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Socioeconomic Factors and their Relationship with Nutritional Status in Children Under 3 Years of Age in Jipijapa

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Abstract

Child malnutrition can occur for various reasons and affect the human body in systemic form, with emphasis on children from zero to three years, with unforeseen complications, can be reversible with timely and comprehensive management of a multidisciplinary team. The objective of the research is to determine the relationship between socioeconomic factors and the nutritional status of children under 3 years of age in the First of November citadel of the Jipijapa canton. It is a qualitative study, which used a descriptive and phenomenological methodology, through the use of theoretical methods such as: analysis-synthesis, historical-logical, abstraction; Empirical studies such as the survey carried out on mothers, in addition to interviews with health personnel and statisticians for the mathematical analysis of the results obtained, among them, it was evidenced how demographic - socioeconomic factors can negatively affect the nutritional status in children of the canton. Jipijapa for the social conditions of this community was studied by students and teachers of the nursing career from the assessment of the nutritional status of children in this age range that was carried out through anthropometric indicators.

Contents

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1 Introduction

Malnutrition is a health problem that causes growth retardation, which negatively affects body size and function, as well as intellectual functions, patterns related to the growth and development of children; which may be consistent with socioeconomic factors, essentially in third world countries (Hernández, 2018). Malnutrition is the result of the continuous and insufficient intake of foods that do not meet the needs of food energy and nutrients, causing a significant loss of body weight, it can manifest itself in various ways: acute (moderate and severe) and chronic (Unicef, 2013). While malnutrition is a condition related to deficiencies, excesses, and imbalances in a person's caloric and nutrient intake as a result of two opposite extremes; deficit or excess intake of nutrients and energy to the necessary daily requirements of each individual (WHO, 2022).

All countries in the world are affected by one or more forms of malnutrition, fighting and preventing it in all its forms, is one of the greatest challenges and health problems on a global scale (de Miranda et al., 2020). The United Nations Organization in April of this year states that: 52 million children under 5 years of age suffer from wasting, 17 million are affected by severe wasting, and 155 million are stunted (WHO, 2022).

In Latin America, the rates obtained in studies are in correlation with world statistics, with a figure greater than 5 million infants with malnutrition, of which the majority come from rural populations, families with low incomes and poor health conditions, and low levels of education in their families (FAO, 2022).

In Ecuador, one out of every 4 children under 5 years of age suffers from chronic malnutrition (Joosten & Hulst, 2011). In the indigenous and rural population, the outlook is more difficult, since 1 in 2 children is malnourished. The assessment of the nutritional status of children in this age range was carried out using anthropometric indicators, of which the following stand out: low weight for age (global malnutrition), low height for age (chronic malnutrition), and low weight for height. (acute malnutrition) (ECLAC, 2018).

The ENSANUT-ECU reports the patterns of infant feeding in Ecuador are varied, according to customs or due to a lack of preparation or orientation to the family on how the process of weaning children should be (Turner et al., 2006; Loades et al., 2020). In the study of volume I on According to the National Health and Nutrition Survey, it is observed that, although a very small proportion of children begin very early to consume foods other than breast milk, after the third month this proportion shoots up from 10.1% to 73.6% in the children 6 to 8 months. These data reveal that many children are exposed to the very early introduction of food, which is not recommended, and, on the other, when they reached 6 to 8 months a little less than a third were not consuming any food, which is also a serious problem since breast milk cannot provide the number of nutrients necessary in this period of life (ENSANUT-ECU 2012, 2012).

Generational effects in epidemiological evidence suggest a strong link between chronic disease and fetal malnutrition, malnutrition in early life, and later in adulthood (Lawson et al., 2001). During infancy and early childhood, inadequate breastfeeding practices, a diet inadequate in energy, protein, iron, and zinc, plus frequent infections exacerbate the negative effects of growth retardation; which results in delayed height and low weight, occurs in a very short period of life, from before birth to 2 years of age, but its effects are felt throughout life (Durán, 2004).

Malnutrition at an early age has serious consequences: underweight children present more severe infections, including diarrhea and pneumonia, there is a very strong exponential association between the severity of underweight and mortality. In addition, in its form of height retardation, it settles in schoolchildren with consequences for mental capacity, attention, and learning, which means an enormous loss of opportunities in early development (Durán, 2004).

Scholars on the subject confirm the presence of a complex multiplicity of factors that determine malnutrition: poor breastfeeding and complementary feeding practices in Ecuador is far from those recommended. Early initiation of breastfeeding was carried out in 54.6% of children under 24 months; only 43.8% of children under 5 months were exclusively breastfed; while nearly half of infants under one month of age were exposed to fluids other than breast milk. In addition, among infants aged 5 to 6 months, 72% have

already consumed liquids other than breast milk, especially formula milk in its different formulas (ENSANUT-ECU 2012, 2012).

The Intersectoral Plan for Food and Nutrition Ecuador 2018 - 2025 constitutes the reaffirmation of the responsibility of the Ecuadorian State and the social co-responsibility for combating all forms of malnutrition, throughout the life course, which organized actions that affect the determinants of health. The country has a historical debt translated into the challenge of chronic malnutrition, which has been linked to deep social inequality and economic problems that affect the population with greater poverty and adverse living conditions, which compromises the development potential of people and the social conglomerate (Ministry of Public Health of Ecuador, 2022).

Nutrition throughout the life cycle is one of the main determinants of health, physical and mental performance, and productivity, and is essential for individual and national development (Kanchan & Krishan, 2011; Chiari et al., 2002). These immediate causes, which operate at the level of the individual, are in turn a consequence of underlying causes, which operate in the family and micro-social environment, among which food insecurity, the use of unhealthy water and sanitation systems, and poor care and feeding practices (Ministry of Public Health of Ecuador, 2022).

These intermediate causes, in turn, depend on socioeconomic that operate in the macroeconomic and macrosocial environment (basic causes) and are related to the generation of goods, resources, and services, and the equitable distribution among the various social groups, such as work as a right, balanced economic income. This sociocultural, political, and economic context determines poverty and is the decisive factor in malnutrition (UNICEF, 2022).

Malnutrition occurs during pregnancy and the first two years of life and has adverse effects on health and the development of capacities. It acts as a vicious circle: malnourished women have babies with less than adequate weight, which increases the chances of malnutrition in the following stages of life, it is one of the preferred indicators during pregnancy monitoring so that it evolves satisfactory way (Rivera Dommarco, 2022).

Malnutrition during childhood and preschool age has adverse effects on growth, development, and health; it is associated with delayed growth and psychomotor development, increased risk of morbidity and mortality, and long-term adverse effects on school and intellectual performance in school age, adolescence, and adulthood. It limits, therefore, the capacity of the individual to generate income, which results in a decrease in the endowment of human capital, which in turn affects the social development of their community and their country. Several economic factors determine low family income almost always accompanies malnutrition, this leads to low availability and access to food, lack of means to produce or buy it, poor sanitary conditions, poor care of infants, lack of access to education, poor eating practices, food whims and emotional factors (Yarpaz, 2021).

The analysis of socio-cultural factors is related to the role played by the family, towards the care and support of infant feeding, since there is evidence of the father, the mother and even the mother-in-law have in the development of the child, which includes the time of care and in addition to the sociocultural conditions. Families are characterized by satisfying both material and basic needs to maintain good health and well-being (Vasen et al., 1996). For this reason, the family plays an important role in the development and optimal growth of children under 3 years of age (Cuenca & Intriago, 2020).

It is notable that in Ecuador, short stature mediated by multiple factors is evident, despite the enormous efforts by health entities, but it is essential to find a mechanism where this serious problem can be progressively reduced, which affects the vast majority of communities with low availability or accessibility to food that guarantees nutritional requirements and that on the other hand has been adopted the consumption of low-cost processed foods, linked to the economic situation of each family, in a context of lack of employment, poverty and social vulnerability (UNICEF Office for Global Perspectives and Policies, 2019) (ILO, 2022).

The double burden of malnutrition has significant negative consequences not only for morbidity and mortality, but also for academic performance, social and labor inclusion, and the productivity of the entire population. At the same time, these effects have economic repercussions: “the most notable costs of undernutrition are due to the loss of productivity due to premature death and the reduction of years of schooling (PAHO/WHO, 2020).

The average family size, educational instruction, population occupation and economic income, and lack of sanitary services (sewerage and drinking water) affect the health, housing, and education conditions of children of this average age. Health problems are directly related to problems of malnutrition and poor nutrition in children in their early childhood, which causes delayed growth and negatively affects body size and function, as well as intellectual functions and behavioral patterns. behavioral; and it is closely related to socioeconomic factors, especially in third world countries (Calceto-Garavito, 2019).

Correct balanced nutrition and physical activity promote motor, cognitive, and learning development, necessary within the school process in early childhood. Factors such as obesity, economic conditions, and low academic expectations of parents constitute a health problem that hurts the self-concept or perception that each child has of himself, a situation that can influence behavior and dysfunctionality at the academic level and interpersonal relationships in the school stage (Rodríguez & Monge, 2017).

The study of the subject and the bibliographic review carried out for the project on the nursing career on the subject presented becomes more relevant since it is about studying a social phenomenon of great relevance in this area of the canton of Jipijapa, surrounded by rural areas, It is necessary to search for information and critical analysis that allows summarizing the data, clinical characteristics and factors that intervene in the development of child malnutrition in children in the age group studied, in this project the nursing students were the protagonists of the study of the field made.

In the field study operation carried out by the students of the nursing career, follow-up, verification, and control actions were carried out on the techniques for collecting anthropometric measurements and determining the body mass index, for their assessment and implementation of actions with a preventive, from the primary health care of the child, to detect early possible alterations in growth and development, as well as reduce the risk of morbidity and mortality.

The analysis, dissemination, and discussion of the actions of the Ministry of Public Health, to improve knowledge about food-nutritional health, of the individual and his family, to guarantee the promotion of health, and the prevention of diseases, was fulfilled. The actions are divided into five essential components that reflect the dimensions of action to prevent malnutrition problems step by step: from the recruitment process in the communities and care for the pregnant woman, follow-up, comprehensive child health care, a healthy environment, and citizen co-responsibility.

2 Materials and Methods

A qualitative, descriptive, and phenomenological study was carried out, a product of the combination of the needs and values of the patients observed in the Nursing Care Process (PAE), based on the systematization of the evidence and integration of the experienced clinic. They consist of the systematic integration of quantitative and qualitative methods in a single study to obtain a complete characterization of the phenomenon, it can be said that they arose from the complexity of some phenomena: human relationships and diseases to improve care (Hernández- Sampieri, 2018).

Among the theoretical methods used were historical-logical, for the analysis and interpretation of the field notes, discussion of the data obtained, in working group sessions of the project participants, which gives meaning to the limitations found in this study, allow conclusions to be drawn, the implications for the care of children with malnutrition at an early age in this community and the recommendations for future research (Hernández- Sampieri, 2018). The description, analysis-synthesis of the socioeconomic factors and their interaction in the community environment, must be clear and precise to guarantee the methodological rigor and the credibility of the findings found in the field study.

As empirical methods, observation, survey, and interview based on the application of family records were used. The study was carried out on 123 families from the citadel on the first of November. The literature review carried out is up-to-date and the information consulted provides solid knowledge to direct the care of children with malnutrition and their families with a prevention approach in the PAE (Alm et al.,1999).

In this way, all the analyzes carried out allowed in turn to observe the differences between sexes, by age and determination of all the variables studied. Statistical software was used SPSS and R to analyze the data provided by excel on the family record applied in the community studied. The study carried out from the project "Nursing intervention in the administration of supplements and vitamins in children from 0 to 3 years

of age of the CDI and the CNH" of the Jipijapa canton, identified households in five strata: stratum A, which represents 1.9 %, stratum B representing 11.2%, stratum C representing 22.8%, stratum D with 48.3% and stratum E with 15.9% at a low level.

The applied family records are necessary for the characterization of families according to their social strata, they play an essential role in primary health care to improve the process of Comprehensive Health Care in the communities, which requires standardization, where they can identify the various groups of risks present within the family nucleus, to improve actions to promote community and family health, the health indices of each individual where changes are promoted in the lifestyles of patients that allow achieving the balance of their lives and thus mitigate the risk of health conditions (Moreira, 2022).

3 Results and Discussions

It is necessary to propose actions that promote and contribute to the interdisciplinary approach from the basic sciences (biochemistry, morphophysiology, and pharmacology) to the disciplines of the profession in the nursing career, to strengthen the teaching-educational process and guarantee training comprehensive for the students (Uehara et al., 2002). In this sense, and based on the deficiencies detected, it is proposed that nursing students participate in projects jointly with teachers in the linking of integrative and interdisciplinary activities (Herrera & Luna, 2021).

According to what was assessed in this study, the students of the project participated in the application of a family file, which response to the capture of key aspects that help identify risk factors, prioritized populations, presence or absence of an event, and general conditions. related to access, opportunity, and treatment adherence, the file is structured into several components that respond to:

Housing data, family and social habitat conditions, basic data, medical history, health, and sexual health practices, maternity, health, mental component, lifestyles/behavior, and nutritional component, in turn, it has a field for observations, registration status, and news.

To obtain authorization, the agent must be clear about the following information: authorization for the processing of personal data, that those responsible for the processing of my data for the execution of the research take into account ethical aspects, to promote deontological, ethical, and practices related to the application of the filing instrument, promoting the capture of reliable, timely and responsible information, aspects such as: treating the people surveyed with respect and cordiality should be considered, listening to them and recognizing their rights, not talking on the cell phone during the application of the token. In addition, do not make any value judgment, disapproval, or show surprise at any response or lifestyle of the interviewees. The efficiency of the application, with humane and responsible treatment, determines the quality of the information obtained, from ethics.

Anthropometric evaluation

This technique helps to measure body dimensions: weight, height and perimeters, head, chest, and brachial of a patient before a physical examination, it is important to remember that there are established parameters that indicate a healthy or poor relationship between physical growth and of nutritional status (Espín, 2021). With this evaluation, a better organization of nursing care was achieved (where the anthropometric assurance of the patient is incorporated) and could result in a lower rate of complications, and with it, a decrease in the demand for nursing care and a better quality of care. perceived by the patient, their relatives, and the basic work team alike (García, 2010).

Anthropometric parameters were performed following the guidelines set by the WHO (2006), including age, sex, reason for consultation, allergies, weight, height, body mass index (BMI), brachial circumference index (in children). Monitoring of weight, height, arm circumference, skinfold, muscle bone surface (SOM, BMI, compartment measurement: fat, lean, and bone tissue.

Psychological evaluation related to psychomotor development

It is the process of analysis of neuromotor, cognitive, and psychosocial capacities, which takes place in the life of the child in his early childhood, is related to the maturation of the nervous structures as well as to the learning that the child to recognize himself and the world around him (Calceto-Garavito, 2019). The evaluation of the psychomotor development of children is a complex process, which requires continuous monitoring, child health controls allow early detection of problems and early intervention, hence the importance of knowing the evolutionary milestones at different ages indicative of healthy development adjusted to established norms and allows a broad classification that ranges from mechanical and automatic reflex movements to complex coordinated movements (Laguens & Querejeta, 2021).

These evolutionary changes do not have to follow a strict order or be rigid in their characteristics, it depends largely on the socio-educational and socio-cultural demands of the minor's environment, allowing the behaviors observed in development under a healthy and balanced diet to be conceptualized. The assessment of the study carried out by the National Institute of Statistics and Censuses (INEC), determined the socioeconomic level that most of the Ecuadorian population is in the middle stratum. The investigation carried out on 9,744 people in the cities of Quito, Guayaquil, Cuenca, Machala, and Ambato determined that 83% of Ecuadorians are in the middle stratum. While in the high stratum it is 1.9%, and in the low stratum 14.9% (Naciones Unidad Ecuador, 2020).

In the investigation, six categories were considered: what characteristics does the dwelling have, the level of education of the head of the household, the type of goods or services that the household accesses, access to technology, and the consumption habits that the household has. home: This made it possible to establish that the level of educational instruction and the occupation carried out by family members influence the correct acquisition of services that allow them to enjoy a decent life. The analysis of the results of the dimensions of the variables studied reflects the following data. Figure 1 shows the percentage of family size.

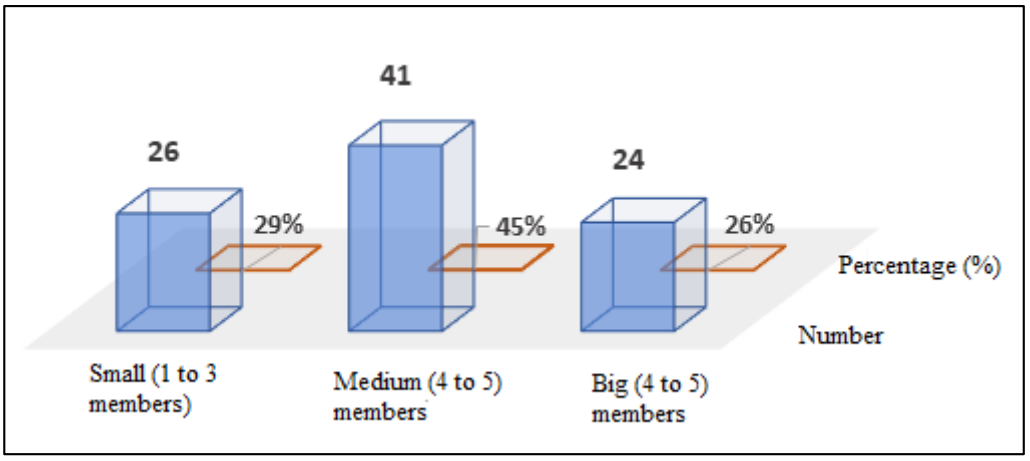

Figure 1. Average family size

A high percentage of medium-sized families (from 4 to 5 members) in small-space dwellings was identified, followed by 29% of small families and 26% corresponding to the type of large families.

The employment situation of the population

Figure 2 shows the economic income of surveyed families.

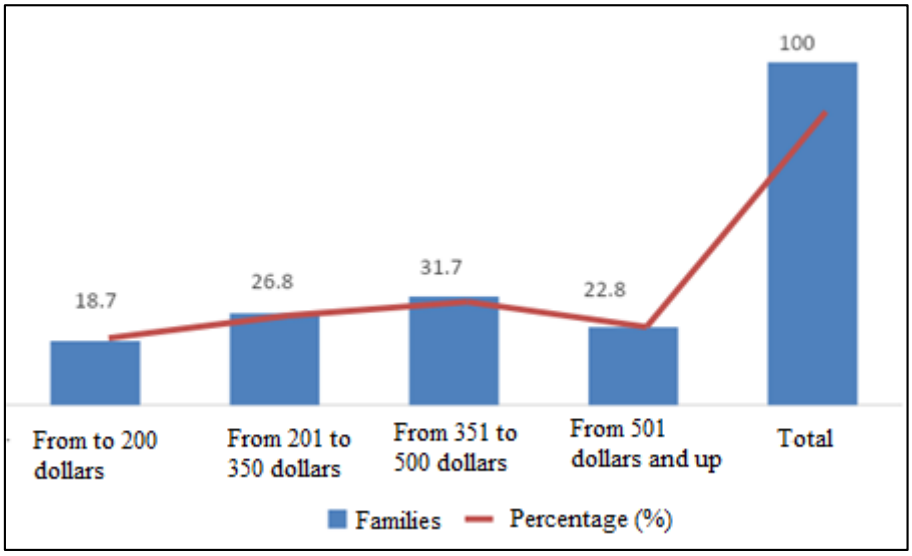

Figure 2. Average economic income of surveyed families

The analysis of economic income shows that there is a population with few economic resources, even below the minimum wage, more than 58% of families%, it is essential to teach them in a pleasant and preventive way to eat healthily, acquire a varied and complete diet for both children and adults, it is very difficult to change For this, it will be necessary to design primary prevention strategies that are supported by a solid base of population education for the use of resources destined for a balanced diet that could avoid states of malnutrition and associated pathologies in the children of the studied population. in the age group from 0 to 3 years.

On the analysis of the educational level of the population studied and surveyed, it was observed that a total of 53% have basic education studies, followed by 35% with high school studies, and 6% with higher education studies, where the level of education seems to influence the nutritional status of their children, showing a higher rate of malnutrition in those children who have mothers with a low level of education, which demonstrates the importance of access to education and information for those who are in charge of taking advantage of the resources. of the home and in turn create balanced and healthy eating habits at home, prioritizing exclusive breastfeeding for children from zero to 6 months and then adapting them to the weaning process. This study provides a reference to the prevalence of malnutrition in children under 3 years of age in the rural area of Jipijapa in the province of Manabí, treated in Operational Health Units of this canton, during the year 2021.

Among the most important results of the present investigation is the prevalence of malnutrition problems with 31.1%, either due to underweight, growth retardation, or emaciation, which to a study carried out in 2019, on malnutrition in minor children under 5 years: complications and management worldwide and in Ecuador, there is a significant number of children with malnutrition problems with a percentage of 7.8% in children under 5 years with malnutrition. On the other hand, of the children in this study, only 26.5% have this problem of malnutrition due to growth retardation and in BMI/E indicators 6.4% of children and improving the socioeconomic and health levels of a nation has been a cause for concern for the different rulers focused on seeking measures that allow people to enjoy quality services and promote improvements in health, housing, and education dimensions (Colchaa, 2019).

The social determinants of health are essential and are related to the circumstances in which people are born, grow, live, work, and age, including the health system. These conditions are the result of the distribution of money, power, and resources at the global, national, and local levels, which in turn depends on the policies adopted, because they lack a preventive action plan that responds to a diagnosis of the real social needs of the

Ecuadorian population, which is why socioeconomic factors are conditions related to child malnutrition in early childhood.

But the lack of management and the overflow of economic resources by the authorities have caused them to be a trigger when it comes to achieving the accessibility of free services that citizens demand of their rulers. The changes that have occurred throughout each government are observable, which determine the progress of society in health, education, and free housing activities, that is, focused on achieving a decent life.

The attitudes of the government towards these issues have in many cases been refuted by the results obtained that do not respond to the diagnosis of the needs of the children because not all of them enjoy the different services that are offered and are excluded from enjoying quality services. and warmth causing the percentage of poverty, and child malnutrition among other factors that force society to face the situation by investing in the resources that allow them to meet their needs (Sevilla-Paz Soldán, 2011).

Malnutrition problems associated with the negative conditions that manifest in the child population, in children from 0 to 3 years of age, persist, although in the last three decades its reduction has been minimal. The provision and access to high-quality health services, and the protection against economic risks of the people are the paradigms that drive the concern of a government to its nation.

The term also encompasses means of acting on social and environmental determinants both within and outside the health sector. Protection against economic risk is part of the set of measures that provide general social protection, low income in the home, access to basic services, electricity, drinking water, sewerage, occupation of the mother or caregiver, the fact that the mother is a teenager or lives in a family. Dysfunctional are some of the factors that can cause malnutrition in early childhood that can later generate future consequences linked to this disease where the quality of life can be affected, their school performance, which can also impact their chances of entering the world of work.

Another of the elements discussed in the community as a preventive measure and health promotion are immediate actions to be complied with by the cantonal authorities and communities to demand the strengthening of THE PAE systems in the most vulnerable groups, due to the rates of poverty and undernourishment of the country, the PAE must be adapted to the new modality of study from home, providing the raw material so that students can have access to school meals from their homes, generating community resilience.

The implementation of lactaries in public and private institutions: companies and educational centers must provide support to the mother, when rejoining student or work activities, becoming true sites for the promotion of breastfeeding and support for mothers, so that they can collect their milk, store it and transport it to their home, for your baby's well-being.

Greater national diffusion in the use of traffic light labeling: Ecuador needs to restructure the food system, protecting the health of the consumer considering the current pandemic. The labeling of the traffic light needs to be complemented, with strategies of diffusion to the citizenship, on the composition of foods that need to be consumed to strengthen and counteract the excessive consumption of sugar with emphasis on children of this age of study, educating their parents in this sense was an essential element of this project to promote the consumption of natural juices instead of sugary drinks, strengthening the health and well-being of the population (Ministry of Public Health of Ecuador, 2022).

In order to improve the problem of malnutrition in the community studied, health promotion and nutritional education activities should be promoted for parents, educators and authorities, so that from a very early age they can form healthy eating habits that in the future will help to counteract in the population the high rates of malnutrition and in the context of malnutrition problems; develop comprehensive health teams to follow up and monitor all children under 3 years of age who have malnutrition in all its forms, in order to work together on prevention, promotion, intervention and timely and effective follow-up measures, which guarantee improving nutritional status and contributing to reducing the prevalence of malnutrition, in addition to requesting the MIES authorities the intervention of a group of nutrition professionals to supervise and control the feeding that is carried out in children under 3 years of age belonging to the citadel "November 1" of the Jipijapa canton, optimizing the quality of food that children will ingest corresponding to the ages studied.

One of the aspects that must be specified are actions aimed at each of the inadequacies related to socioeconomic factors, which have a negative impact on nutrition, for the fulfillment of public policies, their

monitoring, evaluation, and materialization in practice to promote the improvement of the quality of life of Ecuadorian children to comply with the 2030 Agenda on sustainable development (Unicef, 2013).

4 Conclusion

In the research carried out on children under 3 years of age who come to the consultation at the Health Center of the Jipijapa canton, it was determined that in sociodemographic characteristics a homogeneous population was found to gender, their self-identification in families in a general way of mestizo ethnicity and Ecuadorian nationality, their level of schooling is medium and they are families that lack economic income greater than a basic salary, therefore, the possibility of having access to a basic family basket that guarantees children a balanced diet of nutrients is directly affected.

The nutritional status of the children evaluated using the anthropometric indicators P/E, T/E, P/T, and BMI/E in their great majority presented a normal nutritional status of 62.5%, but at the same time 37.5% have some problem of malnutrition, with emphasis on the population is affected by socioeconomic problems that negatively affect the health of children and lack of access to adequate food, balanced and quality.

Several factors influence children's eating behaviors, including family environment and context, maternal, paternal, and other influences living with the child, family meals, education, socioeconomic status, infant eating behavior, food preferences, early feeding practice, and the media influences of the environment where they develop

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