

# Early Childhood Care and Education: A Systematic Literature Review in Indian Context

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**Abstract:-** Early Childhood Care and Education (ECCE) is often regarded as a key element of universal education. This study delves into the landscape of Early Childhood Care and Education (ECCE) in India through a systematic review of literature. After extensive attempts, several nations throughout the world are making strides toward securing ECCE. Despite this, the majority of them were unable to reach or compromise on this aim owing to insufficient resources, bad planning, and weak strategies for implementation, particularly in a large and populated nation such as India. The development of quality standards and curriculum frameworks, plans, acts, constitutional amendments, schemes, and flagship programmes like, District Primary Education Programme (DPEP), Integrated Child Development Services (ICDS) and Sarva Shiksha Abhiyan are just a few of the initiatives the Indian government has launched to improve quality. It has resulted in both anticipated and unexpected concerns and obstacles due to India's compromise on the non-negotiable ECCE quality requirements. Consequently, the government's objective of guaranteeing quality in ECCE was not fully achieved. However, recent research indicates significant advancements in quality improvements. Of course, there are unsatisfactory results in certain areas and components, but there has also been progress in other areas, suggesting that maintaining quality is a realistic objective. This research aims to present an overview of the Government of India's operations, assess the situation on the ground, pinpoint the primary hurdles to ECCE quality development and offer workable solutions to overcome those hurdles.

**Keywords:-** Early Childhood Care and Education, Early Childhood Education, Quality Standards, Anganwadi Centres, Integrated Child Development Services

## I. INTRODUCTION

The formative years of childhood are critical for brain development, laying the foundation for upcoming education. At this age, children's early experiences influence brain development and the formation of synaptic connections, which form the foundation for thinking, language, social skills, behavior, and emotional health. As per Annual Status of Education Report (ASER) (2013, p. 8) suggested that

"early years may be the best place to invest in order to improve learning outcomes and sustain them in the long run." This may be achieved by providing all children with high-quality Early Childhood Care and Education (ECCE).

Additionally, ECCE is recognized as an integral component of universal enrollment, retention, and achievement in both primary and secondary schools. According to Josephine (2003), pre-primary schooling is linked to primary school retention. Rao (2010, p. 19) states that "children in higher quality ECCE facilities had better perceptual, memory, verbal, and numerical skills than children in lower quality ECCE facilities, indicating that the quality of ECCE is related to child outcome measures." Woodhead, Ames, Vennam, Abebe, and Streuli (2009) state that "quality ECCE is beneficial to children's development, consistent with realizing their rights, and an important pro-poor strategy capable of increasing equity" (p. 1).

### ➤ Objective

The main objective of this study is to

- To assess the status of ECCE in India.
- To determine major issues related to ECCE in India.
- To suggest for potential actions to guarantee ECCE quality
- To identify challenges and opportunities for improving ECCE access in India

## II. METHODOLOGY

The researcher developed a comprehensive search strategy to identify all relevant studies. This involves choosing appropriate databases, search phrases, and inclusion/exclusion criteria. Some relevant databases include ERIC, PsycINFO, Education Research Complete, JSTOR, Google Scholar, Science Direct and Scopus. Search term included Early childhood education, Preschool education, Childcare, Kindergarten, Early childhood development. Inclusion/exclusion criteria were developed to ensure that studies meet the research questions and are of high quality.

- What are the current trends and issues in early childhood care and education worldwide?
- How does early childhood care and education impact a child's development and future academic success?

- What are the best practices in early childhood care and education that can be used to enhance children's learning outcomes?

Using the search strategy developed, the investigator conducted the search and identified relevant studies. Next, the researcher extracted data from the selected studies using a standardized data extraction form that includes study characteristics, research methods, study findings, and limitations. Using the extracted data, the researcher synthesized the findings of the selected studies that include identifying common themes and patterns, summarizing the main findings, and highlighting any gaps or inconsistencies in the literature.

➤ *Role of Parents and Caregivers:*

Parents and caregivers are the architects of optimal child development. Their engagement, both at home and in early childhood programs, fosters learning, social skills, and emotional well-being (Lee & Bowen, 2006). Parental support strengthens classroom learning, while caregivers provide a haven for social, emotional, and cognitive growth (Shonkoff & Phillips, 2000). Research echoes this impact: parental involvement in early childhood programs enhances academic and social outcomes, even improving program quality through collaboration (Fan & Chen, 2011; Barnett et

al., 2016). Strong partnerships between parents and caregivers are the bedrock for thriving children.

➤ *Quality of ECCE Programs:*

The quality of ECCE programs is critical to their effectiveness. Several studies have identified key components of high-quality ECCE programs, including qualified teachers, small class sizes, appropriate curricula, and supportive learning environments (Barnett, 2011; Burchinal et al., 2010). However, many ECCE programs around the world do not meet these quality standards, which can limit their effectiveness (OECD, 2018).

➤ *Access to ECCE:*

Despite national enrolment figures suggesting widespread access, research exposes disparities in ECCE depending on family structure and parental employment. Single-parent working households, especially those led by mothers, face the dual burden of childcare and income generation, limiting access. Dual-income families, while better equipped financially, can struggle to balance work with quality ECCE. Conversely, children with non-employed parents may have increased access to home-based care, but concerns regarding its quality and age-appropriateness persist due to potential caregiver training gaps. (ASER, 2019; Bhattacharjea & Ramanujan, 2019; Chambaz, 2001)

Table 1 Children in Formal ECEC, by Family Employment Status and Child Age Group

Child age and type of formal ECEC	Couple-parent family		Single-parent family			All Families (%)
	Both parents Employed (%)	Single Parent Employed (%)	Neither Parent Employed (%)	Employed (%)	Not Employed (%)	
0–2 years	49	16	12	65	23	32
3–5 years	71	53	40	67	46	60
	36	19	20	35	20	28
	32	35	20	23	24	31
	13	4	6	19	5	9
6–12 years	16	3	3	23	3	12

Source: CEaCS, 2011 (derived from unit record file)

➤ *Cognitive Development and Numeracy Skills*

The cognitive development in early childhood greatly influences the acquisition of numeracy skills, founded on the idea that these skills form the basis for formal and informal mathematical reasoning (Claessens & Engel, 2013). Several studies emphasize the importance of numeracy skills for cognitive development in various aspects, particularly in pattern recognition, abstraction, and problem-solving (Geary, 2011). Clements and Sarama (2011) found that mathematical knowledge in early years significantly predicts later academic achievements, primarily in mathematics itself and indirectly in reading. In their research, Melhuish et al. (2008) also suggest the same: early numeracy skills play a crucial role in the young learner's success in school and on standardized tests.

Various pedagogical strategies can be used to foster numeracy skills, incorporating cognitive developmental theories as proposed by scholars like Jean Piaget. For

instance, children tend to count objects before understanding number meanings, an experience-based, cognitive developmental process that underscores the importance of practical engagement apart from theoretical learning. Duncan et al. (2007) concluded that initial math skills have the strongest prediction strength for later academic success, stronger even than early reading skills, attention skills and socio-emotional behaviors. Meanwhile, Jordan et al. (2009) demonstrate that improving early numeracy skills have potential to narrow the socio-economic gap in academic performance.

➤ *Language Development and Foundational Literacy*

Language development and foundational literacy in early childhood are interdependent, as they are crucial for effective communication. Thus, promoting these skills in early education has been recognized as a priority (Dickinson & Neuman, 2006). Research shows a strong correlation between early vocabulary and reading comprehension in

later school career (Scarborough, 2001). The development of phonological awareness, or children's understanding of sound structures in words, is shown to predict early reading and spelling skills (Wagner et al. 1994).

Dickinson et al. (2010) shows that children's grasp on lexical and grammatical knowledge at preschool age predicts their later reading competence. Morrow (2012) emphasizes the role of story-reading in promoting language development and literacy skills: children who get involved in shared reading at an early age are likely to develop vocabulary and understand complex syntax, benefiting their literacy development. Studies have also shown that children's literacy can be improved by integrating familiar rhymes, games and educational songs at an early age (Burgess & Lonigan, 1998). Thus, early childhood education should make a purposeful attempt to design activities that promote both language development and foundational literacy for long-term success (Snow, Burns, & Griffin, 1998).

➤ *Integrating ECEC Systems, Policies and Regulations for Better Quality*

Over the last ten years, participation rates have grown in many countries as a consequence of a greater emphasis on offering high-quality care and education to children under the age of three (European Commission/EACEA/Eurydice, 2019; OECD, 2019). However, there are still a lot of distinctions between pre-primary centers and centers for children under the age of three in terms of enrolment rates, staff credentials, and curriculum rules. In actuality, public spending for centers serving children under the age of three is actually lower across OECD economies than it is for pre-primary education centers in many countries (OECD, 2019). The legal rights, the level of involvement, and the total enrolment rates may all be impacted by this financing disparity, especially for kids from lower socioeconomic families.

The historical distinction between learning commonly referred to as pre-primary education (3-6) and childcare (0-3) is partially responsible for these disparities (Kaga, Bennett and Moss, 2010; European Commission, 2013). Nonetheless, many nations are gradually shifting toward more integrated systems as a result of the increased focus on policymaking around the education, care, and developmental assistance given to children under the age of three (European Commission/EACEA/Eurydice, 2019; OECD, 2019). As more nations integrate 0-6 ECEC policies and regulations, the traditional existence of divided systems is presently becoming less evident (European Commission/EACEA/Eurydice, 2019). According to OECD estimates from 2019 (OECD, 2019), over half of OECD member nations have a fairly integrated ECEC system.

➤ *Status of Early Childhood Care and Education in India:*

India has a population of more than 1.3 billion, and approximately 160 million children under the age of six years. Despite the Indian government's efforts to provide universal access to ECCE, the current enrolment rate is only 26% (National Education Policy, 2020). Many children in

rural areas and from marginalized communities are unable to access quality ECCE services due to lack of infrastructure and trained teachers. In India, ECCE is delivered through various channels, including anganwadis, preschools, and kindergartens. Despite some progress in recent years, the status of ECCE in India remains a concern. According to a recent report by the National Statistical Office, only 48% of children in the age group of 3-6 years attend preschool or other pre-primary education programs (NSSO, 2019). This figure is significantly lower in rural areas, where only 38% of children attend pre-primary education.

The ECCE Initiatives of Govt. of India adopted the UNCRC in 1992 and made a commitment to national education for all, which greatly aided the government of India's attempts to implement ECCE. Since 1951, all programmes have included early childhood education, care, health, and nutrition—ECCE in its whole form. These manifest as actions, plans, constitutional revisions, programmes, and initiatives of the Indian government. Several policies and programs aim to improve Early Childhood Care and Education (ECCE) in India, including the National Policy for Children (2013), 86th Constitutional Amendment (Article 45), National Plan of Action (2005), and Right to Education Act (Section 11). Notably, the National Policy for Children (1974), Integrated Child Development Services (ICDS, 1975), and various educational initiatives like DPEP, SSA, and NPE amendments all contribute to expanding ECCE accessibility for diverse children, as suggested by a national survey.

The survey report of the National Council of Educational Research and Training (NCERT) showed that, there were 493,700 pre-primary institutions in the nation in 2000 (NCERT 2006, p. 6), and by 2009 (NCERT, 2016, p. 40), there were 655,493 (p. 6). In contrast, a National University of Educational Planning and Administration (NUEPA) survey research (2016, p. xv) revealed that from 14.27% in 2002-03 to 24.07% in 2015-16, the percentage of primary schools with an attached pre-primary section grew. These outcomes demonstrate India's attempts to guarantee that every child may obtain ECCE. But according to the Eleventh Five Year Plan (Planning Commission, 2008, p. 11), "the preschool education (PSE) component of ICDS-Anganwadi is very weak with repetition high and learning levels low." In light of this, the Twelfth Five Year Plan pledges to give access to and supply of "quality" ECCE top priority (Planning Commission, 2013a, p. 50).

The Ministry of Women and Child Development (MWCD) is responsible for carrying out the majority of the government's quality reform programmes in early childhood education (ECCE). The National ECCE Policy (2013), National ECCE Curriculum Framework (MWCD, 2013a), Age-appropriate Assessment Cards, Quality Standards for ECCE (MWCD, 2013b), National ECCE Council (2014), and Quality in ECCE: Pictorial Handbook for Practitioners are all products of the Ministry of Early Childhood Development. Understanding that different stakeholders need to be made aware of the importance of high-quality early childhood education and their part in achieving it, the

NCERT created the "Resource Package for Awareness on ECCE" (Chandra 2016a and Chandra 2016b), which is multilingual in Hindi and English. In addition to a "Guide Book for Early Childhood Educators on Awareness Generation on ECCE," the package includes folk, print, and electronic media (Chandra & Mandal, 2016b). These initiatives have been considered to be the country's most systematic, obvious, and important measures to improve ECCE standards.

The quality of ECCE in India is also a matter of concern. A study conducted by the National Council of Educational Research and Training (NCERT) found that the quality of ECCE programs in India is poor, with a lack of trained teachers, inadequate infrastructure, and insufficient learning materials (NCERT, 2015). Furthermore, the report highlighted that the existing ECCE programs are not child-centered and do not cater to the diverse needs of children.

Another significant issue in ECCE in India is the lack of inclusivity. Children from marginalized communities, including Dalits, Adivasis, and Muslims, are less likely to attend ECCE programs. A study conducted by Save the Children India found that 51% of Dalit children and 45% of Muslim children in the age group of 3-6 years do not attend any preschool or pre-primary education programs (Save the Children India, 2016). The lack of inclusivity in ECCE programs can lead to disparities in later stages of a child's education and development.

#### ➤ *Status of Early Childhood Care and Education in the Global Perspective:*

ECCE has long been present in all spheres of society worldwide. However, in the twenty-first century, its importance was officially acknowledged by all nations, which prompted us to outline international obligations for it. Three key landmarks in this attempt were the Education for All (EFA) movement, the United Nations Convention on the Rights of the Child (UNCRC) of 1989, and the Universal Declaration of Human Rights from 1948.

Programmes for under-3s that incorporate aspects of health, nutrition, and cognitive development are beneficial to children's welfare, according to EFA GMR 2008. But just 53% of countries in the world have a structured ECCE curriculum designed for children in this age range. "Governments frequently consider that families and/or private providers should be responsible for the care and education of very young children in many countries." Few national structures exist as a result for funding, directing, and overseeing ECCE initiatives (UNESCO, 2007, p. 11). However, as the most current statistics from 2015 demonstrated, early childhood education has been increasingly important since 2000 in both affluent and poor countries. Early childhood education (ECE)-related services have also increased dramatically (UNESCO, 2015a).

With this expansion came a steady change in focus towards improving the quality of ECCE and making it free and required, especially for children from disadvantaged families. As a result, early and equitable investments in the

calibre of ECCE services and programming were crucial. In recognition of this, the World Education Forum 2015 passed the "Incheon Declaration for Education 2030," which promoted "access to quality early childhood development, care, and education for all children, as well as the provision of at least one year of free and compulsory quality pre-primary education" (UNESCO, 2015b, p. 7). ECCE quality assurance is currently a top concern in many nations. They are working very hard to track down this worldwide pledge. India is among those who are pursuing the same goal through various programmes.

### III. DISCUSSION

A systematic evaluation of the literature on early childhood care and education (ECCE) in the Indian context indicated that ECCE is an important component of children's overall development. According to the study, ECCE is essential for creating a firm basis for lifetime learning and development since it promotes cognitive, social, emotional, and physical development. The evaluation also emphasised the need of providing children from marginalised areas with access to high-quality ECCE programmes, as these children are more likely to have developmental delays and drop out.

Various variables affecting the quality of ECCE programmes were noted in the review, including the availability of trained and competent teachers, appropriate curriculum and teaching methods, and enough resources and infrastructure. Some possible measure should be taken up for solving the issues and challenges related to ECCE in India as well as to provide qualitative ECCE, such as;

- It is important to watch everything that happens, including the teaching and learning process, training, facilities, and evaluations. Thus, in order to closely monitor the implementation of ECCE policies and programmes and to control them by developing a certification system, it is advised that the government form the ECCE Council as soon as practically possible.
- All formal schools across all sectors, particularly the government, should include ECCE as a must. Due to the increased educational possibilities for the kids, the problem of the high teacher-to-student ratio will be immediately resolved.
- In order to create, test, and validate various training approaches and curricula, quality improvement research is essential. At the national level, records of ECCE operations should be rigorously and methodically maintained. Public access to the recorded data is necessary for prompt status analysis.
- Parents and the community must be involved in order to implement quality improvements. As a result, coordinated efforts are needed to encourage the community and parents to participate in ECCE programmes. Raising their understanding of the importance of ECCE is essential to achieving this.



NCERT and UNICEF have created awareness materials and are planning awareness events and campaigns in this respect. The government and these groups might work together to promote appropriate early childhood education to a larger range of stakeholders.

- The ECCE curriculum and the teaching and learning process should incorporate assessment as a fundamental component. Measuring the child's level should be the main goal of the evaluation in order to make future improvements. The National ECCE Curriculum Framework, the CABE report, and standard procedures such as using "Age Appropriate Assessment Cards" created by the MWCD, keeping teacher diaries and portfolios, should all be used by teachers to frequently assess the holistic development of their students. Standard instruments for evaluating children's developmental stages may eventually be created.
- The government needs to move quickly to guarantee that there is enough space for both indoor and outdoor activities, enough light and ventilation, activity corners, a conducive learning environment, the purchase of teaching aids, safety and hygiene, clean, kid-friendly restrooms, safe drinking water, and regular health facilities in all sectors.

#### IV. FINDINGS

- Both parents and caregivers play a major role in children's optimal development. Their involvement at home and in early childhood programs (ECCE) impacts learning, social skills, and emotional well-being.
- High-quality Early Childhood Education and Care programs offer lasting benefits, boosting children's academic, social, and emotional development, making them a valuable investment for both individuals and society.
- Key elements like qualified teachers and engaging environments are crucial for effective ECCE programs, many worldwide fall short of these standards, potentially hindering their positive impact on children.
- Effective ECCE programs, with a play-based curriculum promotes children's overall development.
- ECCE teacher training improves program quality, but many Indian teachers lack proper qualifications and training, necessitating more investment in child-centered pedagogy skills.
- High ECCE enrolment, access varies drastically for children depending on family structure and parent employment, raising concerns about quality and suitability of care for those in working households or with non-employed parents.

- The effectiveness of play-based learning and parent involvement in India's Early Childhood Care and Education, emphasizing a child-centered approach for optimal development.
- High-quality early childhood education significantly boosts children's academic, social, and economic success throughout life.
- Early childhood math skills are crucial for both cognitive development (pattern recognition, abstraction) and later academic success (reading, standardized tests). Playful, experience-based strategies based on children's developmental stages (e.g., counting before number meaning) can effectively boost these skills and potentially narrow socio-economic achievement gaps. This reinforces the crucial role of early childhood education in lifelong success.
- In early childhood, strong language skills (vocabulary, grammar) and foundational literacy (reading, spelling) are deeply connected and crucial for effective communication. Supporting these skills through activities like shared reading, games, and rhymes in early education paves the way for long-term academic success.

#### V. CONCLUSION

The systematic literature review emphasizes the relevance of ECCE for children's holistic development in the Indian environment. It emphasizes the significance of having access to high-quality ECCE programs, particularly for children from marginalised communities, as well as the importance of well-trained and qualified teachers, appropriate curriculum and teaching methods, and adequate resources and infrastructure in ensuring the success of such programmes. The report also advocates for enhanced parental participation and community assistance to encourage children's optimal development. Overall, the findings of this analysis can help to guide policy and practise in the context of early childhood education in India, with possible implications for other low- and middle-income nations confronting comparable issues.

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