Nursing Depths Series. 2024; 3:144
doi: 10.56294/nds2024144

REVIEW

Maternal knowledge and feeding practices in the prevention of child malnutrition: an analysis based on Nola Pender's theory

Conocimientos maternos y prácticas de alimentación en la prevención de la desnutrición infantil: un análisis desde la teoría de Nola Pender

Osvar Arley Casas Portilla[1], Jessika Katerine López Reyes[1], Bryan Josué Valverde Vera[1], Miguel Ángel Enríquez Jácome[1], Jenrry Fredy Chávez-Arizala[1]

[1]Instituto Superior Tecnológico Adventista del Ecuador, Técnico Superior en Enfermería. Santo Domingo, Ecuador.

Cite as: Casas Portilla OA, López Reyes JK, Valverde Vera BJ, Enríquez Jácome M Ángel, Chávez-Arizala JF. Maternal knowledge and feeding practices in the prevention of child malnutrition: an analysis based on Nola Pender's theory. Nursing Depths Series. 2024; 3:144. https://doi.org/10.56294/nds2024144

Submittted: 25-07-2023 **Revised:** 17-10-2023 **Accepted:** 01-02-2024 **Published:** 02-02-2024

Editor: Dra. Mileydis Cruz Quevedo

ABSTRACT

The research focused on analysing child malnutrition from the perspective of Nola Pender's Health Promotion Model, which was geared towards disease prevention and the promotion of healthy lifestyles. This model made it possible to understand that health was a dynamic process influenced by biological, social, cultural and environmental factors and that, in the case of children, malnutrition was a complex problem with multiple determinants. The presentation highlighted that child malnutrition could occur in acute and chronic forms, associated with both caloric and protein deficiencies, with serious consequences for children's growth, cognitive development and school performance. It also showed that poverty, social inequalities, lack of food education and limited maternal knowledge were the main risk factors. From this perspective, the Pender Model provided a theoretical framework to guide preventive actions that promote health care and encourage appropriate feeding practices. Finally, it was concluded that the role of mothers was decisive in preventing malnutrition, as their knowledge directly influenced the selection, preparation and frequency of food provided to children. It was also highlighted that health education, access to basic resources and professional support were essential elements in reducing the prevalence of malnutrition and ensuring full development in childhood.

Keywords: Child Malnutrition; Health Promotion; Nola Pender; Maternal Nutrition; Prevention.

RESUMEN

La investigación se centró en el análisis de la desnutrición infantil desde la perspectiva del Modelo de Promoción de la Salud de Nola Pender, el cual se orientó a la prevención de enfermedades y a la promoción de estilos de vida saludables. Este modelo permitió comprender que la salud se configuraba como un proceso dinámico influenciado por factores biológicos, sociales, culturales y ambientales, y que, en el caso de la niñez, la desnutrición representaba una problemática compleja con múltiples determinantes. En el desarrollo se destacó que la desnutrición infantil podía presentarse en formas agudas y crónicas, asociadas tanto a carencias calóricas como proteicas, con consecuencias graves para el crecimiento, el desarrollo cognitivo y el desempeño escolar de los niños. También se evidenció que la pobreza, las desigualdades sociales, la falta de educación alimentaria y el escaso conocimiento materno constituían los principales factores de riesgo. Desde esta perspectiva, el Modelo de Pender ofreció un marco teórico capaz de guiar acciones preventivas que promovieran el cuidado de la salud y fomentaran prácticas de alimentación adecuadas. Finalmente, se concluyó que el rol de las madres resultaba determinante en la prevención de la desnutrición, ya que sus conocimientos influían directamente en la selección, preparación y frecuencia de los alimentos suministrados a los niños. Asimismo, se resaltó que la educación en salud, el acceso a recursos básicos y el acompañamiento

profesional eran elementos esenciales para reducir la prevalencia de la desnutrición y garantizar un desarrollo pleno en la infancia.

Palabras clave: Desnutrición Infantil; Promoción de la Salud; Nola Pender; Nutrición Materna; Prevención.

INTRODUCTION

Child malnutrition is one of the most persistent and complex public health problems in the contemporary world, resulting from multiple social, cultural, biological, and economic determinants that converge in the lives of children from the earliest years of existence.[1,2,3] This phenomenon not only compromises physical growth and cognitive development but also has long-term repercussions on the quality of life, school performance, and social integration of those who suffer from it.[4,5,6] Given this situation, theoretical nursing models have become particularly relevant, as they offer frameworks for action that enable us to understand and address the preventive and promotional dimensions of health.[7,8,9,10] Among these, Nola Pender's Health Promotion Model stands out as a fundamental reference, as it focuses on identifying factors that influence healthy behaviors and implementing strategies that promote optimal lifestyles.[11]

Applied to the field of child nutrition, this model facilitates understanding of how elements such as maternal knowledge, feeding practices, poverty, and sociocultural conditions interact in shaping nutritional risks.[12,13] Its value lies in offering a preventive and comprehensive approach, aimed not only at correcting deficiencies but also at building capacities to maintain health over time.[14,15] In this sense, the articulation between scientific knowledge, health education, and community action is essential to combat malnutrition in a sustained manner, particularly in contexts where resources are limited. This study therefore seeks to comprehensively analyze the relevance of health promotion in the prevention of child malnutrition, with special emphasis on the role of nursing professionals, mothers, and society in general as active agents in building a healthy and protective environment for children.

DEVELOPMENT

Nola Pender's Health Promotion Model focused on helping people achieve a better level of well-being by explaining the factors that influence the development of healthy behaviors, which will provide solutions, since health is a dynamic state that can be impaired by various conditions such as the environment, behavior, biology, and human lifestyles, bearing in mind that this approach focuses on disease prevention and health promotion. Well-being is a constant process that can improve day by day.[18,19] Its purpose is to help understand these determinants and thus develop the promotion of a good lifestyle.[20]

On the subject of child malnutrition, Nola Pender's Health Promotion Model was highly relevant and important, as it reveals that there are factors that cause children to suffer from this eating disorder. This model is based on promoting the maintenance of adequate health, helping to recognize these factors, such as poor diet, low economic resources, sedentary lifestyles, and mothers' lack of knowledge about proper nutrition. In this way, health professionals, together with the implementation of this model, can prevent these factors and promote health care, which helps prevent not only malnutrition but also other long-term diseases.

CONCEPTUAL FRAMEWORK

Child malnutrition

Children who do not meet the nutritional requirements that the body needs have an unstable nutritional status due to low food intake. There may also be factors that cause children to have this problem, such as biological, economic, social, or cultural factors, or the result of other pathologies that mainly affect the digestive system. On the other hand, poor education and low awareness of the issue among parents and children is a problem that can give rise to this adversity. These causes lead to poor nutritional status, which in the long term affects both the growth and development of children.[21]

Types of child malnutrition

Acute and chronic malnutrition are the main and most common types. Acute malnutrition progresses rapidly and occurs over a short period of time, while chronic malnutrition is the opposite, occurring over a longer and more prolonged period.[22] In the case of chronic malnutrition, there are other types such as caloric malnutrition or marasmus, which is characterized by a severe calorie deficiency in the body, indicating that there is not enough energy intake to meet the body's needs. There is also Kwashiorkor or protein malnutrition, which is caused by low protein consumption. This occurs mainly in populations whose diet is based on low protein consumption and higher consumption of wheat.[23]

Causes of child malnutrition

UNICEF[24] mentioned that child malnutrition is a complicated and complex problem that originates from various types of factors and causes. For example, mothers have little knowledge and lack education on this subject, many babies are born underweight, which leads them to suffer from malnutrition. On the other hand, poverty is a major risk factor that leads to many families having members with this nutritional problem. However, among the main causes of malnutrition are cultural conditions, inequality, diseases, poor feeding practices, sedentary lifestyles, and behaviors, among others.

Consequences of child malnutrition

According to UNICEF[25], in the case of children, a form of malnutrition that persists for a long time (chronic) can affect cognitive development during the stage when they attend school. It also affects their growth and intellectual development, leading to other diseases such as pneumonia, malaria, measles, and diarrhea, among others. On the other hand, acute malnutrition is caused by a severe lack of food, quickly causing weight loss and decreased muscle tone, making this type of malnutrition more fatal. Malnutrition not only has consequences for humans, but also in the economic and social spheres, for example, the costs generated in the treatment of this type of malnutrition.

Diagnosis of child malnutrition

UNICEF[25] explained that the diagnosis of malnutrition is based on a comprehensive assessment of a person's nutritional status. These procedures help to assess the state of malnutrition in both adults and children. One of them is through an assessment based on anthropometric measurements, which include weight, height, skin folds, and circumferences of the extremities, waist, hips, among others. This physical examination helps to determine a person's nutritional status, with follow-up to monitor their progress. There are also biochemical markers that perform these determinations in order to verify nutritional progress and control. In these cases, plasma albumin can be used, but in short-term alterations, prealbumin is used.[26]

Treatment and prevention of child malnutrition

Adequate treatment for malnutrition will ensure the availability of nutrients. Foods for medical use are specially prepared products intended for the dietary management of patients, covering the nutritional needs of hospitalized individuals with problems of indigestion, digestion, and elimination. In other aspects, follow-ups should be carried out to implement diets that accommodate the nutritional needs required. For malnutrition, an assessment should be carried out to determine the main cause so that in order to implement the most appropriate treatment, it is also necessary to educate and provide adequate nutrition, taking into account the main determinants and conditions presented by the individual.[27]

UNICEF[24] mentioned that in order to prevent malnutrition, it is vital to take into account that in the case of children, this problem originates from different types of factors, so these causes must be considered in order to promote an effective way of preventing people, especially children, from developing this problem. Support and education can also be provided to parents to raise awareness of the importance of this issue, so that they are better prepared to deal with this difficulty should it arise. Children must have access to safe drinking water in order to prevent infections and, above all, guaranteed access to a health center where they can be monitored and checked, so that any risk of malnutrition and their current state of health can be detected in time.[21]

Mothers' knowledge of child nutrition

Definition of knowledge

Knowledge is based on acquiring information and skills that are developed through the mind, which involves recognizing everything around us using the cognitive abilities that help us understand the world, since knowledge can be applied or conceptualized in different fields. Knowledge is an invaluable resource that allows human beings to understand and relate to society, encompassing facts and skills to process, analyze, and use them effectively because information is obtained from sources such as books and research.[28]

General concepts about health

Several studies have evaluated, demonstrated, and reported on the level of knowledge that mothers have on different aspects of children's health. For example, a study conducted in Cuba evaluated the knowledge and attitudes of mothers regarding feeding practices in infants aged 6 to 24 months. It found that most mothers did not have adequate knowledge about proper nutrition for their children, highlighting the need to educate mothers on various aspects that are beneficial to their health care. In addition to leading to malnutrition, this also affects the child's overall development, causing a major problem at that stage of growth, This makes them more prone to other types of diseases.[29]

Specific knowledge about malnutrition: definition, causes, symptoms

A study conducted in the parish of Angochagua, Ecuador, showed that most mothers had a good understanding of the subject, as well as good attitudes and practices regarding breastfeeding and complementary feeding.[30] Another study in Guatemala found that the level of knowledge about breastfeeding and complementary feeding was related to the prevalence of acute malnutrition in children under two years of age. Thanks to this research, it is possible to focus on the importance of mothers understanding and having good knowledge about these issues, as this also influences children's malnutrition due to poor education and low knowledge among their mothers.[31]

In terms of mothers' knowledge about the causes of child malnutrition, very relevant data has been found showing that mothers have a certain level of knowledge and practices that include the prevention of chronic malnutrition for the protection of children, as part of a social program for beneficiaries carried out in Peru.[32] No significant data was found on mothers' level of knowledge about the symptoms of malnutrition. However, it is very important to carry out follow-up studies in this area in order to obtain evidence and knowledge in the sectors where mothers have the lowest level of knowledge.

Infant feeding practices

Identification of risky practices

It is important to know that children should not be forced to eat when they no longer want to, as this will cause anxiety at mealtimes due to unnecessary overeating, triggering future problems such as overweight by encouraging inappropriate habits. It is better to encourage a calm environment at each meal so that the child can enjoy their food freely and safely, allowing them to decide when they feel satisfied, In addition, keep in mind that the diet should also be varied and creative, so that it attracts the child's attention and encourages them to eat properly, ensuring that each food meets the nutritional requirements of the body.[33]

The role of the mother in preventing malnutrition

Mothers play an important role in the feeding and general care of their children. In the case of babies aged zero to six months, mothers are responsible for providing exclusive breastfeeding through adequate and correct nutrition. This is a relevant factor in preventing malnutrition, as it promotes optimal development in their children. From six months onwards, each mother should incorporate foods that are appropriate for the child's age, with the correct texture and quantity, selecting and offering the best, so that these fulfill their role within the child's body, which at each stage of life needs different nutritional sustenance, and it is these that prevent the contracting diseases due to inadequate nutrition. The first years of life are key to proper physical, mental, and emotional development.[34]

Relationship between maternal nutritional knowledge and child nutritional status

There is a very close relationship between nutritional knowledge and child nutritional status, because knowledge is the key to a child's healthy status. The information that the mother has leads her to be selective in her food choices and preparation, seeking a balanced, varied, and complete diet, bearing in mind that her child's health will depend on the choices she has made. This reduces the likelihood of malnutrition, considering that growth and development will improve and the levels of diseases triggered by poor nutrition will decrease.[35]

For the reasons mentioned above, it has been necessary to emphasize that children should eat five to six times a day because they are constantly physically active and expend energy. To recover that energy, they must eat well, which is achieved by consuming nutritious foods on a regular basis. This type of food consumption helps children to be strong, healthy, energetic, and, above all, healthy. Hydration is another important factor in good nutrition, because water has interesting functions when it enters the body, such as eliminating toxins, improving digestion, helping with better nutrient absorption, and keeping the skin hydrated.[36]

Poor nutrition has consequences for children's health, with short- and long-term effects that can lead to problems that compromise their health and life, such as anemia, poor school performance, cognitive problems, and a weakened immune system, which makes children more susceptible to infections because they do not have the necessary defenses to combat these viruses. If not treated in time, diseases such as malnutrition can be triggered, which, if not treated in time, can lead to death.[37,38,39]

CONCLUSIONS

The analysis carried out allowed us to understand that child malnutrition transcends a mere lack of food and constitutes a complex phenomenon, determined by multiple interrelated factors ranging from biological and social determinants to cultural and educational aspects. In this context, Nola Pender's Health Promotion Model offers a solid theoretical basis for guiding health interventions, as it emphasizes prevention, family empowerment, and the acquisition of healthy behaviors as pillars of child well-being. Its application in the

field of nutrition highlights the need to recognize and address not only the symptoms and consequences of malnutrition, but also the structural roots that cause it, such as poverty, inequality, and lack of nutrition education.

Likewise, it was found that mothers' level of knowledge about child nutrition is a determining factor in preventing this problem. Adequate information, accompanied by appropriate feeding practices consistent with the needs of each stage of development, promotes the strengthening of the immune system, cognitive performance, and the overall growth of children. Consequently, health promotion cannot be reduced to isolated interventions, but must be conceived as a continuous, dynamic, and multidimensional process, in which education, access to basic resources, the active participation of families, and the ongoing support of health professionals converge.

In short, addressing child malnutrition from a health promotion perspective involves making a collective commitment to risk prevention and strengthening protective factors. Only by integrating public policies, educational programs, and sustainable community strategies will it be possible to ensure children's full development, recognizing that adequate nutrition is not only a biological requirement but also a human right essential to life and well-being.

BIBLIOGRAPHICAL REFERENCES

1. Bernal Torres CA, Salavarrieta D, Sánchez Amaya T, Salazar R. Metodología de la investigación para administración, economía, humanidades y ciencias sociales. 2006. Disponible en: https://books.google.com/books/about/Metodolog_a_de_la_investigaci_n.html?id=h4X_eFai59oC

2. Calderón YM. Nivel de conocimiento en madres sobre la alimentación complementaria en niños menores de 1 año en el centro de salud - Huariaca 2020. 2020. Disponible en: https://repositorioslatinoamericanos.uchile.cl/handle/2250/6602417

3. Llanos Palomino CS. Percepciones sobre alimentación saludable y no saludable en madres y escolares del nivel primario de una institución educativa, Santa Anita - Lima. 2016. Disponible en: https://cybertesis.unmsm.edu.pe/backend/api/core/bitstreams/015ff89f-228b-4084-81e1-6ff4dcf6c9e0/content

4. De Oliveira Lima-Filho D, Quevedo-Silva F, Gomes Coelho Ewerling S, Rodríguez da Silva W. Criterios de selección y de consumo alimentarios en pequeñas ciudades de Brasil. 2016. Disponible en: https://www.redalyc.org/pdf/877/87747436008.pdf

5. Lara EM. Fundamentos de investigación; un enfoque por competencias. 2013. Disponible en: https://www.google.com.ec/books/edition/Fundamentos_de_investigación_Un_enfoque/LgDYDAAAQBAJ

6. Tarazona Rueda GDP. Conocimiento materno sobre alimentación saludable y estado nutricional en niños preescolares. An Fac Med. 2021;82(4):269-74. Disponible en: https://doi.org/10.15381/ANALES.V82I4.20130

7. Encalada J, Montoya V, Pardo E. Conocimiento materno sobre alimentación complementaria e influencia en el estado nutricional de los niños de 6 a 24 meses de Zamora. 2023. Disponible en: https://www.researchgate.net/publication/373359532

8. Ley orgánica de participación ciudadana. 2010. Disponible en: https://www.oas.org/juridico/pdfs/mesicic4_ecu_org6.pdf

9. Corona Martínez LA, Fonseca Hernández M. Acerca del carácter retrospectivo o prospectivo en la investigación científica. 2021. Disponible en: https://www.researchgate.net/publication/353331938

10. Gómez MM. Introducción a la metodología de la investigación científica. Fármacos. 2006;12(1):60-71. Disponible en: https://www.google.com.ec/books/edition/Introducción_a_la_metodología_de_la_in/9UDXPe4U7aMC

11. Coca Jurado MM. Nivel de conocimiento de padres sobre alimentación infantil y estado nutricional de preescolares del colegio Unión 2017. 2017. Disponible en: https://repositorio.usil.edu.pe/server/api/core/bitstreams/5693fee4-4a9c-4084-bed8-0e7e801180eb/content

12. Martel Llanos AC, Ramírez Medina CG. Nivel de conocimiento materno sobre la alimentación saludable para niños de la Institución Educativa Challhuayaco 2021. 2021. Disponible en: https://repositorio.ucv.edu.pe/

bitstream/handle/20.500.12692/60650/Martel_LAC-Ramirez_MCG-SD.pdf

13. Rodríguez M, Mendivelso F. Diseño de investigación de corte transversal. 2018. Disponible en: https://www.researchgate.net/profile/Fredy-Mendivelso/publication/329051321_Diseno_de_investigacion_de_Corte_Transversal/links/5c1aa22992851c22a3381550/Diseno-de-investigacion-de-Corte-Transversal.pdf

14. Medranda-Morales N, Valbuena-Bedoya N. Comunicación y ciudad. 2020. Disponible en: https://www.google.com.ec/books/edition/Comunicación_y_ciudad/TFg7EAAAQBAJ

15. Navarro Reyes D. La responsabilidad civil médica frente al incumplimiento del consentimiento informado. 2021. Disponible en: https://www.google.com.ec/books/edition/La_responsabilidad_civil_médica_frente/8nlTEAAAQBAJ

16. Revista Manabí. Iniciativa privada contribuye a reducir la desnutrición crónica infantil en Santo Domingo de los Tsáchilas. 2023. Disponible en: https://revistademanabi.com/2023/12/10/iniciativa-privada-contribuye-a-reducir-la-desnutricion-cronica-infantil-en-santo-domingo-de-los-tsachilas/

17. Secretaría Técnica Ecuador Crece Sin Desnutrición Infantil. Ecuador redujo el índice de Desnutrición Crónica Infantil al 20,1%. s. f. Disponible en: https://www.infancia.gob.ec/ecuador-redujo-el-indice-de-desnutricion-cronica-infantil-al-201/

18. Tenorio Correa SM. Estrategias para disminuir la malnutrición en niños de 1 a 3 años del centro infantil del buen vivir "los alfaros". 2019. Disponible en: http://dspace.espoch.edu.ec/bitstream/123456789/12563/1/10T00210.pdf

19. Sousa VD, Driessnack M, Mendes IAC. Revisión de diseños de investigación resaltantes para enfermería. Parte 1: diseños de investigación cuantitativa. Rev Latino-Am Enfermagem. 2007;15(3):502-7. Disponible en: https://doi.org/10.1590/S0104-11692007000300022

20. Quiles Marco Y, Quiles Sebastián M. Promoción de la Salud: Experiencias prácticas. 2015. Disponible en: https://www.google.com.ec/books/edition/Promoción_de_la_Salud_Experiencias_Pr%C3%A1/DuczCwAAQBAJ

21. Mosso Ortiz MC, Rea Guamán MR, Beltrán Moso KM, Contreras Briceño JIÓ. Prevalencia de desnutrición infantil en menores de tres años en dos cantones de Ecuador. 2021. Disponible en: https://revistasdigitales.uniboyaca.edu.co/index.php/rs/article/view/613/587

22. Prudhon C. Evaluación y tratamiento de la desnutrición en situaciones de emergencia. 2002. Disponible en: https://www.google.com.ec/books/edition/EVALUACION_Y_TRATAMIENTO_DE_LA_DESNUTRIC/_QuUkl7cZ6QC

23. Hernández Blázquez B. Técnicas estadísticas de investigación social. 2001. Disponible en: https://www.google.com.ec/books/edition/Técnicas_estadísticas_de_investigación/vpfVgmaR5qUC

24. UNICEF. Seguimiento de los Progresos en la Nutrición de los Niños y las Madres. Fondo de las Naciones Unidas para la Infancia. 2009. p. 23-30. Disponible en: http://www.cmamforum.org/Pool/Resources/Seguimiento-de-los-progresos-en-la-nutricion-de-los-ninos-y-las-madres-UNICEF-SP-2009.pdf

25. UNICEF. La desnutrición crónica es un problema que va más allá del hambre. 2021. Disponible en: https://www.unicef.org/ecuador/comunicados-prensa/la-desnutrición-crónica-es-un-problema-que-va-más-allá-del-hambre

26. Hernández De la Torre E, González Miguel S. La responsabilidad civil médica frente al incumplimiento del consentimiento informado. 2021. Disponible en: https://revistas.um.es/reifop/article/view/435021/287801

27. Peiró Moreno S, Llano Señarís JD, Gol Montserrat J. Tratamiento de la desnutrición relacionada con la enfermedad: situación de la regulación en el Sistema Nacional de Salud. Nutr Hosp. 2021;37(6):1246-80. Disponible en: https://doi.org/10.20960/NH.03082

28. García AM. Conocimiento: ¿Qué es y cuál es su importancia? 2021. Disponible en: https://economipedia.com/definiciones/conocimiento.html

29. Ajete Careaga SB. Conocimiento, actitudes y prácticas alimentarias de madres con niños de 6 a 24 meses en Cuba. 2017. Disponible en: https://www.medigraphic.com/pdfs/revsalpubnut/spn-2017/spn174b.pdf

30. Rosales Lara NN. Conocimientos, actitudes y prácticas sobre lactancia materna y alimentación complementaria en madres con niños/as menores de 2 años en Zuleta, parroquia Angochagua, y su relación con la desnutrición crónica infantil. 2017. Disponible en: https://repositorio.uide.edu.ec/bitstream/37000/5366/1/T-UIDE-0506.pdf

31. De la Roca K, Guerra D, Barrios A, García A, Liska C, Velásquez M. Conocimientos en lactancia materna y alimentación complementaria en madres usuarias de los servicios de salud pública de Guatemala. 2022. Disponible en: https://rcientifica.com/index.php/revista/article/view/301/428

32. Castillo-Saavedra EF, Corpus-Chávez FC, Reyes-Alfaro CE, Salas-Sánchez RM, Ayala-Jara CI. Conocimiento y prácticas sobre desnutrición crónica en madres beneficiarias de un programa social peruano. Mem Inst Investig Cienc Salud. 2020;18(1):14-21. Disponible en: https://doi.org/10.18004/MEM.IICS/1812-9528/2020.018.01.14-021

33. Rodríguez Losada N. Material Docente para Desarrollo de Competencia Alimentaria y Resolución de Problemas Sociocientíficos relacionados con la Cardioeducación. 2021. Disponible en: https://riuma.uma.es/xmlui/bitstream/handle/10630/20869

34. Barrera Vásquez JS. Nivel de conocimiento de las madres sobre la alimentación y su asociación con el estado nutricional de los niños en los pronoei de los distritos con alta incidencia de mal estado nutricional en la provincia de Chiclayo 2019. 2021. Disponible en: https://repositorio.usmp.edu.pe/bitstream/handle/20.500.12727/8114/barrera_vasquezjs.pdf

35. Medina Sotomayor EM. Relación del estado nutricional y conocimientos sobre el inicio de alimentación complementaria de padres y cuidadores de niños menores de 2 años en 2 guarderías de la ciudad de Azogues, Ecuador. 2023. Disponible en: https://dspace.udla.edu.ec/bitstream/33000/14750/1/UDLA-EC-TMND-2023-28.pdf

36. Martínez B. Alimentación para bebés y niños por edades - Todo lo que deben comer. 2023. Disponible en: https://www.guiainfantil.com/articulos/alimentacion/alimentacion-para-bebes-y-ninos-por-edades/

37. Organización Mundial de la Salud. La OMS acelera el trabajo sobre las metas de nutrición con nuevos compromisos. 2021. Disponible en: https://www.who.int/es/news/item/07-12-2021-who-accelerates-work-on-nutrition-targets-with-new-commitments

38. Organización Mundial de la Salud. Malnutrición. 2024a. Disponible en: https://www.who.int/es/news-room/fact-sheets/detail/malnutrition

39. Organización Mundial de la Salud. Malnutrición. 2024b. Disponible en: https://www.who.int/es/news-room/fact-sheets/detail/malnutrition

FINANCING

None.

CONFLICT OF INTEREST

None.

AUTHOR CONTRIBUTION

Conceptualization: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Data curation: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Formal analysis: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Research: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Methodology: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Project management: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Resources: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Software: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Supervision: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Validation: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Visualization: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Writing – original draft: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

Writing – review and editing: Osvar Arley Casas Portilla, Jessika Katerine López Reyes, Bryan Josué Valverde Vera, Miguel Ángel Enríquez Jácome, Jenrry Fredy Chávez-Arizala.

https://doi.org/10.56294/nds2024144 ISSN: 3072-8118