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ABSTRACT

In today's multicultural societies, the question of how school adjustment (adapting to the role of being a student) can be promoted for students from ethnic minority backgrounds is of high importance. The ecological approach to acculturation research proposes minority students' school adjustment is shaped by the surrounding context, and it suggests that the microsystem family plays an important role. Specifically, parents' acculturation, practices, attitudes, and background have been identified as key factors. While there exist systematic reviews of the impact of parental factors more broadly, some of which researched ethnic minorities, a comprehensive literature review of family-related factors that affect ethnic minority youth's school adjustment is missing. The present study provides a synthesis of qualitative and quantitative empirical research of interest, including 60 qualitative and 46 quantitative studies. Its content analysis portrays in what ways parental acculturation, practices, attitudes and background can support or hamper school adjustment among ethnic minority youth. A subsequent meta-analysis quantifies the strength of the impact of these parental variables on the school adjustment of their children. Our findings show that parental practices have the most crucial impact on the psychological well-being, academic self-esteem and aspirations, behaviour and achievement outcomes of minority youth.

Introduction

Schools in multicultural societies commonly face two interrelated tasks: to integrate culturally diverse student populations and to ensure equal educational opportunities for all students. At the beginning of 21st century, the discourse on the school failure of immigrant youth was dominated by the results of international comparative studies, which have consistently shown achievement disadvantages for immigrant students

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compared to those of native students (e.g. Artelt et al., 2001). Today's discourse of educational disparities between immigrant and non-immigrant students has shifted from focusing on the determinants of academic failure to searching for factors of *academic resilience* among students. "Academically resilient students are generally defined as those who overcome adversity to achieve academic success" (Cutmore et al., 2018, p. 10). It recognises that, although all students need to develop resilience capacities in the face of educational challenges, there are additional risks for immigrant students, "such as linguistic and cultural differences or missed school" (Cutmore et al., 2018, p. 10). It is therefore important to consider the process of acculturation and its outcomes while discussing the academic success or failure of students with an immigrant background (e.g. García Coll & Marks, 2012). Finally, current research follows a more holistic understanding of academic success, focusing not only on *students' achievement outcomes* but also on their *psychological adjustment* and highlighting that not only risk but also *resource factors* are important determinants of individual resilience in the acculturation process (Makarova & Birman, 2016). As shown in previous research the school context, teaching practices as well as teachers' attitudes, behaviours and expectation can serve as risk and as resource factors for ethnic minority students' school adjustment (Makarova et al., 2019).

In line with this, the present study aims to provide a more comprehensive understanding of the determinants of youth's school adjustment, by analysing risk and resource factors in the *family context* that may impact ethnic minority students'[1] achievement and adjustment outcomes in the school context.

School adjustment of minority youth

For ethnic minority youth, adjustment to the new environment of the host country is a challenging process, in which acculturation plays a key role. In acculturation research, the term "host country" is usually used with respect to immigrants of different generations. However, acculturation also occurs among native ethnic minority groups within the context of a dominant majority group. At the psychological level, acculturation research emphasises changes that individuals of a given ethnocultural group or groups undergo during their acculturation and the effects of their adjustment to the new environment (Berry, 2005). Psychological adjustment requires multiple resources. From the perspective of a *stress and coping* framework (Lazarus & Folkman, 1984), acculturation influences an individual's psychological well-being, life satisfaction, health vulnerability and psychosomatic complaints (Berry et al., 1987; Berry & Sam, 1997). Hence, culture contact appears to be a major, stressful life event that may lead to "culture shock" (Ward et al., 2001) or "acculturative stress" (Sam & Berry, 2006). The *social learning* approach suggests that individuals need to adjust to cultural differences in behaviour patterns and value systems (Hofstede, 1980; Markus & Kitayama, 1991). Therefore, it is expected that the acquisition of new skills is essential to successfully manage interaction and communication in a new cultural context (Landis et al., 2004). Consequently, adjustment to a new socio-cultural environment is a "highly variable process" that involves more than one aspect (Sam & Berry, 2006, p. 40). Moreover, a distinction is warranted between psychological adjustment, which involves individual psychological and physical well-being, and sociocultural adjustment, which refers to immigrants' success in dealing with daily life in the new cultural environment of their receiving country.

In the school context, minority students' adjustment to the new school environment includes students' psychological well-being and sense of belonging, quality of social interactions with peers and teachers, acquisition of school-relevant skills and behaviours, aspirations and self-esteem, and academic performance (Makarova & Birman, 2016). Often the adjustment process in the school context involves a balancing act between assimilation expectation which youth anticipate in school and parental expectations of heritage culture maintenance. This can push minority youth into a dilemmatic situation, where, "it is easier to fit into the national educational system if they favour assimilative orientations, but loss of connection with their heritage country may cause psychological distress" (Makarova & Birman, 2016, p. 11). Thus, the adjustment challenge for minority youth is to balance their involvement in different cultures: the family's heritage culture at home and the culture of the majority ethnic group, which they experience at school. Therefore, a specific focus of the contextual approach of acculturation research has been on family dynamics in the acculturation process. While a few reviews have considered the impact of parenting on youth's school adjustment more widely (e.g. Jeynes, 2007; Pinquart & Kauser, 2018), a comprehensive review of how parents affect school adjustment of ethnic minority youth is missing. Providing this is the aim of the present article.

The impact of family-related factors on psychological adjustment

Following the eco-developmental framework of human development (Bronfenbrenner & Morris, 2006), the *contextual approach of acculturation research* suggests that psychological adjustment is shaped by the surrounding context (Birman & Simon, 2014). According to Castro and Murray (2010), "context is recognized as a condition that influences many outcomes and their meaning, including the role of context as a condition that influences the process of acculturation" (p. 381). As Suárez-Orozco et al. (2018) explain in their model for the adaptation of immigrant origin children and youth, "local circumstances and proximal interactions at the microsystemic level (…) have profound implications for development" and the family as one of these microsystems "plays a critical role in the lives of immigrant origin children and youth" (pp. 788–789).

The interactions in the family microsystem can be a burden under condition of the *acculturation gap*, which appears when children of immigrants acculturate to the new cultural environment more rapidly and are more likely to maintain the host culture than their parents, who prefer to retain the values of their original culture exclusively (Birman, 2006b; Bornstein & Cote, 2006a; Kagitcibasi, 2006; Kwak & Berry, 2001). Research into the impact of acculturation gaps on family adjustment highlights that acculturation gaps between parents and children are associated "with greater family discord" (Birman, 2006a, p. 568). Furthermore, family cohesion and satisfaction turned out to be influenced by the acculturation gap (Ho, 2010). Thus, family conflict and the parent-child acculturation gap have been identified as family-related risk factors for ethnic minority youth's adjustment (Castro & Murray, 2010). In turn, the absence of an acculturation gap was associated with higher psychological well-being especially with higher self-esteem and lower anxiety of children (Farver et al., 2002).

Investigating *parental attitudes and practices* in the adjustment process, a study by Bornstein and Cote (2006b) has shown that public parenting practices acculturate faster than private parenting practices. Yagmurlu and Sanson (2009) have reported the impact

of acculturation orientations of Turkish immigrant mothers in Australia on their parenting styles. On a continuum from separation to integration, Turkish mothers favouring integration as an acculturation attitude favoured parenting behaviours that are common in the Australian society (Yagmurlu & Sanson, 2009). Regarding the *role of family acculturation on the adjustment of minority youth* in France and Canada, Sabatier and Berry (2008) conclude that parents' acculturation orientations and family climate do have an influence on the psychological and sociocultural adjustment of youth, which differs depending on country-specific contexts in terms of dealing with cultural diversity (Sabatier & Berry, 2008). Recent meta-analyses (Jeynes, 2007; Pinquart & Kauser, 2018) further emphasise the impact of parenting on school adjustment. Pinquart and Kauser (2018) specifically investigated how parenting affects behavioural problems and academic achievement across cultures. The authors conclude that an authoritative parenting style, characterised by high warmth and clear rules, has a positive effect on youth's school adjustment in a wide range of ethnic groups and in cultures around the globe.

Finally, *parents' background* (e.g. educational level, socioeconomic status, social capital and social ties, language barriers) has been identified as a risk or resource factor for youth's psychological adjustment (Castro & Murray, 2010) as well as their achievement. "For countries around the world, reducing the number of low-performing students is a central avenue towards improving equity in their education systems, given the fact that low-performing students come disproportionately from socio-economically disadvantaged and immigrant backgrounds" (OECD, 2016, p. 6).

Focus of the present study

Summarising the research on the school adjustment of minority youth reported above, we can conclude that, *within the family context*, the acculturation process not only affects family members individually, but also affects relationships between family members. Thus, acculturation discrepancies between parents and their children can burden the adjustment of minority youth in the school context. Castro and Murray (2010) propose resilience as a form of adaptive coping in response to the challenges of acculturation, and they view family conflict and the parent-child acculturation gap as family-related risk factors, while they consider such factors such as social support and shared resources as family-related resources.

Taking into account that the acculturation process in school challenges minority youth to bridge discrepancies between their family's heritage culture and the culture of the ethnic majority group, our study aims to provide a systematic review of the findings of empirical research on minority youth school adjustment (i.e. their psychological well-being and their achievement outcomes), focusing on the influence of family-related risk and resource factors. The study investigates both qualitative and quantitative evidence and focuses on the following questions: 1) How can family-related factors (parental acculturation, practices, attitudes, and background) affect ethnic minority youth's school adjustment? (Integrating qualitative evidence) 2) How strong is the effect of parental acculturation, practices, attitudes, and background on the school adjustment of ethnic minority youth? (Integrating quantitative evidence)

Methods

This study is embedded in a larger research project aimed at systematising research on the acculturation of ethnic minority youth and their school adjustment published in the 21st century (i.e. year 2000 or later). The aim was to systematise contemporary research on acculturation in the school context as they are mainly based on a bi-dimensional concept of acculturation which implies that it is possible to adopt or avoid the culture of the majority group in the country of residence and simultaneously, but not necessarily in the same way or to the same degree, to retain or lose their heritage culture (Berry, 1990, 2005).

In the first phase of this research project, the systematic review focused on the individual acculturation orientations and structural and process characteristics of the school context in relation to minority youth's school adjustment (i.e. achievement outcomes, and psychological adjustment) (Makarova et al., 2019; Makarova & Birman, 2015, 2016).

The present study provides a *systematic review* of selected empirical studies published between 2000 and 2019 on *family-related factors* that can be considered risk and/or resource factors relevant for the acculturation and school adjustment of minority youth. The study synthesises *qualitative* and *quantitative* empirical research of interest. "Research syntheses focus on empirical studies and seek to summarize past research by drawing overall conclusions from many separate investigations that address related or identical hypotheses" (Cooper, 2010, p. 4). First, a *qualitative content analysis* was conducted, in order to systematically explore *how* family-related factors are influential in ethnic minority youth's school adjustment. Second, a *meta-analysis* was carried out, in order to quantify the effect sizes of risk and resource factors.

Selection of empirical research

A literature search was performed in the database of the Education Resources Information Centre (ERIC) – the world's most widely used index to education-related literature. ERIC was chosen because of the current review's focus on acculturation orientations (i.e. assimilation, integration, separation, and marginalisation) in relation to school adjustment. We focused on peer-reviewed articles only to extract high-quality data. In line with the researchers' language skills, we selected articles in English language only to ensure high-quality coding. The 634 peer-reviewed articles that matched search criteria[2] were selected for the systematic review. To ensure that the articles selected addressed the topic of acculturation in the school context, abstracts of the 634 articles were examined. For the study to be included, two criteria were considered essential in the abstract: (a) the topic of acculturation had to be addressed (b) in relation to minority students' adjustment in the school context. Consequently, articles that applied the concept of acculturation in other contexts (i.e. military culture, deaf education culture, digital/virtual culture, professional culture, nightclub culture) were excluded. We included only those studies that were conducted in schools (i.e. included a sample of students, teachers, school principals, school counsellors). Next, the abstracts of the remaining 452 articles were examined to select only studies that addressed compulsory secondary education. Based on this criterion, 249 articles were selected.

Lastly, only articles which considered family-related factors as risk and/or resource factors relevant to the school adjustment of minority youth were selected for the systematic review. This led to a total of 105 articles, of which 60 articles reported on

qualitative and 46[3] on quantitative research (Figure 1). As can be drawn from Appendices A and B, within the studies included in this research synthesis mainly, though not exclusively, Western countries were the host countries.

Qualitative content analysis

The qualitative content analysis aimed to answer our first research question: How can family-related factors affect ethnic minority youth's school adjustment? Applying a structuring qualitative content analysis (Mayring, 2007), the findings of empirical research presented in the 60 qualitative (Appendix A) and 46 quantitative (Appendix B) studies were systematised. To provide a systematic review of findings reported by different investigators, we used a deductively developed category system. Based on the research background presented in the introduction and on the review of the abstracts of selected sources, the following categories were applied to code results of the 105 reviewed articles (Table 1).

This category system was enriched inductively while coding the materials. Each text-segment was assigned a code, which indicated the content of the category, and a sub-code, which indicated the negative (risk) or positive (resource) connotation of the coded segment. This study applied expert coding procedure, meaning that all coding was completed by two authors of this article. The agreement on the application of the coding scheme to the content of interest was discussed in the process of coding. For this reason, the calculation of the intercoder reliability was not required.

Meta-analysis

To address our second research question – How strong is the effect of parental acculturation, practices, attitudes, and background on the school adjustment of ethnic minority youth? – we conducted a meta-analysis. The meta-analysis focused on the 46 quantitative studies on ethnic

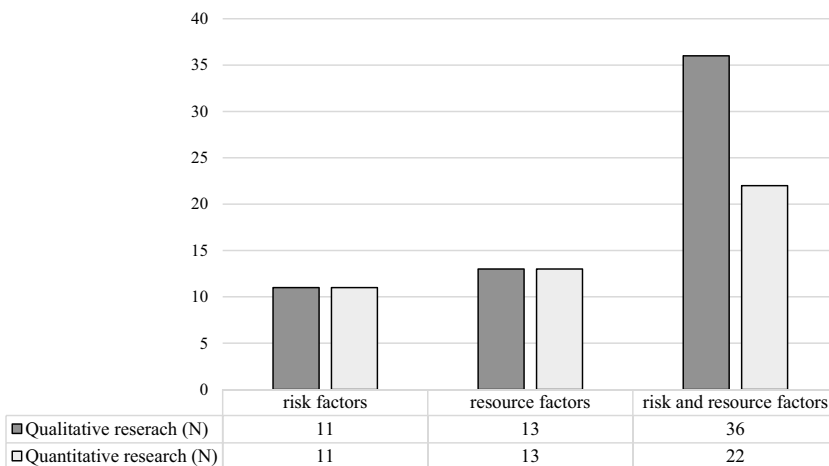|	risk factors	resource factors	risk and resource factors
Qualitative reserach (N)	11	13	36
Quantitative research (N)	11	13	22

Figure 1. Final source selection for the systematic review of family-related risk and resource factors for minority youth school adjustment.

Table 1. Category system of qualitative content analysis.

Category	Content	Subcategory
Parental acculturation	References to the length of stay, level of acculturation, linguistic acculturation, acculturation orientations, dissonant acculturation, bi-cultural acculturation.	Risk and/or resource factors
Parental practices	References to support at home, such as supportive practices, parenting style, family relationships, family climate, barriers to parental support, at home support, parental involvement in the educational process, barriers to parental involvement in the school.	
Parental attitudes	References to attitudes towards the national educational system, career aspirations for their children, their views of success and failure, comparison of the host country's educational system and that in the country of origin.	
Parental background	References to parents' social capital, their education level, their socio-economic status, their income.	

minority youth's school adjustment and aimed to quantify the impact of family-related factors. As for the qualitative analysis, we investigated *parental acculturation, parental practices, parental attitudes*, and *parental background*. Meta-analysis allows for the statistical combination of the results of numerous independent studies to provide an overall answer to a research question of interest along with quantified effect sizes (Cooper, 2010). The estimations of the meta-analysis yielded a) an overall effect size, b) an indication of the variability of effect sizes across studies. Thereby, we gained insights into how strong the relationship between parental factors and adolescents' school adjustment is across studies and could research which parental risk and resource factors have a stronger respectively weaker effect.

The 46 quantitative studies were systematically screened for statistical coefficients that show the relationship between parental variables and students' school adjustment. As a measure of effect size, we chose the correlation coefficient. For those studies that did not provide a correlation coefficient or where we found the authors might be able to provide additional correlation coefficients relevant to this meta-analysis, we contacted the authors by email.

We could obtain correlation coefficients or comparisons of means between groups which could be converted into correlations from twenty-one studies. Five further studies provided regression coefficients from logistic or multiple linear regressions, where parental variables predicted youth adjustment, which we converted into correlation coefficients (see Peterson & Brown, 2005). Overall, effect sizes were hence extracted from 26 of the quantitative studies. The 20 excluded studies either did not provide a coefficient that estimated the relationship between parental variables and students' school adjustment, or they provided only regression coefficients from complex regression models with more than ten predictors. To account for non-normality in the distribution of the correlations, we applied Fisher-Z transformation before running the meta-analysis, and then converted back to correlation to facilitate the interpretation of findings (see Quintana, 2015).

We used the metafor package in R (Viechtbauer, 2010) to run the meta-analysis, and we employed a random effects model (Hunter & Schmidt, 2004) to take into account systematic variation of effect sizes across studies.

Results

The result section is structured according to the methodology used to provide a research synthesis. First, it discusses the findings of the qualitative systematic review, and, second, it presents the results of the quantitative systematic review. The section then summarises the findings by triangulating the results of the qualitative and quantitative data analysis.

Qualitative research synthesis

The qualitative content analysis generated an overview of the categories that were systematised in the qualitative research synthesis (Table 1). Table 2 presents the frequencies of analysed categories and their distribution within the qualitative and quantitative research reviewed in our study. While *parental acculturation, parental practices*, and *parental background* were addressed as factors influential for minority youth acculturation in qualitative *and* in quantitative research, the category *parental attitudes* was identified only twice within quantitative research.

Table 2. Code frequencies.

Category	Qualitative research		Quantitative research		
	Risk factors Codes (N)	Resource factors Codes (N)	Risk factors Codes (N)	Resource factors Codes (N)	Total
Parental acculturation	42	17	22	15	96
Parental practices	80	74	31	49	234
Parental attitudes	24	39	0	2	65
Parental background	25	5	15	15	60
Total	171	135	68	81	455

The results show that family related factors can serve as risk and/or as resource factors during the acculturation process of minority youth. The reviewed research on minority youth's acculturation discusses family-related factors slightly more often as risk factors (overall 239 codes) for minority youth's adjustment in the school context than as resource factors (overall 216 codes). Furthermore, our findings indicate that parental practices are the most frequent category associated with minority youth's school adjustment (overall 234 codes), followed by parental acculturation (overall 96 codes) and their attitudes and expectations towards the educational success and failure of their children (overall 65 codes). However, parents' socio-economic background (overall 60 codes) was also shown to affect minority students' school adjustment. The frequencies of the categories (Table 2), however, do not have a statistical meaning as the content of each category includes a broad range of descriptors (Table 1).

In the following, the content of the target categories illustrates how family-related factors can support or hamper the school adjustment of minority youth.

Parental acculturation

In the qualitative as well as in the quantitative research *parental acculturation* was more frequently addressed as a risk factor (N = 42 and N = 22 codes) than as a resource factor (N = 17 and N = 15 codes) for minority youth's acculturation and adjustment (Table 2). The most frequently mentioned risk factor was a *parent-child acculturation gap*. Parents' strong emphasis on maintenance of the heritage culture despite more assimilative attitudes of their children was a burden in the psychological adjustment of minority youth (Amthor & Roxas, 2016; Frangie, 2017; Patel et al., 2016; Sibley & Brabeck, 2017; Unger et al., 2009). Likewise, many articles identified a low level of *parental linguistic acculturation* as a risk for children's success in school, as they need to take on the role of translators for their family (d'Abreu et al., 2019; Lopez, 2007; Makarova & Birman, 2015; Turney & Kao, 2009) and parents cannot support them with homework (Eskici, 2019). At the same time, bilingual parents and parents with language skills of the instructional language at school supported their children's adjustment through positive perception of their children's school, stronger school involvement and positive relationships with teachers (Lopez, 2007). Also, *parental acculturative stress* caused by difficulties in learning a new language and culture, overcoming challenges in navigating the host country school and health care systems, and balancing work and family or job and financial problems after immigration were associated with a maladjustment of minority youth (Perreira et al., 2006; Zadeh et al., 2008). Among resource factors, *parents' integrative orientations* were found to help their children succeed in mainstream society (Bui, 2009; Li, 2004; Schachner

et al., 2018). At the same time, *parents' assimilation* was found to ease adjustment difficulties (Bodovski & Durham, 2010; Ishida et al., 2016; Lopez, 2007; Roy, 2015).

Parental practices

In the qualitative research synthesised, *parental practices* were slightly more often identified as being a risk factor (Codes N = 80) than as a resource factor (N = 74), whereas in the quantitative research, parental practices were more often addressed as a resource (N = 49) than as a risk (N = 31) factor for the acculturation and adjustment of minority youth. The most frequent *parental involvement in school-related issues* was associated with children's adjustment in the school context (Bondy et al., 2017, 2019; Eng et al., 2008; Francis et al., 2017; Gerganov et al., 2005; Ibanez et al., 2004; Kroeger et al., 2019; Marsiglia et al., 2018; Trickett & Birman, 2005; Turney & Kao, 2009; Zadeh et al., 2008). The following parental involvement practices were identified as being supportive for youth school adjustment: *show interest in children's education* and *talk to children about their everyday issues and needs, help children with homework, encourage and reward children for achievements* (Ahmad, 2017; Li et al., 2013; Mackety & Linder-VanBerschot, 2008; Martinez et al., 2004; Ron-Balsera, 2015; Sime & Pietka-Nykaza, 2015). In relation to the subject field of family relationships *family cohesion* (e.g. Latino community's value of *familismo), family functioning* and *two-parent-family-structure* were identified as protective factors (Arora & Wheeler, 2018; Cook et al., 2015; M. J. Martinez et al., 2017; Paat, 2015; Peguero et al., 2017; Sellars & Murphy, 2018; Sibley & Brabeck, 2017). Some studies pointed out that parental lack of essential skills to successfully manage interaction and communication in a new cultural context can constitute a barrier to parents' involvement in school (Szpara & Ahmad, 2007).

With respect to *parenting*, an authoritative parenting style was found to be more favourable for school adjustment than an authoritarian parenting style (Moon et al., 2009). Especially for girls *restrictive parenting* was associated with risks for adjustment (Petrone, 2016). In some studies, also *parental authority* (Frangie, 2017), *parental discipline* (Yu et al., 2017), *parental monitoring* (Marsiglia et al., 2018; Sibley & Brabeck, 2017), and *parental guidance* (Weidong & Chen, 2017) were considered to be resourceful for adaption to new environment.

In contrast, many articles identified *changes in family structure* (e.g. separation, reunification, divorce) as negatively affecting immigrant children's school related adaption (Mason, 2016; Patel et al., 2016; Sellars & Murphy, 2018). In the same vein, negative *child-parent relationships* and an adverse *family climate* as well as parental violence (Titzmann et al., 2014) in immigrant families were associated with maladjustment of children (Lin et al., 2011; Patel et al., 2016; Titzmann et al., 2014).

Parental attitudes

Parental attitudes were predominantly addressed in the qualitative research and were more often identified as being a resource factor (N = 39 codes) than a risk factor (N = 24 codes) for the acculturation and adjustment of minority youth. Within the cluster of quantitative research, parental attitudes were only rarely addressed as a resource factor (N = 2 codes). A number of studies identified parental *positive attitudes towards the national educational system, parental positive perception of the school environment*, their *optimistic views of children's educational success* as being crucial for minority students' successful school adjustment (Akiba, 2007; Bodovski & Durham, 2010; Kennedy Cuero &

Valdez, 2012; Li, 2004; Perreira et al., 2006; Weidong & Chen, 2017). Although parents' *high educational aspirations* were mentioned more frequently as resource factors (Kumi-Yeboah & Smith, 2017; Sime & Pietka-Nykaza, 2015; Yu et al., 2017), some studies identified them as risk factors as they can be considered a stressor (Cone et al., 2014; Fruja Amthor, 2017). Among other factors found to be disadvantageous for students' school adjustment and success were *parents' critical or adverse view of the school curriculum and teaching methods* (Cone et al., 2014; Guo, 2007; Makarova & Birman, 2016), *parental low achievement expectations* (Hamilton, 2018; Li, 2004) and *parents' traditional gender norms* (e.g. housekeeping, marriage) (Hamilton, 2018; Petrone, 2016).

Parental background

Within the qualitative research, the category *parental background* was mentioned more often as risk factors (N = 25) than as resource factors (N = 5). In contrast, in quantitative research it was referred to as a risk or resource with the same frequency (N = 15). Low educational level and family income were found to hamper parents' efforts to effectively support their children's learning (Catarci, 2014; Fruja Amthor, 2017; Montazer & Wheaton, 2011; Moon et al., 2009; Sadownik & Mikiewicz, 2016) and were associated with higher vulnerability of children (Cook et al., 2015; Garcia-Joslin et al., 2016; Lin et al., 2011; Moinolnolki & Han, 2017; Murat & Frederic, 2015; Ron-Balsera, 2015), whereas higher levels of parental social capital were associated with fewer child difficulties at school (Moinolmolki, 2019; Montazer & Wheaton, 2011; Shoshani et al., 2016; Valdez et al., 2013). On the other hand, a few articles (e.g. Jaffe-Walter & Lee, 2018) showed that low social family capital could also act as a resource factor, as it fosters children's motivation to succeed in school in order to be able to support their family or cultural community.

Quantitative research synthesis

From the 26 quantitative studies, we extracted k = 193 effect sizes. Effect sizes were coded as a positive correlation if they were in the predicted direction and as negative if they were in the opposite direction. Parental resource factors were expected to have a positive correlation with minority students' school-adjustment. Parental risk factors, in turn, were expected to have a negative correlation with minority students' school adjustment As the same variable was conceptualised as a resource factor in some studies, but as risk factors in others (e.g. the presence of both parents as a resource factor vs. single parenting as a risk factor), we decided to convert all effect sizes into correlations, so that a positive correlation always indicates the expected direction (parental resource factor positively correlated with minority students' school adjustment and negatively correlated with school *mal*adjustment, and parental risk factor negatively correlated with student school adjustment and positively correlated with school maladjustment). This allowed us to compare the strength of effect sizes across studies.

Effect sizes ranged from $r = -.15$ (correlation in the direction opposite to the prediction) to $r = .56$ (a high correlation). The average correlation across all studies was $\rho = .16$ (95% CI [.14; .18], $p < .001$), which indicates a small but highly significant effect size (Cohen, 1992). The average effect sizes computed based on correlations were similar to the average effect size based on regression coefficients. The two were therefore combined. The funnel plot (Figure 2) shows a symmetrical distribution of effect sizes, and the
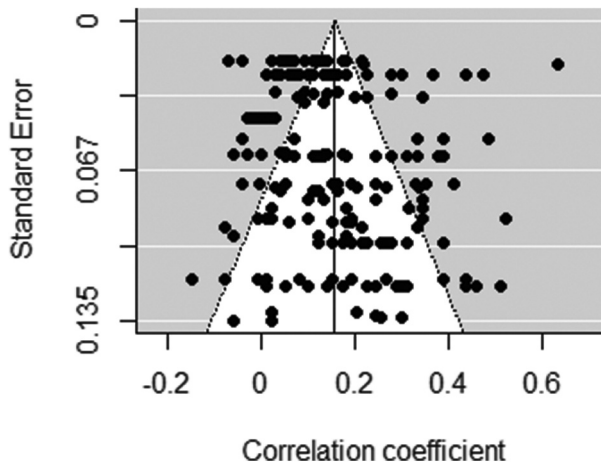
Figure 2. Funnel plot.

trim and fill procedure did not suggest imputing data points. Therefore, we assume there is no substantial publication bias.

The heterogeneity index Q(df = 192) = 2404.49, p < .001 indicates that the effect size differs systematically across studies and indicates moderators should be taken into account. We first investigated the type of parental risk/resource factor as moderator and found a significant effect: Q_M(df = 3) = 34.03, p < .001. Considering the four categories of parental variables separately, parental practices had the strongest effect on students' school adjustment (ρ = .22, 95% CI[.19; .26], p < .001, k = 62), followed by parental acculturation (ρ = .15, 95% CI[.12; .18], p < .001, k = 71), parents' background (ρ = .08, 95% CI[.06; .10], p < .001, k = 50), and parental attitudes (ρ = .09, 95% CI[.02; .16], p = .011, k = 10).

Exploring the operationalisation of minority students' school adjustment across the 26 studies, we found five operationalisations: 1) Well-being, 2) Sense of belonging, 3) Self-esteem and aspiration, 4) Positive behaviour, 5) Academic achievement and competence. The operationalisation of school adjustment was not a significant moderator: Q_M (df = 5) = 7.39, p = .194, meaning that the effect of parental variables on students' self-esteem and aspirations, sense of belonging, academic achievement and competences, and well-being was comparable in size.

Discussion

Our study's qualitative and quantitative research synthesis provides a more comprehensive understanding of the determinants of school adjustment among minority students. It shows that parental acculturation, parental practices and attitudes as well as parental background can serve as both risk and resource factors of minority students' acculturation and hamper or foster their school adjustment.

Parental practices appear to have the strongest impact on minority students' school adjustment. This category was not only most frequently addressed in qualitative research

(Table 2) but, based on the overall effect size of the meta-analysis, was also the most influential variable with respect to minority students' adjustment outcomes. The results of the qualitative synthesis illustrate that resources for minority youth successful school adjustment are authoritative parents who show interest in their children's education and needs, help them with homework, encourage them and reward them for their achievements. This is in line with research on the impact of parenting styles on youth's academic achievement across cultures, as highlighted in recent meta-analyses (Jeynes, 2007; Pinquart & Kauser, 2018). By reviewing studies on the educational involvement of urban secondary school children, both from native majority and from ethnic minorities, Jeynes' (2007) meta-analysis highlighted that the relationship between parental involvement and adolescents' achievement in school held across different ethnic groups. Through exploring various kinds of involvement including parental expectations, attendance and participation, communication and supportive parental style, Jeynes' (2007) review captured a breadth of content similar to that in our category "parental practices". Our meta-analysis highlights the importance of this risk and resource factor in a diverse population of ethnic minority youth, and our qualitative content analysis further illustrates how these factors may unfold their effect on adolescents' school adjustment – results that a purely quantitative analysis like a meta-analysis is unable to reveal. In the same vein, Pinquart and Kauser's (2018) meta-analysis identified positive associations between authoritative parenting and academic achievement across countries and ethnic groups worldwide. Our review shows the same pattern of findings in ethnic minorities, and again our qualitative review enabled us to go beyond demonstrating that an effect exists to also explain *how* authoritative parenting can unfold its positive effect on adolescents' achievement in school. Thus, reasonable demands and authority as well as parental high involvement (parental monitoring, parental guidance) with respect to educational issues and high responsiveness of parents to the needs of their children seem to be most supportive of minority students' school adjustment. These findings are consistent with research on parenting styles, indicating that an authoritative parenting style (i.e. high demandingness and high responsiveness) has a positive effect on children's developmental outcomes (e.g. Baumrind, 1991). At the same time, *parental attitudes* turned out to be far less influential than parental practices for minority students' school adjustment, having the lowest overall effect size. However, the qualitative content analysis suggests that parental positive attitudes towards the national educational system and school environment as well as their beliefs in the educational success of their children can support minority students' school adjustment. This reflects findings from a recent literature review of teachers' impact, which showed how a nurturing learning environment at school can be created for ethnic minority students through teachers' positive attitudes (Makarova et al., 2019). This literature review demonstrates a similar effect for parents.

Our study revealed that *parental acculturation* had a considerable impact on minority students' school adjustment. The qualitative content analysis showed that integrative or assimilative attitudes of parents can facilitate the school adjustment of minority youth. These findings are in line with research on acculturation indicating that integration is generally more conducive to immigrant adjustment in the society of settlement (Nguyen & Benet-Martínez, 2013; Phinney et al., 2006). Moreover, as shown in the study by Makarova and Birman (2015) in the school context, not only integrative but also assimilative attitudes are positively related to positive adjustment outcomes of minority

students. What is important, however, is that parents and students do not diverge in their acculturational preferences, because as shown in our study, an acculturation gap between parents and children negatively affects students' adjustment outcomes in the school context. Consequently, we can state that an acculturation gap can not only lead to family disharmony (Birman, 2006a), but can also negatively affect students' school adjustment. Furthermore, the acculturative stress of parents can also burden their children's school adjustment, which suggests that acculturative stress worsens intergenerational conflict between parents and children (Phinney & Vedder, 2006; Stuart et al., 2010). Thus, in the context of acculturation, further research is still needed to investigate in more depth the link between parental practices and acculturation (Bornstein & Cote, 2006b; Sabatier & Berry, 2008; Yagmurlu & Sanson, 2009) in relation to students' school adjustment.

Finally, the meta-analysis showed that the variable *parental background* was significantly related to minority students' self-esteem and academic aspirations as well as to their academic achievement and competences. At the same time, the qualitative synthesis indicated a pattern that has been consistently shown in research on minority students' achievement (e.g. Prenzel et al., 2007): Families' higher socio-economic and educational capital serves as a resource factor for students' school adjustment, as they help parents become effective supporters of their children's learning and positive behaviour (Castro & Murray, 2010; OECD, 2016).

Overall, the results of our study illustrate that characteristics of the family context need to be considered when investigating the academic resilience of minority students (Castro & Murray, 2010; Cutmore et al., 2018; Suárez-Orozco et al., 2018). The findings of our research synthesis can be also used in the development of school counselling programmes for families from disadvantaged backgrounds, as they show that certain parental practices – compared to other family-related factors – have the strongest impact on children's school adjustment outcomes and can therefore serve as an important resource in the acculturation process of minority students.

Conclusion and future directions

Our study provides a systematic and comprehensive review of family-related factors influential for minority students' acculturation and their adjustment in the school context by synthesising qualitative and quantitative findings from 105 studies across different countries. It not only summarises the risk and resource factors for student adjustment within the family context, but also indicates how strongly these factors are related to different adjustment outcomes among ethnic minority youth.

However, given the aim of analysing a large number of studies across different cultural contexts, it is limited in providing an in-depth analysis of minority youth's acculturation in any particular national context or in specifying the adaptation needs of a particular ethnocultural group. Another limitation of our study lies in the strong focus of eligible studies on the USA. This is particularly relevant as the USA is often characterised as one of the most individualistic countries in the world with a strong focus on the individual's achievement in education. In turn, most of the ethnic minority groups in the reviewed studies are from collectivistic cultures. The process of adjusting to a new cultural school context may work differently in more collectivistic countries or if adolescents from an individualistic ethnic minority group are adjusting to a more collectivistic school culture (see Hofstede,

1980; Markus & Kitayama, 1991). Even though effect sizes and patterns did not differ systematically between countries and ethnic minorities, we are hoping for research from a more diverse population to be published in the future.

Our literature review demonstrates how important parents of ethnic minority students are in supporting them to adjust to the school environment. We have shown that parental background is influential as are parental attitudes and acculturation. All of these are relatively stable factors, either of parents' life circumstances or as personality factors that are not easy to change. Our key finding that parental practices are the strongest risk/resource factor is good news for parents as well as teachers and schools. This is the most dynamic and malleable factor out of the four factors researched, suggesting a promising future avenue: Researchers may explore which parental practices are most beneficial for youth's school adjustment in general and for ethnic minorities specifically, in order to support parents in implementing those through establishing supportive structures, counselling or interventions. We found a wealth of relevant factors, including authoritative parenting style, relationships between parents and children, parents showing interest in children's education and talking to children about their everyday issues and needs, helping children with homework, encouraging and rewarding children for achievements. All of those factors were effective regardless of parents' background, which suggests that building strong support networks with parents of ethnic minority students, enabling communication as well as raising awareness and appreciation of parents' role are key factors. These findings on the key role of positive, dynamic and malleable (versus static and problematic) aspects of the family environment demonstrate how important it is to consider resource factors in research on school adjustment of ethnic minority youth.

Notes

1. In this article, we use the terms "ethnic minority youth/students" or "minority youth/students" to refer to students of different – sometimes interlinked – origins who are culturally different from the majority (i.e. immigrants of all generations, other ethnic and racial minorities, indigenous and colonised groups).
2. For articles published between 2000 and 2013 the search terms were: "acculturation" AND "adjustment" AND "school", "acculturation" AND "academic achievement" AND "school", "acculturation" AND "teacher–student relationship", "acculturation" AND "student–student relationship", "acculturation" AND "teacher attitudes" AND "acculturation" AND "teaching" AND "school". For the articles published between 2013 and 2019 we used "acculturation" AND "students" AND "relationships" instead of "acculturation" AND "student-student relationship" as we did not get any hit for the latter search combination.
3. One article reported on mixed-methods research and is therefore counted in both categories.

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Appendix A. Overview of 60 qualitative studies included in the review

First author	Year	Country	Minority group	Sample size	ERIC-Nr.[a]
Abu El-Haj, T.R.	2007	USA	Palestinian youth	case study	EJ778212
Ahmad, J.	2017	USA	Arab immigrants/parents	50	EJ1143442
Ahn, R.	2012	Japan	Korean immigrants/parents & students	7/7	EJ977474
Akiba, D.	2007	USA	Children of immigrant families	not applicable[b]	EJ771301
Ari, A.	2007	Switzerland	Immigrants from Turkey	241	EJ807347
Black, W.R.	2006	USA	Spanish-speaking immigrants	case study	EJ734944
Cabrera, N. L.	2004	USA	Latino students	case study	EJ727119
Catarci, M.	2014	Europe	Students with different cultural backgrounds	not applicable	EJ1027110
Conchas, G. Q.	2012	USA	Mexican American youth	80	EJ984034
Cone, N.	2014	USA	Haitian immigrants/students & parents & teachers	12/12/12	EJ1021503
Cook, A. L.	2015	USA	Latina/o English language learners	not applicable	EJ1076446
d'Abreu, A.	2019		Refugee youth	not applicable	EJ1210461
Davies, A. Z.	2008	USA	Leonean refugee students	case study	EJ785639
Eskici, M.	2019	Germany	Turkish immigrants/parents & students & teachers	23/12/6	EJ1210289
Francis, G. L.	2017	USA	Immigrant families	not applicable	EJ1163967
Frangie, M.	2017	Qatar	Qatari students attending international school	12	EJ1163590
Fruja Amthor, R.	2016	USA	Immigrant and refugee students	not applicable	EJ1095657
Fruja Amthor, R.	2017	USA	Immigrant and refugee young adults	10	EJ1161045
Garcia-Joslin, J. J.	2016	USA	Immigrant Latino students	not applicable	EJ1103036
Guo, Y.	2007	Canada	Chinese immigrants	120	EJ814785
Good, M. E.	2010	USA	Latino immigrants	case study	EJ901421
Haboush, K. L.	2007	USA	Arab American families	not applicable	EJ761958
Hamilton, P.	2018	U.K.	Gypsy/Traveller/students & mothers & teachers	9/7/3	EJ1173991
Hwa Kee, G.	2010	Malaysia	Chinese Malaysian students	4	EJ902633
Jaffe-Walter, R.	2018	USA	Recently arrived immigrants/students & teachers	24/18	EJ1177636
Kanu, Y.	2008	Canada	African refugee/parents & students	8/40	EJ830509
Kao, C-Y.	2006	USA	Asian American adolescents	2	EJ750763
Kennedy Cuero, K.	2012	USA	Latino families/mothers & students	3/15	EJ990435
Kroeger, J.	2019	USA	Hmong refugees/boy & father	case study	EJ1201420
Kumi-Yeboah, A.	2017	USA	Ghanaian-born immigrants/students	60	EJ1137910
Leeman, Y.	2006	Netherlands	Minority youth	not applicable	EJ767518
Li, J.	2004	Canada	Chinese immigrant/parents & children	7	EJ681263
Li, J.	2009	Canada	Chinese immigrant/parents & students	12/12	EJ843681
Li, J.	2010	Canada	Immigrant adolescents	12	EJ875167
Mackety, D. M.	2008	USA	American Indian parents	47	ED502499
Makarova, E.	2015		Ethnic minorities/students	not applicable	EJ1068530
Makarova, E.	2016		Minority students	not applicable	EJ1098843
Mansouri, F.	2005	Australia	Arab-Australian parents & students	12/36	EJ855005
Mason, A. M.	2016	USA	Somali-American students	case study	EJ1083031
Millar, N.	2011	Australia	Korean immigrants/parents & students	4/4	EJ969802
Moinolnolki, N.	2017	USA	Refugee and migrant children	not applicable	EJ1125322
Nozaki, Y.	2000	USA	Japanese students	7	EJ644305

(Continued).

First author	Year	Country	Minority group	Sample size	ERIC-Nr.[a]
Patel, S. G.	2016	USA	Newcomer immigrants/students	66	EJ1062324
Perreira, K. M.	2006	USA	Latino immigrants	18	EJ742451
Petrone, E. A.	2016	USA	Latino/a immigrants/students	5/3	EJ1083030
Qin, B. J.	2006	USA	Immigrant students	not applicable	EJ847390
Ron-Balsera, M.	2015	Spain	Ecuadorian immigrants/students & experts	15/10	EJ1068100
Ross, V.	2008	USA	Immigrant students	case study	EJ805996
Roy, L. A.	2015	USA	Somali Bantu refugees/students & families	12	EJ1061849
Sadownik, A. R.	2016	England	Polish immigrants/families	6	EJ1110740
Sellars, M.	2018	Australia	Sudanese immigrants	not applicable	EJ1175713
Sibley, E.	2017	USA	Latino immigrant students	not applicable	EJ1146470
Sime, D.	2015	Scotland	Polish immigrants/children & parents	18	EJ1053123
Stritikus, T.	2007	USA	Vietnamese immigrant	22	EJ782073
Szpara, M. Y.	2007	USA	English-Language Learners	not applicable	EJ776293
Warikoo, N.	2009	USA	Immigrant students	not applicable	EJ879152
Weidong, L.	2017	USA	Chinese immigrant family	case study	EJ1153588
Yeh, C. J.	2008	USA	Chinese immigrant/parents & students	13/32	EJ783102
Yu, X.	2017	USA	Black American students	11	EJ1160556
Zadeh, Z. Y.	2008	Canada	Iranian/Iranian-Canadian mothers & children	41/29	EJ784899

[a]Record Number in the Education Resources Information Centre (ERIC). [b]*not applicable* refers to articles that reviewed more than one study.

Appendix B. Overview of 46 quantitative studies included in the review

First author	Year	Country	Minority group	Sample size	ERIC-Nr.[a]
Arora, P. G.	2018	USA	Mexican-origin students	T1: 755/T2: 599	EJ1186901*
Atzaba-Poria, N.	2004	Britain	Indian children	66	EJ816348*
Bodovski, K.	2010	USA	Chinese & Mexican students	13,020	EJ896519*
Bondy, J. M.	2017	USA	Children of immigrants	9,870	EJ1140149
Bondy, J. M.	2019	USA	Children of immigrants	9,870	EJ1206093
Bui, H. N.	2009	USA	Immigrant students	12,868	EJ842255
Eng, S.	2008	USA	Chinese & Filipino adolescents	973	EJ801971*
Gerganov, E.	2005	Bulgaria	Roma children	80	EJ721799
Haller, W.	2011	USA	Immigrant students	3,249	EJ921480*
Hamilton, H. A.	2011	Canada	Chinese & Filipino children/youth	533	EJ936056*
Ibanez, G.	2004	USA	Latino adolescents	129	EJ696800*
Ishida, K.	2016	Japan	Immigrant students/1st & 2nd generation	26,656	EJ1130275
Keller, U.	2008	USA	Immigrant youth	10,163	EJ820215
Kim, M.	2011	USA	Korean American	77	EJ945599*
LeCroy, C. W.	2008	USA	Hispanic adolescents	124	EJ815195*
Li, Y. X.	2013	Japan	Chinese Immigrant students	143	EJ1016662*
Liebkind, K.	2004	Finland	Vietnamese youth	175	EJ690209*
Lin, F.-G.	2011	Taiwan	Immigrant mothers	154	EJ942642*
Lopez, V.	2007	USA	Mexican-origin fathers	77	EJ794791
Lys, D.	2009	USA	Latino students	74	EJ867142
Marsiglia, F. F.	2018	USA	Mexican-heritage adolescents and parents	355	EJ1176065*
Martinez, C.	2004	USA	Latino youth	564	EJ727118
Martinez, C. R.	2008	USA	Latino families	73	EJ824712*
Martinez, M. J.	2017	USA	Hispanic adolescents	1,148	EJ1147197
Moinolmolki, N.	2019	USA	Bhutanese refugee youth	119	EJ1207840*
Montazer, S.	2011	Canada	Immigrant families/mother & child	886	EJ920749
Moon, S. S.	2009		Korean & Mexican immigrants	103	EJ840747*
Murat, M.	2015	Europe	Immigrant students	221,721	EJ1071147
Paat, Y.	2015	USA	Mexican immigrant children	5,262	EJ1050868
Patel, S. G.	2016	USA	Newcomer immigrant adolescents	189	EJ1062324*
Peguero, A. A.	2017	USA	Immigrant adolescents	9,870	EJ1149825
Perez, R. M.	2011	USA	Latino(a) youth	187	EJ946968
Plunkett, S. W.	2003	USA	Mexican origin immigrants	273	EJ673642*
Portes, P.	2002	USA	Latin American immigrants	2,556	EJ659873*
Schachner, M. K.	2018	Germany	Immigrant students	860	EJ1167476*
Shoshani, A.	2016	Israel	Migrant adolescents	448	EJ1103123
Smokowski, P.	2009	USA	Latino adolescents	281	EJ844320*
Sonderegger, R.	2004	Australia	Former-Yugoslavian & Chinese Students	273	EJ943229
Titzmann, P. F.	2014	Germany	Migrant male adolescents	607	EJ1050311*
Trickett, E.	2005	USA	Former Soviet Union refugee adolescents	110	EJ761789*
Turney, K.	2009	USA	Immigrant parents	12,954	EJ827692
Unger, J. B.	2009	USA	Hispanic students	1,683	EJ844327*
Valdez, C. R.	2013	USA	Latino families	3,091	EJ998465*
Valencia, E.	2006	USA	Latino students	275	EJ739828
Wong, Y. J.	2011	USA	Asian American adolescents	959	EJ942545*
Yeh, C.	2008	USA	Chinese students	286	EJ823951*

[a]Record Number in the Education Resources Information Centre (ERIC); *Studies included in meta-analysis.