

Experience of Early Childhood Care and Education in Turkey



A. Beyza Ateş and Hande Sodacı

Abstract This chapter reviews existing research on children's early care and education (ECE) experience in Turkey. There are three sections. The first is ECE quality research worldwide; the second is ECE systems and services available to children and families in Turkey, and the third is ECE quality research in Turkey. A concluding part presents future directions and suggestions for researchers, educators, and policymakers in Turkey.

Keywords Early childhood care and education (ECE) · Structural quality · Process quality · Child development

How particular micro-level and macro-level environmental ecologies affect children's development has long been a crucial question investigated by different disciplines. The micro-level ecologies include family, maternal education, earning power, home literacy facilities, parental attitudes about education, and schools. The macro-level ecologies are economic conditions, rural vs. urban geography, child care facilities, and educational systems. Especially after women began to participate actively in the workforce, non-maternal child care services have come to the fore and played an essential role in children's and families' lives (Baker et al., 2008; Bradley & Vandell, 2007). This change has led researchers, educators, and policymakers to turn their attention to the following questions:

- 1) Which micro-level and macro-level factors influence the aspects of quality of early, non-maternal child care and education (Atkinson, 1994; Baydar & Brooks-

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Gunn, 1991; Hofferth et al., 1991; McCartney, 1984; NICHD, 1997; Symons & McLeod, 1994)?

2) How do both types of factors collectively promote child development?

The latter question also brought out new research emphasizing the effects of different quality dimensions or indicators of early childhood care and education (ECE) on child development.

This chapter addresses preschool children's experiences of non-maternal care and education in Turkey. We focus on the types of ECE services available to children and families and the research on the quality of ECE and its effects on child development. We provide some background about how ECE quality influences child development in academic, cognitive, and social-emotional domains. Second, we discuss ECE facilities and the effects of ECE quality on children's development in Turkey. We end the chapter by presenting future directions and suggestions for researchers, educators, and policymakers.

Historical Background and Current Situation in the World

Research on ECE dates back more than 50 years (Melhuish et al., 2015). The majority of this research came from the evaluation studies of intervention programs worldwide (for detailed information, see Slot et al., 2015; Ulferts et al., 2019). These projects aimed to promote child care and education, especially in risk groups, usually from lower SES backgrounds, poor environments, and ethnic minority groups. The evaluation research showed that high-quality ECE has moderate to strong positive effects on child development (Zaslow et al., 2016). The effects were most pronounced for cognitive outcomes and children from disadvantaged backgrounds. They lasted until middle childhood, adolescence, or young- to mid-adulthood (Camilli et al., 2010). As some examples of the positive effects, after participating in the intervention programs, the children had higher scores in tasks measuring academic (reading, writing), cognitive (intelligence, problem-solving, vocabulary capacity), and social (social adaptation) skills. Also, follow-up studies indicated that intervention programs increased children's school readiness and persistence. Children's likelihood of graduating from high school, starting college education, finding a job, working in higher status jobs, and having higher life satisfaction levels increased. The evaluation studies also showed that high-quality ECE decreased the likelihood of experiencing behavioral problems, class repetition, and special education programs. Showing risk-taking behaviors such as substance use or teenage pregnancy and committing a crime was also less likely for children who received higher-quality ECE (Campbell & Ramey, 1995; Howes et al., 2008; Reynolds et al., 2004).

There are also some descriptive studies using semi-naturalistic classroom observations to investigate ECE's impact on child development. Despite similar findings with the evaluation studies, the descriptive studies showed modest associations

between high-quality ECE and child outcomes (Burchinal et al., 2008, 2011). The contrasting findings between the evaluation and descriptive studies concerning the strength of effect raised essential questions about operational definitions, assumptions, and methodologies used in the studies. There are at least three definitions of ECE quality in the existing research: global quality, structural quality, and process quality. Global quality refers to rich and stimulating language and literacy environments, which promote child learning and development (Snow et al., 1998). Structural quality refers to easily “observable” and “regulable” features of quality, which serve as a basis for process quality. Structural quality mainly represents the physical features of a classroom. Some examples include adult-to-child ratio, group size, professional qualifications (training, education, work experience) of staff, physical features of the classroom, availability, and various instructional materials (Howes et al., 2011; Melhuish et al., 2015). Process quality refers to the features representing children’s day-to-day experiences in ECE settings, a “major proximal determinant” of child development. It focuses on children’s physical, emotional, instructional, and social interactions with teachers, peers, and instructional materials in the classroom. Some examples of process quality are positive/negative affect between children and teachers or peers, teachers’ use of instructional time and materials, the quality of feedback provided to children, and the quality and frequency of higher-order thinking or language stimulation.

Existing studies also used different measurement tools based on the three distinct definitions of ECE quality. There are three globally and widely used ECE quality measures. One is the Early Childhood Environment Rating Scales (ECERS) (Harms et al., 1998) with its latest version, ECERS-Revised (Harms et al., 2005). The second is the Early Language and Literacy Classroom Observation Toolkit (ELLCO) (Smith & Dickinson, 2002), and the third is the Classroom Assessment Scoring System (CLASS) (Pianta et al., 2008). The ECERS and ECERS-R measure the classroom’s global quality through seven subscales. These are personal care routines, furnishings and displays for children, language-reasoning experiences, fine and gross motor activities, creative activities, social development, and adult needs. The ELLCO and the CLASS measure process quality by targeting different aspects. The ELLCO focuses on the extent of support for language and literacy development and measures the classroom quality through three distinct scales; Classroom Observation Scale, Literacy Environment Checklist, and Literacy Activities Rating Scale. The CLASS assumes that child development’s primary mechanism is child-to-adult interactions. It measures teacher-to-pupil and pupil-to-pupil interactions through three distinct domains: emotional support, classroom organization, and instructional support (Pianta et al., 2008). Some large European research projects used the CLASS or ECERS-R (and its extension: ECERS-E) as their ECE quality measure:

1. The Netherlands: Pre-COOL the Dutch National Cohort Study (2009–2014) and the Utrecht Mixed Preschool Groups (2008–2010);
2. Finland: the First Steps Interaction and Learning within Children-Parent-Teacher Triangle (2006–2016) and the Jyväskylä Longitudinal Study of Dyslexia (1993–2012);

3. Germany: BiKS Educational Processes, Competence Development and Selection Decisions in Preschool- and School Age (2005–2014); NEPS, The German National Educational Panel Study (2010–ongoing); Early Chances: Focus Daycare Centres for Language and Integration (2012–2014); and NUBBEK National Survey on Education, Care, and Development in Early Childhood (2010–2011);
4. England: EPP(S)E Effective Provision of Pre-School, Primary, and Secondary Education (1997–2013);
5. Denmark: VIDA Knowledge-based Efforts for Socially Disadvantaged Children in Daycare (2010–2013);
6. Portugal: Contexts and Transition Study (2005–2008).

Secondary data analyses of these projects showed some complex associations between structural and process quality measures and contradictory findings of how these associations affect child development within and across countries (Slot et al., 2015). For example, quality in classrooms differed by the sector providing the ECE service (public vs. private) in Portugal, by the type of institution (daycare center vs. primary school) embodying the classroom in Finland, by the type of ECE provision (care vs. education) in England, and by any of these in Germany. A more recent secondary analysis of eight studies with children from low-income families showed a significant feature, threshold, and dosage effect of ECE quality on child development (Burchinal et al., 2016; Zaslow et al., 2016). Regarding the quality features, domain-specific (instructional support, literacy instruction) rather than global ECE measures showed significant positive effects on child outcomes. For threshold effects, children showed more considerable gains in language and literacy skills only when the quality of instruction varied between moderate to high levels. As the dosage effect, children showed more considerable gains in academic skills if they experienced high-quality ECE for more extended periods, such as two rather than one year, with fewer absences and more time in instructional support. Therefore, although the research on the effects of ECE quality has been increasing worldwide, there is still a gap concerning the exact nature of the relationships of particular structural and process quality dimensions or indicators with specific developmental outcomes.

Early Childhood Care and Education Services in Turkey

In Turkey, early care and education (ECE) is placed under legal education services and defined by the Basic Law of National Education, No. 1739 (The Republic of Turkey, 1973). There is no central authority overseeing the provision of ECE services [see the chapter on “[Transformation of Childhood in the Education System](#)” in this volume]. Although the Ministry of National Education (MoNE) is the primary institution responsible for regulating the educational frameworks and curricula, it does not act as the sole coordinator of ECE services (Gören-Niron, 2013).

Another institution responsible for ECE services is the Ministry of Family, Labour, and Social Services (MoFLSS). The MoFLSS delivers and supervises care services for children aged between 0 and 66 months. The MoNE delivers and supervises early education services for children aged 36–68 months (The World Bank, 2015).

Children can attend ECE services until they complete 69 months of age, the starting age of compulsory primary education. Children with special needs must participate in ECE once they complete 36 months (Diken et al., 2012). For typically developing children, participation in ECE is voluntary. According to Turkey’s Education Vision 2023 (MoNE, 2018) and 2020 Annual Presidential Annual Program (Presidency of Strategy and Budget, 2019), participation in ECE for 5-year-olds will become compulsory soon.

Figure 1 depicts the organization of the ECE system in Turkey. The private sector mainly operates the care services, taking different forms such as crèches (Fig. 1, 1.a) and daycare centers (Fig. 1, 1.b). These services target children of different ages (MoFLSS, 2020). There are other care services as well (Fig. 1, 1.c). Enterprises with over 150 female employees with children must provide care services by the Labour Law (Tuğrul & Yılmaz, 2013). Public institutions and organizations with a minimum of 30 employees with children can open care institutions following Law no. 657, article 191. As categorized under community-based institutions,

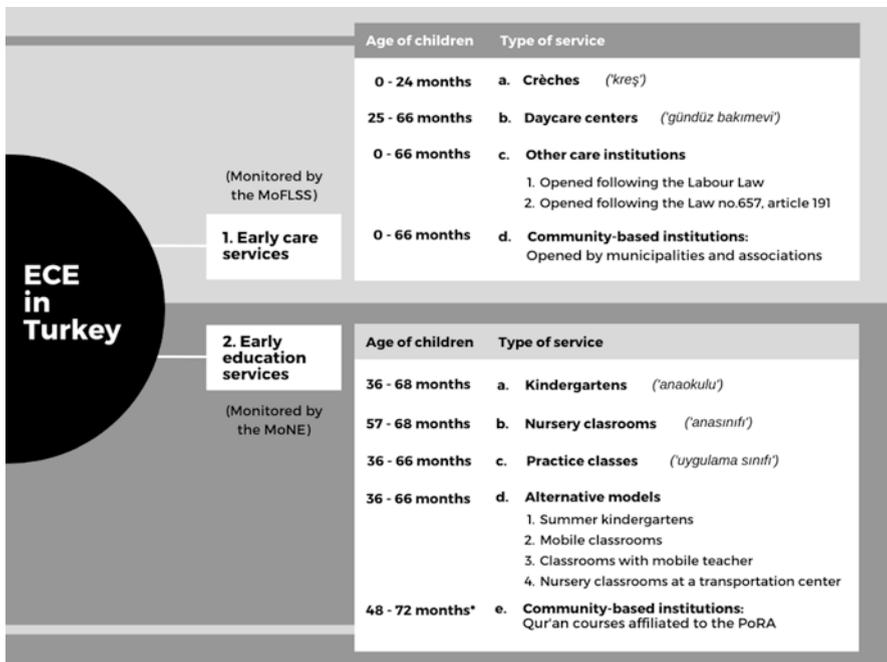


Fig. 1 An overview of the ECE system in Turkey

Note. Qur'an courses by the PoRA offered services for many different age groups; however, here, only the courses targeting the age group that overlaps with that of ECE services are presented

municipalities and associations are also authorized to deliver care services (MoNE, 2020a).

Both the public and the private sector can provide ECE services in many forms, such as kindergartens, nursery classrooms, and practice classrooms (MoNE, 2020a). Nursery classrooms (Fig. 1, 2.b) are embodied in primary schools in public institutions, whereas kindergartens (Fig. 1, 2.a) are independent institutions. Some private kindergartens also include nursery classrooms. Practice classrooms (Fig. 1, 2.c) are part of vocational high schools' child development and child education departments and function as nursery classrooms (Ünlü-Çetin, 2019). Additionally, the MoNE has started implementing four alternative early education models (Fig. 1, 2.d) in 2019 to expand nationwide access to ECE with temporary services (MoNE, 2020a, 2020b). In under-resourced regions with geographical and socio-economic disadvantages concerning ECE services or teachers' shortage, the MoNE provides several opportunities. These are summer kindergartens, including two-month-long intensive education; mobile classrooms where busses are transformed into classrooms; mobile teacher classrooms where teachers visit children in villages; and transportation centers including daily transportation of children to the nearest ECE center. Finally, as categorized under community-based institutions, the Presidency of Religious Affairs (PoRA) delivers courses on Qur'an and Islam to children aged 4–6 (Fig. 1, 2.e) (MoNE, 2020a).

Table 1 presents the most recent statistics regarding students' and teachers' distribution across ECE classrooms and institutions. As of the 2019–2020 academic year, there are 32,554 ECE institutions in operation, covering 1,629,720 children and 98,825 appointed teachers in 85,528 classrooms. The majority of the students attend education services, namely nursery classrooms (52.9%), kindergartens (35.6%), and community-based institutions (7%).

Table 1 Number of institutions, classrooms, students, and teachers involved in ECE by type of service

Type of service	Institutions	Classrooms	Students	Teachers
Care services				
Crèches and daycare centers	1771	8399	63,685	8891
Other	120	600	8324	722
Education services				
Kindergartens	6654	34,538	580,452	37,101
Nursery classrooms	21,069	34,697	863,004	42,607
Practice classrooms ^a	–	–	–	–
Alternative models (summer kindergartens and mobile classrooms only) ^a	–	–	493	–
Care and education services delivered by community-based institutions	2940	7294	113,762	9504
Total	32,554	85,528	1,629,720	98,825

Note. These are the numbers from the MoNE statistics (2020a)

^aThere are no statistics publicly available about these services except the information presented in the table

Turkey has committed to improving access to ECE services in the last decade. The net enrolment rate in early education (3-5-year-olds), which was 13.4% in 2005, increased to 27% in 2010 and reached 42.8% in 2018 (OECD, 2020). Despite the increase, Turkey ranked second to last among the 41 OECD countries in 2018, falling behind most countries with similar per capita gross domestic product (GDP) levels (Mexico with a rate of 63.6%) and the OECD average of 87.6% (OECD, 2020).

Concerning the enrolment status of children aged under three, the available data is limited. According to the OECD data in 2018, the net enrolment rate of 3-year-olds was only 0.2% and far behind the OECD average of 33.8% (OECD, 2020). A recent survey conducted by the Turkish Statistical Institute (2018) on work and family life concerning the household labor force demonstrated that 12.9% of women aged 18–64 years of age were employed and, at the same time, provided care for their children younger than 15 years old. Eighty-three percent of women provided care for their children by themselves. 76.9% of women getting some support for child care by grandparents or babysitters preferred to use center-based care services. The most common reasons women not using center-based care were arranging child care alone or together with a partner (52.2%) and getting support from grandparents or other friends/relatives (15%). Another common reason was that ECE services were too expensive (12.2%), given that ECE services are offered free of charge only to a limited number of low-income families. With the ongoing Medium-Term Program 2018–2020 (Presidency of Strategy and Budget, 2017) and the Women’s Empowerment Strategy Paper and Action Plan 2018–2023 (MoFLSS, 2018), Turkey facilitates women’s labor force participation and employment by encouraging the private sector to provide more affordable opportunities for ECE services.

Teachers’ qualifications, child-staff ratios, and education expenditures are critical indicators of ECE resources. Teachers must complete vocational upper secondary education in child development and education to serve children under three. A Bachelor’s program in child development and preschool education provides qualifications to teach children aged 3–5 years old (European Commission, 2019). Teachers appointed to special education and rehabilitation centers should also have a Bachelor’s degree in special education teaching programs. Turkey’s early education institutions’ children-to-staff ratio in 2018 was slightly higher (17.8) than the OECD average (14.3) (OECD, 2020). According to 2017 data from OECD, Turkey devoted 0.3% of its GDP to 3-5-year-olds (lower than the OECD average of 0.6%) and ranked second to last by annually spending \$5,250 per child (almost half of the OECD average of \$9,079) (OECD, 2020).

Quality of Early Childhood Care and Education Services in Turkey

Research on early childhood care and education (ECE) in Turkey started to receive considerable attention after a General Directorate of Pre-primary Education within the MoNE was established in 1992 (Bekman, 2005). Nevertheless, among the

research on ECE in subsequent years, the evaluation studies constituted only a minority. One of the most documented intervention programs is the Turkish Early Enrichment Program (TEEP; 1982–2004), formerly called the Mother-Child Education Program (MOCEP). It was a home-based, 25-week-long program that targeted children aged 3–6 and their families (mothers) who had no access to ECE services across Turkey [see the chapter on “[ISTANBUL95: An Early Childhood Initiative to Improve Child Development](#)” in this volume]. The program aimed to train mothers to improve mother-child interactions and to promote child (primarily cognitive) development (Kağıtçıbaşı et al., 2009, 2001). The program’s evaluation revealed continued benefits for trained mothers’ children in cognitive, social, and socio-emotional developmental domains. Also, the rates of school attainment and achievement increased for this group of children (Bekman, 1998; Kağıtçıbaşı et al., 2001).

Another well-known intervention program is the Preschool Education Program for Southeastern Turkey. It was a center-based, 10-week-long intervention program that aimed to enhance cognitive and language skills and school readiness of 5- and 6-year-old, developmentally at-risk children. These children were from low-SES families living in under-resourced and multilingual regions (i.e., speaking Turkish, Kurdish, or Arabic at home) (Bekman et al., 2003). The program effectively improved children’s early literacy and numeracy skills, lexical and grammatical knowledge, and narrative performance (Bekman et al., 2011). Despite nationally non-representative samples, children’s gains from Turkey’s intervention programs supported international research showing the importance of ECE quality on child development.

Apart from the intervention studies, many descriptive and correlational studies explored the impact of ECE quality in Turkey. Most of these studies focused on the structural quality indicators such as the location, structural and technical characteristics, and interior-exterior features of school buildings. However, these studies usually neglected the process quality indicators (Durmuşoğlu, 2008; Güleş, 2013; Güleş & Erişen, 2013; Kıldan, 2007, 2010; Özgan, 2009; Yılmaz, 2003). The studies focusing on the structural quality mostly used the ECERS or the ECERS-R as the classroom observation tool (Göl-Güven, 2009; Işıkoğlu-Erdoğan & Canbeldek, 2015; Kalkan & Akman, 2009; Karlıdağ & Gönen, 2019; Ulubeli, 2019; Yaya-Bryson et al., 2020). The results mainly revealed low-to-mid level physical quality in these institutions. Despite the variation across institutions, in general, the physical environment (play spaces), equipment (furnishings, toys), educational content (activities for distinct developmental domains), and staff (child-teacher ratio, teacher qualification, and work experience) needed to be improved (Canbeldek & Işıkoğlu-Erdoğan, 2016; Güleş & Erişen, 2013; Işıkoğlu-Erdoğan & Canbeldek, 2015; Tarım, 2015).

The number of studies focusing on process quality has increased within the last decade. Nevertheless, there are significant methodological restrictions regarding their sample sizes, assessment methods, and the scope of research questions. For example, Işıkoğlu (2007) and Baştürk and Işıkoğlu (2008) worked with four private kindergartens, five public nursery classrooms, and three public kindergartens from

the city of Denizli. The sample in Göl-Güven's study (2009) were from three private and three public kindergartens in the district of Bakırköy in İstanbul. Solak (2007) investigated a sample from sixteen public and private pre-primary institutions. In the studies relatively with larger sample sizes, the data were from a particular district or city, often western Turkey (Denizli and Muğla) (Canbeldek & Işıkoğlu-Erdoğan, 2016, 2017; Işıkoğlu-Erdoğan & Canbeldek, 2015; Tarım, 2015). The restricted sample sizes in existing studies do not reflect ECE quality's general essence across the country.

A line of studies examining the process quality used semi-structured interviews with education stakeholders, teachers, parents, or school directors, rather than classroom observations (Ardıç-Ünüvar, 2011; Durmuşoğlu, 2008; Güleş & Erişen, 2013; Özgan, 2009; Yoleri, 2016). Some studies used the Turkish adaptations of the Student-Teacher Relationship Scale (STRS) (Kıldan, 2008; Şahin, 2014; Şahin-Ası & Ocak-Karabay, 2018). STRS is a self-report assessing teachers' perception of the level of conflict, closeness, and dependency with an individual student (initially developed by Pianta, 1994, 2001; Pianta & Steinberg, 1992). These studies reported positive student-teacher relationships with better school adjustment (Gündüz, 2015), social competence, and social problem-solving skills (Dereli, 2016). In contrast, more negative student-teacher relationships were associated with more concentration and social adjustment problems (Akış, 2018) and reactive temperaments (Yoleri, 2016).

A limited number of studies also examined ECE quality through classroom observations. As studies across the globe, researchers assessed the quality through three tools adapted to Turkish: the ELLCO ("Erken Dil ve Okuryazarlık Sınıf Gözlem Aracı" adapted by Feyman-Gök, 2013), the ECER-S ("Okulöncesi Öğrenme Ortamı Değerlendirme Ölçeği" adapted by Solak, 2007; Tovim, 1996), and the CLASS ("Sınıf Puanlama Ölçeği" adapted by Ertürk 2013; Ertürk-Kara et al., 2017). These studies usually examined the quality by itself and ignored its impact on child outcomes. Canbeldek and Işıkoğlu-Erdoğan (2016) explored the ECE quality through the ECERS in 55 preschool classrooms with 846 5- to 6-year-old children in Denizli. They found that participating in the classrooms with 20–24 children, considered a larger space per person, and registering for full-day programs were associated with better cognitive-linguistic outcomes.

Feyman-Gök (2013) assessed the classroom quality through the ELLCO in two preschool classrooms with six 5-year-old children in Ankara and identified the classrooms in the low-to-mid quality range. Polat (2014) explored the ECE quality through the ECERS-R in four pre-primary institutions with 100 children, revealing positive relationships between every quality dimension and children's creativity scores. The creativity scores of the children in lower quality classrooms decreased when retested after a semester.

The number of ECE quality studies has been increasing year by year. However, existing research still was not as comprehensive as the studies conducted in Europe and the United States. They often focused only on specific developmental skills of a limited number of children in some regions. They did not investigate how ECE quality longitudinally matters for different developmental outcomes. Although

there are different types or forms of ECE services governed by either the public or the private sector in Turkey, the existing studies are usually limited to nursery classrooms and the Western regions.

As the first comprehensive research project, a consortium of four universities from Istanbul (MEF, Koç, Altınbaş, and Marmara Universities) has recently started the research project *KULE* (TOWER) to longitudinally investigate the effects of ECE quality on children's academic, cognitive, and socio-emotional development. The project design allows for a direct comparison of structural and process quality dimensions and their relationship with different child outcomes. It also aims to overcome the deficits regarding the scope and methodology of existing studies focusing on different ecologies such as home, school, and neighborhood and on recruiting a larger sample. The project aims to collect data from 114 classrooms in 114 public primary schools. From these classrooms, 114 teachers and 1140 mother-child pairs will be recruited and followed for 3 years. Results to be obtained from the project will be used to develop school quality standards, which will be presented to The Ministry of National Education of Turkey as policy advice.

Conclusion

The studies exploring the structural and process quality dimensions of ECE services have increased worldwide and in Turkey within the last decade. Despite inconsistent findings, international research showed that ECE quality varies between medium-to-high level with a modest-to-high positive relationship between high-quality ECE services and child development. In Turkey, studies mainly focused on structural quality indicators and showed a low-to-mid level quality of ECE institutions. The few studies which examined process quality dimensions also revealed low-to-mid level quality (Işıkoğlu-Erdoğan & Canbeldek, 2015).

Both international and national research on ECE quality possesses many shortcomings regarding their sample characteristics, methodology, and scope. The existing research worldwide fails to answer how different quality dimensions or indicators influence distinct child outcomes both in the short and long term and interact with different micro- or macro-level developmental ecologies. The ECE quality research in Turkey needs to focus on process quality dimensions using more complex designs, assessment tools, and more extensive and representative samples from Turkey's diverse regions. Existing studies in Turkey, Europe, and the USA used different classroom observation tools (mostly ELLCO, ECERS-R, and CLASS), making direct comparisons difficult. Some secondary analysis studies allow researchers to make between-study comparisons, but they have some limitations regarding comparability. Researchers often transform different variables from different studies measuring the same construct into a new, artificial variable in such analyses. Transforming variables may lead to essential changes in the studies' original research questions and significant information loss. For example, in the secondary analysis conducted by Slot et al. (2015), transforming child outcome variables

across studies did not prove successful due to the substantial differences in their conceptual and operational definitions, which led researchers to restrict their analysis only with the data from children aged 2–6. Future studies need multiple international classroom observation tools to assess ECE quality and multi-sited applications allowing researchers to make direct comparisons between the effects of different ECE services.

We recommend that policymakers and researchers collaborate to pursue a comprehensive, long-term strategy to establish the current situation of different types of ECE institutions in terms of structural and process quality dimensions and longitudinally track the children's development in these institutions. In this strategy, the semi-naturalistic observation studies, and based on these studies' results, the evidence-based intervention programs targeting children developmentally at risk and from families with lower socio-economic backgrounds and insufficient emotional and cognitive resources should have priority.

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