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Studies on the Acculturation of Young Refugees in the Educational Domain: A Scoping Review of Research and Methods

Débora B. Maehler¹ · Steffen Pöttschke¹ · Howard Ramos² · Paul Pritchard³ · Johanna Fleckenstein⁴

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Abstract

Given that children and adolescents constitute a growing and significant share of forced migrants worldwide, assessing the state of research on and the methods used to study the acculturation of this group is both timely and essential. The acculturation of refugee children and adolescents in host countries occurs primarily within educational institutions and through the acquisition of the language of the new host society. This scoping review of peer-reviewed journal articles published between 1987 and 2016 ($N = 192$ eligible studies) examined the extent to which individual-level factors (e.g., gender, age) and contextual factors (e.g., country of residence) emphasized by acculturation models have been considered in research involving young refugees in the educational domain. In addition, the research designs and methods applied in these studies were evaluated, and content analysis was performed to examine whether individual-level factors considered in the sample of studies were related to educational outcomes of young refugees. Overall, the review revealed that very few studies provided adequate information on sample composition, or considered individual and contextual factors, thus leaving crucial gaps in the knowledge about the acculturation of young refugees. Guidelines for future research are proposed to remedy the identified research deficits.

Keywords Scoping review · Refugee children and adolescents · Acculturation · Educational settings · Peer-reviewed publications

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Introduction

The sharp increase in global forced migration flows in recent years is reflected in the increased number of refugee students enrolled in schools in receiving countries (OECD 2015). Educators and school administrators are expected to meet the educational, social, and emotional needs of these students, many of whom have left their home countries involuntarily and may have experienced traumatic events. Yet educational professionals often lack the necessary training for, and familiarity with, the specific needs of young refugees. For refugee children and adolescents, educational institutions are both the principal sites of integration and the main settings in which individual and contextual factors shape the process of adaptation to the host society (e.g., Bean et al. 2007; Suárez-Orozco et al. 2018). Psychological models prevalent in the study of immigrant acculturation suggest that several individual-level factors (e.g., gender, age) and contextual factors (e.g., country of residence) affect the process of immigrants' adaptation to their new environment (e.g., Arends-Tóth and van de Vijver 2006; Suárez-Orozco et al. 2018). Until now,

empirical data with a focus on young refugees' adaptation to their new (educational) environment have been lacking, and refugees are too seldom distinguished in studies on immigrant children and adolescents (e.g., Bloch et al. 2015; Crul et al. 2017). Through a scoping review of peer-reviewed literature in English, German, and French covering the past 30 years, the present work aims to determine the extent to which individual-level and contextual factors have been considered in research on young refugees in the educational domain. In addition, the methods applied in these studies will be evaluated, and the correlation of selected individual factors with educational outcomes will be investigated in depth by means of content analysis. Summarizing research and the methods so far used in the area concerned will indicate the weaknesses that should be addressed in future studies by following guidelines derived from the findings of the present study.

Acculturation is generally understood as a broad process of psychological and sociocultural adaptation to a majority culture that can lead to changes in behavioral, cognitive, emotional, and other domains (Berry 1997; Chirkov 2009). According to Chirkov (2009, p. 94), this process is executed by individuals after arriving in a cultural community that is different from the one in which they were originally socialized. Simply put, acculturation can be defined as the acquisition of a second culture (Rudmin 2009).

The process of acculturation of (*voluntary*) immigrants has been well conceptualized in several theoretical frameworks or models in the field of psychology (e.g., Arends-Tóth and van de Vijver 2006; Berry 2005; García Coll et al. 1996; Motti-Stefanidi et al. 2012; Suárez-Orozco et al. 2018). Much less research has been done on the acculturation of *involuntary immigrants*, or *refugees*, who are a specific group of immigrants whose experiences are affected by unique individual and contextual factors (e.g., Allen et al. 2006). Nevertheless, it is worthwhile considering how existing acculturation models could be applied to them and examining whether there are gaps in the literature.

Most acculturation models identify individual sociodemographic and psychological factors of acculturation as well as micro- and macro-level contextual factors that influence the adaptation of immigrants to a new environment (e.g., Arends-Tóth and van de Vijver 2006; Berry 2005; Suárez-Orozco et al. 2018). Gender and age, for instance, have emerged across acculturation studies as primary factors to be considered on the individual level. Gender roles and norms in the country or culture of origin and their meaning for acculturation in new host countries are emphasized. For this reason, studies tend to measure how these gender norms align with those of the new country. In addition, age is considered to intersect with language learning, with much attention being paid to the fact that younger migrants tend to acquire host language skills faster than older ones (e.g.,

García Coll et al. 1996; Suárez-Orozco et al. 2018). Other individual-level sociodemographic factors that are considered to play an important role in integration include, for example, religion (e.g., Suárez-Orozco et al. 2018). Studies often assess the role of religious persecution as an impetus for flight, or the role that religion and religious institutions can play as a form of psychological support and an integrative force in a new environment (e.g., Güngör et al. 2011).

Moreover, at the individual level, acculturation models also consider social (e.g., personality) and emotional factors (e.g., depression). Research has shown, for example, that immigrants with a strong personality and high resilience have a better chance of overcoming traumatic experiences encountered prior to and during migration and resettlement (e.g., Berry 2005; Motti-Stefanidi et al. 2012; Suárez-Orozco et al. 2018). There is a high probability that refugee children and adolescents will have been exposed to considerable levels of violence and war trauma (e.g., bombing; witnessing family members or others being killed or injured, beaten, or tortured) and will have consequently experienced psychological distress (e.g., Berthold 2000; Bean et al. 2007). The literature suggests that high levels of post-traumatic stress disorder (PTSD), depression, and anxiety are commonly found among young refugees (e.g., Berthold 2000; Fazel et al. 2012; Huemer et al. 2013).

Besides individual-level factors, acculturation models stress the context in which the acculturation process is embedded. At the micro-level, these factors include, for example, family composition, the education system, and the neighborhood. Schools, for instance, can facilitate children's acquisition of language and cultural competence, thereby helping them to integrate into the new society (e.g., García Coll et al. 1996; Motti-Stefanidi et al. 2012). In addition to these micro-level aspects, research has focused on macro-level contextual factors, such as the country of origin and the residence country. Studies show that immigrants' culture of origin may affect their adaptation to the host country (e.g., Berry 2005). Most research in this regard has focused on the cultural distance between the culture of origin and the host country, and the related difficulties to adapt. Furthermore, the migration policies and laws of the host country might affect the acculturation process in the new society (e.g., Allen et al. 2006; Berry 2005; Suárez-Orozco et al. 2018).

The Current Study

The current scoping review explores the extent to which individual-level and contextual factors identified by frameworks used to study acculturation (see above) have been considered in research on young refugees in the educational domain. Furthermore, the review explores methods used in the included studies, and the correlation of individual-level

factors with educational outcomes (see study design in Fig. 1).

The scoping review investigated, first, the extent to which key individual factors (gender, age, religion, social and emotional factors) have been considered in empirical studies on the acculturation of refugee children and adolescents. Second, it examined the extent to which key contextual factors (study setting, country of origin, host country) have been considered in previous research on this topic.

As acculturation researchers (e.g., Allen et al. 2006; Jabbar and Zaza 2014; Maehler et al. 2017) have also emphasized the importance of designs and methods that provide a broad perspective on the acculturation processes of (involuntary) immigrants, the review assessed, third, how research on the acculturation of this group in the educational domain has measured and collected information (i.e., sample, design, and methods used). Specifically, it examined whether the

studies provided information about the sample size, research designs, and methods used, and, if yes, what was done.

Fourth, as gender and age have been identified in acculturation models as primary factors for consideration in acculturation research (see above), and have been found, for instance, to be crucial predictors for second language acquisition (e.g., van Tubergen 2010), the review explored by means of content analysis the relationship between these variables (as predictors) and educational outcomes. As outlined above, refugee children and adolescents are highly vulnerable to emotional distress that may affect their educational outcomes in the new educational environment. Therefore, fifth, a further content analysis was carried out to explore the relationship between emotional factors (operationalized by the most commonly reported symptoms of emotional distress: trauma, depression, and anxiety) and educational outcomes.

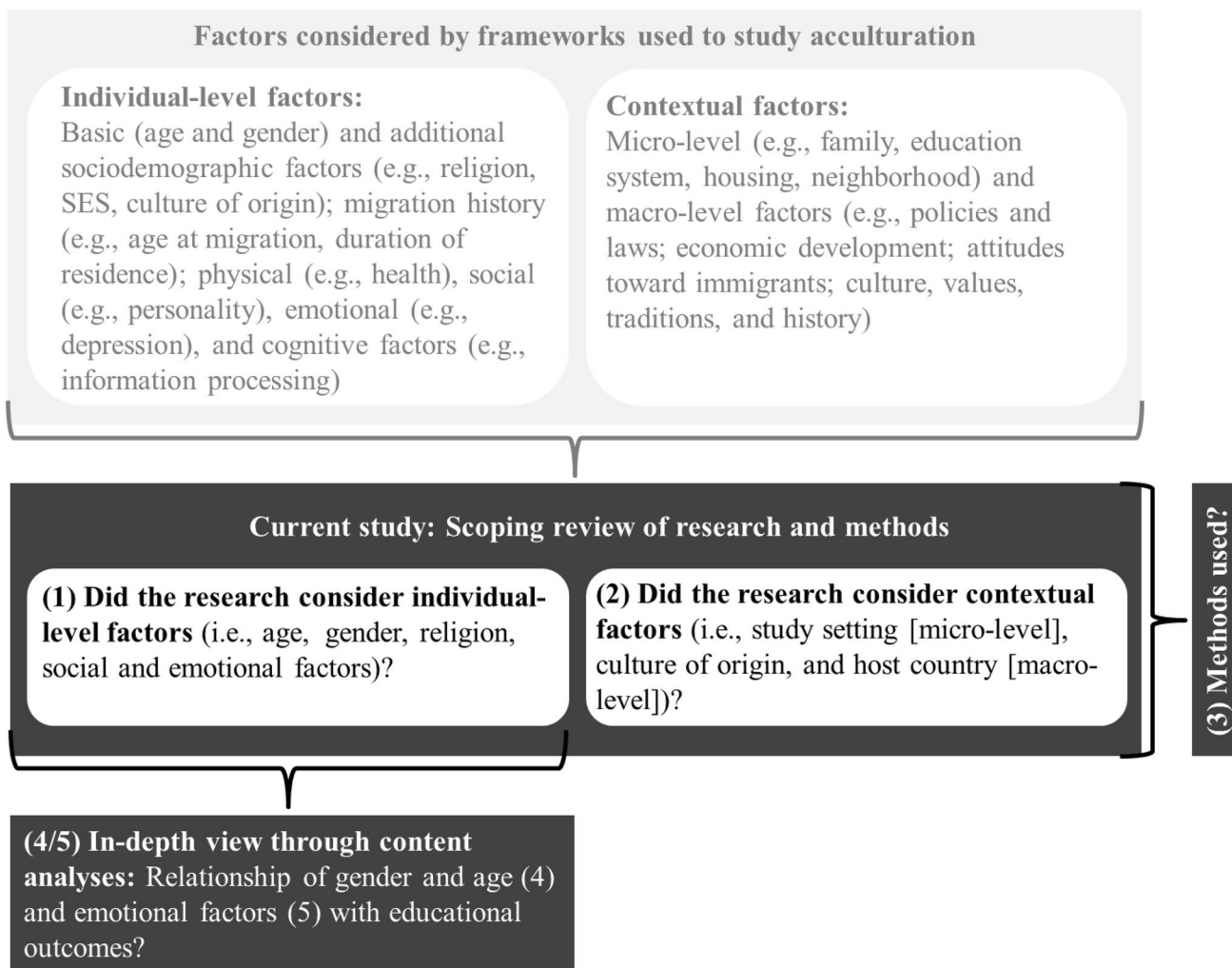


Fig. 1 Design of the current study: factors considered in acculturation research on refugee children and adolescents in the educational domain

Methods

Studies on refugees aged 19 years and younger published in English-, French- and German-language peer-reviewed journals were reviewed. Taken together, these three languages cover a wide range of countries, where they are spoken as a first or second language. The review focused only on peer-reviewed journal articles for two reasons: first, to ensure comparability, and second, because the ability to include grey literature, other non-peer-reviewed works, and books was limited by available resources. It covered publications between 1987 and 2016, a time range that includes periods when forced migration ranked high on the public agenda in European and North American countries (e.g., during the Yugoslav wars in the 1990s), and periods where interest in the topic was less pronounced. During the three decades under observation, Germany and France took a large share of the refugees arriving in Europe. This was another important reason to consider German- and French-language articles.

Data Collection and Processing

The review was carried out in four steps. In the first step, database searches were conducted to identify English-, French-, and German-language publications that met the inclusion criteria. In the second step, the eligible English-language publications were analyzed. In the third step, the German- and French-language publications underwent the same analysis. The databases and search terms used in the review were derived from an initial scan of existing reviews of the literature on refugee children and adolescents (see Ramos and Pritchard 2016). The Education Resources Information Center (ERIC) database, the most extensive English-language literature database in this field, was used to identify English-language articles; the German Education Index (Fachinformationssystem Bildung), the most extensive German-language literature database in this field, was used to identify German-language articles; the Canadian database *Érudit* (*Édition de revues universitaires et diffusion sur inforoutes*) and the French database *Persée* (*Périodiques scientifiques en édition électronique*) were used to identify French-language articles.

In the literature search, a number of different search terms were used in combination with each other. These terms were assigned to three different levels. The first level focused on the target group (*refugees*); the second level (e.g., *child*, *adolescent*) delimited the desired age range. The third level comprised keywords relevant to the specific dimension *language and learning*. Only documents containing at least one keyword from each of the three levels

were retained. An early observation was that, in contrast to their English- and German-language counterparts, articles in French-language databases often lacked abstracts. Therefore, for articles stored in these databases, the full texts together with titles, abstracts, and keywords were searched using the key search terms. The searches yielded a gross sample of 420 English-, 529 French-, and 56 German-language articles (see Fig. 2), which constituted the broad basis for further selection and coding.

It is important to emphasize that refugees may differ from voluntary immigrants with respect to their integration into host societies and to important determinants thereof, such as mental and physical health (Ruiz and Vargas-Silva 2018). The 1951 Convention Relating to the Status of Refugees defines a *refugee* as “someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion” (UNHCR 2010, p. 3). However, the reviewed studies might have used different definitions. Consequently, and to keep the literature review as open as possible, a specific definition of *refugee* was not used as an inclusion criterion, but rather the term itself was used as a keyword in the retrieval procedure (see Table 1). Hence, the review included studies in which the authors described their sample members as refugees, irrespective of their individual understanding of this term.

The selection and coding procedure used to analyze articles followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) model (Moher et al. 2009). In the first screening, duplicates, non-peer-reviewed articles, and articles not published in the target languages were excluded. In a second step, metadata were examined, and further entries were removed. Among the exclusions were empirical studies with divergent target groups (not refugees or not within the specified age range), literature reviews, and non-empirical contributions. Articles that were not related to the topic of the review were also excluded. This produced a working sample of 192 publications for analysis (see Fig. 2), comprising 178 English-, nine French-, and five German-language articles.

In the fourth step of the review process, content analysis was performed on the quantitative studies among the 69 reviewed publications that considered gender and age—identified as essential individual-level factors in the acculturation frameworks—and educational outcomes in the acculturation process. And finally, in the fifth step, further content analysis was performed on quantitative studies that examined common emotional factors affecting refugee children and adolescents in the educational domain ($n = 39$).

Coding of the reviewed publications was carried out by two coders per language. The level of inter-coder disagreement was 25% for the coded data as a whole. Ambiguous cases were

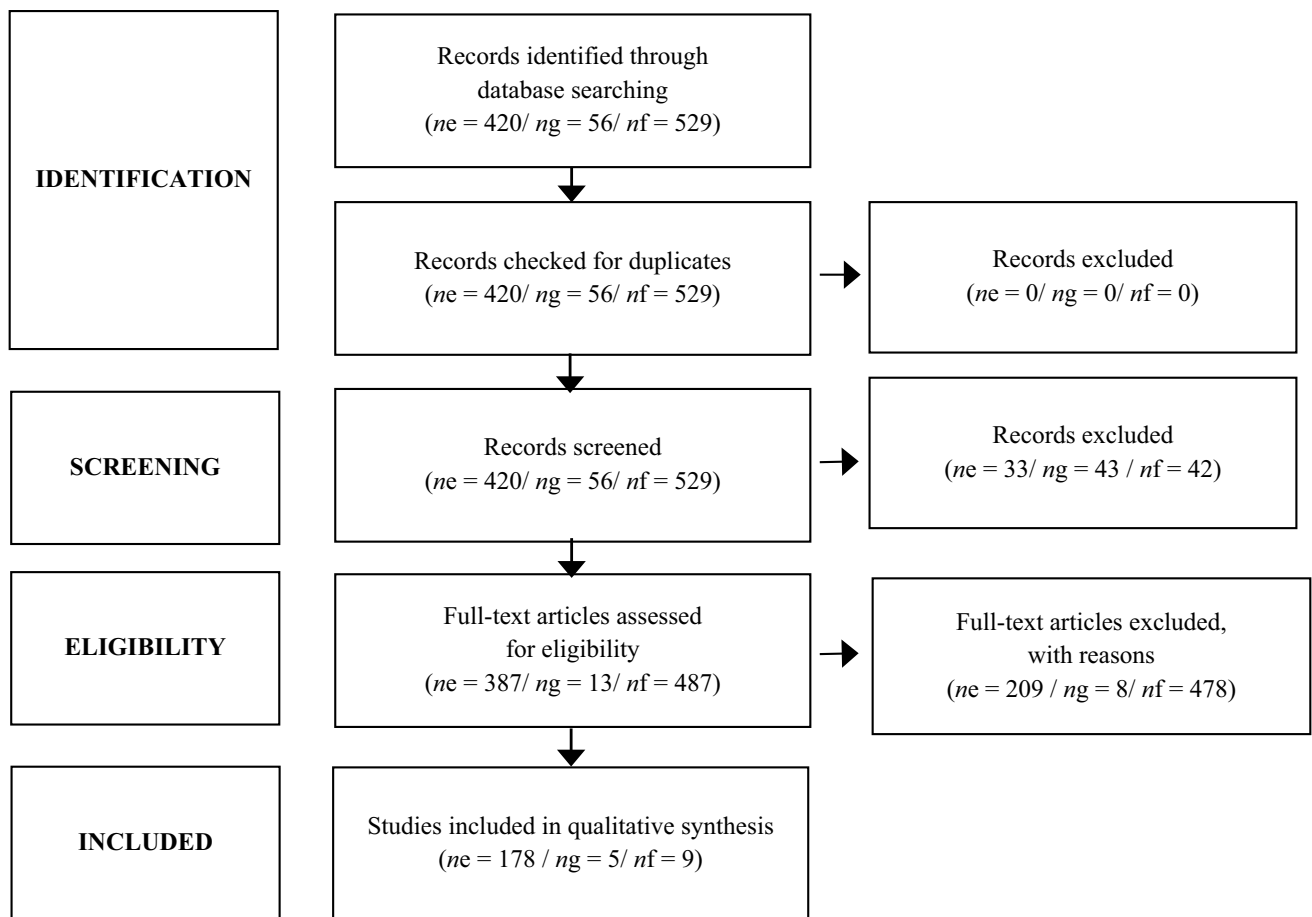


Fig. 2 PRISMA flow chart. *ne* = *n* English-language articles; *ng* = *n* German-language articles; *nf* = *n* French-language articles. Source Adapted from Fig. 1 in Moher et al. (2009). The data on which that

article is based are available at <http://perceptionschange.ca/refugechildandyouthscan.html>

Table 1 Search terms relating to refugee children and youth in the domain of education

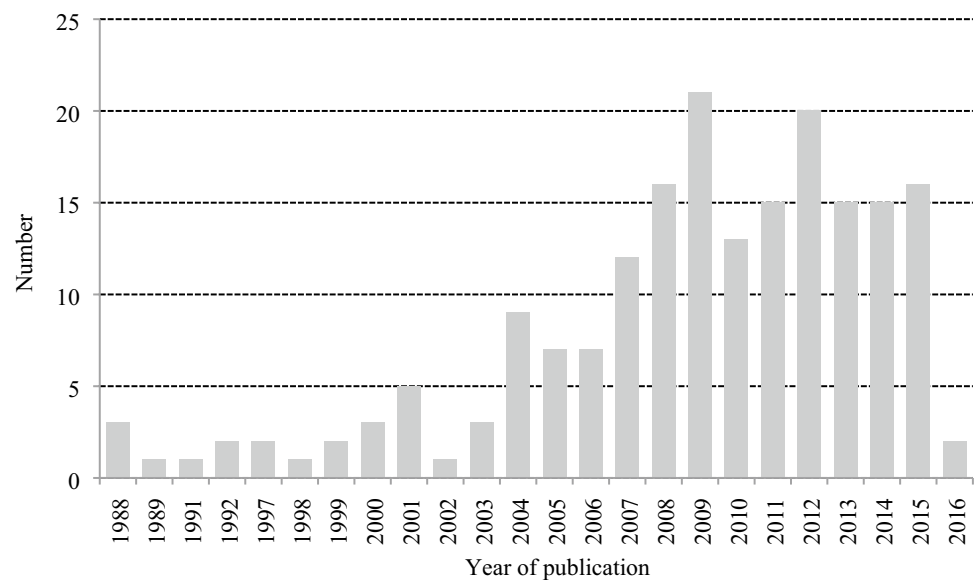
	Level 1	Level 2	Level 3
English	Refugee	Child, youth, teen, minor, adolescent	Language, learning, literacy, school, education
German	Flüchtling Geflüchtete	Kinder, Kind, Jugendliche, Jugend, Adoleszenz, Pubertät, Jugendliche, Teenager, Minderjährige	Sprache, Lernen, Kompetenz, Fähigkeit, Schule, Bildung, Ausbildung
French	Réfugié	Enfants, enfant, jeunes, jeunesse, adolescence, adolescent, jeune, mineur	Langue, apprendre, compétence, école, éducation, formation, enseignement

continually discussed within the team to ensure quality and consistency. In a final step, an additional review, adaptation, and standardization of the coding was carried out by the first author.

Results

Before presenting the results of the review, it is pertinent to provide a brief overview of the period of publication and

Fig. 3 Year of publication of the studies on refugees aged 19 years and younger in the domain of education



the fieldwork period of the included studies. As can be seen from Fig. 3, which reports the year of publication of the studies, the period of publication extended from 1987 to 2016. It is striking that three-quarters ($n = 145$) of the studies were published between 2007 and 2016.

Due, in particular, to the peer-review process, there is typically a considerable time lag between the year in which a study is conducted and the year of publication. Information on the extent of this time lag was available only in about one-third of the articles ($n = 79$), where, on average, 4.28 years elapsed between the last year of data collection and the year of publication.

Individual-Level Factors

Gender

The analysis of the samples showed that one-third of the studies on refugee children and adolescents in the field of education ($n = 56$) did not report the gender of the participants. Among the studies that provided information on gender, the majority used a mixed sample ($n = 96$), 21 investigated only males, and 16 focused solely on females.

Age

Information on age was given in various forms in the coded literature. Whereas some studies specified the exact age of study participants in years ($n = 10$), others cited, for example, an age range ($n = 119$) or a mean age ($n = 2$).

Furthermore, some studies ($n = 25$) provided information only on years of schooling or the educational institution surveyed (e.g., elementary school). However, about one-sixth of the publications ($n = 30$) did not provide any information on the age composition of the sample, other than the general indication that children or adolescents were investigated.

Of the age-related categories, age ranges were particularly suitable for a comparative analysis of the coded literature, as they were reported most frequently. When comparing this information, a classification proposed by Schneider and Lindenberger (2012) was used, and the following stages were differentiated: early childhood (5 years and younger), middle and late childhood (6 to 11 years), and adolescence (12 to 19 years). The analysis revealed that the proportion of studies in this field increased exponentially with the age of the children and adolescents (see Fig. 4). The smallest number of publications ($n = 16$) covered early childhood. The number of publications that dealt (also) with children in middle and late childhood was over three times as high ($n = 55$). The most frequently studied age range ($n = 107$) was clearly adolescence.

Religion

Very few studies ($n = 24$ of 192) provided information about the *religious affiliation* of the survey participants. Some of these studies included several faith groups. The religious affiliations specified in these studies were as follows: predominantly Muslim ($n = 15$), Christian ($n = 13$), Buddhist ($n = 5$), and Jewish ($n = 3$).

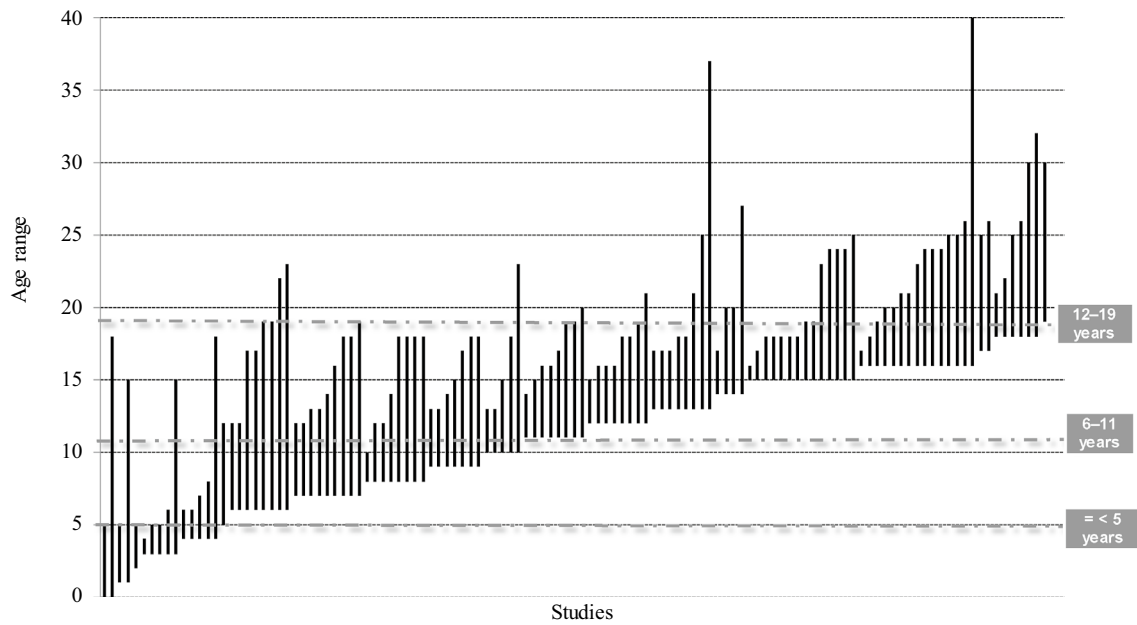


Fig. 4 Age ranges covered by studies on young refugees in the domain of education. Individual studies may include persons from more than one of the above age categories—for example, if children between the ages of 4 and 8 years were interviewed

Table 2 Main countries of origin included in studies on young refugees in the domain of education

Rank	Country	No
1	Somalia	9
2	Sudan	8
2	Congo	7
3	Afghanistan	6
4	Former Yugoslavia	5
5	Colombia	4
5	Ethiopia	4
5	Iraq	4
5	Sierra Leone	4
5	Vietnam	4

Table 3 Main countries in which fieldwork for studies on young refugees in the domain of education was conducted

Rank	Country	No
1	United States of America	62
2	Canada	32
3	Australia	24
4	United Kingdom	17
5	Palestine	6

Social and Emotional Factors

Of the studies reviewed, 38 captured social factors such as participants’ personality traits or resilience. Emotional factors (e.g., depression, anxiety, and trauma symptoms) were considered in 74 studies.

Contextual Factors

Study Setting

The sampling and fieldwork for more than half of the included studies ($n = 105$) were carried out at educational institutions (e.g., elementary and secondary schools, universities, or language schools). Dedicated facilities for refugees (e.g., refugee camps, asylum centers; $n = 24$),

community centers ($n = 20$), or service providers/centers or agencies ($n = 19$) were also often reported as study sites. Among the less frequently reported locations were private residences ($n = 17$) and health centers, hospitals, or clinics ($n = 10$).

Country of Origin

The analyses showed that 80% of the reviewed studies (157 of 192) did not report the country of origin of the participants. The majority of the studies that did so (23 of 36) examined heterogeneous samples that consisted of young refugees from several different countries. As can be seen from Table 2, which reports the most common countries of origin studied, the refugees hailed from countries in Africa (e.g., Somalia, Sudan, Congo), Asia (e.g., Afghanistan, Vietnam), the Middle East (Iraq), South America (Colombia), and Europe (the former Yugoslavia).

Host Country

With respect to the broader context, the publications used data collected in 43 different countries. As can be seen from Table 3, the fieldwork for most studies was conducted in the United States, Canada, Western Europe, and Australia. A total of 14 studies used data from multiple countries. These studies were comparisons between different host countries and transit countries, or between countries of origin and the host country or transit country. Only four studies could be identified in which fieldwork was conducted in Germany. The only francophone country in which fieldwork was conducted was Canada. Moreover, the specific status regulation of immigrants, and consequently the understanding of the term *refugee*, varied by fieldwork country. However, as the reviewed studies provided hardly any information about the legal status of the participants, an evaluation would not have been meaningful.

Research Design and Methods Used in the Reviewed Studies

Sample

A review of sample sizes revealed that study results in this field were based particularly on small (up to 20 participants; $n = 71$) or medium-sized (21–149 participants; $n = 52$) samples. Approximately 13% of the studies were based on large samples (150 or more persons; $n = 24$). In addition, some studies used multiple samples (e.g., students and teachers; $n = 29$).

Design

Figure 5 provides an overview of the design of the studies included in the review. It shows that the results of the

studies were based predominantly on cross-sectional surveys ($n = 72$) and ethnographic studies ($n = 57$). By contrast, case studies ($n = 30$) and longitudinal designs ($n = 25$) were used less frequently.

Methods

An evaluation of the survey methods showed that the empirical findings of the majority (64%) of the included studies were based on qualitative methods ($n = 121$), whereas about one-fifth of the studies used quantitative ($n = 37$) or mixed ($n = 32$) methods.

Content Analysis: Effects of Age and Gender as Well as Emotional Factors on Acculturation Outcomes

Age and Gender

The review also examined whether the identified individual-level factors age and gender were related to educational outcomes in the acculturation context. The content analysis (see Table 4) showed that seven of a total of 69 quantitative or mixed-methods studies investigated relationships between gender and/or age and educational outcomes (operationalized as language skills, educational achievement, or social behavior). Of the 12 studies that reported relationships with gender, seven found statistically significant effects for achievement (e.g., higher grade point average) and social behavior (e.g., better at resolving conflicts), all of which were in favor of female over male students. No significant gender differences were found for skills in the language of the host country. Thirteen relationships with age were reported for the different outcomes. Five of the six statistically significant effects (e.g., better language skills or better relationships with peers

Fig. 5 Design of included studies on young refugees in the domain of education

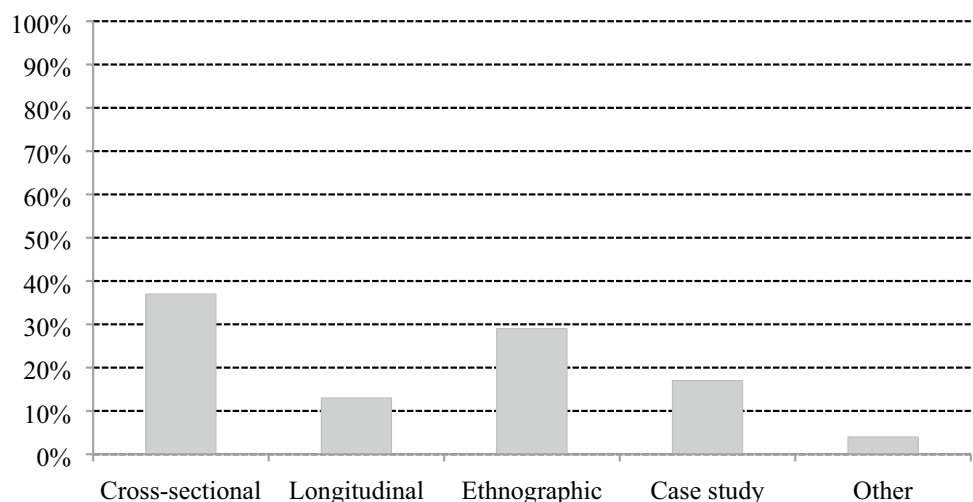


Table 4 Content analysis of studies that examined effects of gender and/or age on educational outcomes

Publication	N	Host country	Country of origin/ cultural group	Gen- der (% female)	Age range or mean	Gender		Age		
						Outcome: educa- tional outcomes	Relation- ship: yes/ no	Outcome: educa- tional outcomes	Relation- ship: yes/ no	
Birman and Trickett (2001)	144	USA	Soviet Jewish refugees (from Ukraine, Belarus, Russia, Uzbekistan, Azerbaijan, and Moldova)	42%	16	Language proficiency (operationalized by proficiency in the host country language)	No	Language proficiency (operationalized by proficiency in the host country language)	Yes	Younger > older
Dodds et al. (2010)	136	Australia	Somalia	53%	9–13	Language proficiency (operationalized by writing, reading, spelling skills)	No			
Mitakidou et al. (2008)	1051	Greece	Former USSR	n/a	7–13			Language proficiency (operationalized by proficiency in the host country language)	Yes	Younger > older
Berthold (2000)	144	USA	Khmer, Chinese Cambodian, Khmer Krom	n/a	14–20	Achievement (operationalized by grade point average)	Yes	Achievement (operationalized by grade point average)	No	Female > male
Dodds et al. (2010)	136	Australia	Somalia	53%	9–13	Achievement (operationalized by mathematics)	Yes			Female > male
Mitakidou et al. (2008)	1051	Greece	Former USSR	n/a	7–13			Achievement (operationalized by achievement in mathematics)	Yes	Younger > older
Trickett and Birman (2005)	110	USA	Soviet Jewish refugees (from Ukraine, Belarus, Russia, Uzbekistan, Azerbaijan, and Moldova)	42%	16	Achievement (operationalized by grade point average)	Yes	Achievement (operationalized by grade point average)	No	Female > male
Berthold (2000)	144	USA	Khmer, Chinese Cambodian, Khmer Krom	n/a	14–20	Social behavior (operationalized by behavior problems at school)	Yes	Social behavior (operationalized by behavior problems at school)	No	Female > male (reverse)

Table 4 (continued)

Publication	N	Host country	Country of origin/ cultural group	Gen- der (% female)	Age range or mean	Gender		Age	
						Outcome: educa- tional outcomes	Relation- ship: yes/ no	Relationship direction	Relation- ship: yes/ no
Dodds et al. (2010)	136	Australia	Somalia	53%	9–13	Social behavior (operationalized by (1) resolv- ing conflicts; (2) working in a group)	(1) Yes (2) No	(1) Female > male	
Lim and Hoot (2015)	116	USA	Myanmar, Soma- lia, Yemen, Thai- land, Iraq, and Burundi, etc.	n/a	7–14	Social behavior (operationalized by 1) Being bul- lied; 2) being a bully)	No		Social behavior (operationalized by 1) being bul- lied; 2) being a bully) (1) Yes (2) No (1) younger < older (reverse)
Trickett and Bir- man (2005)	110	USA	Soviet Jew- ish refugees (from Ukraine, Belarus, Russia, Uzbekistan, Azerbaijan, and Moldova)	42%	16	Social behavior (operationalized by (1) school belonging; (2) disciplinary infractions)	(1) Yes (2) No	(1) Female > male (reverse)	Social behavior (operationalized by (1) school belonging; (2) disciplinary infractions) (1) No (2) No
Veland et al. (2009)	7372	Norway	n/a	n/a	11–16	Social behavior (operationalized by (1) being bul- lied; (2) relations with teachers; (3) relations with peers)	(1) Yes (2) No (3) No	(1) Female > male (reverse)	Social behavior (operationalized by 1) being bul- lied; 2) relations with teachers; 3) relations with peers) (1) No (2) Yes (3) Yes (2) Younger > older (3) Younger > older

Table 5 Content analysis of studies that examined effects of emotional distress on educational outcomes

Publication	N	Host country	Country of origin/ cultural group	Gen- der (% female)	Age range or mean	Trauma		Depression		Anxiety	
						Outcome: Educa- tional outcomes	Relation- ship: yes/ no	Outcome: Educa- tional outcomes	Relation- ship: yes/ no	Outcome: School- related skills and needs	Relation- ship: yes/ no
Daud and Rydélius (2009)	80	Sweden	Iraq	50%	7–16; 12.1	School perfor- mance (opera- tionalized by attention deficit)	Yes				
Nguyen et al. (1999)	182	USA	Vietnam	44%	10–23; 15			Achievement (operationalized by grade point average)	Yes		
Huemer et al. (2013)	41	Austria	Particularly from Gambia, Soma- lia, and Nigeria	15%	15–18					School perfor- mance (opera- tionalized by attention prob- lems)	No
Thabet et al. (2004)	403	Palestine	Palestine	53%	9–15	School perfor- mance (opera- tionalized by concentration difficulties)	Yes	School perfor- mance (opera- tionalized by concentration difficulties)	Yes		

and teachers) were in favor of younger children and adolescents compared to older ones. Only one study showed a negative correlation between age and being bullied at school.

Emotional Factors

The question whether emotional distress, such as trauma, depression, and anxiety, to which refugee children and youth are very vulnerable, was related to educational outcomes was also investigated (see Table 5). The quantitative or mixed-methods studies ($n = 39$) focused mainly on prevalence rates and/or the stability of the symptoms, investigated the correlation between the level of trauma exposure and the severity of PTSD, and/or examined the relationship between emotional distress (e.g., depression or trauma) and social and personal predictors, such as self-esteem, identity, or social support, in school children with refugee experience (e.g., Hodes et al. 2008; Jabbar and Zaza 2014; Tanaka 2013; Seglem et al. 2014; Sonderegger et al. 2004). Only seven of the 39 studies investigated the relationships between emotional factors and educational outcomes, and only four of these seven studies reported correlations (see Table 5): Daud and Rydelius (2009) and Thabet et al. (2004) reported that emotional distress (operationalized by trauma and depression) significantly affected school performance in terms of attention deficits. However, Huemer et al. (2013) found no correlation between emotional distress (operationalized by anxiety) and school performance. Nguyen et al. (1999) reported that young refugees' achievement in terms of grade point average was correlated with depression symptoms.

Discussion

In light of the recent increase in forced migration worldwide and the significant share of young people among refugees, a systematization of scientific knowledge on this population is urgently needed. As a first step in this direction, and with a specific focus on education as a crucial acculturation domain, the present scoping review set out to ascertain the degree to which studies on refugee children and adolescents published between 1987 and 2016 had taken into account individual-level and contextual factors that are considered important by established acculturation models in the field of psychology. The review focused also on the methods applied by the authors of the included publications. Finally, content analysis was conducted to explore the relationship between selected individual factors (gender, age, and emotional factors) and educational outcomes among young refugees.

Individual-Level Factors: Inconsistent Age-Group Definitions and Nonreporting of Gender and Religious Affiliation

The present analyses showed that many of the empirical studies did not provide information on gender. This is surprising, as gender is a basic demographic variable that is of relevance to the evaluation of the psychosocial development of minors. To some extent, its omission is related to the design of the studies reviewed, which tended not to focus on specific individuals. In order to capture the integration experiences of refugee children and adolescents, there is a need for more research on changing or shifting gender norms and familial roles. This need is all the more pressing given the fact that acculturation stress and other settlement challenges as well as educational experiences are affected by gender (Allen et al. 2006).

The reporting of age ranges varied widely across publications. About one-third of the studies did not provide any information at all about the age of the participants. This might be due to the fact that, in many instances, the true ages of refugee children and adolescents may not be known because of a lack of documentation during the migration process. It could also be observed that there were more surveys on older children and adolescents than on younger ones. This may be due to a number of factors, in particular language skills (e.g., proficiency in the language of the host country; general literacy, which is higher among older children and adolescents); accessibility through educational institutions; and research ethics, which render fieldwork with younger populations more difficult. Here, there is a need for the research community to agree on standardized age-group definitions of children and adolescents and to advocate better documentation of age in research on refugee children and adolescents.

Whereas age and gender appear as basic variables in the acculturation models, variables such as educational and socioeconomic background and religion are also highlighted as important factors correlated to acculturation. Besides age and gender, the present review focused only on one of these additional factors—namely, religion. It revealed that religious affiliation was not reported in the majority of the publications, although it may play a crucial role in the acculturation of refugee children and adolescents in host countries.

It should be noted that the present scoping review was limited to the individual-level factors presented above, and did not cover further sociodemographic factors, such as educational attainment, socioeconomic status, age at arrival, and duration of residence, that are also important for research on the target population (e.g., Suárez-Orozco et al. 2018). Educational attainment of immigrant children and adolescents could not be assessed and evaluated accurately in the coding procedure due to challenges such as a

standardized coding (e.g., Schneider 2010) and meaningful evaluation of educational qualifications acquired in diverse education systems (e.g., in the country of origin and the host country). Similarly, the coding and comparable evaluation of parental socioeconomic status (SES) was not feasible due to variance in the way it was measured and defined. In the reviewed studies, diverse single or combined indicators (e.g., parental education in school grades, parental education in years, parental occupation or income) were used to measure parental SES, and the indicator itself was derived from information provided by the interviewed children and adolescents about their parents or by the parents themselves. Information on age at arrival and duration of residence in the host country was very rarely reported and strongly overlapped with age.

Less attention was paid in the reviewed studies to social and emotional factors relating to the participating refugees. This might be due to the fact that these factors can lead to extensive research questions, which in turn are associated with considerable time and cost expenditure. This might discourage researchers from considering them.

Contextual Factors: Lack of Research on Recent Refugee Countries of Origin and Major Host Countries

Regarding contextual factors, the present review revealed that educational institutions were the most common study settings. This was expected, as the age groups of interest in highly industrialized countries typically spend a significant amount of their time in educational institutions. Because recently arrived young refugees above compulsory school age cannot be expected to be proficient in the language of the host country, they are usually still attending educational institutions. Furthermore, educational institutions often allow easier access to the field than does refugee accommodation. However, a large number of the studies included in the present review were also carried out in community centers, refugee camps, service centers, or therapeutic facilities. Compared to schools, the choice of these research sites favored the frequent inclusion of parents or caregivers in the studies, which may have allowed the authors to obtain a more comprehensive picture of the acculturation process.

With regard to country of origin, the review revealed a high degree of heterogeneity and a comparatively large number of international publications on refugees from sub-Saharan African countries, such as Somalia, Sudan, and Congo. Civil wars, resource disputes, and ethnic-religious conflicts have caused massive internal and international flight movements in Southern Sudan and Somalia, and mass expulsions to and from Eritrea, Nigeria, and Congo. However, only two of the included publications dealt with persons fleeing from Syria (both used data collected before the beginning of the

civil war in 2011), who now make up a significant share of the global refugee population. The lack of research on this group can be explained, at least in part, by the comparatively recent nature of the events that induced these migratory flows. Large-scale refugee movements from Syria started only after the onset of the civil war, and it is probable that few projects had specifically studied Syrian refugees before then. Therefore, Syrian participants did not figure prominently in heterogeneous samples. As several years typically elapse between the initiation of a study and the publication of the results, it is thus not surprising that few papers on this particular population had been published in peer-reviewed journals by the end of 2016.

Regarding the host-country contexts included in the reviewed studies, the analyses showed that they were conducted predominantly in comparatively wealthy OECD countries, such as the United States, Australia, Canada, and the United Kingdom. Countries in the immediate geographical vicinity of the various regions of origin with protracted conflicts, which usually host a large number of refugees, were scarcely considered in the reviewed literature. Although it is possible that a considerable amount of research has been published in other languages, this research—if it exists—is unlikely to have come to the attention of many researchers based in any countries in which English, French, or German are spoken. Furthermore, as both English and French (and, to a lesser extent, German) are often used as *linguae francae* in European and North American academia, research findings published in local languages, or even in widely spoken non-western languages (e.g., Arabic), would receive much less attention in these academic communities. In summary, the knowledge about refugee acculturation transported through the reviewed literature is based particularly on the Anglo-Saxon context.

The significance of the host country and the country of origin also becomes clear when the design of the surveys is examined. The translation and validation of survey tools is essential for achieving reliable results in quantitative surveys of immigrants (see Maehler et al. 2017). Among the host countries most frequently surveyed, it is noticeable that the majority had English as their national language. This may have been an advantage in the surveys, as English is taught as a foreign language in many countries of origin. Questionnaires could therefore be administered in English if necessary.

Applied Methods: Need for More Quantitative Data and Longitudinal Studies

The evaluation of the methodology of the reviewed studies showed that most of them used cross-sectional designs; ethnographic studies or case studies were also very common. Qualitative studies were much more numerous than studies

based on quantitative or mixed-methods approaches. The focus on qualitative research correlates with exploratory designs. Qualitative research is important for understanding the acculturation process, enabling the comprehensive consideration of individual and contextual factors, and allowing researchers to derive theoretical assumptions. Furthermore, surveys or other designs associated with quantitative methods may not be age appropriate for younger children or for children and adolescents with low literacy or language ability in new host societies. However, in qualitative studies, the possibility of making generalizations beyond the studied individuals or groups is limited. The review further revealed that studies were based mainly on small samples, which is unsurprising considering the major challenge of sampling this specific population group. In addition, very few of the reviewed studies used longitudinal designs, although longitudinal studies would be much needed to provide insights into the progress of acculturation processes over time.

Content Analysis

Very few of the reviewed quantitative studies on the acculturation of refugee children and adolescents in the educational domain investigated effects of gender and age. The findings of those studies that did so were heterogeneous, and they indicated a higher probability that younger and female refugee children would adapt better. In line with existing research, most of the studies in the present sample showed no effect of age and no advantage for younger refugees. However, van Tubergen (2010), for instance, found that *younger age on arrival* was beneficial for refugees' second-language proficiency. Studies on refugees in the United States (Fennelly and Palasz 2003) and Canada (Beiser and Hou 2000; Beiser and Hou 2006) show similar findings. Heterogeneous findings regarding educational outcomes in female and male immigrant children may be due to various factors: male advantages (e.g., due to traditional gender roles in countries of origin; Nguyen and Ryan 2008), female advantages (e.g., due to closer monitoring by parents; Suárez-Orozco and Qin 2006), or no differences in achievement (e.g., due to gender-specific advantages that cancel each other out; Jansen and Stanat 2016). Furthermore, van Tubergen (2010) pointed out that gender differences in educational outcomes (in terms of language proficiency) are strongly related to different post-migration trajectories of male and female refugees. Hence, much more research is needed to determine the impact of individual factors on the acculturation of young refugees in the educational domain.

Content analysis of the reviewed studies also revealed that possible effects of emotional distress and traumatic stress on the school performance of refugees have rarely been studied. Only seven quantitative studies focused on this topic. Trauma, depression, or anxiety may inhibit clear

thinking and attentiveness, which are essential for school performance (e.g., Bates et al. 2005; Been et al. 2007). The content analysis of the few studies that addressed the topic confirmed this expectation. That the important relationship between emotional distress and school performance among refugee children and adolescents has scarcely been explored to date may be due to the fact that longitudinal designs are required to distinguish causes and effects (e.g., Jabbar and Zaza 2014). Furthermore, research in this regard may be hampered by the fact that the assessment of such sensitive issues using culturally sensitive survey methods is a challenge. For example, Poppitt and Frey (2007) emphasized that talking about emotional distress was not culturally acceptable among certain cultural groups. In this context, culturally equivalent translations of questionnaires into the native languages of the young refugees are required, which are rarely available in practice (Maehler et al. 2018).

Strengths and Limitations of the Current Study

One main strength of the current work is that it is the first study to undertake a scoping review of research and methods on the acculturation of refugee children and adolescents in the educational domain. Moreover, the review uncovered gaps in the extant research on the integration of young refugees that preclude policy implications from being derived from the research findings. The present review also has a number of limitations. First, its findings and conclusions are limited to English-, French-, and German-language peer-reviewed academic publications indexed in the databases searched. These languages are spoken as a first or second language in a large number of countries and are dominant in the field of research. Second, due to the restriction of available resources, it was necessary to limit the scope of the review to peer-reviewed journal articles. Focusing on peer-reviewed journal articles also served the aim of including scientific contributions of somewhat comparable quality. A third limitation is that the review captured only children and adolescents in the education system and not those outside it. This means that research on undocumented immigrants and their acculturation is largely missing, as this group may fall outside the system because of their legal status, or lack of it. However, capturing such a level of detail is difficult, and has not been achieved by many studies in the area of acculturation research (see further discussion below). Despite these limitations, the review offers important insights into the state of the research literature on young refugees.

Table 6 Guidelines for future studies on the acculturation of refugee children and adolescents

Phase	Action
Study design	Define target population, particularly in terms of gender, age cohort, and migration background (differentiate between migrants and their descendants); age at migration, (duration of residence); and migration status (e.g., sojourners, refugees) Consider using quantitative designs (also mixed-mode) Consider using longitudinal designs (if funds do not cover such designs, obtain participants' consent to follow-up contacts in future)
Report sample statistics	Report individual-level variables (particularly gender, age, religion, education, socioeconomic status, migration background [migrant or descendant of migrant, age at migration, duration of residence], and migration status in host country) and basic contextual variables (e.g., country/culture of origin; country/culture of settlement) Report correlations between acculturation outcomes and individual- and contextual-level variables
Provide primary data	Deposit data in national (e.g., PsychData) or international data archives (e.g., Data Archive for the Social Sciences) Provide data documentation or a methods report Make data citable by using the Digital Object Identifier system or linking to webpages

Guidelines for Future Studies on the Acculturation of Refugee Children and Adolescents

The scoping review of the literature, and the overview of the main acculturation frameworks, point to four general recommendations for future research on this topic (see also Table 6). First, the analyses indicate that most of the reviewed studies did not report clear definitions or operationalizations of basic variables. This makes it difficult to undertake comparisons in the form of scoping reviews or meta-analyses, which are important to summarize findings and underpin policy decisions. Therefore, in the design phase of future projects, greater attention should be paid to defining the target population. The adopted definition should then be clearly communicated in all publications. This is important in order to embed the design and results into existing acculturation frameworks and models. By doing so, generated results could later be compared to prior findings and easily related to the broader literature.

Second, the present review suggests a need for further quantitative research, which would allow for a higher degree of generalization. However, such large-scale studies must consider findings derived from qualitative data and must allow for the combination of both data types during analysis. There is also a clear need for more longitudinal studies to allow for the tracking of the acculturation of children and adolescents over time and more systematic analysis of causal relationships and outcomes of acculturation interventions. Related to this, it is important to implement and evaluate intervention programs with this particular population in order to enhance research and practical implications.

Third, the present work identified a lack of consistency in reporting basic statistics and diagnostics in order to provide replication data for follow-up research. Most of the reviewed studies, irrespective of their design, were opaque in terms of design, sample characteristics, and other factors. Reporting basic descriptive statistics, for example, would

help other researchers to assess more sophisticated analyses (e.g., evidence-based methods). This type of information could easily be included in an (online) appendix. Fourth, and relatedly, few studies currently provide access to their data for replication purposes. It is suggested that researchers make their primary data and documentation freely available to other scholars—for example, through data archives, such as PsychData or the Data Archive for the Social Sciences (e.g., using the Digital Object Identifier system), or via their personal websites. This would enable follow-up research and comparability of results, as well as—subject to participant consent—the linking of survey data, for example to administrative records or geospatial data.

Conclusion

Because of the record number of children and adolescents who are refugees, the present work set out to explore the state of research and methods used to study the acculturation of this group in the educational domain. Through a scoping review of peer-reviewed scholarship, the extent to which individual-level and contextual factors have been considered in empirical research on the acculturation of young refugees was examined, and the correlations of the individual-level factors age, gender, and emotional factors with educational outcomes were investigated. Results show that a high degree of misreporting and a lack of consistency in reporting basic statistics and diagnostics exist. Moreover, most of the studies were based on small samples, lacked generalizable quantitative results, and rarely considered countries that receive high numbers of refugees—for example, Turkey or Lebanon. These results suggest that studies to date on the adaptation of refugee children and adolescents to their host countries have left a number of gaps that must be filled by future research.

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Compliance with Ethical Standards

Conflict of interest The authors report no conflict of interest.

Ethical Approval The American Psychological Association's Ethical Principles of Psychologists and Code of Conduct was followed. The analyses in the manuscript are based on published and peer-reviewed work.

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