

RESEARCH ARTICLE

## EDUCATIONAL STRATEGY TO CONTRIBUTE TO EARLY CHILDHOOD DEVELOPMENT, BASED ON LEADING ACTIVITIES

### ESTRATEGIA EDUCATIVA PARA CONTRIBUIR AL DESARROLLO EN LA PRIMERA INFANCIA, BASADA EN LAS ACTIVIDADES RECTORAS

Quintero Trujillo Mónica Marcela<sup>1</sup>, Neira Camacho Sandra Milena<sup>2</sup>, Olarte Rueda Graciela<sup>3</sup>

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#### ABSTRACT

**Introduction:** the years of early childhood are essential for the development of children. Everything that the infant touches, sees, tastes, hears, smells, favors his ability to think and learn, making his parents responsible for his care, seeking protection, education, and health monitoring management to supervise that his growth and are developmentally commensurate with their age. **Objective:** Develop an educational strategy aimed at parents to contribute to the early childhood development of children in the Guanentina Province in the face of the effects of the Covid 19 pandemic. **Methodology:** the study was conducted in two phases: one diagnostic, one descriptive cross-sectional study that prolongs the growth and development of children

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<sup>1</sup> Master's student in education. Research professor at the University Foundation of San Gil. (San Gil, Colombia), Email: [mquintero@unisangil.edu.co](mailto:mquintero@unisangil.edu.co)

<sup>2</sup> Master's in Education specialized in Higher Education. Research professor at the University Foundation of San Gil. (San Gil, Colombia), Email: [sneira@unisangil.edu.co](mailto:sneira@unisangil.edu.co)

<sup>3</sup> Master's student in Education, research professor at the University Foundation of San Gil. (San Gil, Colombia), Email: [grueda@unisangil.edu.co](mailto:grueda@unisangil.edu.co).

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with ages in early childhood and the assessment of anthropometric parameters. The intervention phase, with the contrast of an educational strategy, aimed at parents. It was developed in nine randomly selected municipalities of Santander, including 143 children. **The results** were conducted the characterization of the child population, the physiological conditions and the physical assessment and the alterations in growth and development were determined, an educational strategy (booklet) was also built.

**Conclusions:** the contribution that capacities from nursing and education can be provided to parents and families of children in early childhood with the creation of strategies focused on their abilities and to enhance them will be fundamental in the integral development of boys and girls.

**KEYWORDS:** education, children, parents, promotion, development.

#### **RESUMEN:**

**Introducción:** los años de la primera infancia, son fundamentales para el desarrollo de los niños. Todo lo que el infante toca, ve, prueba, oye, huele, favorece su capacidad de pensar y aprender, haciendo responsables de su cuidado a sus padres, buscando la protección, educación y manejo de seguimiento en salud para la supervisión de que su crecimiento y desarrollo sean acordes a su edad. **Objetivo:** Desarrollar una estrategia educativa orientada a padres de familia para contribuir al desarrollo en la primera infancia de los niños de la Provincia Guanentina ante los efectos de la pandemia por Covid 19. **Metodología:** el estudio se realizó en dos fases: una diagnóstica, un estudio descriptivo de corte transversal que determinó el crecimiento y desarrollo de niños con edades en la primera infancia y la valoración de parámetros antropométricos. La fase de intervención, con el diseño de una estrategia educativa, orientada a padres de familia. Se desarrolló en nueve municipios de Santander seleccionados aleatoriamente, incluyendo a 143 niños. **Resultados** se realizó la caracterización de la población infantil, se establecieron características antropométricas de la población, se determinaron condiciones fisiológicas y valoración física y **How to cite this article:** Quintero-Trujillo Mónica, Neira-Camacho Sandra, Olarte-Rueda Graciela. Educational strategy to contribute to early childhood development, based on leading activities. Journal of Basic Health Sciences, 2(1): 1-18. March 2024, ISSN 2981-5800.

alteraciones en el crecimiento y desarrollo, también se construyó estrategia educativa (cartilla). **Conclusiones:** el aporte que desde enfermería y educación se pueda brindar a los padres y familias de niños en la primera infancia con la creación de estrategias centradas en sus habilidades y capacidades para potenciarlas será fundamental en el desarrollo integral de los niños.

**PALABRAS CLAVE:** educación, niños, padres, promoción, desarrollo.

## INTRODUCTION

The years of early childhood are fundamental for children's development. Everything the infant touches, sees, tastes, hears, smells, enhances their capacity to think, learn, move, and feel. According to the Ministry of National Education (MEN, 2009), "this is a period of rapid cognitive, linguistic, social, emotional, and motor development." The United Nations Children's Fund (UNICEF, 2022) states that every time a child uses one of their senses, a neural connection forms in their brain; new experiences repeatedly generate new connections, help build thought, and foster emotional development.

This research focused on the need to stimulate children during the developmental stage, recognizing how

various daily life circumstances and the Covid-19 pandemic have significantly affected this process in infants. According to UNICEF (2022), before the pandemic, conflict, poverty, malnutrition, and climate change were already causing drastic increases in the number of children needing assistance; with COVID-19, changes in family and social interactions associated with confinement and economic difficulties led to increased anxiety, depression, and isolation. According to (García, 2021), the individual's complete development is determined by the correct relationship of their evolution with physical, social, mental, and emotional aspects, necessitating early age attention to enhance various skills and abilities without affecting or accelerating their development process.

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## METHODOLOGY

The research was approved by the curriculum committee of the nursing program of the institution, based on Resolution 8430 of 1993 of the Ministry of Health. The study was carried out in two phases: diagnostic and intervention.

*Diagnostic phase.* Conducted through observation, a descriptive cross-sectional study determining the growth and development of children in early childhood through:

Development assessment: through parents' and/or caregivers' perception of the child's development, as well as the direct application of the Abbreviated Development Scale-3.

Growth and anthropometric parameters assessment: by measuring weight, height, and head circumference to calculate related indices (BMI/age, height/age, weight/age, and head circumference).

*Intervention phase.* Construction of an educational strategy aimed at parents to contribute to the growth and development of early childhood children in the

Guanentina province, considering the effects of the Covid-19 pandemic.

*Population:* Composed of early childhood children from nine municipalities of the Guanentina province; the sample included 143 children from these municipalities.

Inclusion criteria

- Early childhood children who regularly attend growth and development check-ups.
- Children whose mothers or caregivers agreed to participate in the study.

*Procedures for data collection*

Phase 1: The respective authorizations were requested from institutions, and support was sought during data collection.

Phase 2: Complying with ethical principles, informed consent was obtained from the parents of the children.

Phase 3: A characterization questionnaire was administered to all mothers and/or caregivers of early childhood children who agreed to participate in the study to collect sociodemographic data.

Phase 4: Finally, the growth and development scales were applied, along with the collection of anthropometric data of early childhood children.

*Data analysis:*

Statistical processing and analysis were performed using the SPSS version 24 statistical program.

**RESULTS**

**Population characteristics**

The study was conducted in nine randomly selected municipalities of Santander, including 143 children

aged 0 to 5 years, 56.6% (n=81) male, accompanied by their mother in 88.1% (n=126). (see Table 1.)

Variable	F	%
Municipality		
Barichara	32	22,4
Charalá	23	16,1
Páramo	15	10,5
Pinchote	10	7,0
San Gil	17	11,9
Simacota	5	3,5
Suaita	12	8,4
Valle de San José	5	3,5
Villanueva	24	16,8
Gender		
Female	62	43,4
Male	81	56,6
Kinship		
Grandmother	9	6.3
Mother	126	88.1

Father	4	2.8
Aunt	4	2.8

**Table 1.** Population characteristics

**Anthropometric characteristics**

The average age was 22.8 months with a median of 18 months and a mode of 48 months, with a minimum range of 1 and a maximum range of 60 months.

The average weight was 11.9 kg with a minimum of 4.5 kg and a maximum

of 31.0 kg, the average height was 83 cm, the head circumference was 45.8 cm, and finally the average body mass index was 16.7 kg with a minimum of 13 kg and a maximum of 22.45 kg. (see Table 2)

	Age (months)	Weight kg	Height cm	Head Circumference	BMI
Mean	22,81	11,9	83,08	45,829	16,7
Median	18,00	11,0	80,00	46,000	16,5
Mode	48	11,0	60 <sup>a</sup>	48,0	15,0
Std. Deviation	17,586	5,2	17,829	4,0556	2,1
Variance	309,253	27,1	317,860	16,448	4,461
Range	59	26,50	80	21,0	9,4
Minimum	1	4,5	55	36,0	13,0
Maximum	60	31,0	135	57,0	22,45

**Table 2.** Anthropometric characteristics.

### Abbreviated Development Scale

According to the level of development in the different areas, it is appropriate for age. (see Table 3).

		F	%
Gross Motor Skills	Appropriate for age	142	99,3%
	Does not walk backward, does not imitate movement.	1	0,7%
Fine-Adaptive Motor Skills	Appropriate for age	143	100,0%
Hearing/Language	Appropriate for age	143	100,0%
Personal Social	Appropriate for age	143	100,0%

**Table 3.** Abbreviated developmental scale

### Alterations in growth and development

Regarding growth indicators, it was found that 94.4% (n=135) have adequate weight for age, 99.3% (n=142) have adequate height for age, similarly, it was found that 80.4% (n=115) have adequate nutritional status. It is worth noting that 10.5%

(n=15) are obese. Finally, 83.9% (n=120) have adequate weight for height. (see Table 4).

		F	%
Standard Deviation	Risk factor	1	0,7%
	Normal	142	99,3%
Weight/Age	Adequate weight for age	135	94,4%
	Risk of undernutrition	8	5,6%
Height/Age	Risk of undernutrition	1	0,7%
	Adequate height for age	142	99,3%
BMI/Age	Adequate nutritional status	115	80,4%
	Obesity	15	10,5%
	Risk of undernutrition	7	4,9%
	Overweight	4	2,8%
	Adequate height for age	2	1,4%
Weight/Height	Obesity	13	9,1%
	Adequate weight for height	120	83,9%
	Risk of undernutrition with low weight/height	5	3,5%
	Obesity	5	3,5%

**Table 4.** Growth indicators

**Design of the booklet for the educational strategy**

For the development of the educational strategy, the support of a

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Bachelor's degree in Early Childhood Education was enlisted as a guide to selecting the most appropriate contents considering each of the areas assessed in development (Gross Motor Skills, Fine-Adaptive Motor Skills, Hearing/Language, Personal/Social) and the guiding activities.

Content selection involved reviewing various sources from institutions such as WHO, UNICEF, and the Ministry of Education, ensuring that these contents would aid in each area and activity, contributing to development according to the age ranges assessed in the Abbreviated Development Scale -3 (2016).

The booklet is divided into sections corresponding to play, art, literature, and environmental exploration; in education, these are used as tools or strategies facilitating children's learning. It features illustrative images and diverse activities aimed at assisting parents in their children's development in each of the aforementioned areas. Furthermore, the activities can be easily applied by parents at home, using readily available household items, but they can also be implemented by healthcare professionals during growth and development check-ups. (see Figure 1)



Figure 1. Cover of the Booklet

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## DISCUSSION

According to Suarez and Vélez (2018), the family is the initial place where children can develop socially, within a specific family functioning, and it should provide the child with the necessary resources for their adequate development and growth. Hence, the need arose to develop an educational strategy aimed at parents to contribute to early childhood development. As mentioned, the pandemic had negative effects on children's health, particularly impacting their development in various aspects, not only physically but also socially and emotionally.

According to the National Planning Department (2022), "Early childhood is the stage of life from birth to 6 years," emphasizing the importance of this period for children's physical, social, and cognitive development, fostering thinking skills, language, and interaction with others. UNICEF (2018) and Monge et al. (2019) stress the importance of early childhood learning, aligned with the second goal

of Sustainable Development Goal 4 (SDG), aiming to ensure that by 2030 "all girls and boys have access to quality early childhood care and pre-primary education, to ensure that they are ready for primary education." Key to this education is learning through play, as it enhances children's integral learning across all developmental domains, improving motor, cognitive, social, and emotional competencies. Therefore, parents and teachers should be encouraged to promote such activities in children.

As strategies that have promoted children's adequate development in early childhood, it is known that institutions such as the World Health Organization (WHO) and UNICEF presented the Integrated Management of Childhood Illness (IMCI) strategy in 1996, focusing on health prevention and promotion, improving vaccination coverage, and home care for children under five, contributing to optimal growth and development. In Colombia, this strategy has been adopted by the Ministry of Health, and

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although it focuses on the most prevalent childhood illnesses, it also assesses children's development.

As a proposal to continue in line with the strategies outlined by the Ministry of Health, the educational strategy was developed, based on the developmental areas assessed in children through the child development scale (EAD-3), reviewing gross motor, fine-adaptive motor, auditory and language, and personal-social development areas. Additionally, it integrates guiding activities proposed by the Ministry of Education to work with early childhood, as highlighted by the Ministry of Health and Social Protection (2016), children's development is a process of continuous change, which occurs differently for each child, and it is not sequential nor the same for everyone.

According to the Ministry of Education in the Curricular Bases for Initial and Preschool Education (2017), quoting García (2001), "development can be seen as a process of self-construction

and meaning-making of the world that the child performs based on the appropriation of symbolic, physical, social, and cultural resources provided by their contexts and the interactions they establish with adults." This justifies the investments that can be made by health and education sectors in early childhood, providing guidelines to parents oriented from guiding activities, contributing to their integral development.

Regarding guiding activities, play and environmental exploration, according to Pabón M and Ospino D. (2019), their implementation allows the child to be aware that they are part of society and, despite their young age, can positively contribute to environmental improvement. The authors propose a didactic-technological proposal through a booklet and a virtual platform based on these two guiding activities, integrated into the preschool curriculum of various educational institutions to contribute to environmental education.

Similarly, Caballero A, and Pérez J (2022), propose a theoretical

approach referring to the term ecotheology, emphasizing nature conservation from early childhood, centered on guiding activities but strengthening the spiritual dimension of children and their families, generating a sense of responsibility towards their environment, resources, and others around them. They interpret the relationship between guiding activities proposed by the Ministry of Education and ecotheology for the care of the common home. The study showed that environmental problems are also relevant for children, who can understand them despite their age, concluding that it is important to generate a culture of caring for all forms of life so that children are more aware of this reality.

Escobar, K (2021), proposed the design of a didactic planning mediated by guiding activities of early childhood to help manage emotions in second-grade children at an educational institution. Through reflective analysis, it was evident that the implementation of guiding activities allows for

successful learning in recognizing and managing children's emotions during the COVID-19 pandemic. Literature is another component of guiding activities, which encompasses children's reading and writing processes.

In Carrillo R's study (2016), the evaluation of writing practices in transition children from an educational institution was conducted, along with what was practiced in this regard at the family level, to design a didactic sequence based on the found needs and guided activities. It highlights the importance of fostering reading and writing from early education, as these are processes that are learned and developed throughout life. The analysis considered different stages of writing, as well as surveys to parents and field diaries. The study concludes that many families lack an environment that promotes reading and writing, emphasizing the importance of involving families in education to create emotional bonds in children and adequate

communication, considering them an active part of the educational process.

Regarding the guiding activity of art, Bello, S. (2020), proposed a didactic strategy in preschool-age children and their families to promote emotional intelligence through art. The author indicates satisfactory results with the application of this strategy, demonstrating that activities with children strengthen qualities such as empathy, autonomy, creativity, among others, but also help develop fine and gross motor skills, strengthen family bonds, and enable children to better manage their emotions.

## CONCLUSIONS

Regarding the first project objective, the characterization of the child population was carried out, mainly composed of females, with mothers being the primary caregivers; additionally, 22.4% of the population belonged to the municipality of Barichara. Few alterations were found in the physical examination (such as flu-like symptoms, presence of

crackles, and abdominal pain). For the second objective, it was shown that, concerning growth, 80.4% (n=115) have adequate nutritional status, with 10.5% (n=15) being obese. In the assessment of development in each area, only one alteration was found in gross motor skills; in other areas, development was appropriate for age.

According to the third objective, the educational strategy developed was supported by an education degree holder as a guide. The booklet consists of illustrative images and various activities, catering to parents or healthcare professionals in growth and development check-ups; they are divided by age ranges to facilitate children's learning.

Ultimately, it can be affirmed that guiding activities promote children's natural development in interactions with the environment and society, enhanced in practice within the family and school environment. As demonstrated by the cited studies, they allow children to develop skills in

play, literature, interaction with the environment, and art from early childhood, providing them with qualities that will help them care for and interact assertively with the world and society in the future.

The contribution that nursing and education can provide to parents and families of children in early childhood ages with strategies centered on their abilities and capacities to enhance them will always be valuable because childhood should be treated with the utmost love and care, shaping responsible, committed citizens, and above all, with sensitivity and empathy for those around them and for everything that is part of their environment.

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### **CONFLICT OF INTEREST**

The authors declare no conflicts of interest.

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