligni, 2012), due to lower levels of ethnic support and disillusion and frustration related to negative attitudes from the host population, leading to more delinquency and behavioral problems and subsequently more bullying victimization (Eggers & Mitchell, 2016; Peguero & Williams, 2013).

These contrasting theoretical notions are reflected in the available empirical literature. Studies conducted in the US seem to support the idea of an immigrant paradox by showing that victimization increased with immigrant generation, which was explained by an increase in deviant behavior and by a decrease in neighborhood safety with immigrant generation (Eggers & Mitchell, 2016; Peguero & Williams, 2013). In Europe, however, the 'immigrant paradox' has not received much support (Dimitrova, Chasiotis, & van de Vijver, 2016; Stevens et al., 2015). In line with this, several studies conducted in Europe revealed lower incidences of victimization in second- than first-generation immigrant youth (Alivernini et al., 2019; Borraccino et al., 2018; Strohmeier et al., 2011). Our study is representative for the European context and, hence, we expect the association of immigration status with bullying victimization to be stronger in first- than in second-generation immigrant youth.

The association between immigration and bullying victimization may not only be influenced by the immigrant generation but also by the age of the young people. Between the age of 11 and 15, an overall decline in bullying victimization has been found (e.g., Smith & Gross, 2006; Smith, Madsen, & Moody, 1999; Tippett, Wolke, & Platt, 2013). However, although hardly investigated, there are two central arguments why this might apply to a lesser extent to immigrant than to nonimmigrant youth. From the victim's perspective, immigration related processes may make the development of social and cognitive skills that help to understand and manage tense situations and avoid victimization more complex. Immigrant youth are simultaneously coping with the normative developmental processes and with the multiple stressors associated with having an immigration status. They have to cope with cultural stressors (Schwartz et al., 2015), to develop an ethnic and receiving-country identity, to cope with the changes in family dynamics (Lorenzo-Blanco et al., 2016) and to protect themselves from negative receiving-country attitudes and discrimination (Jasinskaja-Lahti, Liebkind, & Perhoniemi, 2006). We suggest that these multiple stressors can hamper or burden the developmental process, slowing down the normative development of cognitive and social skills (Gunnar & Quevedo, 2007). From the perpetrator's perspective, the acquisition of more advanced social skills typically leads to less bullying as children get older (Smith et al., 1999), but this might not apply to bullying of immigrants. Given that immigrants are seen as 'different' from nonimmigrants on many levels (Mendez et al., 2012), they may have a lower social standing and they may experience less social support (Oppedal et al., 2004), and, therefore, immigrant youth may remain prime targets for bullying victimization even when they grow older. However, this may be particularly true in contexts characterized by hostility toward immigrants, where anti-immigrant attitudes are strong and negative behaviours toward immigrants are more acceptable (Rustenbach, 2010).

## National and school context and the immigration – bullying victimization link

In general, it has been argued that youth development is best understood by the inclusion of multiple layers of influence, starting from the resources of the individual, through proximal (e.g., the family, school and peers) and more distal influences (e.g., the neighborhood, community and national context and policies) (Bronfenbrenner & Morris, 2007). For instance, in the Integrative Framework for Studying Immigrant Youth Adaptation (IFSIY) (Motti-Stefanidi, Berry, Chryssochoou, Lackland Sam, & Phinney, 2012), a three-level approach for understanding the adaptation of immigrant youth is suggested: the individual level, the interaction level and the societal level. This IFSIY model highlights the interconnection of these three levels and specifically the interaction between the young person with each of these layers of influence. The extent to which immigration is linked to bullying victimization may, according to these theoretical assumptions, crucially depend upon the context in which immigrant youth grow up in. More specifically, above we discussed that the association between immigration and bullying victimization may originate from immigrants being perceived of as different, less worthy and experiencing less support than their non-immigrant peers (Mendez et al., 2012; Strohmeier et al., 2011), and their position in society may hamper their development of social and cognitive skills protecting them from being bullied (Gunnar & Quevedo, 2007). This, however, also presupposes that the risk of victimization for immigrant youth may be considerably lower in contexts in which immigrants are viewed and treated in a (relatively) positive way.

At the *country level*, integration policies and national level attitudes toward immigrants may be reflective of such views and treatments. One way of measuring the integration conditions is the Migrant Integration Policy Index, MIPEX. The MIPEX assesses migration and integration policies by 148 policy indicators related to whether residents are guaranteed equal rights, responsibilities and opportunities (Huddleston & Vink, 2015). According to this index, countries vary substantially in their migration and integration policies, and it seems likely that these policies shape the context of the immigrant experience (Borrell, Palència, Bartoll, Ikram, & Malmusi, 2015). Generally, it is expected that inclusive migration and integration policies will reduce tensions between the receiving society and new groups, and at the same time reduce the feeling among immigrants that they are being discriminated against and oppressed (Hooghe, Reeskens, & Stolle, 2007). There is some empirical evidence to support this claim (Hooghe et al., 2007), although the available research is not consistent (André & Dronkers, 2017). The general public's level of anti-immigrant attitudes may also colour the immigrant experience, and as such may impact on immigrants' level of bullying victimization. Research on majorities' attitudes toward immigrants has indicated large differences between countries in such attitudes (Meuleman, Davidov, & Billiet, 2009). Also, it has been substantiated that contexts with frequent anti-immigrant attitudes shape the reception of immigrants in a society (Tartakovsky & Walsh, 2016). They for instance create barriers to full societal participation and may lead to (perceptions of) discrimination among immigrant groups (Zagefka, Brown, Broquard, & Martin, 2007). Thus, inclusive migration and integration policies as well as low levels of antiimmigrant attitudes may reduce differences in bullying victimization between immigrants and non-immigrants.

To explore the importance of the national-level context for the association between immigration and bullying victimization, particularly migration and integration policies and anti-immigrant attitudes, internationally comparative research is required, using multi-level

modelling. However, the sheer lack of studies that have included enough countries to conduct multi-level analyses hinders an answer to this research question. Some previous studies do provide some indications that the national context, and particularly migration and integration policies, might impact upon the wellbeing or mental health of both adult immigrants and their children. Using either adult samples or by means of a meta-analysis, this literature suggests inclusive migration and integration policies to have positive effects on immigrant mental health and wellbeing (e.g., Dimitrova et al., 2016; Levecque & Van Rossem, 2015).

On the more proximal level, *school* is the place where young people spend a significant proportion of their days and as such is a crucial context for bullying victimization (Svensson, Stattin, & Kerr, 2011). In school, immigrant youth form contacts with receiving-society peers, which can either enable and enhance their integration and sense of belonging (D'hondt, Van Praag, Van Houtte, & Stevens, 2016), or can be patterned by discrimination and lead to feelings of rejection and alienation. Combining this with the major theoretical notions outlined above, the extent to which immigrant youth run a risk of bullying victimization may depend upon the atmosphere in the school, for instance the average level of perceived classmate and teacher support (Suldo et al., 2009). More specifically, in school contexts where students' average perceived levels of teacher and classmate support are high, differences in bullying victimization between immigrant and non-immigrant youth may be relatively small.

Studies on the role of the school context on immigrant bullying victimization, have generally focused on the individual-level perspective. These studies showed that individual perceptions of teacher and classmate support are associated with lower bullying victimization (Álvarez-García, García, & Núñez, 2015), both for those with an immigrant and non-immigrant background (Walsh et al., 2016). Studies focusing on the school level are scarce, but seem fruitful. For instance, it was found that classroom support aggregated on the school level was associated with lower levels of bullying victimization in both immigrants and non-immigrants (Walsh et al., 2016). Also, diversity norms of equality and inclusion in schools were associated with stronger outgroup orientation among students of non-immigrant background and with lower perceived discrimination among students of immigrant background (Schwarzenthal, Schachner, van de Vijver, & Juang, 2018). Thus, both theoretically and empirically, it can be expected that the association between immigration and bullying victimization may weaken with increasing levels of school-level teacher and classmate support.

#### This study

This study was the first to investigate the association between immigration and bullying victimization by means of a large-scale internationally comparative study conducted in 26 countries/regions. Using this unique dataset, we also explored the importance of the national and school context on the strength of this association. More specifically, we examined: 1) the association between immigration status and bullying victimization, distinguishing between first- and second-generation immigrants; 2) the extent to which the lower prevalence of bullying victimization at older ages occurred similarly for first- and second-generation immigrants as for non-immigrants; 3) whether the associations between immigration status and bullying victimization varied with the receiving country and if so, we investigated the importance of nationallevel migration and integration policies and anti-immigrant attitudes for these associations; 4) whether the associations between immigration status and bullying varied with the school context and if so, tested whether these associations varied with the school-level social support received from classmates and teachers.

Based on the literature and the theoretical reasoning outlined above we hypothesized more bullying victimization for immigrants than nonimmigrant youth. The association between immigration on bullying victimization was expected to be stronger for first- than for secondgeneration immigrant youth and age differences in bullying victimization to be greater for non-immigrants than immigrants. In addition, we expected the immigration-bullying link to vary with the receiving country. Specifically, we hypothesized that the more inclusive migration and integration policies in a particular country are, and the less prevalent anti-immigrant attitudes are, the smaller the bullying victimization gap between immigrant and non-immigrant youth will be. Similarly, it was expected that the association between immigration status and bullying victimization is dependent upon the school context. In school contexts with high average levels of perceived teacher and classmate support, differences in bullying victimization between immigrant and non-immigrant youth were expected to be relatively small.

#### Method

Participants and procedure

The Health Behavior in School-Aged Children (HBSC) study is a WHO collaborative cross-national study conducted every four years in over 40 countries/regions in Europe, Canada and Israel. The HBSC study collects data on the well-being and social environments of 11-, 13-, and 15-year-old boys and girls. A standardized sampling method was used to ensure that all national samples were representative of groups living in the country within the age range (Roberts et al., 2009). Cluster sampling was conducted in accordance with the structure of national education systems within each country. Sampling was stratified by region or school type, as appropriate. The primary sampling unit was the school class, or the whole school where a sample frame of classes was not available. The data also provided a sampling weight to take into account the countries' survey design in analyses. Data were collected anonymously using a questionnaire completed in the classroom. All participating countries and regions obtained institutional ethics approval.

In the 2013/2014 wave of the HBSC study, a subset of 31 countries/ regions asked participants about their own and their parents' country of birth, which was used to establish the immigration status of young people. Within these 31 countries/regions, in three countries these questions were only asked to the older youth. In Czech Republic and Austria only 15-year old young people were asked about their own and their parents' country of birth, and the same was true for 13- and 15year-olds from Portugal. The HBSC study included two datasets for Belgium, one for the French and one for the Flemish region, and two datasets for Great Britain, Scotland and Wales (the country of birth questions were not asked in England). These regions/countries were assigned to country-level data from respectively Belgium and Great Britain, because there were no country-level data for these separate regions/countries. Country-level data on migration and integration policies and national-level anti-immigration attitudes were available for 26 of the 31 countries/regions. Thus, in total, 26 countries/regions were included in the current study, with national-level data for 24 countries. This led to a final sample of 128,506 participants (female: 50.57%; Mage = 13.19; SDage = 1.65) within 4759 schools. Young people originated from > 130 different countries, with large groups coming from Germany, Morocco, Poland, Romania, Russia and Turkey. In the final sample, 6.69% of the youth were first-generation immigrants and 15.74% second-generation immigrants. For an overview of included countries, as well as their sample sizes, see Table 1.

#### Measures

Individual-level variables

Bullying victimization

Following a definition of bullying (Olweus, 1997), young people were asked how many times they had been bullied at school in the past

**Table 1** Proportion of bullying victimization in first-generation immigrant, second-generation immigrant and non-immigrant youth in 26 European countries/regions ( $n_i = 128,506, n_c = 26$ ).

Country	N	Native	First- generation	Second- generation
Total	128,506	Proportion 0.089 <sup>a</sup>	Proportion 0.128 <sup>c</sup>	Proportion 0.107 <sup>b</sup>
Countries where in immigrant you		h reported more	bullying victimiz	ation than non-
Finland	5925	$0.097^{a}$	$0.182^{b}$	0.141 <sup>b</sup>
Iceland	10,602	0.043 <sup>a</sup>	0.078 <sup>b</sup>	$0.072^{b}$
Romania	3980	$0.110^{a}$	$0.182^{b}$	0.191 <sup>b</sup>
Slovenia	4997	$0.079^{a}$	0.135 <sup>b</sup>	$0.107^{b}$
Spain	11,136	$0.054^{a}$	0.089 <sup>b</sup>	$0.088^{b}$
Sweden	7700	$0.040^{a}$	$0.072^{\mathrm{b},\dagger}$	$0.053^{\mathrm{b},\dagger}$
Belgium (French)	5892	$0.185^{a}$	0.260°	$0.220^{\rm b}$
Estonia	4057	$0.150^{a}$	0.315 <sup>c</sup>	$0.222^{b}$
Belgium	4393	$0.084^{a}$	$0.128^{b}$	$0.083^{a}$
(Flemish)				
Denmark	3891	$0.060^{a}$	$0.112^{b}$	0.068 <sup>a</sup>
Germany	5961	$0.092^{a}$	$0.157^{b}$	$0.089^{a}$
Ireland	4098	$0.074^{a}$	$0.108^{b}$	$0.058^{a}$
Italy	4072	$0.050^{a}$	$0.092^{b}$	0.064 <sup>ab</sup>
Luxembourg	3318	$0.106^{a\dagger}$	$0.162^{b}$	$0.129^{ab\dagger}$
Switzerland	6634	$0.109^{a}$	$0.136^{b}$	$0.114^{ab}$
Netherlands	4301	$0.079^{a}$	$0.073^{ab}$	$0.109^{b}$
Countries where in bullying victin	•	non-immigrant y	outh reported sin	nilar levels of
Austria	1336	0.108	0.077	0.103
Bulgaria	4796	0.149	0.239	0.133
Croatia	5741	0.081	0.124	0.080
Czech Republic	1856	$0.041^{\dagger}$	$0.111^{\dagger}$	0.047
Greece	4141	$0.063^{\dagger}$	$0.073^{\dagger}$	0.072
Malta	2265	$0.077^{\dagger}$	$0.126^{\dagger}$	0.090
Norway	3072	$0.064^{\dagger}$	$0.076^{\dagger}$	0.087
Portugal	3256	$0.127^{\dagger}$	0.127	$0.119^{\dagger}$
Scotland	5932	0.133	0.137	0.146
Wales	5154	$0.138^{ab}$	$0.185^{b}$	$0.105^{a}$

Notes: Different superscripts indicate significant differences between groups based on logistic regression and p < 0.05; Countries were grouped based on similar patterns in differences in bullying victimization based on p < 0.05.

couple of months. The response categories available were: 'I have not been bullied by another pupil in the past couple of months' (1), 'it has happened only once or twice' (2), '2 or 3 times a month' (3), 'about once a week' (4), 'several times a week' (5). This is one of the most validated measures on bullying victimization (Vessey, Strout, DiFazio, & Walker, 2014) with sound construct validity (Kyriakides, Kaloyirou, & Lindsay, 2006). In line with previous studies using the HBSC bullying questions and in order to identify young people who are victims of chronic bullying, the variable was dichotomised with a cut-off point of two or three times a month or more experiences of bullying victimization in the past couple of months (Chester et al., 2015).

#### Immigration status

Young people were asked where they themselves, their mother and their father were born. Former research indicated that children as young as 11 years provide valid responses to these questions, by showing that the amount of agreement between the answers of the children and their parents is almost 100% (Nordahl, Krolner, Pall, Currie, & Andersen, 2011). If young people were born abroad, they were considered first-generation immigrants. If they were born in the survey country and at least one of their parents was born abroad, they were considered second-generation immigrants. If young people and both their parents were born in the survey country, they were considered as non-immigrants. Considering the historical context, some countries of birth of the young people and his/her parents were not considered as 'abroad'. For Denmark this was true for Greenland, for

Ireland this accounted for the Northern Republic of Ireland, for Scotland, Wales and England were not considered abroad and for Wales this was true for Scotland and England.

#### Age

Young people were asked about their day, month, and year of birth. Age was calculated based on the birthdate and the day of survey participation. The age variable was used as a continuous variable.

#### Control variables

In the analyses, we included sex and family affluence as controls. Sex was coded as 0 'male' and 1 'female'. Family affluence was measured with the Family Affluence Scale which asks students about material assets of the family using 6 items (Torsheim et al., 2016). A sum score was computed out of all 6 items, ranging from 0 to 13. Higher values on this measure expressed a higher family affluence.

#### Country-level variables

#### Migration and integration policies

This variable was constructed using data from the Migrant Integration Policy Index from 2014 (Huddleston & Vink, 2015). The MIPEX has been developed by the British Council and the Migration Policy Group and allows for a comparative assessment of the degree of legal equality of immigrants across 28 EU member-states, Norway, Switzerland and Canada (Huddleston & Vink, 2015). The MIPEX consisted of eight indicators, such as policies about labour market mobility, family reunification, education, and anti-discrimination. The higher the MIPEX score, the better the policy meets the highest standard for equal treatment of natives and immigrants.

#### Anti-immigrant attitudes

Data on anti-immigrant attitudes were used from the 2008 European Values Study. To assess these attitudes, interviews were conducted with adults from a representative multi-stage random sample in each of the participating countries. The variable consisted of five items, with a scale from 1 to 10 (Weber, 2015). Sample items were 'immigrants take away jobs from natives in a country' and 'immigrants make crime problems worse'. The higher the score, the more negative the national-level attitudes toward immigrants were.

#### School-level variables

#### Classmate and teacher support

School-level classmate and teacher support were assessed using the Teacher and Classmate Support Scale (Torsheim, Wold, & Samndal, 2000). Confirmatory factor analysis from a number of European countries (Torsheim et al., 2000) supported a two factor structure for teacher and classmate support and confirmed test-retest reliability and measurement invariance across countries. Classmate support was composed from three questions, for instance 'Most of the students in my class(es) are kind and helpful'. Questions had five answering categories: 'Strongly agree' (1), 'Agree' (2), 'Neither agree nor disagree' (3), 'Disagree' (4), 'Strongly disagree' (5). All items were recoded such that high values indicate high classmate support and scale scores were calculated by taking a mean of all three items. Subsequently, the school's mean in experienced classmate support was calculated to construct the schoollevel variable. Teacher support was also assessed by three items, for instance 'I feel a lot of trust in my teachers'. The answering categories for these teacher questions were the same as for classmate support and recoding and computation of the school-level scale scores was therefore carried out correspondingly. Cronbach's alpha for the three classmate support items on school level was 0.85, and it was 0.89 for teacher support.

 $<sup>^{\</sup>dagger}$  Indicate group differences at p < 0.10.

#### Missing values

In the final sample (N = 128,506), 17.99% had missing data on one or more individual-level variables. Multiple imputation was applied to reduce potential bias that is typically associated with listwise deletion of observations (Roth, Switzer, & Switzer, 1999) using Mplus 8.3 with the default unrestricted 'covariance' method (Asparouhov & Muthén, 2010). Data were imputed for bullying victimization (4.37% missing), immigration status (3.42% missing), age (0.97% missing), all three classmate support items (2.49-2.98% missing), all three teacher support items (2.76–3.62% missing), and family affluence (9.21% missing). There were no missing values on sex. Missing data were imputed based on available data on all these variables as well as auxiliary variables (Graham, Olchowski, & Gilreath, 2007) including family structure, friend support, family support, life satisfaction, liking school, perceived school pressure, bullying others, cyberbullying victimization, and fighting. The fraction of missing (FOM) of all parameters in the analyses ranged from 0.00 to 0.737, which expresses the extent to which a parameter is inflated due to nonresponse (Savalei & Rhemtulla, 2012). With ten imputations (i.e., m = 10), this FOM yielded efficiency estimates between 0.931 and 1.00, based on  $(1 + FOM/m)^{-1}$ . This indicates that ten imputations were 93.1 to 100% as efficient as with an infinite number of imputations, which means that the number of imputations was adequate (Lall, 2016).

#### Data analysis

Multilevel logistic regression analyses were carried out using Mplus 8.3. Analyses were conducted on the dataset with imputed data. Maximum Likelihood Estimation with robust standard errors (MLR) was used to deal with the skewed distribution of the classmate and teacher support variables. Model fit of all models was evaluated based on the Bayesian Information Criterion (BIC) and Akaike Information Criterion (AIC), with lower AIC and BIC being indicative of a better model fit. In order to facilitate interpretation of the interaction effects, age was centered by the group mean (i.e., country or school level) and the country- and school-level variables were centered by the grand mean (Aguinis, Gottfredson, & Culpepper, 2013). In all analyses, a sampling weight was applied to take into account countries' different survey designs.

The main analysis was divided into two parts. In the first part, twolevel models were estimated where individuals (level 1) were nested in countries (level 2) (Fig. 1, left part). We estimated a model where only the country-level variance of bullying victimization was fitted to calculate the intra class correlation (ICC), expressing the proportion of variance on the country level relative to the total variance. The variance of bullying victimization on the individual level was fixed to 3.29 due to its categorical character (Hox, 2010). The ICC for the country level was 0.056, which means that 5.6% of the variance of bullying victimization was related to country-level characteristics. Next, Model 1 estimated whether age, first-generation immigrant, and second-generation immigrant predicted bullying victimization, while controlling for gender and family affluence. Model 2 added interaction terms between age and first- and second-generation immigrant. Model 3a examined whether the main effects of first- and second-generation immigrant varied across countries. Models 3b and 3c tested whether these country-level variations were related to respectively MIPEX and anti-immigrant attitudes. Model 4a tested country-level variations in the interaction effects between age and first- and second-generation immigrant, after which Models 4b and 4c tested whether these country-level variations were related to respectively MIPEX and anti-immigrant attitudes.

In the second part, additional two-level models were estimated where individuals (level 1) were nested in schools (level 2) (Fig. 1, right part). For the school level, the ICC was 0.106, indicating that 10.6% of the variance of bullying victimization was attributed to school-level characteristics. We then repeated estimation of Model 1 and 2 using a

school-level instead of a country-level structure. In line with the analytical steps in the first part, Models 5a to 6c examined school-level variations of the main and interaction effects, and whether this school-level variations were related to school-level classmate and teacher support.

We did not estimate three-level models (i.e., level 1 = individuals, level 2 = schools, and level 3 = countries), as such analyses did not allow to use imputed data and to apply a sampling weight. Furthermore, a three-level analysis could only be conducted with probit regression, which provides estimates that are less convenient to interpret because they cannot be transformed into odds ratios as with logistic regression.

#### Results

#### Descriptive results

An overview of the descriptive statistics for all study variables and their correlations with bullying victimization is provided in Table 2. Results indicated that both first- and second-generation immigrant youth were more likely to report bullying victimization than their nonimmigrant peers, and bullying victimization was less frequently reported at older ages, although these correlations were small (r < 0.107, p < .001). No association was found between either the MIPEX or country-level anti-immigrant attitudes and country-level bullying victimization. Remarkably, in countries with more inclusive migration and integration policies, country-level anti-immigrant attitudes were more prevalent (r = 0.403, p = .012). Schools with higher averages in perceived classmate support showed lower averages in bullying victimization (r = -0.237, p < .001). School-level teacher support was also somewhat negatively associated with school-level bullying victimization (r = -0.055, p = .004). The higher the schoollevel classmate support, the higher the school level-teacher support (r = 0.522, p < .001).

Differences in bullying victimization between first-generation immigrant, second-generation immigrant and non-immigrant youth, for the total sample as well as for each receiving country separately were assessed (see Table 1). The countries in Table 1 were sorted according to the pattern of group differences found. Taking the total sample, percentages of bullying victimization were highest in first-generation immigrants, followed by second-generation immigrants and non-immigrants. In the majority of the countries (sixteen out of twenty six countries), either first- and/or second-generation immigrants reported more bullying victimization than non-immigrants. In six of these countries, both first- and second-generation immigrant youth were more likely to report bullying victimization than non-immigrants, while there were no differences between the two immigrant groups. In nine of these countries, second-generation immigrants took what could be considered an intermediate position. Here, second-generation immigrants reported less bullying victimization than first-generation immigrants, while reporting more (French Belgium, Estonia) or equally high levels of bullying victimization (Flemish Belgium, Denmark, Germany, Ireland) than non-immigrants. Alternatively, second-generation immigrants reported as much bullying victimization as first-generation immigrants and non-immigrants, while first-generation immigrants reported more bullying victimization than non-immigrants (Luxembourg, Italy, and Switzerland). A different pattern was found in the Netherlands, where second-generation immigrant youth were more likely to report bullying victimization than non-immigrants, while first-generation immigrants did not differ from non-immigrant and second-generation immigrants. In the ten other countries, similar levels of bullying victimization were found for immigrants and non-immigrants. In nine of these ten countries, immigrant and non-immigrants reported similar levels of bullying victimization. In one of these ten countries (Wales), first-generation immigrant youth were more likely to report bullying victimization than second-generation immigrants, while these groups

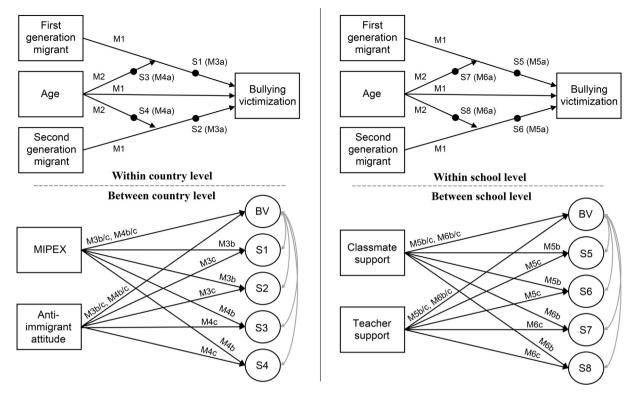


Fig. 1. Illustration of estimated models.

M = model; Model numbers (Mx) indicate which individual-level effects, random slopes and cross-level interactions were included in respective models; M2 also included estimates of M1, M3 also included estimates of M2, and so on; S = random slope; Random slopes (Sx) indicate for which individual-level effect variation across countries was assessed. Within-level models: All models controlled for gender and family affluence. Between level-models: on the country level, MIPEX and anti-immigrant attitudes predicted random slopes S1 until S4 (M3b/c and M4b/c). On the school level, classmate support and teacher support predicted random slopes S5 until S8 (M5b/c and M6b/c). Covariances between the random intercept of bullying victimization (BV) and the random slopes (grey arrows) were specified. Additional cross-level interactions that were modelled to accommodate estimation of three-way interactions (M4b/c and M6b/c) are not shown in figure.(For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

Table 2
Descriptive statistics and correlations.

		Mean / Proportion	SD	Min	Max	Correlations	
	Individual-level variables ( $n = 128,506$ )					1	
1	Bullying victimization	0.095		0	1	1.000	
2	Female	0.506		0	1	-0.045***	
3	Family affluence	8.396	2.372	0	13	-0.066***	
4	Age	13.189	1.652	10	16	-0.107***	
5	First-generation immigrant	0.067		0	1	0.094***	
6	Second-generation immigrant	0.158		0	1	0.048***	
	Country-level variables $(n = 26)$					7	8
7	Bullying victimization <sup>a</sup>	0.097	0.045	0.043	0.203	1.000	
8	MIPEX	55.385	10.681	40	78	0.022	1.000
9	Anti-immigrant attitudes	5.067	0.624	3.330	6.120	-0.128	0.403*
	School-level variables $(n = 4759)$					10	11
10	Bullying victimization <sup>b</sup>	0.099	0.105	0	1	1.000	
11	Classmate support	3.964	0.348	1	5	-0.237***	1.000
12	Teacher support	3.866	0.428	2	5	-0.055**	0.522***

p < .05.

did not differ from non-immigrants. However, we did find a trend (p < .10) toward higher levels of bullying victimization in first- or second-generation immigrant compared to non-immigrant youth in five of these ten countries.

The association of immigration status and age with bullying victimization

In line with the descriptive results, Model 1 (Table 3) indicated that both first- and second-generation immigrants were more likely to report bullying victimization than non-immigrants (OR = 1.548, p < .001

p < .01.

p < .001.

<sup>&</sup>lt;sup>a</sup> Country-level mean.

<sup>&</sup>lt;sup>b</sup> School-level mean.

Table 3 Associations between age, immigration status and bullying victimization using multilevel logistic regression with individuals nested in countries  $(n_{individuals} = 128,506, n_{countries} = 26)$ .

	Model 1				Model 2	Model 2					
	В	SE	P	OR	В	SE	p	OR			
Control variables											
Female	-0.150	(0.053)	0.004	0.861	-0.150	(0.053)	0.004	0.861			
Family affluence	-0.056	(0.008)	< 0.001	0.946	-0.056	(0.008)	< 0.001	0.946			
Age & immigration status											
Age	-0.134	(0.016)	< 0.001	0.875	-0.135	(0.017)	< 0.001	0.874			
First-generation immigrant	0.437	(0.045)	< 0.001	1.548	0.437	(0.046)	< 0.001	1.548			
Age * first-generation immigrant					0.001	(0.024)	0.973	1.001			
Second-generation immigrant	0.158	(0.044)	< 0.001	1.171	0.160	(0.046)	< 0.001	1.174			
Age * second-generation immigrant					0.007	(0.018)	0.695	1.007			
Random parameters	Estimate	SE	P		Estimate	SE	p				
Variance victimization between individuals	3.290				3.290						
Variance victimization between countries	0.198	(0.044)	< 0.001		0.196	(0.044)	< 0.001				
Fit parameters	Estimate				Estimate						
Free parameters	7				9						
AIC	77,300.41				77,304.01						
BIC	77,368.75				77,391.89						

and OR = 1.171, p < .001, respectively) when controlling for sex, family affluence and country differences in bullying victimization. A Wald-test of parameter constraints showed that differences between immigrants and non-immigrants were larger for first- than for second-generation immigrants ( $\chi^2(1)=39.848, p<.001$ ). In addition, youth were less likely to report bullying victimization at older ages (OR = 0.875, p<.001), girls reported bullying victimization less often than boys (OR = 0.861, p=.004), and higher family affluence was associated with a lower likelihood of bullying victimization (OR = 0.946, p<.001). In Model 2, non-significant interactions between age and immigration status indicated that age differences in bullying victimization were similar for both immigrant groups when compared to non-immigrants.

Immigration status and bullying victimization across countries

Model 3a (Table 4) showed that the differences in bullying victimization between neither first- nor second-generation immigrants and non-immigrants varied across countries, because the variances of the slopes were not significant. Furthermore, in terms of BIC, the fit of Model 3a was worse than the fit of Model 1, which supported the suggestion that differences in bullying victimization between both immigrant groups and non-immigrants were equal across countries. Model 4a suggested that across all countries, age differences in bullying victimization were equal for first- and second-generation immigrants compared to non-immigrants, because the variance of the slopes of the interaction effects were not significant. Moreover, the BIC showed that the fit of Model 4a was worse than Model 2. The finding that the effects did not vary across countries already implied that the observed higher

**Table 4** Summary results random slope models ( $n_{individuals} = 128,506$ ).

Model type		Random j	Random parameters			Model fit						
M <sup>a</sup>	Random slope	Var <sup>b</sup>	SE	p	Par <sup>c</sup>	AIC	BIC	$\Delta M^{\rm d}$	ΔΑΙC	ΔΒΙC		
Country	level (n <sub>countries</sub> = 26)											
M1	n.a.				7	77,300.41	77,368.75					
M2	n.a.				9	77,304.01	77,391.89					
МЗа	First-generation immigrant	0.020	(0.032)	0.534	11	77,293.44	77,400.84	M1	-6.97	32.09		
	Second-generation immigrant	0.021	(0.012)	0.088								
M4a	Age * first-generation immigrant	0.003	(0.004)	0.495	19	77,243.12	77,428.63	M2	-60.89	36.75		
	Age * second-generation immigrant	0.001	(0.001)	0.569								
School 1	evel $(n_{\text{school}} = 4759)$											
M1	n.a.				7	78,390.23	78,458.58					
M2	n.a.				9	78,393.88	78,481.75					
M5a	First-generation immigrant	0.016	(0.017)	0.338	11	78,389.86	78,497.26	M1	-0.37	38.68		
	Second-generation immigrant	0.148	(0.055)	0.008								
M6a	Age * first-generation immigrant	0.014	(0.011)	0.198	19	78,365.42	78,550.93	M2	-28.46	69.18		
	Age * second-generation immigrant	0.008	(0.011)	0.468								

Note: M3a, M4a, M5a, and M6a included covariances between the random intercept of bullying victimization and the random slopes. They were all not significant at. p > .05.

<sup>&</sup>lt;sup>a</sup> Model number.

<sup>&</sup>lt;sup>b</sup> Variance of the respective random slope.

<sup>&</sup>lt;sup>c</sup> Free parameters.

 $<sup>^{\</sup>rm d}$  Model to which  $\Delta$ AIC and  $\Delta$ BIC refer to.

risks of bullying victimization were neither sensitive to migration and integration policies (i.e., country-level MIPEX), nor to country-level anti-immigrant attitudes. However since this is not impossible (LaHuis & Ferguson, 2009), we verified this assumption by testing cross-level interactions (Fig. 1, Models 3b, 3c, 4b, 4c): Indeed, the main immigration effects and their interactions with age on bullying victimization did not vary with country-level MIPEX and anti-immigrant attitudes. These cross-level interactions were not significant, and model fit was worse than Models 1 and 2 (results not shown).

#### Immigration status and bullying victimization across schools

Model 1 and 2 were tested again, now with a school- instead of a country-level structure. Highly similar immigration effects were found as in the country-level models (results not shown). Differences in bullying victimization between first-generation immigrants and non-immigrants were found to be equal across schools, because the variance of the slope was not significant (Table 4, Model 5a). Also, across schools, age differences in bullying victimization were similar for first- and second-generation immigrants as compared to non-immigrants (Model 6a). However, Model 5a indicated that differences in bullying victimization between second-generation immigrants and non-immigrants varied across schools, because the variance of the slope of secondgeneration immigrant was significant. Although the BIC suggested that model fit of Model 5a was worse than Model 1, calculation of the 95% prediction interval of the random slope indicated that the variance of the slope was substantial, because there were positive as well as negative associations between second-generation immigrants and bullying victimization across schools. More specifically, the odds of bullying victimization for second-generation immigrants ranged between 0.562 and 2.540. Although Model 5b and 5c (Table 5) showed that more school-level classmate and teacher support were associated with a lower probability on bullying victimization (B = -0.813, p < .001 and B = -0.201, p < .001, respectively), no cross-level interactions with second-generation immigration were found. Thus, school-level classmate and teacher support was not associated with the differences in bullying victimization between second-generation immigrant and non-immigrant youth. In addition, the age differences in bullying victimization that were found to be similar for first- and second-generation immigrants as compared to non-immigrants did not vary with school-level classmate support and teacher support (Fig. 1, Models 6b and 6c, results not shown), which is in line with the finding that there were no school differences in this respect (Model 6a).

#### Discussion

Our study is, to the best of our knowledge, the first to investigate country-level differences in the association between immigration status and bullying victimization in nationally representative samples of young people across 26 countries/regions in Europe. Results showed that both first- and second-generation immigrant youth face higher levels of bullying victimization than their non-immigrant peers. Differences in bullying victimization between immigrants and non-immigrants were more pronounced for first-generation than for second-generation immigrant youth. For both immigrants and non-immigrants, bullying victimization was less prevalent at older ages. Notwithstanding the differences between countries in migration and integration policies, anti-immigrant attitudes or migration histories, this pattern of results,

Table 5 Associations between age, immigration status, school-level classmate and teacher support and bullying victimization using multilevel logistic regression with individuals nested in schools ( $n_{individuals} = 128,506$ ,  $n_{schools} = 4759$ ).

	Model 5a				Model 5b				Model 5c			
	В	SE	p	OR	В	SE	p	OR	В	SE	p	OR
Control variables												
Female	-0.135	0.022	< 0.001	0.874	-0.134	0.022	< 0.001	0.875	-0.136	0.022	< 0.001	0.873
Family affluence	-0.052	0.005	< 0.001	0.949	-0.045	0.005	< 0.001	0.956	-0.051	0.005	< 0.001	0.950
Age & immigrant status												
Age	-0.144	0.011	< 0.001	0.866	-0.143	0.011	< 0.001	0.867	-0.143	0.011	< 0.001	0.867
First-generation immigrant	0.411	0.094	< 0.001	1.508	0.423	0.049	< 0.001	1.527	0.420	0.079	< 0.001	1.522
Second-generation immigrant	0.178	0.050	< 0.001	1.195	0.194	0.036	< 0.001	1.214	0.183	0.044	< 0.001	1.201
School-level support												
Classmate support					-0.813	0.048	< 0.001					
First-generation immigrant * classmate support Second-generation immigrant * classmate support					-0.013	0.136 0.103	0.927 0.591					
Teacher support					0.055	0.103	0.391		-0.210	0.044	< 0.001	
First-generation immigrant * teacher support									-0.105	0.181	0.562	
Second-generation immigrant * teacher support									0.010	0.080	0.902	
-												
Random parameters	Estimate	SE	p		Estimate	SE	p		Estimate	SE	p	
Variance victimization between individuals	3.29				3.29				3.29			
Variance victimization between schools	0.389	0.032	< 0.001		0.320	0.023	< 0.001		0.379	0.029	< 0.001	
Variance slope first-generation immigrant	0.016	0.017	0.338		0.024	0.017	0.147		0.021	0.014	0.127	
Variance slope second-generation immigrant	0.148	0.055	0.008		0.146	0.052	0.005		0.144	0.053	0.007	
95% prediction interval for random slope second- generation immigrant	[-0.576 -	0.932]			[-0.555 -	- 0.943]			[-0.561 -	0.927]		
Fit parameters	Estimate				Estimate				Estimate			
Free parameters <sup>a</sup>	11				14				14			<u> </u>
AIC	78,389.86				78,066.25				78,360.26			
BIC	78,497.26				78,202.95				78,496.96			

Note: Odds ratios (OR) were only calculated for the individual-level parameters, because the school-level parameters refer to predictors of random effects and school-level bullying victimization, which are continuous (latent) outcomes, and hence, estimated through linear regression.

<sup>&</sup>lt;sup>a</sup> The models included a random intercept of bullying victimization and covariances between random intercept and the random slopes (not shown in table).

maybe surprisingly, did not significantly differ across the countries in our study. In addition, there was only variation across schools for differences in bullying victimization between second-generation immigrant and non-immigrant youth. However, this variation was not found to be related to school-level classmate and teacher support. There was no school-level variation in the differences in bullying victimization between first-generation immigrant and non-immigrant youth.

The finding that young people with an immigration status are more likely to be bullied than their non-immigrant peers underscores a risk perspective on migration, which has been documented for several mental health and wellbeing outcomes, particularly in European countries (Dimitrova et al., 2016; Stevens et al., 2015; Walsh et al., 2016). This increased risk may be explained by the notion that immigrants are perceived of as different, for instance because of their culture, language, and appearance (Mendez et al., 2012). Immigrants are also likely to have a low social status and a limited peer support network (Oppedal et al., 2004), which is particularly relevant in the case of bullying where a power differential between perpetrator and victim exists (Olweus, 1997). Moreover, the challenge that immigrant youth simultaneously deal with normative developmental and acculturation-related tasks and stressors (Motti-Stefanidi, 2014) may weaken their resources for standing up against experiences of bullying victimization.

Also, our results indicate that differences in bullying victimization between first-generation immigrant and non-immigrant youth were more pronounced than the differences between second-generation immigrant and non-immigrant youth. These findings may be explained by the notion that first-generation immigrant youth, as compared to their second-generation immigrant peers, are more likely to stand out as different, and their family and they themselves have had less time to establish a stable support system and to accumulate social, economic, and cultural resources, leaving them relatively vulnerable for bullying victimization (e.g. Barban & White, 2011). Our research supports earlier work conducted in the European context (Alivernini et al., 2019; Borraccino et al., 2018; Strohmeier et al., 2011), but is in contrast with previous US research showing more bullying victimization in later generations (Eggers & Mitchell, 2016; Peguero & Williams, 2013). In fact, in none of the European countries included in our study, did we find support for an 'immigrant paradox,' i.e., less bullying victimization among first- than second-generation immigrants. As an explanation for the divergent findings in the European versus the US context, it might be worthwhile to consider differences in the initial reception of immigrants in both contexts. Whereas the US is a traditional country of immigration which prides itself that anybody (including recently arrived immigrants) can pursue and achieve success through hard work and determination (Rifkin, 2004), most European countries do not have this tradition (Entorf & Minoiu, 2005). As such, in the European context, the influx of immigrants might not or to a lesser extent be seen as valuable for society than in the US, and the frequent reports of negative attitudes toward (first-generation) immigrants in European countries might be a reflection of that (Rustenbach, 2010). However, as has become apparent from many US studies that for instance show more delinquency in second- or third-generation compared to first-generation immigrants (e.g., Bui, 2012), the achievement of this success might be hampered in many ways (e.g. Eggers & Mitchell, 2016). Obviously, this tentative explanation makes clear that more international comparative research is needed to start understanding the processes behind the differences in adaptation across immigrant generations and continents.

We did not find an interaction between age and immigration status in the reported levels of bullying victimization, and this finding was similar across countries and schools. This suggests that all young people, regardless of immigrant status, experienced the normative developmental pattern that bullying victimization occurs less frequently whenever they become older. As such, our study adds to the growing discussion on whether changes observed in immigrant groups are related to development or whether they are associated with acculturation

(Fuligni, 2012.). Our data support other findings that suggest that some changes are primarily related to development (Jugert & Titzmann, 2017; Titzmann & Lee, 2018). Findings may support a resilience perspective (Motti-Stefanidi & Masten, 2017). Resilience can be considered as the ability of young people to continue in normative developmental trajectories, despite facing multiple stressors. It seems that the multiple stressors that immigrant young people are facing neither hamper the normative developmental processes leading to a decrease in bullying victimization with age and yet, nor are immigrant youth capable of closing the bullying victimization gap with their non-immigrant peers over the years. One possible explanation for this finding might be that the factors that lead to a decrease in victimization with age are more biological and less affected by social changes. Physical strength, for example, is assumed to be a driving mechanism in the reduction of victimization with age (Smith et al., 1999), but changes in physical strength may not be affected substantially by acculturation processes. Hence, future research may more carefully study the factors leading into the lower frequency of victimization at older ages.

The finding that immigration effects did not differ significantly across countries was striking. Despite the fact that countries differed considerably in their migration histories, the ethnic and economic background of immigrant populations, their migration policies and anti-immigrant attitudes (Davidov, Meuleman, Billiet, & Schmidt, 2008), the association between immigration status and bullying victimization did not vary between receiving countries. Before going into possible explanatory mechanisms for this result, it is important to acknowledge that this conclusion is restricted to the European context, where levels of bullying victimization are largely comparable, as only 6% of the total variation in bullying victimization was explained at the country level. Also, our findings hold for the immigrant population as a whole. Results might have been different when distinguishing between immigrants originating from different ethnic backgrounds, because we have reason to expect that the interplay between the ethnic origin of the immigrant and the receiving country's culture is important for the reception in society and subsequently for the association between immigration and bullying victimization in young people (Stoessel, Titzmann, & Silbereisen, 2012).

Still, this result contradicts available theoretical models such as the Integrative Framework for Studying Immigrant Youth Adaptation (Motti-Stefanidi et al., 2012), and recent literature (Marks, McKenna, & Garcia Coll, 2018) claiming that, in order to understand the adaptation of immigrant youth it is essential to include the characteristics of the society immigrants are growing up in. However, as the available empirical literature has almost exclusively focused on adult samples (e.g., Levecque & Van Rossem, 2015), the empirical basis for this claim is extremely limited. The results of the current study may, tentatively, point to more general social developmental psychological theories relating to in-group and out-group dynamics within the peer group (Tarrant, 2002), which may be independent of specific (European) context. Adolescence is a time in which social status and social position are paramount. Bullying can allow a perpetrator to gain social position and dominance (Hoff, Reese-Weber, Joel Schneider, & Stagg, 2009), and fulfill their status goals (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009). Immigrants may be a target due to their lower levels of power across nearly all the national contexts studied here. Alternatively, it might be reasoned that the more distant country level is far less important for young people than for adults. Youth may be much less affected by policies targeting job market integration, social benefits or national-level anti-immigrant attitudes than adults. In terms of Bronfenbrenner's theory (Bronfenbrenner & Morris, 2007), these macrolevel circumstances may play a weaker role for young people than a strong attachment to parents, intra-ethnic support networks, and interethnic friendships. Again, future research is essential, not only to replicate our findings for different receiving countries especially those outside of Europe (e.g., North and South America) and different outcomes, but also to investigate whether or not the above tentative

explanatory mechanisms may hold.

Finally, our results show that immigration effects did not depend upon school-level classmate or teacher support. More specifically, high levels of school-level classmate and teacher support did not mitigate the higher vulnerability for bullying victimization of immigrant youth. In fact, our findings indicate that school-level context did not affect firstgeneration immigrants' vulnerability to bullying victimization at all. This may be related to the above outlined more general social developmental psychological theories which may explain why immigrants run a risk for bullying victimization, irrespective of the specific context. However, second-generation immigrants' vulnerability to bullying victimization relative to non-immigrants did vary across schools. Other school-level phenomena, such as the immigrant composition of the school and/or levels of multicultural acceptance and diversity policies, may be crucial for the extent to which second-generation immigrant young people are more likely to experience bullying victimization than their non-immigrant peers (e.g., Schwarzenthal et al., 2018; Vervoort et al., 2010; Walsh et al., 2016). Although school-level classmate and teacher support did not affect differences in bullying victimization between immigrant and non-immigrant youth, our findings do show that individual-level bullying victimization was associated with school-level classmate and teacher support. Both immigrant and non-immigrant were less likely to report bullying victimization in schools in which average levels of perceived classmate and teacher support was high. This finding is in line with a previous study conducted in 11 countries, which showed that classroom support aggregated on the school level was associated with lower levels of bullying victimization in both immigrant and non-immigrant youth (Walsh et al., 2016). While results point to the importance of encouraging both school-level classmate and teacher support as a means of reducing levels of victimization, such interventions will, according to our data, not suffice to reduce gaps between immigrant and non-immigrant groups in bullying victimization.

#### Limitations and implications

This study was the first to investigate the association between immigration and bullying victimization in 26 countries/regions. As such it contributes to the expanding research in this field. However, some limitations of our study should be considered as well. First, because our data showed an enormous variety of small groups of immigrants coming from any particular ethnic background, we could not distinguish between immigrants originating from different ethnic backgrounds in our analyses. As mentioned above, this is an important limitation of this study. Second, to gain insight into the importance of immigrant generation, a distinction was made between young people who were born in the country of origin (first-generation immigrants) and those who were born in the receiving country (second-generation immigrants). However, no information was available on the length of residence in the receiving country of first-generation immigrant youth, making it impossible to determine whether the majority of these young people were socialized within the receiving country or the country of origin. Third, our bullying victimization item has been used in ample former studies showing associations with relevant constructs for young people throughout Europe (Chester et al., 2015). However, we cannot rule out that differences between groups are due to differences in the validity of the item. Fourth, our analyses were also limited to those countries for whom MIPEX or attitudes to immigrants data were available, and, as such, further research is needed to examine bullying victimization in other contexts.

Practical implications of the study results should focus on the vulnerability of immigrant young people to exposure to bullying victimization. Since we can draw on theoretical perspectives of power differences (Olweus, 1997) and social psychological theories of in-groups and out-groups within the peer group (Tarrant, 2002) as possible understandings of this vulnerability, we suggest that school-level

interventions which focus on increasing the social status of immigrant youth and/or breaking down ethnic group divisions could be important. This could involve interventions in which the strengths and resources of the immigrant group could be emphasized by teachers in programs enabling greater acquaintance with the immigrant groups in the class (Molina & Wittig, 2006). By building a sense of class unity which goes across ethnic boundaries and the encouragement of opportunities for the development of cross-ethnic friendships (Graham, Munniksma, & Juvonen, 2014) teachers may break down more classic inter-group divisions. Individual-level interventions should also focus on helping immigrant youth to develop resources (e.g. cultural, language, personal and collective self- esteem) which may decrease vulnerability to bullying. On a societal level, policy initiatives which emphasize the strengths and benefits of the immigrant groups of society (Tartakovsky & Walsh, 2019) may increase the social standing of immigrants and should aim at closing ethnic disparities in education, societal participation, and opportunities.

In Europe, the immigrant population is growing, and this growth will likely continue in the coming decades due to political unrest, climate change and increased globalized work migration. Systematic disadvantages of immigrant young people through elevated levels of victimization have, according to the rejection-identification model, the long-term potential to divide our societies, as such experiences can raise barriers between ethnicities (Jetten, Branscombe, Schmitt, & Spears, 2001). As such, our finding that both first- and second-generation immigrant youth run an increased risk of bullying victimization as compared with their non-immigrant peers, and that this risk does not significantly differ across 26 countries/regions warrants both scientific and policy attention.

#### **Declaration of Competing Interest**

None.

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#### References

Aguinis, H., Gottfredson, R. K., & Culpepper, S. A. (2013). Best-practice recommendations for estimating cross-level interaction effects using multilevel modeling. *Journal of Management*, 39(6), https://doi.org/10.1177/0149206313478188.

Alivernini, F., Manganelli, S., Cavicchiolo, E., & Lucidi, F. (2019). Measuring bullying and victimization among immigrant and native primary school students: Evidence from Italy. *Journal of Psychoeducational Assessment*, 37(2), 226–238. https://doi.org/10.1177/0734282917732890.

Álvarez-García, D., García, T., & Núñez, J. C. (2015). Predictors of school bullying perpetration in adolescence: A systematic review. Aggression and Violent Behavior, 23, 126–136. https://doi.org/10.1016/j.avb.2015.05.007.

André, S., & Dronkers, J. (2017). Perceived in-group discrimination by first and second generation immigrants from different countries of origin in 27 EU member-states. *International Sociology*, 32(1), 105–129. https://doi.org/10.1177/ 0268580916676915.

Asparouhov, T., & Muthén, B. (2010). Multiple imputation with mplus. Retrieved from https://www.statmodel.com/download/Imputations7.pdf.

Barban, N., & White, M. J. (2011). Immigrants' children's transition to secondary school in Italy. *International Migration Review*, 45(3), 702–726. https://doi.org/10.1111/j. 1747-7379.2011.00863.x.

Borraccino, A., Charrier, L., Berchialla, P., Lazzeri, G., Vieno, A., Dalmasso, P., & Lemma, P. (2018). Perceived well-being in adolescent immigrants: It matters where they come from. *International Journal of Public Health*, 63(9), 1037–1045. https://doi.org/10.1007/s00038-018-1165-8.

Borrell, C., Palència, L., Bartoll, X., Ikram, U., & Malmusi, D. (2015). Perceived discrimination and health among immigrants in Europe according to national

- integration policies. International Journal of Environmental Research and Public Health, 12(9), 10687–10699. https://doi.org/10.3390/ijerph120910687.
- Bronfenbrenner, U., & Morris, P. A. (2007). The bioecological model of human development. *Handbook of Child Psychology*https://doi.org/10.1002/9780470147658. chpsy0114.
- Bui, H. N. (2012). Immigrant generational status and delinquency in adolescence: Segmented assimilation and racial ethnic differences. In C. Garcia, & A. K. Marks (Eds.). The immigrant paradox in children and adolescents: Is becoming American a developmental risk? (pp. 135–158). Washington DC: American Psychological Association.
- Chester, K. L., Callaghan, M., Cosma, A., Donnelly, P., Craig, W., Walsh, S., & Molcho, M. (2015). Cross-national time trends in bullying victimization in 33 countries among children aged 11, 13 and 15 from 2002 to 2010. The European Journal of Public Health, 25(Suppl. 2), 61–64. https://doi.org/10.1093/eurpub/ckv029.
- Copeland, W. E., Wolke, D., Angold, A., & Costello, E. J. (2013). Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence. *JAMA Psychiatry*, 70(4), 419. https://doi.org/10.1001/jamapsychiatry.2013.504.
- Davidov, E., Meuleman, B., Billiet, J., & Schmidt, P. (2008). Values and support for immigration: A cross-country comparison. European Sociological Review, 24(5), 583–599. https://doi.org/10.1093/ESR/JCN020.
- D'hondt, F., Van Praag, L., Van Houtte, M., & Stevens, P. A. (2016). The attitude–achievement paradox in Belgium. *Acta Sociologica*, 59(3), 215–231. https://doi.org/10.1177/0001699316636944.
- Dimitrova, R., Chasiotis, A., & van de Vijver, F. (2016). Adjustment outcomes of immigrant children and youth in Europe. European Psychologist, 21(2), 150–162. https://doi.org/10.1027/1016-9040/a000246.
- Eggers, A. S., & Mitchell, O. (2016). The emotional guardianship of foreign-born and native-born hispanic youth and its effect on violent victimization. *Race and Justice*, 6(4), 283–302. https://doi.org/10.1177/2153368715615192.
- Entorf, H., & Minoiu, N. (2005). What a difference immigration policy makes: A comparison of PISA scores in Europe and traditional countries of immigration. *German Economic Review*, 6(3), 355–376. https://doi.org/10.1111/j.1468-0475.2005. 00137 x
- Fandrem, H., Strohmeier, D., & Roland, E. (2009). Bullying and victimization among native and immigrant adolescents in Norway: The role of proactive and reactive aggressiveness. *The Journal of Early Adolescence*, 29(6), 898–923. https://doi.org/10. 1177/0272431609332935.
- Fuligni, A. J. (2012). The intersection of aspirations and resources in the development of children from immigrant families. In C. G. Coll, & A. K. Marks (Eds.). The immigrant paradox in children and adolescents: Is becoming American a developmental risk? (pp. 299–307). https://doi.org/10.1037/13094-013.
- Graham, J. W., Olchowski, A. E., & Gilreath, T. D. (2007). How many imputations are really needed? Some practical clarifications of multiple imputation theory. *Prevention Science*, 8(3), 206–213. https://doi.org/10.1007/s11121-007-0070-9.
- Graham, S., Munniksma, A., & Juvonen, J. (2014). Psychosocial benefits of cross-ethnic friendships in urban middle schools. *Child Development*, 85(2), 469–483. https://doi. org/10.1111/cdev.12159.
- Gunnar, M., & Quevedo, K. (2007). The neurobiology of stress and development. *Annual Review of Psychology*, 58(1), 145–173. https://doi.org/10.1146/annurev.psych.58. 110405.085605.
- Hoff, K. E., Reese-Weber, M., Joel Schneider, W., & Stagg, J. W. (2009). The association between high status positions and aggressive behavior in early adolescence. *Journal of School Psychology*, 47(6), 395–426. https://doi.org/10.1016/J.JSP.2009.07.003.
- Hooghe, M., Reeskens, T., & Stolle, D. (2007). Diversity, multiculturalism and social cohesion: Trust and ethnocentrism in European societies. 387–410. 387–410. Retrieved from https://research.tilburguniversity.edu/en/publications/diversity-multiculturalism-and-social-cohesion-trust-and-ethnocen.
- Hox, J. J. (2010). The multilevel generalized linear model for dichotomous data and proportions. In J. J. Hox (Ed.). *Multilevel analysis: Techniques and applications* (pp. 112–139). New York, NY: Routlegde.
- Huddleston, T., & Vink, M. P. (2015). Full membership or equal rights? The link between naturalisation and integration policies for immigrants in 29 European states. *Comparative Migration Studies*, 3(1), 8. https://doi.org/10.1186/s40878-015-0006-7.
- Inchley, J., Currie, D. T. Y., Samdal, O., Torsheim, T. L. A., Mathison, F., Aleman-Diaz, A. M. M., & Weber, M. V. B. (2016). Growing up unequal: Gender and socioeconomic differences in young people's health and well-being. Retrieved from http://www.euro.who.int/en/data-and-evidence/.
- Jasinskaja-Lahti, I., Liebkind, K., & Perhoniemi, R. (2006). Perceived discrimination and well-being: A victim study of different immigrant groups. *Journal of Community & Applied Social Psychology*, 16(4), 267–284. https://doi.org/10.1002/casp.865.
- Jetten, J., Branscombe, N. R., Schmitt, M. T., & Spears, R. (2001). Rebels with a cause: Group identification as a response to perceived discrimination from the mainstream. Personality and Social Psychology Bulletin, 27(9), 1204–1213. https://doi.org/10. 1177/0146167201279012.
- Jugert, P., & Titzmann, P. F. (2017). Trajectories of victimization in ethnic diaspora immigrant and native adolescents: Separating acculturation from development. *Developmental Psychology*, 53(3), 552–566. https://doi.org/10.1007/s10964-017-0665.0
- Kretschmer, T., Veenstra, R., Deković, M., & Oldehinkel, A. J. (2017). Bullying development across adolescence, its antecedents, outcomes, and gender-specific patterns. *Development and Psychopathology*, 29(3), 941–955. https://doi.org/10.1017/S0954579416000596.
- Kyriakides, L., Kaloyirou, C., & Lindsay, G. (2006). An analysis of the revised Olweus bully/victim questionnaire using the Rasch measurement model. *British Journal of Educational Psychology*, 76(4), 781–801. https://doi.org/10.1348/ 000709905X53499.

- LaHuis, D. M., & Ferguson, M. W. (2009). The accuracy of significance tests for slope variance components in multilevel random coefficient models. *Organizational Research Methods*, 12(3), 418–435. https://doi.org/10.1177/1094428107308984.
- Lall, R. (2016). How multiple imputation makes a difference. *Political Analysis*, 24(4), 414–433. https://doi.org/10.1093/pan/mpw020.
- Levecque, K., & Van Rossem, R. (2015). Depression in Europe: Does migrant integration have mental health payoffs? A cross-national comparison of 20 European countries. Ethnicity & Health, 20(1), 49–65. https://doi.org/10.1080/13557858.2014.883369.
- Lorenzo-Blanco, E. I., Meca, A., Unger, J. B., Romero, A., Gonzales-Backen, M., Piña-Watson, B., ... Schwartz, S. J. (2016). Latino parent acculturation stress: Longitudinal effects on family functioning and youth emotional and behavioral health. *Journal of Family Psychology*, 30(8), 966–976. https://doi.org/10.1037/fam0000223.
- Marks, A. K., McKenna, J. L., & Garcia Coll, C. (2018). National immigration receiving contexts. European Psychologist, 23(1), 6–20. https://doi.org/10.1027/1016-9040/ 2000311
- Mendez, J. J., Bauman, S., & Guillory, R. M. (2012). Bullying of mexican immigrant students by mexican american students. *Hispanic Journal of Behavioral Sciences*, 34(2), 279–304. https://doi.org/10.1177/0739986311435970.
- Meuleman, B., Davidov, E., & Billiet, J. (2009). Changing attitudes toward immigration in Europe, 2002–2007: A dynamic group conflict theory approach. *Social Science Research*, 38(2), 352–365. https://doi.org/10.1016/J.SSRESEARCH.2008.09.006.
- Molina, L. E., & Wittig, M. A. (2006). Relative importance of contact conditions in explaining prejudice reduction in a classroom context: Separate and equal? *Journal of Social Issues*, 62(3), 489–509.
- Motti-Stefanidi, F. (2014). Immigrant youth adaptation in the Greek school context: A risk and resilience developmental perspective. *Child Development Perspectives*, 8(3), 180–185. https://doi.org/10.1111/cdep.12081.
- Motti-Stefanidi, F., Berry, J., Chryssochoou, X., Lackland Sam, D., & Phinney, J. (2012). Positive immigrant youth adaptation in context. In A. S. Masten, K. Liebkind, & D. J. Hernandez (Eds.). Realizing the potential of immigrant youth (pp. 117–158). https://doi.org/10.1017/CBO9781139094696.008.
- Motti-Stefanidi, F., & Masten, S. A. (2017). A resilience perspective on immigrant youth adaptation and development. *Handbook on positive development of minority children* and youth (pp. 19–34). https://doi.org/10.1007/978-3-319-43645-6\_2.
- Nordahl, H., Krolner, R., Pall, G., Currie, C., & Andersen, A. (2011). Measurement of ethnic background in cross-national school surveys: Agreement between students' and parents' responses. *Journal of Adolescent Health*, 49(3), 272–277. https://doi.org/ 10.1016/j.jadohealth.2010.12.013.
- Olweus, D. (1997). Bully/victim problems in school: Facts and intervention. European Journal of Psychology of Education, 12, 495–510. https://doi.org/10.2307/23420286.
- Oppedal, B., Røysamb, E., & Sam, D. L. (2004). The effect of acculturation and social support on change in mental health among young immigrants. *International Journal of Behavioral Development*, 28(6), 481–494. https://doi.org/10.1080/ 01650250444000126.
- Peguero, A. A., & Williams, L. M. (2013). Racial and ethnic stereotypes and bullying victimization. *Youth & Society*, 45(4), 545–564. https://doi.org/10.1177/ 0044118X11424757.
- Rifkin, J. (2004). The European dream. New York: Penguin.
- Roberts, C., Freeman, J., Samdal, O., Schnohr, C. W., de Looze, M. E., Nic Gabhainn, S., ... International HBSC Study Group (2009). The health behaviour in school-aged children (HBSC) study: Methodological developments and current tensions. *International Journal of Public Health*, 54(S2), 140–150. https://doi.org/10.1007/s00038-009-5405-9
- Roth, P. L., Switzer, F. S., & Switzer, D. M. (1999). Missing data in multiple item scales: A monte carlo analysis of missing data techniques. *Organizational Research Methods*, 2(3), 211–232. https://doi.org/10.1177/109442819923001.
- Rustenbach, E. (2010). Sources of negative attitudes toward immigrants in Europe: A multi-level analysis. *International Migration Review*, 44(1), 53–77. https://doi.org/10. 1111/j.1747-7379.2009.00798.x.
- Savalei, V., & Rhemtulla, M. (2012). On obtaining estimates of the fraction of missing information from full information maximum likelihood. Structural Equation Modeling: A Multidisciplinary Journal, 19(3), 477–494. https://doi.org/10.1080/10705511. 2012.687669.
- Schwartz, S. J., Unger, J. B., Baezconde-Garbanati, L., Zamboanga, B. L., Lorenzo-Blanco, E. I., Des Rosiers, S. E., ... Szapocznik, J. (2015). Trajectories of cultural stressors and effects on mental health and substance use among hispanic immigrant adolescents. Journal of Adolescent Health, 56(4), 433–439. https://doi.org/10.1016/J. JADOHEALTH.2014.12.011.
- Schwarzenthal, M., Schachner, M. K., van de Vijver, F. J. R., & Juang, L. P. (2018). Equal but different: Effects of equality/inclusion and cultural pluralism on intergroup outcomes in multiethnic classrooms. *Cultural Diversity and Ethnic Minority Psychology*, 24(2), 260–271. https://doi.org/10.1037/cdp0000173.
- Sijtsema, J. J., Veenstra, R., Lindenberg, S., & Salmivalli, C. (2009). Empirical test of bullies' status goals: Assessing direct goals, aggression, and prestige. Aggressive Behavior, 35(1), 57–67. https://doi.org/10.1002/ab.20282.
- Smith, P. K., Madsen, K. C., & Moody, J. C. (1999). What causes the age decline in reports of being bullied at school? Towards a developmental analysis of risks of being bullied. *Educational Research*, 41(3), 267–285. https://doi.org/10.1080/0013188990410303.
- Smith, R. G., & Gross, A. M. (2006). Bullying: Prevalence and the effect of age and gender. Child and Family Behavior Therapy, 28(4), 13–37. https://doi.org/10.1300/ J019v28n04 02.
- Stefanek, E., Strohmeier, D., de van Schoot, R., & Spiel, C. (2012). Bullying and victimization in ethnically diverse schools. *Migrations: Interdisciplinary perspectives* (pp. 79–88). https://doi.org/10.1007/978-3-7091-0950-2\_7.
- Stevens, G. W. J. M., Walsh, S. D., Huijts, T., Maes, M., Madsen, K. R., Cavallo, F., & Molcho, M. (2015). An internationally comparative study of immigration and

- adolescent emotional and behavioral problems: Effects of generation and gender. *Journal of Adolescent Health*, *57*(6), 587–594. https://doi.org/10.1016/J. JADOHEALTH.2015.07.001.
- Stoessel, K., Titzmann, P. F., & Silbereisen, R. K. (2012). Young diaspora immigrants' attitude and behavior toward the host culture. European Psychologist, 17(2), 143–157. https://doi.org/10.1027/1016-9040/a000113.
- Strohmeier, D., Kärnä, A., & Salmivalli, C. (2011). Intrapersonal and interpersonal risk factors for peer victimization in immigrant youth in finland. *Developmental Psychology*, 47(1), 248–258. https://doi.org/10.1037/a0020785.
- Suldo, S. M., Friedrich, A. A., White, T., Farmer, J., Minch, D., & Michalowski, J. (2009). Teacher support and adolescents' subjective well-being: A mixed-methods investigation. School Psychology Review, 38(1), 67–85.
- Svensson, Y., Stattin, H., & Kerr, M. (2011). In- and out-of-school peer groups of immigrant youths. European Journal of Developmental Psychology, 8(4), 490–507. https://doi.org/10.1080/17405629.2011.559804.
- Tarrant, M. (2002). Adolescent peer groups and social identity. Social Development, 11(1), 110–123. https://doi.org/10.1111/1467-9507.00189.
- Tartakovsky, E., & Walsh, S. D. (2016). Testing a new theoretical model for attitudes toward immigrants. *Journal of Cross-Cultural Psychology*, 47(1), 72–96. https://doi. org/10.1177/0022022115613860.
- Tartakovsky, E., & Walsh, S. D. (2019). Are some immigrants more equal than others? Applying a threat-benefit model to understanding the appraisal of different immigrant groups by the local population. *Journal of Ethnic and Migration Studies*. https://doi.org/10.1080/1369183X.2019.1565402.
- Tippett, N., Wolke, D., & Platt, L. (2013). Ethnicity and bullying involvement in a national UK youth sample. *Journal of Adolescence*, 36(4), 639–649. https://doi.org/10.1016/j. adolescence.2013.03.013.
- Titzmann, P. F., & Lee, R. M. (2018). Adaptation of young immigrants. *European Psychologist*, 23(1), 72–82. https://doi.org/10.1027/1016-9040/a000313.

- Torsheim, T., Cavallo, F., Levin, K. A., Schnohr, C., Mazur, J., Niclasen, B., ... Group, the F. D. S (2016). Psychometric validation of the revised family affluence scale: A latent variable approach. *Child Indicators Research*, *9*(3), 771–784. https://doi.org/10.1007/s12187-015-9339-x.
- Torsheim, T., Wold, B., & Samndal, O. (2000). The teacher and classmate support scale. Factor structure, test-retest reliability and validility in samples of 13- and 15-year old adolescents. School Psychology International, 21(2), 195–212. https://doi.org/10. 1177/0143034300212006.
- Vervoort, M. H. M., Scholte, R. H. J., & Overbeek, G. (2010). Bullying and victimization among adolescents: The role of ethnicity and ethnic composition of school class. *Journal of Youth and Adolescence*, 39(1), 1–11. https://doi.org/10.1007/s10964-008-9355-v.
- Vessey, J., Strout, T. D., DiFazio, R. L., & Walker, A. (2014). Measuring the youth bullying experience: A systematic review of the psychometric properties of available instruments. *Journal of School Health*, 84(12), 819–843. https://doi.org/10.1111/josh. 12210
- Walsh, S. D., De Clercq, B., Molcho, M., Harel-Fisch, Y., Davison, C. M., Rich Madsen, K., & Stevens, G. W. J. M. (2016). The relationship between immigrant school composition, classmate support and involvement in physical fighting and bullying among adolescent immigrants and non-immigrants in 11 countries. *Journal of Youth and Adolescence*, 45(1), 1–16. https://doi.org/10.1007/s10964-015-0367-0.
- Weber, H. (2015). National and regional proportion of immigrants and perceived threat of immigration: A three-level analysis in Western Europe. *International Journal of Comparative Sociology*, 56(2), 116–140. https://doi.org/10.1177/ 0020715215571950.
- Zagefka, H., Brown, R., Broquard, M., & Martin, S. L. (2007). Predictors and consequences of negative attitudes toward immigrants in Belgium and Turkey: The role of acculturation preferences and economic competition. *British Journal of Social Psychology*, 46(1), 153–169. https://doi.org/10.1348/014466606X111185.