

ORIGINAL

The role of child psychology in the early detection of developmental difficulties: an educational worldview

El rol de la Psicología Infantil en la detección temprana de dificultades del desarrollo: una cosmovisión educativa

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ABSTRACT

Introduction: child psychology was considered key to early identification of difficulties in comprehensive development. Its theoretical and practical contributions provided education with elements to anticipate cognitive, emotional, and social risks.

Method: a bibliometric study was conducted based on 84 indexed sources retrieved from the Scopus Elsevier database. The analysis applied co-occurrence networks, thematic matrices, and a qualitative hermeneutic thematic approach. An iterative process was followed to generate categories and themes, combining deductive and inductive strategies. Inter-coder reliability was ensured using Cohen's κ and Krippendorff's α .

Results: the findings revealed that child psychology is strengthening its position as a fundamental discipline in recent literature. Co-occurrence networks showed connections between child development, mental health, and education. The studies examined emphasised the importance of sociocultural theory, attachment theory, and risk factors associated with anxiety, depression, and family contexts. It was noted that early detection should be managed as an interdisciplinary and longitudinal process.

Conclusion: the confirmed analysis showed that child psychology has good resources for education. These serve to recognise early signs and avoid learning problems. It was concluded that knowing this in teacher training is important, as it helps to prevent problems and teach better. Furthermore, more Latin American work on the subject is needed for a broader debate.

Keywords: Child Psychology; Comprehensive Development; Early Detection; Education; Teacher Training.

RESUMEN

Introducción: la psicología infantil se consideró clave para identificar pronto las dificultades en el desarrollo integral. Sus contribuciones teóricas y prácticas dieron a la educación elementos para prever los riesgos cognitivos, emocionales y sociales.

Método: se realizó un estudio bibliométrico basado en 84 fuentes indexadas recuperadas de la base de datos Scopus Elsevier. El análisis aplicó redes de coocurrencia, matrices temáticas y un enfoque hermenéutico temático cualitativo. Se siguió un proceso iterativo para generar categorías y temas, combinando estrategias deductivas e inductivas. La fiabilidad intercodificadores se aseguró mediante los coeficientes κ de Cohen y α de Krippendorff.

Resultados: los hallazgos revelaron que la psicología infantil se fortalece como disciplina fundamental en la literatura reciente. Las redes de coocurrencia mostraron conexiones entre desarrollo infantil, salud mental, y educación. Los estudios examinados enfatizaron la importancia de la teoría sociocultural, la teoría del apego

y los factores de riesgo asociados a la ansiedad, depresión y contextos familiares. Se notó que la detección temprana debía manejarse como un proceso interdisciplinario y longitudinal.

Conclusiones: el análisis confirmado mostró que la psicología infantil tiene buenos recursos para educar. Estos sirven para reconocer las primeras señales y evitar problemas al aprender. Se finalizó así que saber esto en la formación de maestros es importante, ayuda a prevenir y a enseñar mejor. También, es preciso hacer más trabajos latinoamericanos sobre el tema, para un debate más amplio.

Palabras clave: Psicología Infantil; Desarrollo Integral; Detección Temprana; Educación; Formación Docente.

INTRODUCTION

Child psychology has long been recognised as a discipline focused on the early years of life. At this stage, every gesture, sound, and advance signalled more than learning; these signs reflected the pace of overall development. Specialists noted that early indicators could reveal cognitive, social, or emotional risks, and that recognising them early provided schools with a valuable support tool. Child development has been described as a complex and dynamic process, shaped by biological, emotional, and contextual factors.^(1,2) When these dimensions are out of balance, difficulties emerge: language delays, motor impairments, or limited interaction patterns. Detecting them in early childhood prevents barriers to school success. Psychology also equips teachers with methods to interpret such manifestations and respond appropriately.

Recent studies emphasise sociocultural theory as a key framework for early learning. Vygotsky, revisited by contemporary authors, argued that mediation and scaffolding are central to children's progress.⁽³⁾ This perspective shows that teachers are not mere transmitters of knowledge but active figures who identify and support children at risk. Without such recognition, schools may become places of exclusion rather than growth.

Attachment theory has also been influential. Lawrence, and later studies, showed that emotional bonds form the basis for development. Insecure attachment, expressed in anxious or avoidant behaviour, affects school adjustment.⁽⁴⁾ Child psychology therefore offers a roadmap for detecting problems early, reminding us that learning depends on emotional security. Teachers must go beyond delivering knowledge. They must detect subtle signs: a boy who avoids participation, a girl who imitates isolation, or delays in speech. Every moment demands attention, and psychology provides the tools to understand and act.⁽⁵⁾

Yet despite the volume of global research, a significant gap remains. Evidence from Latin America is limited, particularly on how child psychology contributes to early detection in education. This absence leaves an incomplete picture of regional trends, challenges, and opportunities.

In line with this problem, it is important to note that this research is part of the UPSE 2025 Seed Research Project, entitled 'Exploration of child development indicators from the perspective of child psychology: analysis in Santa Elena Child Development Centres'. This project, carried out by the researchers themselves, was designed to provide academic and practical solutions to the challenges observed in the early detection of child development difficulties.

Within this framework, the study proposes a bibliometric study that integrates theoretical and practical foundations. The objective was to analyse child psychology, based on its theoretical and practical foundations, in order to detect difficulties in comprehensive development at an early stage.

METHOD

A bibliometric study was conducted using Scopus (Elsevier) as the main database. This approach allowed for the identification of research trends, thematic clusters, and connections through co-occurrence networks and hermeneutic interpretation. Only peer-reviewed journal articles published in English during the last five years (2020-2025) were considered.

Search strategy

Table 1. Characterisation of searches in the Scopus Elsevier database

Database	Search string (TITLE-ABS-KEY)	Year of coverage	Language	Obtained Studies
Scopus (Elsevier)	("child psychology") AND ("early detection") AND ("comprehensive development") AND ("educational psychology")	5 years 2020-2025	English	84

The search was conducted in the Scopus database using the following string: TITLE-ABS-KEY ("child psychology") AND ("early detection") AND ("comprehensive development") AND ("educational psychology")

The initial search identified 134 records. After screening, 50 articles were excluded due to duplication, low quality, or lack of relevance (table 1). A total of 84 articles met the inclusion criteria and were retained for analysis.⁽⁶⁾

Bibliometric and qualitative analysis

The retained corpus was exported in .csv format and analysed using VOSviewer. Bibliometric mapping was applied to generate keyword co-occurrence networks and thematic clusters. Parameters are summarised (table 2).

Table 2. Analysis parameters in VOSviewer						
Step	Setting chosen			Notes		
Data source	Bibliographic database	file	Exported directly from Scopus			
Type of analysis	Co-occurrence		Network of keyword relationships			
Unit of analysis	All keywords		Includes author and index keywords			
Counting method	Full counting		Each occurrence counts equally			
Minimum threshold	8		From 1,487 keywords, 52 met threshold			
Keywords selected	52		Final set included for analysis			

The descriptors used were ‘child psychology’, ‘early detection’, ‘comprehensive development’ and ‘educational psychology’. Each keyword was combined with Boolean operators to refine the results. This yielded 84 documents. This number allowed for a balance between breadth of information and the possibility of in-depth analysis.⁽⁷⁾ After an exploratory reading, texts that were duplicates, of low methodological quality, or that did not address the relationship between psychology and education were discarded.

The information was processed using a content analysis strategy. First, essential categories such as teaching function, cognitive development, language, and socio-emotionality were identified. Subsequently, they were organised into analytical matrices that facilitated comparison between authors. This method served to detect patterns, similarities, and differences.

The interpretation was carried out from a hermeneutic perspective. Each finding was contrasted with new contributions and traditional theoretical frameworks. In this way, the review was not limited to description, but advanced in the construction of a critical overview. In addition, the aim was for the authors’ voices to engage in dialogue with the research perspective, generating a coherent and solid fabric.⁽⁸⁾ The methodology took on a reflective character. The emphasis was not on accumulating information, but on giving meaning to what was reviewed. The documentary review, understood as an analytical exercise, showed how child psychology offered interpretative keys so that education could anticipate developmental difficulties.

Qualitative hermeneutic analysis

The interpretation was based on a Gadamerian hermeneutic perspective, following an iterative process of reading, coding, reviewing, and reinterpretation. Thematic analysis was applied in six phases: (1) familiarisation with the texts; (2) initial coding of units of meaning; (3) creation of a code book; (4) double coding of a subset of articles; (5) consensus and adjustment of categories; and (6) final grouping into themes. The themes emerged from the combination of deductive categories (derived from sociocultural and attachment theories) and inductive categories (specific to the reviewed texts). To ensure rigour, two researchers coded independently and inter-coder reliability was calculated using Cohen’s κ and Krippendorff’s α coefficients, with acceptable values ($>0,70$). Discrepancies were resolved by consensus. This procedure ensured internal consistency and transparency, giving the qualitative analysis a level of robustness equivalent to that of bibliometric analysis.⁽⁹⁾

RESULTS

The figure 1 showed psychology at the centre of the thematic links. This finding confirms that child psychology is a core discipline for understanding development. The link between “child-parent relation” and “mental health” indicates that family ties are crucial for early detection of risks. This supports our objective of integrating emotional and social contexts into educational practice. The presence of terms such as “depression” and “anxiety” demonstrates that developmental concerns cannot be separated from mental health. Therefore, early detection must address both learning and emotional well-being.

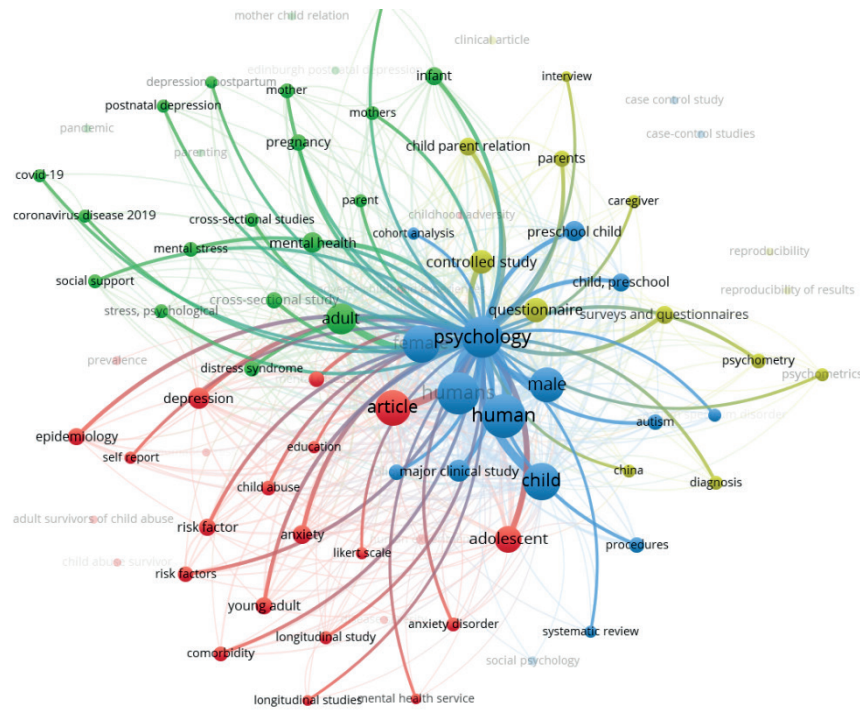


Figura 1. Co-occurrence networks of keywords related to psychology, mental health and childhood (VOSviewer, 2025)

The figure 2 placed “article” at the centre, highlighting the editorial strength of the field. This shows that child psychology is widely studied and has strong academic recognition. The red clusters, which focus on risk factors such as anxiety and depression, reveal that the literature is concerned with the growing incidence of childhood mental health problems. The blue clusters, with terms such as “preschool child” and “clinical study”, highlight prevention during early years. This dual focus suggests that detection must begin in early education and continue into later stages. For our research objective, this means that schools should be equipped with validated tools and strategies to monitor risks.

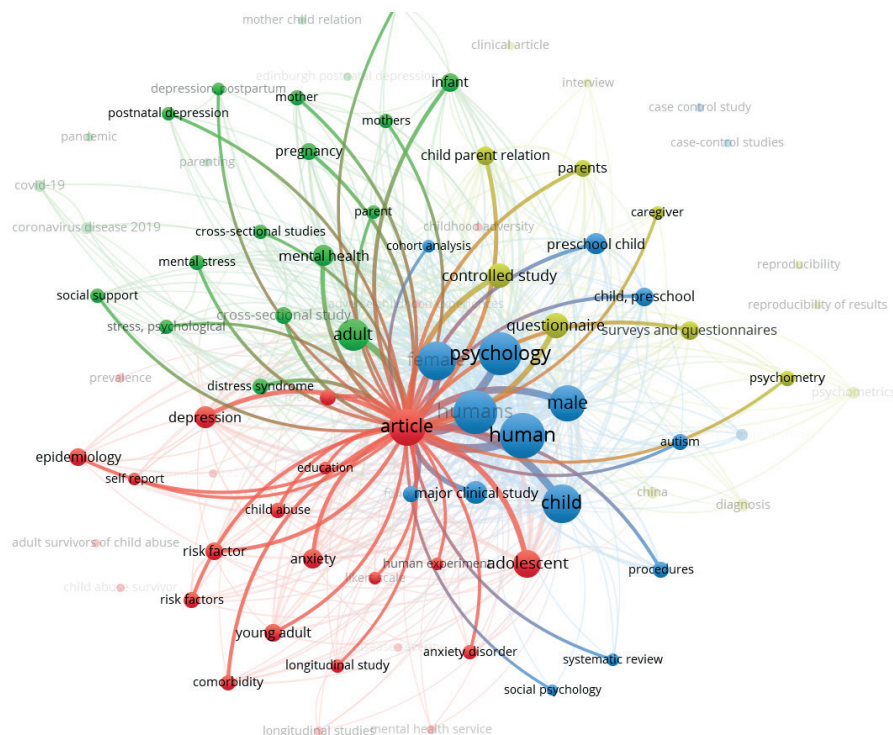


Figure 2. Distribution of thematic networks with an emphasis on mental health, risk factors, and education (VOSviewer, 2025)

The figure 3 emphasised “child” connected to “adolescent” and “longitudinal study”. This shows that

development is a continuous process. Family categories such as “mother” and “postpartum depression” confirm the importance of the home environment in shaping outcomes. Early detection is therefore not a single act, but a process that follows the child across life stages. This reinforces our objective of treating detection as longitudinal and interdisciplinary.

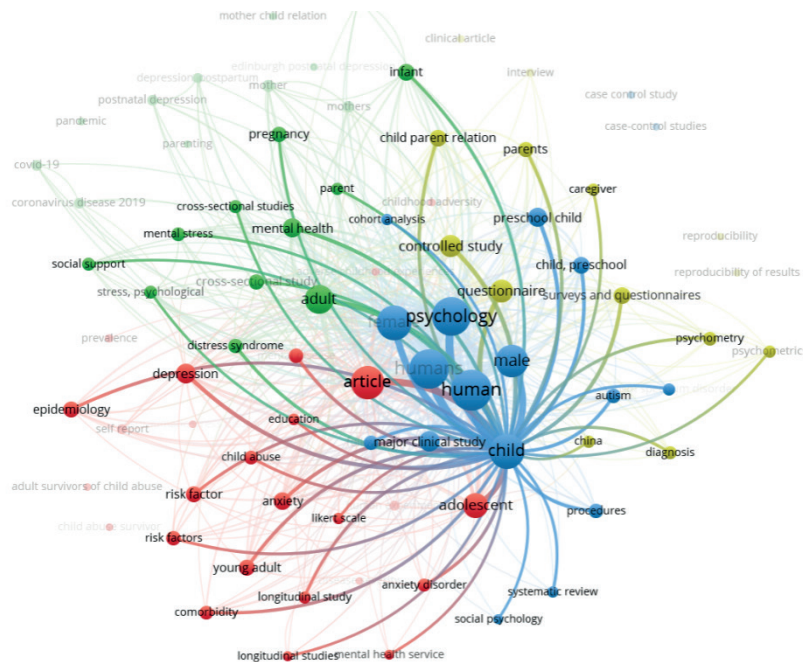


Figure 3. Connections between categories of child psychology, adolescence, and longitudinal studies (VOSviewer, 2025)

DISCUSSION

Child psychology has long been recognised as a field that explains the early stages of development through the interaction of biological, cognitive, and social factors.⁽¹⁰⁾ The present study confirmed the relevance of Vygotsky's sociocultural theory, which remains a robust framework for detecting developmental difficulties in early childhood.^(11,12) Research shows that social mediation and scaffolding are decisive for the acquisition of cognitive skills,^(13,14) underscoring the essential role of teachers in early learning. Without early identification, many of these signs remain invisible to the education system, reinforcing the need to integrate psychological perspectives into educational practice.

The co-occurrence analyses revealed that the most frequent categories—“child”, “psychology” and “human”—reflect the centrality of childhood in current scientific production. These results align with Martínez et al.⁽¹⁵⁾, who emphasise that child development must be placed at the centre of health and education research. Contemporary literature does not treat childhood as an isolated phenomenon but as a stage intrinsically linked to emotional, clinical, and educational aspects,⁽¹⁶⁾ confirming that early detection must be conceived as an interdisciplinary endeavour. Likewise, the blue clusters linked to “preschool child” and “clinical study” highlight the preventive potential of validated tools and longitudinal monitoring.⁽¹⁷⁾ The implication is that schools must be equipped not only with pedagogical strategies but also with instruments capable of systematically identifying risks in their earliest manifestations.⁽¹⁸⁾

The connections observed between “child”, “adolescent” and “longitudinal study” confirm that development is a continuous process, extending beyond early childhood into adolescence.⁽¹⁹⁾ This is consistent with longitudinal research showing that unresolved difficulties in childhood can persist into later stages of life.⁽²⁰⁾ The strong association with categories such as “parenting” and “postnatal depression” further reinforces the decisive role of the family environment in shaping developmental outcomes.

Limitations

Although the literature used supports this study, there is a gap in Latin American contributions to indexed databases such as Scopus. This underrepresentation limits the visibility of regional experiences and reduces the diversity of perspectives in global debates. Strengthening scientific production in the region and increasing its presence in international outlets would enrich the global understanding of child psychology and its role in early detection.

At the same time, the findings suggest that child psychology continues to serve as a bridge between theory and educational practice. Rather than providing definitive conclusions, these results open lines of discussion

on the need to promote interdisciplinary collaborations, expand longitudinal studies, and integrate family and community perspectives. These aspects remain under-explored in both regional and international literature and represent vital areas for future research.

CONCLUSION

The research revealed that, based on its theoretical and practical foundations, child psychology provides accurate tools for predicting difficulties in comprehensive development. The evaluation revealed that early detection depends on a combination of validated tools, teacher sensitivity, and systematic monitoring. It also highlighted that it is essential for university education to include this knowledge in order to strengthen pedagogical and preventive skills. Child psychology therefore becomes an essential support in teaching methods.

REFERENCES

1. Li X. Using fuzzy decision support to create a positive mental health environment for preschoolers. *Sci Rep*. 2025;15(1).
2. Olhaberry M, Sieverson C. Desarrollo socio-emocional temprano y regulación emocional. *Revista Médica Clínica Las Condes*. 2022 Jul 1;33(4):358-66. <https://www.sciencedirect.com/science/article/pii/S0716864022000748>
3. Poehner ME. En busca de elefantes rosas: teoría sociocultural y la determinación del aprendizaje en evaluaciones que apoyan la enseñanza y el aprendizaje de L2. *System*. 2025 Apr 1;129:103585. <https://www.sciencedirect.com/science/article/pii/S0346251X24003701>
4. Lam LT, Rai A, Lam MK. Attachment problems in childhood and the development of anxiety in adolescents: A systematic review of longitudinal and prospective studies. *Mental Health & Prevention*. 2019 Jun 1;14:100154. <https://www.sciencedirect.com/science/article/pii/S2212657018301119>
5. Alonso-Alberca N, Vergara AI. Evaluación del conocimiento emocional en un contexto bilingüe y su relación con la conducta adaptativa en Educación Infantil. *Revista de Psicodidáctica*. 2025 Jan 1;30(1):500153. <https://www.sciencedirect.com/science/article/pii/S1136103424000157>
6. Wilson-Corral V, Rodríguez-López M, Guzmán JJ, Soto MN. El uso inteligente de herramientas de búsqueda en ciencia, aplicado a la sismicidad en minas Estudio de caso. *Perfiles Educativos*. 2013 Jan 1;35(141):115-30. <https://www.sciencedirect.com/science/article/pii/S0185269813718385>
7. Orsini CA, Danús MT, Tricio JA. La importancia de la educación interprofesional en la enseñanza de la odontología: una revisión sistemática exploratoria analizando el dónde, el porqué y el cómo. *Educación Médica*. 2019 Mar 1;20:152-64. <https://www.sciencedirect.com/science/article/pii/S1575181318301736>
8. Lara L, Miranda-Zapata E, Saracostti M, de-Toro X. Capacidad predictiva de la influencia de la familia, el profesorado y los pares sobre el compromiso escolar afectivo, cognitivo y conductual en estudiantes de educación primaria y secundaria. *Revista de Psicodidáctica*. 2025 Jan 1;30(1):500159. <https://www.sciencedirect.com/science/article/pii/S1136103424000212>
9. Marzi G, Balzano M, Marchiori D. K-Alpha Calculator-Krippendorff's Alpha Calculator: A user-friendly tool for computing Krippendorff's Alpha inter-rater reliability coefficient. *MethodsX*. 2024 Jun 1;12:102545. <https://www.sciencedirect.com/science/article/pii/S2215016123005411>
10. Coq JM, Gerardin P. Desarrollo psicológico del niño. *EMC - Pediatría*. 2020 Jun 1;55(2):1-9. <https://www.sciencedirect.com/science/article/pii/S124517892043834X>
11. Gomis R, Garcia-Blanc N, Ros-Morente A, Filella-Guiu G. Ansiedad, regulación emocional y rendimiento académico del alumnado de ciclo inicial de Educación Primaria: impacto de una intervención. *Revista de Psicodidáctica*. 2025 Jul 1;30(2):500166. <https://www.sciencedirect.com/science/article/pii/S1136103425000036>
12. Desirée Rossi C, M Pereyra R. Educational Inclusion of Children with Attention Deficit Hyperactivity Disorder. *Neurodivergences*. 2023; 2:57.

13. Gustafsson BM, Sund Levander M. The assessment of preschool children with ESSENCE symptoms: concordance between parents, preschool teachers and child psychologists. *BMC Pediatr.* 2024;24(1).
14. Velez Aguirre JA, Vigoa Escobedo Y. Psycho-pedagogical strategies for the inclusion of students with ADHD in basic education. *Neurodivergences.* 2024; 3:141.
15. Martínez C, Camarelles Guillem F, González-Viana A, Sánchez Á, Tigova O, Fernández E. De la evidencia a la práctica: la Ciencia de la Diseminación e Implementación en atención primaria y comunitaria. *Atención Primaria.* 2025 Jan 1;57(1):103077. <https://www.sciencedirect.com/science/article/pii/S0212656724002191>
16. Vega-Arce M, Nuñez-Ulloa G. Experiencias Adversas en la Infancia: Revisión de su impacto en niños de 0 a 5 años. *Enfermería Universitaria.* 2017 Apr 1;14(2):124-30. <https://www.sciencedirect.com/science/article/pii/S1665706317300192>
17. Martínez-Vicente M, Suárez-Riveiro JM, Valiente-Barroso C. Estrés cotidiano infantil y factores ligados al aprendizaje escolar como predictores del rendimiento académico. *Ansiedad y Estrés.* 2019 Jul 1;25(2):111-7. <https://www.sciencedirect.com/science/article/pii/S1134793719300296>
18. González-Hernandez A, Bonilla-Santos J, Padilla-García T. Síntomas clínicos comórbidos en los trastornos del neurodesarrollo y conducta en la población escolar. *Revista Colombiana de Psiquiatría.* 2025 Apr 8. <https://www.sciencedirect.com/science/article/pii/S0034745025000046>
19. Chan M ki, Sharkey JD, Nylund-Gibson K, Dowdy E, Furlong MJ. Social support profiles associations with adolescents' psychological and academic functioning. *Journal of School Psychology.* 2022 Apr 1;91:160-77. <https://www.sciencedirect.com/science/article/pii/S0022440522000061>
20. Goset-Poblete J. Aportes de la neuroeducación a la simulación clínica. *Revista Médica Clínica Las Condes.* 2024 Sep 1;35(5):452-8. <https://www.sciencedirect.com/science/article/pii/S0716864024000762>

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