


REVIEW

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A critical review of the research evidence on early childhood education and care in refugee contexts in low- and middle-income countries

Katharina Ereky Stevens^{1*} , Iram Siraj¹ and Kimberley Kong²

*Correspondence:
katharina.ereky@education.ox.ac.uk

¹ Department of Education,
University of Oxford, 15 Norham
Gardens, Oxford OX6 1PY, UK

² School of Educational Studies,
Universiti Sains Malaysia, Gelugor,
Malaysia

Abstract

Refugee children are some of the most vulnerable populations in the world. Early Childhood Education and Care (ECEC) for refugee children can have positive impacts on child outcomes, however most of the evidence stems from research from high income countries. This paper reports on a critical review, carried out to evaluate what we know about benefits and the quality of ECEC programmes for refugee children in low- and middle-income countries (LMICs). 15 studies were identified, located in refugee camps and resettlement contexts in seven different countries. Whilst acknowledging limitations due to the small number and low rigour of the studies included in this review, the findings indicate benefits of ECEC participation for children across developmental domains, showing particular the potential to support socio-emotional learning and emotional recovery. Findings confirm the challenge of resources for the provision of high-quality refugee ECEC in LMICs, including lack of materials, space, and training and support needs of staff. By bringing together what we learn from the existing research in the field, this review helps to identify successful strategies, that call for play-based approaches, interactions that focus on socio-emotional support and recovery, the engagement of communities and families, and the provision of culturally responsive environments. These findings strengthen the wider knowledge base about the characteristics of ECEC provision which are important for supporting refugee children and families in lower-resource contexts.

Keywords: Refugee children, Early childhood education, Preschool, Child development, Quality, Access, Low- and middle-income countries

Refugee children are some of the world's most vulnerable people. Having been forced to leave their home because their states failed to protect their rights and exposed them to serious threats, 72 percent of refugees live in countries neighbouring their countries of origin, and 83 percent of refugees are hosted in LMICs (UNHCR, 2022). Around 80 percent of all refugees live in protracted situations—unstable and insecure locations, most commonly dense urban areas, but also often overcrowded refugee camps, which have poor living conditions, but which can house families for generations (UNHCR,

2019). Most likely, refugees cannot return home or are afraid to do so. The international legal definition of the term refugee is contained in the 1951 Refugee Convention (see, UNHCR, 2010), and 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.’ In a specific country and a specific context, the term often refers to a person who has been granted refugee status, and is therefore protected by international law, due to the rights agreed in the 1951 refugee convention. While access to services including health and education for refugees depends on many factors, one factor is whether a refugee has received official status. However, not all displaced persons who might be legally entitled, feel able to apply for refugee status, and not all countries around the world have signed and ratified the 1951 convention, leaving some of those who have been forced to leave their countries in particular vulnerable positions.

The bioecological model of human development (Bronfenbrenner & Ceci, 1994; Bronfenbrenner & Morris, 2006) is a useful theoretical background to understand the needs of refugee children. The model describes development as the interactive life-long process of adaptation by an individual to the changing environment, and helps to consider how refugee children have to adjust to new ecosystem demands and relationships which occur as they move from context to context (Anderson et al., 2004). Many refugees are burdened by their experience of traumatic events and post-migration deprivation and stress (Britto, 2017; Fazel & Betancourt, 2018). Traumatic experiences can affect people’s ability to take advantage of recourses. Trauma and stress can also affect refugee children’s caregivers, who can struggle to provide the nurturing, supportive care needed for healthy child development (Arakelyan & Ager, 2021; Moinolnolki & Han, 2017). These factors can combine to produce prolonged negative effects on refugee children’s health, learning and behaviour (Bouchane, et al., 2018; Tam et al., 2017; UNESCO, 2018).

An expanding body of scientific research shows that the early years offer an irreplaceable window of opportunity for children to learn and grow (Britto, 2017; Shonkoff et al., 2012). Resources within young children’s first and most immediate environment—the family—have been found to be most important in strengthening their wellbeing and development.

Importantly, the Bronfenbrenner model proposes that contexts (the entire ecological system) must be considered to fully address questions related to children’s development. Processes within the child’s most proximal system (the family) are embedded within wider systems and factors, and communities, supportive systems, and policies have a role to play in providing those conditions families need to ensure their children’s health and development. It is now clear that early childhood interventions can address threats to young children’s development, and that supporting families and communities can help provide what young children need for their development and wellbeing, and increasing evidence also stems from LMICs (Dybdahl, 2001; Lucas, et al., 2018; Yousafzai, et al., 2016).

Early childhood education and care (ECEC), with its focus on early learning and responsive caregiving, is a key element in early childhood programming. There is a general consensus that ECEC services, alongside providing care, need to address child learning holistically in all areas—socially, emotionally, physically and cognitively (European

Commission, 2014). With aims related to learning in mind, ECEC programmes organise and plan the physical environment, interactions, and activities. Within and across countries there are huge variations in funding arrangements, types of services, (e.g., centre- versus home-based, all-day services versus scheduled sessions), staff training, curricula, and age groups catered for. Rigorous research has been carried out in the field in high income countries (HICs), and evidence across different types of providers suggests that ECEC can boost children's early socio-emotional development and self-regulation, improve their early cognitive, language and academic skills, and help to provide them with better foundations for success at school, employment and social integration. ECEC can be particularly effective for children from disadvantaged backgrounds (Melhuish et al., 2014), with positive impacts also identified for refugee children (Busch, et al., 2021). Although most research on the benefits and quality of ECEC has been carried out in high income countries, the positive impacts of ECEC on early language, cognition, numeracy and socio-emotional outcomes have also been found across a range of low- and middle-income contexts (Rao et al., 2017), with benefits identified for school readiness and school achievement in primary school (Aboud & Akhter, 2011; Yoshikawa & Kabay, 2015).

The provision of ECEC in lower-resource and refugee contexts

The vast majority of refugee families live in lower-resourced countries and regions that can face huge difficulties in providing early childhood services for the most vulnerable children (Reed et al., 2012; Tyrer & Fazel, 2014). Rates of pre-primary aged children enrolled in early/pre-primary education are substantially lower in lower-resourced contexts of the world (Jalbout & Bullard, 2021), and many countries do not have the resources to consider equitable access to ECEC (Penn, 2004). Despite the sustainable development goals (SDGs) clearly targeting early child development, and despite the fact that the international debate widely recognises education and schooling as priority needs even during severe crisis (Bouchane et al., 2018), there is criticism that a commitment to support education and learning in early childhood is too often overlooked in humanitarian response plans (Commission of the European Communities, 2008). It has been reported that for many years, less than three per cent of humanitarian funds available for refugees have gone to education (UNESCO, 2017), resulting in a need to prioritise. Refugee children have been reported to be five times more likely to be out of school compared to their non-refugee peers, and children of refugees born in their host country often also face barriers in accessing education (Global Education Monitoring Report Team, 2016; Moinolnolki & Han, 2017). Data on access to early years education for refugees in LMICs are extremely limited, but it has been reported that too often, there is lack of ECEC provision for refugees (Cerna, 2019; UNESCO, 2018).

Education for refugees in LMICs is the responsibility of governments that have signed the 1951 Convention and/or the 1967 Protocol, the UNHCR, and any organisations with a mandate to protect the rights of refugees to education. Education services for refugees are implemented through a range of partners, where possible in coordination with national ministries of education. In addition, refugee communities often initiate education programmes themselves (HEART, 2016). ECEC initiatives for refugee children in LMICs vary hugely, making categorisations and comparisons difficult. Registration and

monitoring processes for early learning centres vary; importantly, national ministries and the UNHCR or other NGOs can be involved and monitor if requirements concerning infrastructure and qualifications are met. Across countries however it has been reported that those childcare and education facilities set up specifically for refugee families in LMICs can be improvised and under-resourced and can face challenges regarding structural features (Busch et al., 2018; Jalbout & Bullard, 2021).

Characteristics of high-quality ECEC in low-resource refugee contexts

Benefits of ECEC participation on child development do not derive solely from the *provision* of, and *access* to, ECEC. Rather, high-quality ECEC also needs to be provided. Research evidence shows that several quality characteristics of early years' provision are vital for enhancing children's development and wellbeing. There is a general consensus that ECEC services must both be holistic and address child learning in all areas—socially, emotionally, physically and cognitively. The adults involved in ECEC need to provide positive and warm relationships, and to facilitate language- and cognitive learning through rich, reciprocal, responsive interactions and content-based teaching. The right conditions also need to be provided to ensure staff can interact appropriately with children: these include ratios and groups sizes, staff training and support, and facilities which are safe and stimulating (e.g., Melhuish et al., 2014).

However, providing high-quality ECEC in low-resource contexts can be highly challenging. It has been noted that a focus on access to ECEC in low-resource contexts can come at the expense of quality that does not only consider structural features, but also important process elements such as adults facilitating language- and cognitive learning through rich, reciprocal and responsive interactions and content-based teaching (Yoshikawa & Kabay, 2015). Additional challenges occur in contexts of conflict, instability or trauma, and cultural and linguistic diversity. It has been suggested that in response to the particular needs of refugee children and their families, strategies to support children's development and wellbeing need to consider the potential of ECEC to provide protective factors, including physical, psycho-social, and cognitive protection (UNESCO, 2010). The nurturing care framework (WHO, 2018) is essential in addressing these issues. It aims to guide interventions which support families and young children exposed to risk, and has been used in low-resources settings and emergencies, including the refugee context. The concept includes health, nutrition, security and safety, responsive caregiving and early learning (Bouchane et al., 2018), and this calls for ECEC initiatives that integrate services focusing on nutrition, health, social protection and parent support.

The last years have seen increased efforts in putting together recommendations and guidelines for ECEC practice with this target group. Many of these guidelines stress that ECEC for refugee children needs to offer a safe, predictable learning environment with a reliable structure and stable, clear routines and rules to help them create a sense of normality and restore some safety and control (Bouchane et al., 2018; Foundation House, 2011; Krakouer, et al., 2017). The need for specific emotional support is often highlighted, with guidelines stressing the importance of opportunities for children to express and process their emotions through play and art to reduce their psychological stress (Kalkman & Clark, 2017; Rousseau et al., 2009; Szente et al., 2006), and help them to

develop social–emotional skills, including emotion understanding (Foundation House, 2011; Hurley et al., 2013; Krakouer et al., 2017).

An essential topic in existing guidelines is the cultural and linguistic diversity of ECEC in refugee contexts, where staff need to respond to issues such as acculturation difficulties, language- and literacy basic-skill levels, and cultural differences. The concept of bilingual integration (Cerna, 2019) is highlighted. The concept stresses that young children with other language backgrounds should be given maximum attention in their first language, and that the integration and the learning of children who are new to the school language need to be planned carefully. It is seen as essential to create inclusive and respectful learning environments that involve all community members so that a sense of community and belonging can be created, and trust can be built between refugee populations and ECEC staff (Nazzal et al., 2014). Collaborations with the community should enable educators to learn about their families' specific experiences, practices and needs, and to use community resources to create culturally responsive environments and practices (Foundation House, 2016; Hurley et al., 2013; Krakouer et al., 2017). Community engagement should also provide opportunities for refugee children and their families to learn about ECEC (Foundation House, 2016; Nazzal et al., 2014).

Refugee ECEC should also be integrated with parenting support to reduce risk factors and enhance protective factors for vulnerable children—especially in complex post-migration environments (Bouchane et al., 2018; Park, et al., 2018). Guidelines stress the need to offer training and increase support that is specific to working in refugee contexts. This includes professional development, and the integration with specialist and outside support (e.g., interpreters, multi-cultural aids, professionals from the local mental health centre), and transdisciplinary collaboration, so that comprehensive services can be offered to refugee children and their families (Hurley et al., 2011; Krakouer et al., 2017; UNESCO, 2010).

Aims and research questions

Recommendations on strategies for refugee ECEC build on the knowledge and experiences of those working in the refugee contexts, including LMICs, and research evidence, predominantly coming from studies which have been conducted in resettlement contexts in high-income countries with cultural and historical ties to Western Europe, and with British English as the primary language. Yet, the vast majority of refugees live in low-resource contexts, and in countries bordering their country of origin. Yearly only less than one percent of refugees are resettled (UNHCR, 2022). What can be learned about the benefits of refugee ECEC and effective strategies, cannot rely on research evidence from contexts so different to those contexts the majority of refugees worldwide live in. Education is a critical mechanism for achieving many international development goals, including those relating to school readiness. A lack of data on refugee ECEC programmes and early learning outcomes in LMICs hinders efforts to understand the problem and assess progress towards quality and learning goals. Thus, more research evidence, and dissemination of evidence on refugee ECEC in LMICs is needed to achieve sustainable development goals. This paper presents a focused and systematic literature search which was performed to collect evidence about ECEC programmes for refugee children in LMICs. Its aim is to evaluate what is known about the quality of

ECEC programmes for refugee children in LMICs, and to determine how ECEC in these contexts can support young children's development and wellbeing.

The research questions are:

RQ1. What research evidence exists about associations between (i) ECEC participation and child outcomes, and (ii) the benefits of ECEC for refugee children in LMICs?

RQ2. What research evidence exists about (i) the quality of ECEC for refugee children in LMICs, and (ii) the strategies which are put into place to support their development and wellbeing?

Methods

Literature search strategy

This literature search followed three routes:

(i) *Academic literature search*. The following databases were searched to identify peer-reviewed journal articles from 1995 onwards: Child Development & Adolescent Studies (EBSCO), ProQuest Education Collection (including ERIC and Education Database), ProQuest Social Science Database, ProQuest Dissertation and Thesis Global, PsychNET (PsychINFO), Web of Science.

A series of trial searches was completed using a string of search terms. Keywords were used to constrain the search to the population of interest¹ and the interventions of interest.²

(ii) *Grey literature search*. Hand searches identified relevant grey literature by searching websites of the most relevant organisations which provide or fund ECEC in refugee contexts, and to research institutions with a focus on education and refugees.

46 websites were searched, and were followed by searching bibliographies of identified literature (snowballing).

(iii) *Identification through key experts and organisations*. Experts were identified who work either in research institutions with a focus on education and refugees, or in organisations which provide or fund refugee ECEC.

Experts were contacted in 19 organisations, with a request to help identify further relevant publications in the academic- and grey literature.

Screening strategy and inclusion criteria

Documents were included in this study if they addressed early childhood education and care programmes for refugee children between the age of three and the start of primary school. We included all documents where the study population was described as refugees by the authors, without considering differences in migration histories, stage in migration, or whether refugee status was given by the UNHCR or the host country. We included studies on ECEC programmes that offer education and care to groups of children between the age of three and the start of primary school, independent of funding arrangements, location, opening times, length of programme attendance or curriculum, and including home- and centre-based services. Furthermore, documents were included if:

¹ Refugee, forcibly displaced, forced migration, forced migrant, asylum-seeker, and transient.

² Early child/childhood- education/care/centre/provision/programme/intervention/development/learning/pre-primary, preschool, childcare, day care.

- i. ECEC was delivered in LMICs currently included on the OECDs' Development Assistance Committee list of countries eligible to receive official development assistance;
- ii. The study was carried out in or after 1995;
- iii. The document was published in English;
- iv. The study met defined characteristics (primary study, stating research questions and/or aims related to the aims of the review, specification of research design/data collection tools and other methods, presentation of sample and selection/recruitment).

A screening strategy was then followed. This included screening by title and abstract: the first screening by inclusion criteria (intervention-, age-, country-, data- and language criteria), and the second screening by inclusion criteria (study characteristics).³ To respond to the research question on associations between ECEC participation, child outcomes and the benefits of ECEC, studies selected for inclusion had to be either a quantitative or quantitative research study which addressed research questions related to the benefits of ECEC participation, and/or which collected and analysed empirical data to test for associations between measures of ECEC participation and measures of child outcomes across all developmental domains. The parameters for selection included quasi-experimental/causal-comparative designs; experimental research/randomised controlled trials; correlational studies; studies without comparison groups but which assessed children's pre- and post-intervention outcomes; and qualitative research studies which collected evidence for the benefits of ECEC participation from children, parents, ECEC staff or other key informants through direct observations, focus group discussions, participatory feedback sessions, in-depth interviews, semi-structured and structured interviews, surveys or questionnaires.

To respond to the research question on ECEC quality, studies had to address research questions related to quality of ECEC for refugee children, and to have collected and analysed empirical data to describe quality aspects of ECEC programmes and the strategies used to support young children's development and wellbeing. This included descriptive qualitative and quantitative studies collecting evidence from children, parents, ECEC staff or other key informants. Studies were also included which aimed to monitor the implementation of an ECEC programme and its interventions, and which evaluated the impacts of interventions that aimed to improve the quality of ECEC programmes (professional development programmes for ECEC staff). Studies were excluded if they had case study designs where children, parents or ECEC staff were examined only at the individual level, or where no findings were presented for a group as a whole. Studies of classroom quality based on single classrooms were also excluded.

³ For search protocol example, the full list of websites searched for grey literature, the list of organisations contacted, and the full definition of inclusion criteria, see Ereky-Stevens et al. 2022.

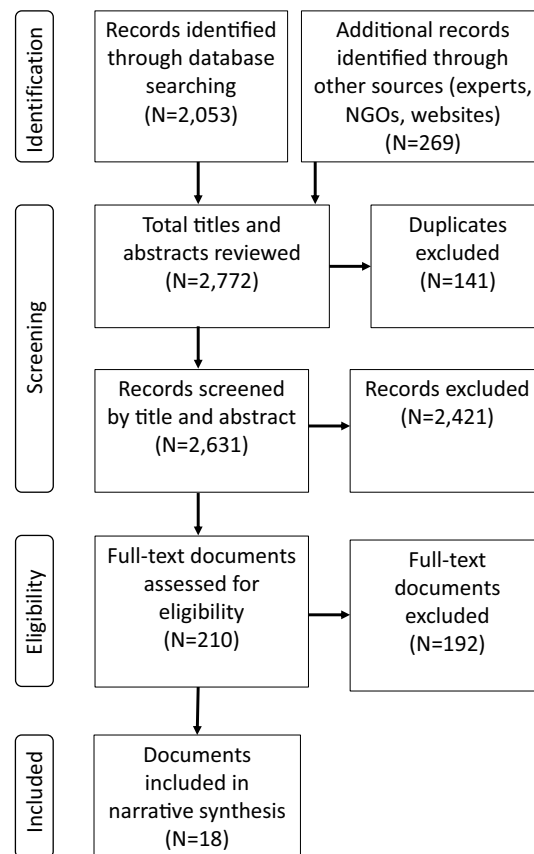


Fig. 1 Flowchart of study selection

Study selection process

The database search returned 2,503 documents, and the website search returned 222 documents. Following the removal of duplicates, and the screening of abstracts and titles (and keyword searches for documents without abstracts), 163 full-text documents were identified to be screened for eligibility. Expert responses added 47 additional documents for screening.

After screening these 210 documents, 192 were excluded for the following reasons: not situated in LMIC ($n = 21$); not focused on refugee population ($n = 11$); not focused on preschool-aged children/the provision of ECEC ($n = 41$); not published in English ($n = 1$); study criteria not met ($n = 101$); not addressing research questions related to the review's aims ($n = 14$); single case studies ($n = 3$). Consequently, 18 documents were identified for inclusion (Fig. 1).

Appraisal of included studies

The 18 documents included in this review were: seven peer-reviewed journal articles; nine project reports; one dissertation, and one book. They were all published between 2013–2021, and included: a focus on providing ECEC in resettlement communities (Akar, 2019; Akar, et al., 2017; Mbidde & Oguniyi, 2019; Smith, 2015; Tobin et al., 2015) or in refugee camps (Akar, et al., 2017; Akar, 2019; Dalrymple, 2019; iAct, 2015;

; Laxton et al., 2021; Shah, 2016, 2020; Tanaka, 2013; UNICEF, 2018; VSO Bangladesh, 2019). They were located in Tanzania, Chad, Uganda, Lebanon, Jordan, Thailand, the Thai–Myanmar border and Bangladesh. The related refugee families were from Sudan, Burundi, Rwanda, the Democratic Republic of Congo, Myanmar and Syria.

The documents reported 15 research studies which were either qualitative ($n=5$), quantitative ($n=6$), or both qualitative and quantitative ($n=4$). Nine of the studies on the benefits of ECEC, and three of the studies on ECEC quality employed quantitative methods. Quantitative studies employed either (i) cross-sectional or pre-test/post-test quasi-experimental designs with intervention and comparison groups, or (ii) longitudinal designs assessing change from baseline to follow-up time points within one group or across different groups (investigating group-level changes). Overall, these quantitative studies faced significant challenges which affected their methodological rigour. The studies reported high attrition (iAct, 2015), difficulties with collecting data from the same research participants over several timepoints (Jesuit Refugee Service/iAct, 2019a; UNICEF, 2018), and small sample sizes with limited statistical power to detect differences (Tobin et al., 2015). They commonly relied on data collection at one time-point only, or proceeded without a comparison group. While data for child/family demographic variables were collected for some studies, the differences in these variables were not controlled for during statistical analysis. One quantitative study stood out. It included a larger sample size, compared outcomes between children in four groups (refugee and local children attending and not attending an ECEC [summer] programme), collected data from children, and compared outcomes pre- and post-intervention (Erdemir, 2021a).

All five of the studies on ECEC quality, and seven of the studies on the benefits of ECEC included qualitative methods. Qualitative studies included case studies, grounded theory and qualitative programme evaluations. Most, however, did not specify their research design or sampling methods. Nevertheless, they showed how information can be collected over several time points (e.g., UNICEF, 2018), and how the use of focus group discussions, interviews and observations can lead to rich information (documented, for example, through photographs and videos) to elicit the benefits of ECEC. These studies included direct accounts of young children themselves, and used them to explore the subjective experiences of those participating in ECEC (Akar et al., 2017; Dalrymple, 2019; Erdemir, 2021b). They also included rich information from ECEC practitioners, parents and caregivers, and used them to elicit complex associations driving and enforcing changes in children, practitioners and parents (e.g., Erdemir, 2021c). To investigate the quality of ECEC, information was collected through qualitative interviews and focus group discussions with ECEC staff and parents (and sometimes children), surveys, and observation field notes (Akar, 2019; Akar et al., 2017; Mbidde & Oguniyi, 2019; UNICEF, 2018; VSO Bangladesh, 2019). Instruments and guides were mostly developed for the context and purpose of each study; unfortunately, information about their development, and their reference to previous research and instruments, was lacking. Only two studies explicitly described the development and use of observation scales to make data collection and reports on observations as uniform as possible across sites (Mbidde & Oguniyi, 2019; UNICEF, 2018).

Most studies included measures which focused on a range of different areas of children's learning and development to provide a holistic picture, but they relied heavily on reported data provided by educators and parents. Many studies stated that more work remained to be done to develop robust and culturally appropriate assessments procedures (Akar et al., 2017; Shah, 2016; VSO Bangladesh, 2019). Studies which assessed children directly reported challenges in assessing children unfamiliar to 'testing' situations, and in accommodating assessments in the daily schedule of families and children (Jesuit Refugee Service/iAct, 2019a; Mbidde & Oguniyi, 2019). Importantly, the IDELA assessment tool (Pisani et al., 2018) used by one study (Mbidde & Oguniyi, 2019) was perceived as a reliable, valued and accessible instrument suitable for monitoring refugee children's changes in development (Table 1).

Results

The ECEC programmes researched in the studies were either provided in ECEC centres, schools or community hubs (Akar, 2019; Akar et al., 2017; Dalrymple, 2019; Erdemir, 2021a, 2021b, 2021c; Shah, 2016; Smith, 2015; Tanaka, 2013; Tobin et al., 2015; UNICEF, 2018), or they were home-based (iAct, 2015; Jesuit Refugee Service/iAct, 2019a, 2019b; Laxton et al., 2021; VSO Bangladesh, 2019). Most programmes were provided (or supported) by international or local NGOs; a few were offered by national governments. Most were described as comprehensive programmes, with a curriculum and activities which focused on socio-emotional, cognitive, physical and health development, and which aimed to support the transition to school for vulnerable children.

Findings from the included studies were brought together through a narrative synthesis (Popay et al., 2006), including the development of an intervention theory and a preliminary synthesis, and explorations of relationships in the data. The assessment of the robustness of the synthesis results relied on an analysis of the information of research methods provided for each study. Thematic analysis was applied to synthesis results on the quality and promising strategies in ECEC. A first set of a priori themes had been developed through a broader literature review on refugee ECEC, and additional themes were developed in an inductive manner.

Benefits of ECEC for children's wellbeing and developmental outcomes

In line with the broad curriculum offered by implemented ECEC programmes, most studies reported on the positive changes educators and parents perceived in a broad range of child outcomes. These included: early academic skills and knowledge, communication, social skills, behavioural and emotional development, and health and hygiene routines (Akar et al., 2017; Dalrymple, 2019; iAct, 2015; Jesuit Refugee Service/iAct, 2019a, 2019b; Shah, 2016; Smith, 2015; UNICEF, 2018; VSO Bangladesh, 2019). Studies identified significant effects only in children's social development (Tanaka, 2013; Tobin et al., 2015), whilst others noted the impacts on child recovery from trauma (Smith, 2015; VSO Bangladesh, 2019). In interviews, parents whose children were participating in ECEC focused less on recovery from trauma or stress (UNICEF, 2018). Studies which used child assessments also identified benefits across different areas, including early academic skills and knowledge (iAct, 2015; Jesuit Refugee Service/iAct, 2019a, 2019b) and

Table 1 Studies on ECEC benefits and the quality of ECEC in refugee contexts in LMICs

Author/s and year	Study site, population	ECEC provision	Sample and participants	Study design, theory, details on instruments	Notes on some key findings
Akar (2019)	Syrian refugee children in Jordan and Lebanon	Regional Holistic Education Programme (RHEP), designed and launched by Caritas Austria in 2015 in Lebanon and Jordan	4 formal (pre)schools in Jordan, 7 formal (pre)schools in Lebanon and 7 non-formal centres in Lebanon; education staff, principals/directors, school counsellors and psychologists, parents, children	Qualitative study (document analysis, analysis of interviews and observations)	ECEC quality: Focus on literacy and numeracy, and socio-emotional learning (positive behaviour, empathy, and staying calm); creative and physical activities seen as recreational. Lack of opportunities for exploration, active learning Educator refugee background supports parent partnerships and relationships with children
Akar et al. (2017)	Syrian refugee children in Jordan and Lebanon	ECEC programmes provided by NGOs for Syrian refugee children and vulnerable children from host communities	3 (pre)schools and 3 NGO centres, representatives from 8 NGOs and the Jordan government, 2 academics in the field of ECD; programme directors, principals, teachers, social workers, when possible, children	Qualitative study (document analysis, analysis of observations and interviews)	ECEC benefits for literacy and numeracy skills, attitude towards school, social skills and communication, overcoming emotional and behavioural problems ECEC quality: Stronger focus on preparation for school and instructional learning in formal provision, instability of ECEC offer in non-formal settings. Need for educator training on refugee contexts
Dairymple (2019)	Burundian refugee children in refugee camps in Tanzania	Plan International Tanzania's Child Friendly Schools (CFS) programme; delivered by educators trained by iACT in Little Ripples teacher training	70 children aged 5 participating in the programme, 36 teachers who had received training, 38 parents of children participating in programme	Quantitative and qualitative data and analysis (surveys, child and adult focus group discussions)	ECEC benefits for learning outcomes and behaviour, and in parent value for early learning ECEC quality: Lack of resources, success of training and mindfulness to improve learning and behaviour
Erdemir E. (2021a)	Vulnerable communities including Syrian refugee and local children, in Turkey, south-eastern Anatolia region	Summer Preschool Programme to promote developmental wellbeing and school readiness of children from refugee and poverty-backgrounds	711 children aged 5–6 participating in the summer preschool intervention programme	Pre-test/post-test quasi-experimental design with intervention and comparison group, each including refugee and local children (child assessments)	ECEC benefits for early academic skills, Turkish language skills, and social-emotional outcomes. Intervention group: fewer problems in emotion regulation and behaviour problems than comparison group. Local children more progress in pre-literacy and -numeracy, refugee children more progress on language skills than comparison groups

Table 1 (continued)

Author/s and year	Study site, population	ECEC provision	Sample and participants	Study design, theory, details on instruments	Notes on some key findings
Erdemir, E. (2021b)	Syrian refugee children in a resettlement community in Istanbul/Turkey	see above	36 children aged 5–6 who completed the summer preschool programme	Qualitative study (child interviews) Community Cultural Wealth framework	ECEC benefits for children's cultural wealth capital, seen in behaviour inside and outside ECEC, impacting positively on relationships and learning
Erdemir, E. (2021c)	Syrian refugee children and their mothers in a resettlement community in Istanbul/Turkey	see above	32 mothers whose 5–6-year-old children completed the programme	Qualitative grounded theory study (parent interviews) Transactional theory of Child Development	ECEC benefits for cognitive, language, socio-emotional, and self-care development. New skills taken to home environment, changes in parent concept of child and parental practices
iAct (2015)	Refugee children from Darfur, Sudan in refugee camps in Eastern Chad	Little Ripples (LR) iACT's comprehensive ECEC programme for 3–5-year-olds. In this study implemented in home-based settings (Little Ripples Ponds)	134 children aged 3–5 and their caregivers registered in the programme	Longitudinal study, assessing change from baseline assessment to follow-up one year later within one group of children with ECEC attendance (child assessments, parent reports)	ECEC benefits in areas of children's cognitive and socio-emotional development, health and hygiene routines
Jesuit Refugee Service & iACT 0	See above	see above	117 children aged 3–5 attending six Little Ripples Ponds and their caregivers	see above	ECEC benefits in areas of children's cognitive and socio-emotional development, health and hygiene routines; ECEC as a safe place
Mbidde & Ogunyoyi (2019)	Refugees and host communities in settlements and communities in Northern Uganda	Support for ECD centres through a project implemented by Right to Play, with the aim of improving access and quality of ECEC for refugee and host community children	337 children at preschool age attending 6 ECD centres targeted by the project (60 children per centre randomly selected), 30 educators (5 per centre), 3 district education officials	Quantitative cross-sectional evaluation, plus qualitative data (child assessments, observations, and adult interviews)	ECEC quality; ECEC as a safe place, with educators focusing on creating a safe and supportive learning environment; some understanding of play-based learning but educators not fully supported in their implementation by training or curriculum plans
Shah (2016, 2020)	Refugee children from South Sudan (Dinka ethnic group) in refugee camps in Uganda	Plan international's Community-Led Action for Children (CLAC) model for early learning or preschool education	126 children aged 3–6 participating in the ECEC programme, and 74 children in the comparison group; 30 educators, 30 parents, 3 key informants, 2 NGO staff members, 2 community leaders	Quantitative cross-sectional quasi-experimental design (parent reports), plus qualitative data (to answer other research questions, not included here) Vygotsky's social-cultural theory and the human capital approach	ECEC benefits in communication, gross motor and fine motor skills, cognitive skills and personal-social skills (all in favour of the intervention group)

Table 1 (continued)

Author/s and year	Study site, population	ECEC provision	Sample and participants	Study design, theory, details on instruments	Notes on some key findings
Smith (2015)	Refugees (mainly) from Rwanda and the Democratic Republic of the Congo in a refugee settlement in Western Uganda	Comprehensive preschools linked to Child Friendly Centres (CFC) and supported by UNICEF and the Ministry of Education	Cross-section of 22 private and community based ECEC centres, 3 government officers, parents and members of the ECD Centre Management Committees, government officials, focal persons, and partners (n = 145)	Qualitative case study (observations, interviews, and focus group discussions)	ECEC benefits in early cognitive development, literacy and numeracy skills, language and communication, and social skills. Recovery from trauma through art and play Educator knowledge that is transferred back to the households and community, and changes in child behaviour, leads to changes in parenting practices and increase in value of early learning. Programme led to communities coming together, strengthening of group bonds
Tanaka (2013)	Karen refugee children from Myanmar in refugee camps on the border to Myanmar, Tak province of Thailand	Community-led preschools, with the support of an international NGO. Providing a safe and sanitary space, meals, and a child-centred curriculum	331 children aged 2–5 randomly selected from 35 classrooms (n = 331)	Cross sectional, quasi-experimental design, comparing differences in child outcomes between children with more than 1 year attendance, versus those with less attendance (educator reports/checklists)	ECEC benefits: Higher scores on the psychosocial development scale (total score) in favour of the group that had attended ECEC for longer
Tobin, et al. (2015)	Migrants and refugee children with Karen, Burmese, and Shan language backgrounds in a refugee community at the Thai–Myanmar border	Montessori classroom focusing on child-directed learning and the use of specifically designed Montessori materials, versus ECEC classrooms following the Thai ECEC curriculum	66 children aged 3–6 attending two types of ECEC (convenience sampling)	Longitudinal study to test for differences from baseline to follow-up (educator reports)	ECEC benefits: At follow-up, children at the Montessori school lessened or closed the gap across five domains, but differences in improvement from baseline to follow-up were significant only for personal-social development
UNICEF (2018)	Refugee children from South Sudan in a refugee settlement in northern Uganda	Early childhood programmes in ECEC centres and child friendly spaces; participating in training on the use of EDC Kits. Foundational or enhanced (engaging parents in toymaking) ECD Kit training	7975 children aged 3–6 attending 20 ECEC classrooms across 6 ECEC providers; representative sub-samples of educators (n = 104), parents (n = 252) and management committee members (n = 42)	Formative and longitudinal evaluation (including field observations, focus groups, interviews and a survey), with data collection at 3 time points	ECEC benefits in children's language/literacy and numeracy skills, socio-emotional development, and hygiene practices. During later interviews, parents focused to a lesser extent on recovery from trauma or stress Recognition of how play supports children's learning

Table 1 (continued)

Author/s and year	Study site, population	ECEC provision	Sample and participants	Study design, theory, details on instruments	Notes on some key findings
VSO Bangladesh (2019) & Laxton, et al. (2020)	Rohingya refugee children in a refugee camp in Cox Bazar, Bangladesh	ECEC programme (MESH; Mapping Educational Specialist Knowhow), developed by the VSO Bangladesh team with the support of national and international volunteers to improve the quality of provision	Subsamples of providers and parents of children aged 3–5 participating in the programme (350 parents for a survey, 10 parents and 6 children for a focus group, 10 providers for observations, 13 educators and 6 community leaders, implementers, and staff members for interviews)	Explorative case study, qualitative and quantitative data (interviews, focus groups, observations, document analysis, survey)	ECEC benefits for early academic skills, language socio-emotional-, physical- and motor development, and improvement in behaviour ECEC quality: Children engaged in activities. Educators highly engaged in verbal interactions, preparing materials to support their teaching and making use of strategies to introduce topics. Parents satisfied with the teaching strategies, content, and materials, and the relationship skills of educators Educator training supports pedagogy and lesson preparation

language (Erdemir, 2021a). The qualitative study by Erdemir (2021b) described how participation involved cultural wealth capital (including navigational, social, linguistic and familial capital) that children accessed and built upon when participating in ECEC programmes. Several qualitative studies (which were all conducted in very different contexts) reported both that children take their newly learned skills from the ECEC centre into their home environment, and then into the community; and also that changes in children's skills and development can also benefit their interactions outside school, and lead to changes in parental beliefs and behaviour (Akar et al., 2017; Dalrymple, 2019; Erdemir, 2021b, 2021c; Smith, 2015).

ECEC quality and strategies to support development and wellbeing

Availability of spaces and resources

Lack of space and resources was an important theme of all studies except those conducted in Jordan and Lebanon (Akar, 2019; Akar et al., 2017). The ECEC provisions faced lack of space for early learning, lack of caregivers, lack of sufficient training and incentives, lack of toys and resources for teaching and learning (Akar et al., 2017; Dalrymple, 2019; UNICEF, 2018; VSO Bangladesh, 2019), and lack of access to clean water, food and nutrition (UNICEF, 2018). Home-based ECEC was found to be effective in enabling the creation of suitable learning spaces which were locally accessible, thus reducing concerns about safety and protection to and from ECEC (Laxton et al., 2021; VSO Bangladesh, 2019).

Social-emotional support

Across many of the studies, participants highly emphasised the importance for ECEC to provide safety, stability, normality and support for social and emotional recovery and learning (Akar, 2019; Akar et al., 2017; Dalrymple, 2019; Mbidde & Oguniyi, 2019; Smith, 2015; Tanaka, 2013; Tobin et al., 2015). ECEC spaces were described as safe, and studies described the value of rest, play and art, and mindfulness for child recovery (Dalrymple, 2019; Jesuit Refugee Service/iAct, 2019a, 2019b; Smith, 2015; Tobin et al., 2015). Studies also highlighted the value of interactions with emotionally responsive educators who are respectful and trustworthy (Akar, 2019; Erdemir, 2021c), who model and explain expected behaviour (Akar, 2019; Mbidde & Oguniyi, 2019), and who focus learning on emotion regulation and development of empathy (Akar, 2019; Dalrymple, 2019).

Approaches to teaching and support for learning

Many of the studies identified play-based opportunities for learning as characteristics of good practice (Akar, 2019; Akar et al., 2017; Mbidde & Oguniyi, 2019; UNICEF, 2018), together with a wider focus on basic needs (Akar, 2019), and a focus on the learning of literacy and numeracy skills (Akar et al., 2017; Mbidde & Oguniyi, 2019). However, several studies commented that a focus on instructional learning and preparation for school did not leave enough room for exploration and active learning (Akar, 2019; Akar et al., 2017). They also identified a need for training on play-based approaches to stimulate learning towards school readiness (Mbidde & Oguniyi, 2019; UNICEF, 2018). ECD kits, and particularly with added hands-on toymaking elements, were found to strengthen play-based learning practices for educators and parents (UNICEF, 2018).

Culturally responsive environments

Several studies found that educators' personal refugee background helped to reduce cultural and language barriers (Laxton et al., 2021; VSO Bangladesh, 2019), and that educators with refugee backgrounds can show more empathy towards refugee children (Akar et al., 2017). Several studies noted the need for educator training on refugee contexts. The findings demonstrated that education offered to children by members of the community can be more accepted by families (Laxton et al., 2021; VSO Bangladesh, 2019), and that the local adaptation and production of toys can help to promote cohesion across cultures, and strengthen understanding of how to use toys and materials to support learning (UNICEF, 2018).

Community and family engagement

The importance of community and family engagement was stressed (Akar, 2019; VSO Bangladesh, 2019), and a focus on parent attitudes towards learning and parent–school partnerships was identified as facilitating the success of an ECEC. Parent observations of educators' interactive skills contributed to changes in parental practices (Erdemir, 2021c; Smith, 2015); and the parents' experience of their children's participation in ECEC led them increasingly to value education and early learning for their children (Dalrymple, 2019)—and to promote ECEC participation in their community (Smith, 2015). Qualitative findings demonstrated the importance of the involvement of the community as drivers and supporters of change (Laxton et al., 2021; UNICEF, 2018; VSO Bangladesh, 2019) with ECEC initiatives led and implemented by the refugee community themselves (Jesuit Refugee Service/iAct, 2019a, 2019b; Laxton et al., 2021; VSO Bangladesh, 2019).

Teacher training needs

Some findings of the qualitative studies helped to elicit teacher training needs (Erdemir, 2021b; Laxton et al., 2021; UNICEF, 2018; VSO Bangladesh, 2019). They highlighted the importance of staff preparation and training on play-based approaches (Mbidde & Oguniyi, 2019; UNICEF, 2018), and described the success of educator training efforts to increase child-centred interactions, guided play, planning and pedagogy (Dalrymple, 2019; UNICEF, 2018; VSO Bangladesh, 2019).

Discussion

This paper presents a focused, systematic literature search which collected evidence to evaluate (i) what is known about the quality of ECEC programmes for refugee children in LMICs, and (ii) how they support young children's development and wellbeing. In low-resource contexts and situations of crisis, many circumstances can prevent young children from experiencing the nurturing environment they need to thrive and develop. For refugee children, ECEC can offer physiological, psychological and cognitive protection (UNESCO, 2010). However, the provision of ECEC in humanitarian contexts is extremely limited.

This review confirms the challenge of resources for refugee ECEC in low-resource contexts. Nevertheless, and whilst acknowledging limitations due to the small number and low rigour of the studies included in this review, the findings indicate that ECEC

can provide safe and engaging spaces and opportunities for recovery and learning. In line with the broad ECEC curriculum offered, most studies reported positive changes in child outcomes across a range of areas. Perhaps the strongest and most conclusive finding across studies is the reported benefits for children's social- and emotional learning and emotional recovery. Findings about the benefits for children's hygiene practices, motor development and self-care further supported the potential for ECEC to provide physical and psychological protection to refugee children. Most studies included in this review also identified the benefits of ECEC for children's cognitive development, literacy and numeracy skills, and language development—thus providing yet further evidence for the potential of ECEC to offer cognitive protection. An important finding that emerged across some qualitative studies included in this review was the identification of complex pathways of change, with reciprocal relationships between the effects of ECEC participation on children and the beliefs and behaviour of caregivers in their home environment (Akar et al., 2017; Erdemir, 2021c; Smith, 2015).

Many of the approaches and strategies identified as successful by the studies matched the indicators in the broader literature on refugee ECEC (mostly conducted in higher income and resettlement contexts). The factors which the studies found most helped to bring the benefits were: safe, positive and peaceful learning environments which create normality and stability; opportunities for rest and recreation; participation in play and art; and interactions with respectful, emotionally responsive educators. Some qualitative studies helped to identify important additional factors which can drive children's development and wellbeing in complex ways, including community involvement in the planning and delivery of ECEC (Jesuit Refugee Service/iAct, 2019a, 2019b; VSO Bangladesh, 2019), and parents' experiences with interactional skills of educators (Akar et al., 2017; Erdemir, 2021c; Smith, 2015). Despite the reported benefits for child learning, several studies highlighted the lack of materials and training to best support teaching and learning—especially on the implementation of a play-based pedagogy and guided play to support children's learning towards school readiness, with more opportunities for children to engage in exploration and active learning (Akar, 2019; Akar et al., 2017; Mbidde & Oguniyi, 2019).

Future research

In terms of assessing child outcomes, the studies commented on the lack of appropriate assessment tools (VSO Bangladesh, 2019), and on struggles to develop indicators to measure children's development which are clearly rooted in the cultural context (Shah, 2016, 2020), especially in relation to children's social and emotional development, and their self-regulation (Akar et al., 2017; Shah, 2016). The IDELA tool has been developed to be a holistic, rigorous, open source instrument to create evidence to promote best practice, inclusion and equity in ECEC (Pisani et al., 2018). It was developed to be adapted and implemented in different income, national and cultural contexts, and has been used for programme evaluations in 76 countries—many being LMICs. It has the promise to be a valuable research tool in lower-resource refugee contexts, and it will be interesting to see its adaptations and use for evaluations in these contexts in the future. A study is currently underway to investigate the impact of ECEC on the development of refugee children in Malaysia, and first findings are promising (Kong, et al., 2022).

The issue of quality measurements deserves further consideration. Only two studies included in the review explicitly refer to attempts to collect data and report on observations as uniformly as possible across sites to allow meaningful comparisons. The UNICEF study (UNICEF, 2018) reports an observation tool which aligns items intentionally with observation tools designed by the American Institutes for Research to rate and describe the quality and safety of the learning environment, the caregiver's approaches to teaching and their interactions with children, and the children's use of learning materials and types of play experiences. The study by Mbidde and Oguniyi (2019) uses a 'school learning environment assessment tool' to assess the physical environment of ECD centres. Other studies report on questions and guides which were developed for the purpose of the study, but do not explain if they were developed in reference to previous research and research instruments on the quality of ECEC. Results from this review suggest there is a need for quality observation tools which focus on the process quality of ECEC in refugee low-resource contexts, and for research which assesses the validity and need for adaption of rigorous quality assessment tools that exist in the field of ECEC. Some tools have been developed for use in LMICs, including the IDELA classroom environment tool (Save the Children, 2021), and the Teacher Instructional Practices and Process System (TIPPS) (Wolf et al., 2018), and the rigorous Early Childhood Environment Rating Scale (ECERS-R; Harms, et al., 2005) has been adapted and used in LMICs. Further research needs to assess the validity and need for adaptation of such instruments for refugee contexts.

Limitations and implications

This literature review has highlighted significant gaps and limitations in the existing evidence on refugee ECEC in LMICs, with methodological issues including small sample sizes, non-standardised measures, high attrition and lack of follow-up periods to assess longer-term benefits of ECEC. The studies identified for this review were conducted using different methodological approaches, in a selected number of regions with very different contexts. ECEC programmes varied hugely between studies; so did the migration histories, migration backgrounds, and the living circumstances of the included refugee populations. The combination of including contextually and methodologically different studies, with varying details on data collection and data analysis procedures, did not enable a systematic approach to synthesising results. In particular, the analysis of the robustness of findings was limited by the fact that the details provided on study sampling, recruitment and data collection and analysis varied hugely between the documents included in the study. Findings were difficult to summarise and will not be generalisable.

Finally, despite the systematic search strategy and the inclusion of expert consultation, relevant documents may have been missed. It was challenging to identify studies which met the inclusion criteria. In the grey literature, research aims often lacked definition and research methodologies were frequently undescribed: Inevitably, this will have contributed to some eligible and valuable studies being overlooked.

Nevertheless, we hope that findings from this review on the benefits of refugee ECEC in LMICs help to encourage non-government organisations, government agencies and international agencies working with refugee children to strengthen their support for

early childhood education in refugee contexts in host countries, and to do so in coordination with municipalities, and local stakeholders in schools and community organisations. Efforts should include increased commitment by government to provide funding for pre-primary education. The existing body of research also calls for investment into recruitment, support and training for staff, and the monitoring of quality. The findings in this field have implications for the development of curricula and practitioner pedagogies that address the diverse resources and needs of refugee populations. They highlight the need to implement play-based approaches to teaching, strategies that focus on socio-emotional support, strengthen the provision of culturally responsive environments, and support the engagement of communities and families. Findings on those approaches and strategies identified as successful strengthen the wider knowledge base about the characteristics of ECEC provision which are important for supporting refugee children and families in lower-resource contexts.

Conclusions

Despite the many challenges research in this context faces, and limitations in the strength of the research evidence obtained, the findings of the studies identified for this review all point straight in the direction of ECEC benefitting refugee children's wellbeing and developmental outcomes. This is an important finding, especially considering the extreme vulnerability of young refugee children in low-resource contexts. Indeed, the extremely limited resources of ECEC provision in the refugee context, and the challenges in providing good quality ECEC, make this a remarkable finding which calls for increased investment into the provision of refugee ECEC in low-resource context.

Studies included in this review showed that research in this field faces significant challenges which impact on the depth and breadth of collected information. Nevertheless, the available studies show that these challenges can be addressed. Assessing children over time, and collecting detailed and meaningful information from many stakeholders, can be achieved. Measures of child development which are based on and adapted to local and cultural contexts are being developed and used successfully, and quasi-experimental studies have been implemented. The research field is developing; design and implementation are improving. However, it must be acknowledged that high-quality research in low resource and unstable contexts requires additional time and resources to build strong relationships and engage communities in research planning and implementation. These are important considerations for further development which will help to extend the current evidence base on the potential of ECEC for facilitating the wellbeing and development of young refugee children living in LMICs. The findings from this review show the need for more rigorous research that helps to identify those factors that can help or hinder achieving programme outcomes, and identify approaches that support fundamental areas of ECEC. This should support the development of recommendations for the design and implementation of effective ECEC in low-resources refugee contexts.

The evidence brought together in this review helps to highlight the importance of policies that address problems in the provision of early education for refugees on low-resource contexts. Education for refugee children and youth has become an important policy priority, yet until today challenges and barriers to access exist due to the fact, that

those countries hosting the majority of refugees face enormous challenges in delivering inclusive and equitable quality education to their own populations, and even more so to their refugee populations. Without special measures, SDG4 will be unattainable. This is particularly true in the field of early education. Evidence presented in this review is essential to strengthen the call for such measures and inform policies that help to address this issue.

Abbreviations

ECEC	Early childhood education and care
ECERS	Early Childhood Environment Rating Scale
HICs	High income countries
LMICs	Low- and middle-income countries
SSTEWE	Sustained Shared Thinking and Emotional Wellbeing

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Author contributions

The authors confirm contribution to the paper as follows: study conception and design: IS, KK, KES; literature search: KES, IS; analysis of identified literature: KES; draft manuscript preparation: KES, IS; critical revision of the manuscript: KK. All authors read and approved the final manuscript.

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The authors declare that they have no competing interests.

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