



Early stimulation in the gross psychomotor development of infants aged 1 and 2 years

Estimulación temprana en el desarrollo psicomotor grueso de infantes de 1 y 2 años

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ABSTRACT

This article aims to analyse the importance of early stimulation in the gross psychomotor development of 1- and 2-year-old infants, with an emphasis on Ecuadorian education. Through a documentary review of 25 scientific studies, the main strategies and benefits of early intervention in infant motor development were identified. It is highlighted that adequate stimulation promotes the acquisition of fundamental motor skills, such as walking, running and jumping, which positively influences children's autonomy and emotional well-being. In Ecuador, the implementation of early stimulation programmes is important, especially in rural areas, to reduce educational inequalities. Therefore, early stimulation is important for the comprehensive development of children, ensuring better academic and social performance throughout their lives.

Descriptors: preschool children; nursery schools; day nurseries. (Source: UNESCO Thesaurus).

RESUMEN

Este artículo aborda como objetivo de investigación analizar la importancia de la estimulación temprana en el desarrollo psicomotor grueso de infantes de 1 y 2 años con énfasis en la educación ecuatoriana. A través de una revisión documental de 25 estudios científicos, se identificaron las principales estrategias y beneficios de la intervención temprana en el desarrollo motor de los infantes. Se destaca que la estimulación adecuada favorece la adquisición de habilidades motrices fundamentales, como caminar, correr y saltar, lo cual influye positivamente en la autonomía y el bienestar emocional de los niños. En el Ecuador, la implementación de programas de estimulación temprana es importante, especialmente en zonas rurales, para reducir las desigualdades educativas. Por lo tanto, la estimulación temprana es importante para el desarrollo integral de los niños, permitiendo garantizar un mejor rendimiento académico y social a lo largo de su vida.

Descriptores: niño en edad preescolar; escuela de párvulos; guardería infantil. (Fuente: Tesoro UNESCO).

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Review articles



INTRODUCTION

Psychomotor development in early childhood is a fundamental pillar in children's education, especially between the ages of 1 and 2, when significant advances are made in the acquisition of gross motor skills. In the Ecuadorian context, early stimulation is an essential pedagogical approach to promoting children's comprehensive development, considering their physical, cognitive, and emotional aspects. Gross motor skills, such as walking, running, jumping and climbing, are essential not only for physical mobility, but also for the development of autonomy, spatial awareness and social interaction (Ávila-Guamán & Cazarez-Valdiviezo, 2024).

In this regard, the Ecuadorian education system has begun to recognise the importance of early stimulation for psychomotor development, incorporating strategies that promote children's growth from the earliest stages of life. However, significant challenges remain, especially in rural areas of the country, where educational and health resources are limited, while the implementation of quality early stimulation programmes in all regions of Ecuador is essential to close the inequality gap and ensure that all children, regardless of their geographical location or socioeconomic status, have the necessary opportunities to develop fully (Pérez-De-La-Cruz, Ramírez, & Maldonado, 2020).

Based on the above, the research objective is to analyse the importance of early stimulation in the gross psychomotor development of 1- and 2-year-old infants, with an emphasis on Ecuadorian education.

Theoretical framework

Psychomotor development in early childhood is a fundamental process for children's well-being and comprehensive learning. In this sense, early stimulation, especially in the area of gross motor skills, plays a crucial role in infant development, particularly between the ages of 1 and 2. Gross motor skills include



activities such as walking, jumping, running, and coordinating the movement of large muscle groups, which are the basis for other skills that will develop later (Ávila-Guamán & Cazarez-Valdiviezo, 2024). In the Ecuadorian context, the psychomotor development of young children is directly influenced by access to and the quality of available early stimulation programmes.

The Importance of Early Stimulation

Early stimulation consists of a set of practices that promote the physical, mental, and emotional development of children from the earliest years of life. In Ecuador, the importance of this type of intervention has been recognised in various studies, which show that activities designed to promote motor development not only improve physical skills but also promote autonomy and cognitive skills in children (Moretti, Lechuga, & Torrecilla, 2020). Early experiences of interaction, such as games involving jumping, running or using balls, help to strengthen motor coordination and spatial perception (Chávez-Choccelahua et al., 2023). These types of games, especially when played in an appropriate educational context, also help to improve children's emotional well-being, promoting self-confidence and self-esteem.

In Ecuador, the education system has begun to include these practices in early childhood education programmes, especially in urban areas, although challenges remain in rural areas where access to educational resources and programmes is limited (Pérez-De-La-Cruz, Ramírez, & Maldonado, 2020). However, the implementation of early stimulation programmes in these areas could significantly improve children's psychomotor development, allowing more infants to develop fundamental motor skills from an early age.

Psychomotor development in children aged 1 and 2

Children aged 1 and 2 are at a crucial stage in the development of gross motor skills, which are essential for their independence and for learning more complex skills. In this regard, early stimulation has a positive impact on the acquisition of



motor skills such as walking, running, and jumping, which are fundamental for social interaction and performance in later education (Gadre & Deshpande, 2023). Research agrees that gross motor skills are an essential component of cognitive development, as they allow children to explore and better understand the space around them (Kara et al., 2019).

On the other hand, it is important to note that early stimulation, both at home and in educational settings, helps children develop a greater ability to regulate their emotions, which promotes their social and school integration (Haibach-Beach et al., 2019). This is why the implementation of early childhood stimulation programmes is essential, as it allows children to improve their motor skills while developing emotional and cognitive competencies.

Sociocultural and environmental factors in early stimulation

The context in which children develop has a significant impact on their learning and motor development. In Ecuador, where cultural diversity and social inequality can influence access to educational and health services, early interventions must be adapted to the socioeconomic and cultural realities of each community. Active family participation in the educational process is essential to maximise the benefits of early stimulation (Klingberg et al., 2019), while families that actively participate in psychomotor stimulation activities at home tend to create a more stimulating environment that promotes children's learning (Pisoni et al., 2021).

METHOD

This research was conducted through a qualitative documentary review, aimed at analysing 25 scientific documents that address early stimulation in the gross psychomotor development of children aged 1 to 2 years. The main focus was on identifying the main strategies, methodologies and results reported by the research on the stimulation of gross motor skills at this stage of childhood, contextualising them within the Ecuadorian education system. The following inclusion criteria were established for the selection of documents:



Thematic relevance: The selected studies had to address early stimulation in the context of gross psychomotor development in children aged 1 to 2 years, specifically in areas such as gross motor skills, fundamental motor skills, and early intervention programmes.

Year of publication: Documents published between 2010 and 2024 were prioritised in order to ensure the relevance of the approaches and methodologies used.

Type of document: Scientific articles, systematic reviews, doctoral theses, and research reports in indexed journals and peer-reviewed academic conferences were included.

Language: Only documents in Spanish and English were considered to ensure accessibility and relevance in the Ecuadorian and Latin American context.

Review procedure

The search for documents was carried out through recognised academic databases, such as Google Scholar, PubMed, Scopus, and Dialnet, using keywords such as 'early stimulation', 'gross psychomotor development', 'gross motor skills in early childhood', "early intervention in children," and "psychomotor stimulation programmes in children"; constructing ('early stimulation' OR "early intervention") AND ('gross motor development' OR "psychomotor development") AND (infants OR "children aged 1 and 2 years") AND (education OR "educational programmes").

Data such as the study objectives, the population analysed, the methodologies used, the main results and the recommendations made were extracted from each article. Once the documents had been selected, a documentary analysis was carried out to organise the information and present it in the results section.



RESULTS

Early stimulation in gross psychomotor development in children aged 1 and 2 has been widely recognised for its positive impact on the overall development of infants, especially in gross motor skills. Psychomotor development during the first years of life lays the foundation for children's cognitive, emotional, and social growth (Ávila-Guamán & Cazarez-Valdiviezo, 2024). In this regard, it has been shown that adequate stimulation during this stage can significantly influence motor development trajectories (Gadre & Deshpande, 2023), being essential for improving coordination and balance, key elements in gross motor skills (Chávez-Choccelahua et al., 2023).

In this context, it has been shown that playful activities and early intervention in psychomotor development can improve children's motor performance, which in turn has an impact on their ability to learn more complex skills at later ages (Pisoni et al., 2021; Soplin-Ríos et al., 2022). Likewise, the implementation of early stimulation programmes involving both parents and health and education professionals has been shown to be more effective than individual interventions (Kara et al., 2019). This comprehensive approach has led to improvements in gross motor skills, while promoting children's emotional and social well-being, better preparing them for future educational challenges (Moretti, Lechuga, & Torrecilla, 2020).

On the other hand, the relationship between early stimulation and psychomotor development not only affects children in normal situations, but is also crucial for infants with health conditions that could hinder their motor development (Brien et al., 2024; Haibach-Beach et al., 2019). Early intervention programmes, such as those implemented in various parts of the world, have demonstrated remarkable effectiveness in improving gross motor skills in children with cerebral palsy and other developmental disorders (Ganc et al., 2021). In the case of children with hearing impairments, for example, interventions have also shown positive effects



in improving their motor coordination (Elisa et al., 2002), highlighting the universal importance of early stimulation.

It is important to note that family factors play a fundamental role in the success of these interventions; therefore, the involvement of caregivers in early stimulation is closely linked to a better prognosis in children's psychomotor development, reinforcing the need for close collaboration between professionals and families (Klingberg et al., 2019; Valla et al., 2017). In this regard, training parents to carry out stimulation activities at home can complement the actions taken in educational and health settings, creating an enriched environment for children's development.

On the other hand, it is important to bear in mind that gross motor skills are essential for children's physical and cognitive development, as they facilitate not only the learning of fine motor skills, but also sensory integration and adaptation to the environment (Hernández-Tulcán & Flores-Alarcón, 2024). This is particularly evident in studies that observe the impact of early stimulation on children aged 1 to 3 years, which highlight the improvement of gross motor functions as an indicator of the effectiveness of these interventions (Cedeño-Roldán & Reyes-Meza, 2022; Pérez-De-La-Cruz, Ramírez, & Maldonado, 2020).

From a public policy perspective, the implementation of early stimulation programmes in Ecuador could have a significant impact on the psychomotor development of children, especially in rural areas where access to educational and medical resources is limited. The integration of these programmes in schools and communities could improve not only motor development but also the overall quality of education, laying the foundations for meaningful learning and comprehensive development throughout life (Jara-Fuentes & Lepe-Martínez, 2022).



CONCLUSION

Early stimulation in the gross psychomotor development of 1- and 2-year-old infants is essential for children's comprehensive development, as it lays the foundations for their physical, cognitive and emotional growth. In the context of Ecuadorian education, this intervention is still important, considering the diverse sociocultural and economic realities that affect children, especially in rural areas where access to educational resources is limited. Therefore, the implementation of early stimulation programmes that promote playful and physical activities for the development of gross motor skills not only improves children's physical abilities but also strengthens their autonomy, self-esteem and social skills, which favours their adaptation to the educational environment.

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