



Short article

Nutritional conditions of early childhood in Santa Marta, Colombia

Condiciones nutricionales de la primera infancia en Santa Marta, Colombia

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ABSTRACT

Keywords:

Nutritional conditions;
Nutritional condition;
Social security;
Child.

Introduction: It is vital to be interested in early childhood's social determinants and different pathologies because this period is the most important for growth and physical-cognitive development. **Objective:** To describe the nutritional condition of children under six years in Santa Marta. **Method:** A descriptive study was conducted with a sample of participants from a neighborhood in Santa Marta, Colombia. Results: 112 children were evaluated, 54% were boys, and 35% presented nutritional alterations (risk of malnutrition, malnutrition, overweight, and obesity). **Conclusions:** Approximately one-third of preschool children in a neighborhood of Santa Marta, Colombia, present nutritional alterations. It is necessary to study the factors associated with these alterations..

RESUMEN

Palabras clave:

condiciones nutricionales;
estado nutricional;
seguridad social; niños.

Introducción: es vital interesarse por los determinantes sociales de la primera infancia y sus diferentes patologías porque este período es el más importante para el crecimiento y desarrollo físico-cognitivo. **Objetivo:** describir el estado nutricional de los niños menores de seis años de Santa Marta. **Método:** se realizó un estudio descriptivo con una muestra de participantes de un barrio de Santa Marta, Colombia. **Resultados:** se evaluaron 112 niños y niñas, el 54% eran niños y el 35% presentó alteraciones nutricionales (riesgo de desnutrición, desnutrición, sobrepeso y obesidad). **Conclusiones:** aproximadamente un tercio de la niñez en edad preescolar de un barrio de Santa Marta, Colombia, presentan alteraciones nutricionales. Es necesario estudiar los factores asociados a estas alteraciones

INTRODUCTION

It is vitally important to be interested in the social determinants and different pathologies of early childhood because this period is the most important for growth and physical-cognitive development¹. World Health Organization (WHO)² states that child malnutrition is related to social determinants. These determinants indicate those circumstances with which one is born, grows, lives, works, and ages. That is, it includes individual, social, political, and cultural factors.

The nutritional situation and survival in the early childhood period, according to the Colombian Institute of Family Welfare (ICBF)³ depend directly on feeding practices. Malnutrition encompasses undernutrition, overweight, obesity, and micronutrient imbalance^{4,5}. In Colombia, one in ten children suffers from malnutrition, and there are several associated factors beyond food scarcity, such as poverty, lack of resources, lack of care, increased food costs, drought, or poor environmental sanitation⁶.

Knowing the nutritional conditions of the population under six years of age plays a crucial role in caring for the health and well-being of children, and their work directly influences the prevention and treatment of nutritional problems in childhood and the promotion of healthy habits and healthy foods. A trained health team conducts complete nutritional assessments on children, usually considering their intake and monitoring for signs of nutritional deficiency⁶.

In various contexts, these are responsible for educating and guiding parents and caregivers about the importance of a healthy diet; at the same time, they carry out early detection to facilitate timely intervention and refer, if necessary, a situation that must be monitored in collaboration with the interdisciplinary team⁷⁻⁹.

Nola Pender's Health Promotion Model (HPM) theory aims to show the multiple nature of people in their interaction with the environment when they try to achieve the desired state of health. It exalts the link between personal characteristics and experiences, knowledge, beliefs, and situational aspects related to the health behaviors or behaviors sought to be achieved⁷.

The research objective was to describe the nutritional condition of children under six years of age in Santa Marta, Colombia.

METHOD

Type of study

A descriptive study was conducted.

Population

A study was conducted at the community level of a residential area, Barrio Ciudad Equidad, in Santa Marta, Colombia. This area is categorized as a low-income socioeconomic stratum 1 in the Colombian classification. The neighborhood has 4,000 homes built by the national government as a strategy of social interest for low-income people and families. Children under five years of age were included during an academic internship during 2021 and 2022. Records with incomplete anthropometric data and children with chronic or disabling conditions were excluded.

Description of variables

Demographic data such as age (years) and gender and information on weight (kg), height (cm), body mass index (BMI), nutritional status, breastfeeding, vaccination, social security (contributory or subsidized), disability, garbage disposal, type of housing and Sisbén category (extreme poverty group, moderate poverty group, vulnerable group, and non-poor and non-vulnerable group) were collected.

Data analysis

Frequencies and percentages were calculated for the descriptive variables, and mean (M) and standard deviation (SD) for the quantitative variables. The analysis was completed in the Windows Excel program¹⁰.

Statement on ethical aspects

The Research Ethics Committee of the Universidad del Magdalena, in an ordinary virtual session held on March 30, 2023, determined that the research proposal complied with the ethical aspects

established in resolution 8430 of 1993¹¹. The parents of the participants signed informed consent.

RESULTS

One-hundred twelve infants between 0 and 5 years old participated (M=3.0, SD=1.7); the majority were

male (54.5%), with complete vaccination, were breastfed, classified in group A of Sisben, with a willingness to adequate garbage disposal, enrolled in a subsidized health care regime and residents in houses. (Table 1). Most of those evaluated presented nutritional status within normal parameters (Table 2).

Table 1. Description of the participants.

Social determinant of health	Category	N	%
Sex	Male	60	54.5
	Female	52	45.5
Age (years)	Less than one year	18	16.1
	Between 2 and 3	52	46.4
	Between 4 and 5	42	37.5
Vaccination	Complete	99	88
	Incomplete	13	12
Lactation	Yeah	92	82
	No	twenty	18
Category Sisben	Group A	38	3.4
	B Group	35	31
	Group C	13	12
	None	26	23
Garbage disposal	Yeah	105	94
	No	7	6
Health affiliation regime	Contributory	twenty	18
	Subsidized	73	65
	Special regime	4	4
	None	fifteen	13
Housing type	Home	93	83
	Apartment	19	17

Table 2. Characterization of nutritional status.

Diagnosis	Frequency	%
Normal	73	65.1
Risk of malnutrition	18	16.0
Malnutrition	13	11.6
Overweight	7	6.2
Obesity	1	0.8

DISCUSSION

In the present study, it is observed that 35% of children under five years of age in a low-income neighborhood of Santa Marta, Colombia, present nutritional alterations (risk of malnutrition, malnutrition, overweight and obesity).

The nutritional status observed in this study is similar to that observed by Aguirre *et al*¹², who reported that 79% of children under five years of age in the department of Antioquia (Colombia) had an adequate weight for height, 13.4% had a risk of being overweight, and 4.1% had a risk of acute malnutrition. Likewise, Barrera *et al*¹³, in Palermo (Colombia), observed that 15.7% showed some malnutrition (acute, chronic, global malnutrition, overweight or obesity); 6.7% malnutrition and 9.8% overweight and obesity and Gómez¹⁴, in the town of Managua (Nicaragua), showed that 15% were at risk of obesity. The results usually vary depending on the social determinants of each participating group^{1,2}.

This study contributes to the knowledge of the nutritional status of children under five years of age in a low-income neighborhood of a city in the

Colombian Caribbean. However, it has the limitation of being descriptive research, and future research must include an analytical component that allows for establishing protective and risk factors for this community¹⁶.

It is essential to diagnose the state of community health. This is a primary input for planning and determining health in national health policies and programs and the evaluation of the determinants of the health of a population¹⁵. Health professionals should prioritize nutritional status during the first years of life since they have a short and long-term negative impact^{1,2}. Pender's MPS can help understand how individual and family behaviors can promote healthy nutritional status⁷.

CONCLUSIONS

It is concluded that 35% of preschool children in a neighborhood of Santa Marta, Colombia, present nutritional alterations. Future research should study the factors associated with these alterations.

STATEMENT ON CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

CONTRIBUTION OF THE AUTHORS

First author: fieldwork and writing.

Second author: fieldwork and writing.

Third author: methodological design and statistical analysis.

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