

REVIEW

Are they ready? A scoping review of early childhood school readiness with a focus on parental involvement and home environment

¿Están preparados? Una revisión de alcance sobre la preparación escolar en la primera infancia con un enfoque en la participación de los padres y el entorno del hogar

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ABSTRACT

Introduction: studies identify parental involvement as one of the most influential factors shaping school readiness in young children. This study aimed to describe scientific findings related to school readiness in early childhood, with a particular focus on the role of parental involvement and the home environment.

Method: this study employed a scoping review from April to May 2025. The database searches included PubMed, Scopus, Web of Science, and Education Resources Information Center (ERIC). Eligible studies were published between 2015 and 2025, written in English, and examined preschool children's school readiness in relation to parental involvement and/or the home environment. Data were extracted based on authors, titles, samples, levels of evidence, locations, and key findings.

Results: the electronic searches yielded 309 articles, of which 40 met the inclusion criteria. This review identified that school readiness encompasses cognitive, socio-emotional, physical, and behavioral aspects, with parental involvement and the quality of the home environment serving as crucial determinants. Parental engagement practices, both at home and in school, have a positive impact on children's literacy skills and self-regulation. A home environment rich in cognitive stimulation and emotional support further enhances early academic readiness. Variations in the effectiveness of interventions highlight the importance of contextually and culturally responsive approaches.

Conclusions: this study offers implications for the design of more evidence-based and responsive early childhood education programs. Recommend for future research on the specific mechanisms linking parental roles, the home environment, and school readiness across diverse social contexts.

Keywords: Home Environment; Parental Involvement; School Readiness.

RESUMEN

Introducción: los estudios identifican la participación de los padres como uno de los factores más influyentes en la preparación escolar de los niños pequeños. El objetivo de este estudio fue describir los hallazgos científicos relacionados con la preparación escolar en la primera infancia, con un enfoque particular en el papel de la participación parental y el entorno del hogar.

Método: este estudio empleó una revisión de alcance realizada entre abril y mayo de 2025. La búsqueda en bases de datos incluyó PubMed, Scopus, Web of Science y Education Resources Information Center (ERIC).

Se incluyeron estudios publicados entre 2015 y 2025, escritos en inglés, que examinaron la preparación escolar de niños en edad preescolar en relación con la participación de los padres y/o el entorno del hogar. Los datos fueron extraídos considerando autores, títulos, muestras, niveles de evidencia, ubicaciones y hallazgos principales.

Resultados: las búsquedas electrónicas identificaron 309 artículos, de los cuales 40 cumplieron los criterios de inclusión. Esta revisión evidenció que la preparación escolar abarca aspectos cognitivos, socioemocionales, físicos y conductuales, siendo la participación parental y la calidad del entorno del hogar determinantes cruciales. Las prácticas de participación de los padres, tanto en el hogar como en la escuela, tienen un impacto positivo en las habilidades de alfabetización y la autorregulación de los niños. Un entorno familiar rico en estimulación cognitiva y apoyo emocional favorece aún más la preparación académica temprana. Las variaciones en la eficacia de las intervenciones resaltan la importancia de enfoques sensibles al contexto y a la cultura.

Conclusiones: este estudio ofrece implicaciones para el diseño de programas de educación infantil más sensibles y basados en evidencia. Se recomienda que futuras investigaciones exploren los mecanismos específicos que vinculan los roles parentales, el entorno del hogar y la preparación escolar en diversos contextos sociales.

Palabras clave: Entorno del Hogar; Participación Parental; Preparación Escolar.

INTRODUCTION

School readiness is a multidimensional construct that extends beyond early literacy and numeracy. Previous research emphasized cognitive preparedness as the main predictor of school success, but the concept later expanded to include socio-emotional competencies, physical development, and communication skills.⁽¹⁾ These domains together determine the extent to which children make the transition into formal schooling. Children who enter school with adequate readiness tend to exhibit stronger academic outcomes, adapt to classroom routines, and form stable peer relationships.⁽²⁾ In contrast, deficits in readiness domains lead to persistent disadvantages, such as lower achievement, difficulties with emotional regulation, and limited social integration, which may extend into later life.⁽³⁾

Among the determinants of school readiness, parental involvement has emerged as one of the most influential factors. Parental involvement refers to parents' investment, participation, and commitment in their child's education, including communication with the child and school, support for learning at home, and engagement in school and community activities.^(4,5) Evidence showed that parental involvement had a greater impact on children's literacy, numeracy, and socio-emotional development than socioeconomic or demographic factors.⁽⁶⁾ Although parents may face limitations of time and resources, the quality and frequency of engagement remain decisive. Programs that integrate parents into early education strategies produce benefits that last longer than those focusing on children alone.

The home environment represents the broader context in which parental involvement occurs and plays a crucial role in shaping school readiness.⁽⁷⁾ It includes physical, cognitive, and emotional conditions that shape children's development, such as safe spaces and access to educational materials,⁽⁸⁾ home-based involvement refers to parents' actions that support their child's learning at home, such as helping with homework, reading together, discussing lessons, providing supervision, and creating a conducive learning environment.^(9,10) Evidence shows that its influence extends beyond family income, depending largely on parents' ability to provide a stimulating and supportive setting that promotes school readiness even in disadvantaged contexts.⁽¹¹⁾

Despite the strong evidence base, much of the existing literature analyzes parental involvement and the home environment separately, with varied definitions and inconsistent frameworks.⁽¹²⁾ This fragmentation limits a comprehensive understanding of how these factors jointly contribute to readiness in diverse cultural and social contexts. This study undertook a scoping review to describe current evidence on parental involvement and the home environment as determinants of school readiness.

METHOD

Type of study

This study is a scoping review, conducted to describe and map scientific evidence on school readiness in preschool-aged children, with a particular focus on parental involvement and the home environment.

Universe and sample

This scoping review was conducted from April to May 2025. Inclusion criteria for this study: 1) publications in

the last ten years (2015-2025); 2) articles written in English; 3) national (Indonesia) and international articles; and 4) related to studies that investigate school readiness in preschool-aged children, with a focus on the role of parental involvement and/or the home environment as factors influencing school readiness; and articles written in English. Articles that do not contain information about school readiness in preschool-aged children, with a focus on the role of parental involvement, were excluded from this study.

Data collection and processing

An electronic search was conducted using PubMed, Scopus, Web of Science, and ERIC. The documents were selected based on the inclusion criteria and followed the PRISMA Extension for Scoping Reviews (PRISMA-ScR) protocol to report the findings.⁽¹³⁾ Keywords used to find articles related to school readiness in preschool-aged children, with a focus on the role of parental involvement, are attached in table 1.

The search strategy was explicitly defined by structuring keywords according to four elements: Population, Exposure/Intervention, Outcome, and Study design (PEOS framework). For each element, a list of synonyms and related terms was identified (table 1). Boolean operators (OR within each element and AND between elements) were applied to combine search terms. This structured approach ensured comprehensive coverage of studies on school readiness in preschool-aged children in relation to parental involvement and the home environment.

The screening and selection process followed sequential steps. First, the initial search results were imported into Zotero, where the first author (AI) identified and removed duplicate records. Second, two reviewers (AI and HS) applied the inclusion criteria to titles and abstracts. Articles that met these criteria proceeded to full-text assessment. Third, all authors (AI, HS, IQ, and SM), as independent experts, applied the Joanna Briggs Institute (JBI) critical appraisal tools to evaluate the methodological quality of eligible studies. The team resolved any discrepancies through discussion until consensus was reached. Only studies that satisfied all inclusion criteria and achieved sufficient quality proceeded to data extraction, including author, title, design, sample, level of evidence, country, and key findings. The extracted data were then synthesized through a qualitative content analysis to identify the characteristics of message content across studies and to derive overarching themes.

Table 1. Keywords of searches

Elements	Keywords
Population	“preschool children” OR “early childhood” OR “preschoolers” OR “kindergarten children” OR “children aged 3-6” OR “young children” OR “pre-primary children”
Exposure / Intervention	“parental involvement” OR “parent engagement” OR “home environment” OR “family involvement” OR “home learning environment” OR “parenting practices” OR “family support” OR “parent participation” OR “home-school collaboration”
Outcome	“school readiness” OR “kindergarten readiness” OR “academic readiness” OR “learning readiness” OR “educational readiness” OR “transition to school” OR “school preparation” OR “early learning outcomes”
Study design	“systematic review” OR “scoping review” OR “meta-analysis” OR “randomized controlled trial” OR “longitudinal study” OR “cross-sectional study” OR “qualitative study” OR “quantitative study” OR “mixed methods”

Ethical consideration

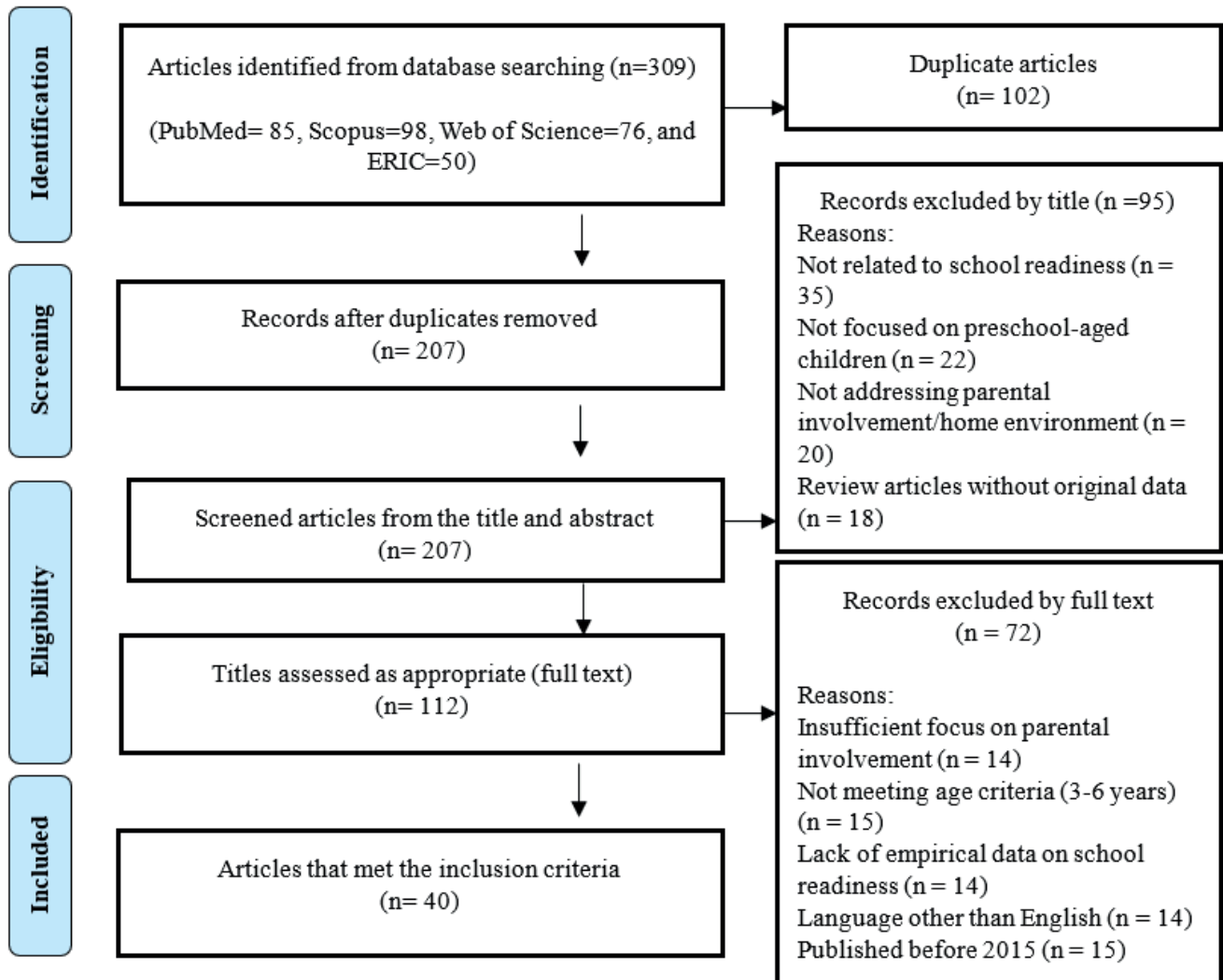
This research has obtained ethical clearance from the Medical and Health Research Ethics Committee, Faculty of Medicine, Universitas Sebelas Maret, Surakarta, Indonesia, No. 30/UN27.06.11/KEP/EC/2025, issued on March 5, 2025.

RESULTS

The literature search generated 309 articles, with 102 duplicates removed (managed through Zotero

reference manager), resulting in 207 articles for title and abstract screening (figure 1). After the initial screening, we excluded 95 articles based on the study criteria and left 112 articles for the full-text review, and 40 articles were included for extraction. Excluded articles following this stage were about studies with insufficient focus on parental involvement ($n = 14$), not meeting age criteria (3-6 years) ($n = 15$), lack of empirical data on school readiness ($n = 14$), language other than English ($n = 14$), published before 2015 ($n = 15$).

The data extraction is shown in table 2. A total of 40 publications addressed factors influencing school readiness in preschool-aged children. The reviewed studies consisted of 12 qualitative studies, 15 quantitative studies, 8 review studies, and 5 mixed-method or conceptual papers.



Source: PRISMA Extension for Scoping Reviews (PRISMA- ScR)⁽¹³⁾ adapted and supplemented with this review's search findings

Figure 1. PRISMA-ScR diagram of the study selection

A qualitative content analysis followed data extraction and identified three overarching themes.

Landscape of research on early childhood school readiness

Research reflects a diverse landscape: early interventions and sequential ECE pathways show long-term positive impacts, while high-quality ECE significantly contributes to school readiness. However, evidence on center-based interventions is mixed. Innovative assessments (e.g., game-based) are emerging, and readiness to implement new curricula varies. Practitioners' understanding of readiness remains inconsistent.

Most studies were conducted in the United States and other high-income countries, with fewer studies from low- and middle-income contexts. However, notable contributions have been made by researchers from Indonesia, Nigeria, and Tanzania, offering unique sociocultural perspectives.

Table 2. Extraction of journals on early childhood school readiness

No	Author	Title	Research Objective	Method	Sample	Research Location	Research Subject	Data Analysis	Findings	Relevance	Conclusion
1	Jahreie ⁽¹⁴⁾	Early childhood education and care teachers' perceptions of school readiness: A research review	Investigate ECEC teachers' perceptions of school readiness through empirical studies	Systematic configurative review	27 quantitative, qualitative, and mixed-method studies	Global	Teachers' perceptions of school readiness	Configurative systematic review	Teachers considered non-academic skills more decisive than academic skills	Highly relevant	Non-academic skills are dominant factors in assessing school readiness
2	Bayat et al. ⁽¹⁵⁾	The home environment and parental involvement of preschoolers in Philippi, a low-income area	Examine parental involvement and the role of home environment in early learning	Qualitative (face-to-face interviews)	20 ECD centers, 40 caregivers	Philippi, Cape Town, South Africa	Parental involvement & home environment in low-income families	Qualitative interview analysis	The home environment did not support early learning; parental involvement was limited	Highly relevant	Low-income families need clear frameworks to create supportive learning environments
3	de Wit et al. ⁽¹⁶⁾	School readiness in South Africa: Concept analysis and plain language summary	Develop an accessible conceptual summary of school readiness	Systematic concept analysis (PRISMA)	619 citations from South African studies	South Africa	School readiness concept	Inductive thematic analysis (ATLAS.ti)	Contextual definition includes 8 skill categories	Highly relevant	School readiness covers behavioral, intellectual, language, literacy, numeracy, physical, socio-emotional, and classroom skills
4	Rukayah et al. ⁽¹⁷⁾	Influence of parenting style and parental education through children's social behavior on school readiness	Analyze the effects of parenting style and education on school readiness via social behavior	Quantitative (path analysis)	138 respondents	Banjar, South Kalimantan, Indonesia	Parenting style, education, social behavior, and school readiness	Path analysis	Parenting style and education significantly influence readiness via social behavior	Highly relevant	Parenting and education affect readiness mediated by social behavior
5	Lumaurridlo et al. ⁽¹⁸⁾	School readiness assessment: Study of early childhood educator experience	Explore educators' experiences in assessing readiness	Qualitative phenomenology	20 early childhood educators	Cilacap, Central Java, Indonesia	Educators' assessment experiences	Miles & Huberman analysis	Readiness based on six developmental dimensions	Relevant	Assessments are formative with a holistic focus

6	Kalinde al. ⁽¹⁹⁾	et	A systematic review of early childhood education and primary school readiness through play-based pedagogies	Explore readiness and transition through play-based pedagogy	Systematic review (PRISMA)	20 peer-reviewed studies	Global	Play-based pedagogy and readiness	Systematic review	Play-based pedagogy was linked to holistic development with a positive effect	Relevant	Play-based pedagogy effectively builds readiness and smooth transitions
7	Rifai al. ⁽²⁰⁾	et	Managing learning readiness for entering primary school	Discuss the importance of managing learning readiness	Literature/ conceptual study	Not stated	Indonesia	Learning readiness management	Descriptive analysis	Readiness requires preparation in cognitive, affective, and psychomotor aspects	Relevant	Parents and teachers play key roles in preparing for readiness
8	Kaptich al. ⁽²¹⁾	et	Influence of home environment through parental involvement on pupils' academic performance in Kenya	Determine the influence of home environment and parental involvement	Ex-post facto design	331 Grade 8 pupils, 61 teachers	Ainabkoi, Kenya	Home environment, parental involvement, and academic performance	Descriptive & inferential stats (Chi-square)	A significant positive relationship between home environment and academic performance	Highly relevant	The home environment significantly impacts academic performance
9	Manurung et al. ⁽²²⁾		School readiness of Kayata school students based on gender	Examine readiness by gender	Quantitative descriptive	14 preschoolers (4,5-7 years)	Berastagi, Indonesia	Gender differences in readiness	NST-based descriptive analysis	No significant gender differences in readiness	Relevant	Gender does not significantly influence readiness
10	Saputri al. ⁽²³⁾	et	Preparing for school readiness by enhancing well-being and family support	Examine the effects of child well-being and family support	Correlational quantitative	139 children (4-7 yrs), parents, 30 teachers	Indonesia	Well-being, family support, readiness	Regression analysis	Family support & well-being significantly affect readiness	Highly relevant	Preparation must include psychological support beyond academics
11	Mora al. ⁽²⁴⁾	et	Home environment and parental involvement in homework during adolescence in Catalonia	Analyze determinants of parental involvement via the home environment	Quantitative	2300 students	Catalonia, Spain	Home environment & parental involvement	Robust statistical estimation	A good home environment raises parental involvement, with a stronger effect on girls	Highly relevant	Home environment drives involvement; family structure becomes irrelevant

12	Needham et al. ⁽²⁵⁾	A growing interest in early childhood's contribution to school readiness	Explore early childhood education (ECE) contributions to readiness	Narrative review	Head Start & SureStart programs	US & UK	Early childhood programs	Longitudinal narrative analysis	Early intervention improves school outcomes & reduces social-health interventions	Highly relevant	Balanced home-preschool pedagogy is crucial
13	Sartika et al. ⁽²⁶⁾	Analysis of study group readiness for implementing the Merdeka curriculum	Describe the readiness of study groups to implement the curriculum	Qualitative descriptive	PAUD study groups	Indonesia	PAUD study groups	Miles & Huberman analysis	Groups well-prepared to implement the curriculum	Relevant	Implementation needs guidance, teacher knowledge, and resource use
14	Mardiani et al. ⁽²⁷⁾	Transition program from PAUD to primary school: Parents' and teachers' perspectives	Explore parent & teacher views on transition program	Qualitative	Parents & teachers	Al-Ilyas Foundation, Indonesia	Parents & teachers	Interviews & questionnaires	Many were unaware of the transition program, but agree with removing early tests	Highly relevant	Transition program needs a better understanding from stakeholders
15	Janke van der al. ⁽²⁸⁾	Motor skill intervention for pre-school children: A scoping review	Investigate key elements of motor skill interventions	Scoping review	45 eligible studies	Various countries	Preschoolers with motor difficulties	PRISMA-SCR thematic categorization	Identified 15 intervention approaches, supporting child-centered play	Relevant	Motor-skill-challenged children need therapeutic, play-based interventions
16	Brooks et al. ⁽²⁹⁾	Ready, steady, learn: School readiness and children's voices	Investigate practitioners' beliefs & listening to children's voices	Intrinsic case study	25 practitioners	Midlands, UK	E C E C practitioners	Surveys & semi-structured interviews	Practitioners listen but remain unsure about readiness; favor social pedagogy	Highly relevant	Coherent policies & aligned training frameworks are needed
17	McCartan et al. ⁽³⁰⁾	Centre-based early education interventions for improving school readiness: A systematic review	Evaluate center-based intervention effectiveness	Systematic review	32 trials (16 899 children)	Mainly US	Preschool-aged children	Cochrane GRADE methodology	Very low-to-moderate evidence of effectiveness	Highly relevant	Center-based interventions show little difference; more research is needed
18	Eadie et al. ⁽³¹⁾	Domains of quality in early childhood education and care: A scoping review	Map extent & consistency of literature	Scoping review	85 meta-analyses & systematic reviews	Various countries	ECEC quality literature	Mapping analysis	Wide variation in included studies; strongest consistency in pedagogy & development	Relevant	Literature is heterogeneous; focus on pedagogy & professional development

19	Barnett et al. ⁽³²⁾	et	Influences of parent engagement in ECEC and home on kindergarten readiness	Test how ECEC parent-engagement practices relate to readiness	Quantitative	2250 four-year-olds	USA	Center-based ECEC children	Path analyses	ECEC parent engagement links to greater home & school involvement	Highly relevant	Facilitating ECEC practices boosts home learning & readiness
20	Watts et al. ⁽³³⁾	et	The Chicago school readiness project	Report the long-term impact of ECE intervention	Randomized evaluation	Head Start children	Chicago, USA	Preschoolers in high-risk areas	Adolescent follow-up data	Positive long-term effects on executive function & grades, though imprecise	Highly relevant	Enhanced Head Start models can yield long-term benefits
21	Smythe et al. ⁽³⁴⁾	et	The role of parenting interventions in optimizing school readiness for children with disabilities in low- and middle-income settings	Analyze parenting interventions to optimize readiness for children with special needs in LMICs	Literature review	Young children with special needs	LMICs	Parenting interventions & school readiness	Narrative analysis	Parenting interventions effectively improve readiness through inclusive, sustainable approaches	Highly relevant	Structured, sustained parenting interventions optimize readiness for children with special needs
22	Olusanya et al. ⁽³⁵⁾	et	Editorial: Optimizing school readiness for children with developmental disabilities	Explore holistic approaches to improve readiness for children with developmental delays	Editorial analysis	Children with developmental delays	Global	School readiness for children with developmental delays	Policy analysis	Holistic approaches can enhance readiness	Relevant	Comprehensive frameworks are needed to support readiness in special contexts
23	Damayanti et al. ⁽³⁶⁾	et	School readiness in relation to parenting style	Determine differences in readiness based on parenting style (Baumrind theory)	Quantitative	56 kindergarten children	Malang, Indonesia	School readiness & parenting style	ANOVA	No significant differences in readiness based on parenting style	Highly relevant	Parenting style showed no significant effect on readiness in this context
24	Harrington et al. ⁽³⁷⁾	et	Emotion regulation in early childhood: Implications for socioemotional and academic components of school readiness	Examine emotion regulation and its implications for readiness	Selective literature review	Preschoolers (3-5 years)	USA	Emotion regulation & readiness	Narrative analysis	Emotion regulation is key to adapting to school demands	Highly relevant	Emotion regulation is a critical factor in socioemotional and academic readiness

25	A. Adeyemi et al. ⁽³⁸⁾	H o m e environment and parental involvement as determinants of preschoolers' readiness for primary school education in Osun State, Nigeria	Evaluate home environment, parental involvement, and their interaction on readiness	Descriptive quantitative	300 parents from 12 schools	Osun State, Nigeria	H o m e environment, parental involvement & readiness	t-test and ANOVA	71 % of preschoolers have stimulating home environments; both factors significantly determine readiness	Highly relevant	H o m e environment and parental involvement are significant determinants
26	Nakajima et al. ⁽³⁹⁾	Investing in school readiness: A comparison of different early childhood education pathways in rural Indonesia	C o m p a r e different ECE pathways and their impact on readiness	Longitudinal quantitative	Young children in rural areas	Rural Indonesia	ECE pathways & readiness	Comparative analysis	Playgroup at 3-4 years plus kindergarten at 5-6, leads to higher scores	Relevant	Sequential ECE pathways are important for future learning and readiness
27	Pascoe et al. ⁽⁴⁰⁾	Lifting our game: Review to achieve educational excellence in Australian Schools through early childhood interventions	E x a m i n e effective ECE interventions for readiness and achievement	Independent review	ECE systems	Australia	E C E interventions & readiness	Policy analysis	Quality ECE contributes significantly to educational excellence	Highly relevant	Quality ECE improves readiness and long-term achievement
28	Mao ⁽⁴¹⁾	F a m i l y socioeconomic status and young children's learning behaviors: The mediational role of parental expectation, h o m e environment, and parental involvement	Examine SES and learning behaviors via mediators	Longitudinal quantitative	1348 children (3-5 years)	China	SES, learning behavior, mediators	Mediation analysis	P a r e n t a l involvement has indirect effects; no indirect effects from expectations or environment	Highly relevant	P a r e n t a l involvement mediates learning behavior development

29	Schmitt et al. ⁽⁴²⁾	Strengthening school readiness for Head Start children: Evaluation of a self-regulation intervention	Assess self-regulation intervention effectiveness for at-risk children	Randomized controlled trial	276 children in 14 Head Start classes	USA	Self-regulation intervention & readiness	Comparative analysis	The intervention group showed stronger self-regulation and higher math scores	Relevant	Self-regulation interventions effectively improve readiness, especially for English learners
30	Amukune et al. ⁽⁴³⁾	Game-based assessment of school readiness domains of 3-8-year-old children: A scoping review	Examine game-based assessment for readiness	Scoping review	31 studies (2011-2019)	Global	Game-based readiness assessment	Evidence-Centered Design framework	Game-based assessments can evaluate readiness; most assess cognitive domains	Relevant	Game-based assessment offers a new approach in the digital era
31	Lee et al. ⁽⁴⁴⁾	Head Start participation and school readiness: Evidence from the early childhood longitudinal study-birth cohort	Analyze the impact of Head Start participation compared to other care types	Longitudinal (propensity score matching)	6950 children (born 2001)	USA	Head Start children & controls	Propensity score matching & OLS regression	Head Start participants scored higher in reading/math, but had more behavioral issues	Highly relevant	Head Start yields academic benefits but needs attention to socioemotional aspects
32	Blair et al. ⁽⁴⁵⁾	School readiness and self-regulation: A developmental psychobiological approach	Explain the role of self-regulation in readiness	Systematic review & theory analysis	Various studies on young children	International	Self-regulation & readiness	Narrative/theoretical synthesis	Self-regulation is foundational for readiness and academic adjustment	Highly relevant	Self-regulation serves as a unifying framework for understanding readiness
33	Laurent et al. ⁽⁴⁶⁾	Physical activity, fitness, school readiness, and cognition in early childhood: A systematic review	Evaluate links between physical activity, readiness, and cognition	Systematic review (GRADE framework)	72 studies (29 observational, 43 experimental)	Various countries	Children under 6 years	Systematic analysis with evidence grading	Mixed effects of physical activity on readiness; low evidence quality	Relevant	High-quality studies are needed to determine optimal activity levels
34	Bierman et al. ⁽⁴⁷⁾	Preschool programs that help families promote child social-emotional school readiness: Promising New Strategies	Identify preschool programs supporting families in social-emotional readiness	Literature review (RCT-focused)	Family-based preschool programs	USA & international	Preschool programs & family involvement	Narrative analysis of RCTs	Programs involving parents improve socioemotional readiness and self-regulation	Highly relevant	Family-school collaboration is key to social-emotional readiness

35	Kigobe et al. ⁽⁴⁸⁾	Parental involvement in educational activities in Tanzania: understanding motivational factors	Examine motivational factors for parental involvement	Quantitative survey	580 parents of Grade 2 pupils	Tanzania (Dar Es Salaam)	Parents of primary pupils	Regression & mediation analysis	Parents' expectations predict home involvement significantly	Highly relevant	The Hoover-Dempsey model effectively explains parental motivation
36	Williams-Johnson et al. ⁽⁴⁹⁾	Parental role construction leading to parental involvement in culturally distinct communities	Analyze parental role construction in diverse communities	Mixed-methods research	Parents from diverse cultural communities	USA	Parental role construction in education	Thematic & descriptive analysis	Role construction was influenced by sociodemographic and cultural factors	Highly relevant	Cultural differences shape parents' understanding of educational roles
37	Reynolds et al. ⁽⁵⁰⁾	Multi-site expansion of an early childhood intervention and school readiness	Evaluate the impact of ECE program expansion on readiness	Quasi-experimental matched-group design	2630 low-income children	Chicago, Illinois	Children aged 3-4 in the CPC program	ANCOVA with matching	Participants had higher literacy, socioemotional, and physical health scores	Highly relevant	The CPC program effectively improves readiness and parental involvement
38	Donoghue et al. ⁽⁵¹⁾	Quality early education and child care from birth to kindergarten	Analyze ECE quality and its impact on readiness	Literature review & policy analysis	Various ECE quality studies	USA	Quality early education programs	Narrative & evidence synthesis	High-quality ECE improves physical and cognitive outcomes	Relevant	Investing in quality ECE yields long-term positive returns
39	McLean et al. ⁽⁵²⁾	A scoping review of quality in early childhood publicly-funded programs	Identify quality concepts in publicly funded ECE programs	Scoping review (system framework)	41 literature sources (from 6335 articles)	Various countries	Publicly funded ECE programs	Thematic analysis (systems lens)	Quality is influenced by system-level policies interacting with practice, people, and place	Relevant	A systems approach is required to understand quality comprehensively
40	Thakur et al. ⁽⁵³⁾	Improving early childhood literacy and school readiness through reach out and read (ROR) program	Increase book distribution and physician counseling about reading	Quality improvement project	210 families over 6 months	Urban pediatric clinic	Families with children 6 months-5 years	Descriptive & pre-post comparison	Book distribution rose from 30 % to 96 %; counseling from 26 % to 87 %	Highly relevant	The ROR program effectively boosts family reading habits and literacy readiness

Dimensions of school readiness: multidimensional findings

School readiness is multidimensional, encompassing behavioral, cognitive, language, numeracy, physical, socio-emotional, and classroom skills. Assessments should be formative and holistic. Play-based pedagogies effectively enhance readiness, while emotion regulation and self-regulation serve as foundational elements. Physical and motor skills, as well as literacy programs, also play important roles. Gender differences were found to be nonsignificant.

The role of parental involvement in school readiness

Home environment and parental involvement strongly influence school readiness. Parenting style, parental education, expectations, and family support mediate children's development. Programs that engage families significantly improve socio-emotional skills and self-regulation. However, parental involvement is often limited in low-income contexts, and cultural differences shape how parents view their educational roles.

In Tanzania, parents' expectations for their children's success significantly predicted home involvement.⁽⁴⁸⁾ While in China, Parental involvement indirectly shapes children's learning behaviors, serving as a mediating mechanism that supports the development of effective study habits.⁽⁴¹⁾ The relationship between parenting styles and school readiness appears complex and sometimes contradictory. In South Kalimantan, Indonesia, parenting style and parental education have a significant influence on school readiness through children's social behaviors.⁽¹⁷⁾ In Nigeria, 71 % of preschoolers lived in stimulating homes, where both the environment and parental involvement significantly predicted readiness.⁽³⁸⁾ Similar positive links were found in Kenya.⁽²¹⁾

DISCUSSION

Landscape of Research on Early Childhood School Readiness

Based on a comprehensive analysis of 40 articles included in this scoping review, research on early childhood school readiness has shown marked advancement over the past decade, aligning with arguments that highlight the growing interest in the contributions of early childhood education to school readiness.⁽²⁵⁾ Methodologies ranged from longitudinal quantitative studies to phenomenological qualitative research, reflecting the complexity of school readiness as a construct. A previous study emphasized in its analysis of school readiness in South Africa that context-specific definitions encompass eight skill domains: behavioral, intellectual, language, literacy, numeracy, physical, socio-emotional, and classroom skills.⁽¹⁶⁾

Dimensions of School Readiness: Multidimensional Findings

Cognitive and Academic Readiness

Most studies emphasize foundational academic skills such as literacy and numeracy. In Indonesia, a study found that children attending playgroups at the ages of 3-4, followed by kindergarten at the ages of 5-6, achieved higher primary school test scores, highlighting the importance of sequential educational pathways.⁽³⁹⁾ Another study similarly reported that the Reach Out and Read (ROR) program increased family reading habits and literacy readiness, with book distribution rising from 30 % to 96 %.⁽⁵³⁾ However, other studies have shown that early childhood educators consider non-academic skills more crucial than academic ones, challenging conventional paradigms and underscoring the need for a holistic approach.⁽¹⁴⁾ These findings suggest that while foundational academic skills such as literacy and numeracy are crucial, sequential educational pathways and early literacy programs can enhance children's readiness for primary school. At the same time, the emphasis by educators on non-academic skills shows the need for a holistic approach that balances cognitive and socio-emotional development.

Social-Emotional Readiness

Emotional regulation plays a central role in adapting to school demands, influencing both socioemotional and academic readiness.⁽³⁷⁾ Emotional regulation is crucial for children to adjust to school. It affects both social and emotional skills as well as readiness for academic tasks, showing that managing emotions supports overall adaptation to school demands. According to literature, self-regulation as a unifying framework for understanding readiness.⁽⁴⁵⁾ Self-regulation interventions enhance both self-regulation and early math achievement, demonstrating that socio-emotional skills drive not only social adjustment but also academic performance.⁽⁴²⁾

Physical and Motor Readiness

Although often overlooked, physical readiness makes a significant contribution to overall school readiness. A systematic review indicates mixed but promising evidence that physical activity supports cognitive development and readiness.⁽⁴⁶⁾ The systematic review showed that the evidence was not entirely consistent; there were indications that physical activity could benefit children's cognitive development and school readiness. A literature said that children with motor skill difficulties benefit from child-centered, play-based therapeutic

interventions.⁽²⁸⁾

The Role of Parental Involvement in School Readiness

Parental Involvement at Home

Parental engagement at home emerges as a stable key factor in determining school readiness. Parental involvement in early childhood education (ECE) is linked to greater engagement both at home and at school, indicating that facilitating ECE practices that promote parental participation and home-learning activities can enhance school readiness.⁽³²⁾ These findings highlight that parental involvement extends beyond direct activities to include nurturing learning dispositions that support school readiness. The analysis indicates that parental participation in early childhood education, both at home and in school, leads to better outcomes. The author concludes that early education programs should incorporate strategies that strengthen parental participation and home-learning practices as essential components for promoting school readiness.

Parenting Styles and Parental Education

Conversely, a study in Malang, Indonesia, reported no significant differences in school readiness based solely on parenting style.⁽³⁶⁾ Such variations suggest that contextual factors may moderate the influence of parenting style. Parental role constructions are shaped by sociodemographic and cultural contexts, underscoring the need for more context-sensitive approaches to understanding how parenting influences school readiness.⁽⁴⁹⁾ The analysis interprets variations in findings as evidence that contextual factors moderate the influence of parenting style. Parenting is understood as a construct shaped by sociodemographic and cultural conditions, which implies that school readiness cannot be explained through universal models but requires context-sensitive approaches.

The Influence of the Home Environment on School Readiness

Physical Environment and Learning Resources

A stimulating home environment and sufficient learning resources consistently support school readiness. In contrast, a study conducted in South Africa found that low-income home environments frequently did not provide adequate support for early learning because of limited parental involvement,⁽¹⁵⁾ indicating that socioeconomic conditions may moderate these effects. While stimulating home environments with adequate resources promote readiness, socioeconomic constraints can weaken this effect, showing that school readiness outcomes are strongly shaped by family economic conditions.

Cognitive Stimulation and Family Interaction

Quality family interaction and cognitive stimulation further enhance readiness. In Catalonia, supportive homes increased parents' homework involvement, with greater effects observed among girls.⁽²⁴⁾ In Indonesia, family support and child well-being have a strong influence on readiness,⁽²³⁾ These findings suggest that readiness encompasses psychological, academic, and motor aspects, which highlights the importance of addressing development in an integrated manner. Such an integrated perspective ensures that interventions not only improve academic performance but also strengthen emotional resilience and physical competence.

Although evidence is substantial, gaps remain. Definitions and measures of readiness vary, necessitating clearer policies and aligned training.⁽²⁹⁾ Cross-cultural and longitudinal studies are still limited, although some show lasting benefits of programs on executive function and outcomes.⁽³³⁾ Technology-based assessments are emerging,⁽⁴³⁾ and intervention results remain mixed, with some center-based programs showing little effect compared to controls.⁽³⁰⁾

The limitations of this study include diverse definitions and measures of school readiness, which restrict comparability across studies. Although cross-cultural and longitudinal research exists, the number of such studies remains limited, weakening the generalizability of findings across contexts. Additional constraints arise from center-based programs that demonstrate limited effectiveness, raising questions about the contextual appropriateness of such interventions. Moreover, the absence of meta-analysis means that conclusions remain descriptive rather than predictive.

CONCLUSIONS

School readiness in early childhood is a multidimensional construct influenced by parental involvement and the home environment. Efforts to enhance readiness should adopt holistic, context-sensitive approaches that integrate parenting practices, supportive home settings, and educational systems to foster children's cognitive, social-emotional, physical, and behavioral development, ensuring a smooth transition to formal schooling.

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