

REVIEW

## Breastfeeding, oral habits, and malocclusions in children aged 3 to 6 years

### Lactancia materna, hábitos orales y maloclusiones en niños de 3 a 6 años

Laura Nieves Ordaz Galván<sup>1</sup>  , Danisbel Pérez Ayala<sup>2</sup> , Ismey Márquez Lozano<sup>1</sup> , Dunia Milagros Labrador Falero<sup>3</sup> , Jadier Wong Silva<sup>4</sup> 

<sup>1</sup>Universidad de Ciencias Médicas de Pinar del Río. Pinar del Río, Cuba.

<sup>2</sup>Clínica Estomatológica Docente San Juan y Martínez. Pinar del Río, Cuba.

<sup>3</sup>Universidad de Ciencias Médicas de Pinar del Río. Pinar del Río, Cuba.

<sup>4</sup>Universidad de Ciencias Médicas de Pinar del Río. Hospital Pediátrico Provincial Docente “Pepe Portilla”. Pinar del Río, Cuba.

**Cite as:** Ordaz Galván LN, Pérez Ayala D, Márquez Lozano I, Labrador Falero DM, Wong Silva J. Breastfeeding, oral habits, and malocclusions in children aged 3 to 6 years. *Odontología (Montevideo)*. 2024; 2:101. <https://doi.org/10.62486/agodonto2024101>

Submitted: 12-11-2023

Revised: 18-02-2024

Accepted: 22-05-2024

Published: 23-05-2024

Editor: Nairobi Hernández Bridón 

#### ABSTRACT

**Introduction:** breastfeeding is one of the fundamental principles for promoting health and preventing diseases.

**Objective:** to determine the impact of breastfeeding on the occurrence of deforming oral habits and malocclusions in children.

**Method:** an observational, descriptive, cross-sectional study was conducted on children attending the “Hermanos Saiz” Stomatological Clinic in the municipality of San Juan y Martínez, Pinar del Río, from November 2023 to May 2024. Population: Children aged between 3 and 6 years. (N=125). Sample: Intentionally selected by expert criteria, including 75 patients based on inclusion and exclusion criteria. Information was obtained from individual medical records, surveys, and patient information forms. Descriptive statistics were used, with results presented as absolute and percentage frequencies.

**Results:** combined breastfeeding predominated in 5-year-old female patients with a breastfeeding duration of 0 to 3 months associated with combined breastfeeding. The main deforming oral habits were mouth breathing and digital sucking during the breastfeeding period of 0 to 3 months. The most frequent malocclusions were open bites and mesial steps.

**Conclusions:** mixed breastfeeding conditioned the presence of deforming oral habits which, when combined with poor maxillary development, could lead to malocclusions. The relationship between the infant’s nutrition modality and malocclusions should continue to be studied constantly to provide more diagnostic and practical contributions.

**Keywords:** Children; Breastfeeding; Oral Habits; Malocclusion; Dental Care; Primary Health Care.

#### RESUMEN

**Introducción:** la lactancia materna es uno de los principios básicos para promover la salud y prevenir enfermedades.

**Objetivo:** determinar el impacto de la lactancia materna en la ocurrencia de hábitos bucales deformantes y maloclusiones en niños.

**Método:** estudio observacional, descriptivo, transversal en niños pertenecientes a la Clínica Estomatológica “Hermanos Saiz”, municipio San Juan y Martínez, Pinar del Río, durante el periodo noviembre 2023- mayo 2024. Universo: niños con edades entre 3 y 6 años. (N=125). Muestra: intencional a criterio de expertos con 75 pacientes según criterios de inclusión y exclusión. La información se obtuvo de las historias clínicas individuales, encuesta y ficha de información del paciente. Se utilizó estadística descriptiva, mostrándose

los resultados mediante frecuencias absolutas y porcentuales.

**Resultados:** predominó la lactancia materna combinada en pacientes de 5 años, sexo femenino y tiempo de lactancia de 0 a 3 meses asociado a lactancia materna combinada. Los principales hábitos bucales deformantes fueron respiración bucal y succión digital en tiempo de lactancia de 0 a 3 meses. Las maloclusiones más frecuentes fueron las mordidas abiertas y escalón mesial.

**Conclusiones:** la lactancia materna mixta condicionó la presencia de hábitos bucales deformantes que, combinada con un desarrollo maxilar deficiente, puede originar maloclusiones. La relación entre la modalidad de nutrición del infante y las maloclusiones debe continuar en constante estudio para reportar mayores contribuciones de tipo diagnóstico y práctico.

**Palabras clave:** Niños; Lactancia Materna; Hábitos Orales; Maloclusión; Atención Odontológica; Atención Primaria de Salud.

## INTRODUCTION

*Breastfeeding* is a biological reality that can change due to economic and social factors, which have remained the norm for human infants since the dawn of human history. This is a natural human instinct, but at the same time, it is an acquired behavior, which is why it is recommended that mothers are educated during pregnancy and that alternative feeding options are offered after delivery.<sup>(1)</sup>

There is extensive evidence of the advantages of breastfeeding for newborns and mothers. Global organizations have recommended exclusive breastfeeding for at least the first six months of age. However, in many developed countries, there is resistance to change.<sup>(1)</sup>

There is currently no product on the market that provides better benefits than breastfeeding. Despite the increasingly improved composition of formula milk, it still does not contain the necessary antibodies for the newborn.<sup>(2)</sup>

It has been proven that the human being with the best chances of achieving good development and quality of life is the one who is nourished with the best physical, mental, and emotional ingredients from the beginning.<sup>(3)</sup>

An entire society or an important segment of society becomes susceptible to the risk of harm to children or exposure to their power. However, few people consider the decision not to breastfeed, taking into account that it is the best food and the most effective medicine for babies from the first days from colostrum to mature milk, helping to reduce the possibility of diseases and increase the development of brain cells. This, together with the fact that it allows a more intense interaction between mother and child, which confers more security to the baby, reduces its renal "load," as well as protects it against food and respiratory intolerance, among other great advantages.<sup>(4)</sup>

From an early age, nutritional functions play a very important role in the development of the craniofacial mass, especially of the dental arch. During lactation, the oral muscles are stimulated, and the structures of the infant's oral apparatus are mobilized, which has a positive effect on the correct development of the child. A correlation has been reported between low ingestion of breast milk in newborns and defects in the mineralization of the primary incisors.<sup>(5)</sup>

If the sucking is not satisfactory, the infant will require replacement feedings throughout life, with a tendency to suck his fingers or tongue after feeding to satisfy the sucking instinct. They also tend to put foreign bodies in their mouths and bite their nails, hair, hands, and lips, which constitute inadequate behaviors and cause malocclusions later on.<sup>(5)</sup>

It is suggested that malocclusions occupy a third place as an oral health problem; different international and national studies reflect malocclusions in a frequency of 70 to 80 %.<sup>(5)</sup>

Dental caries in early childhood is now considered a public health problem affecting infants worldwide. The prevalence of this disease varies from country to country, and studies have described risk factors associated with it, including bottle-feeding habits.<sup>(6)</sup>

Bottlefeeding the baby in the first months of life will hinder the development of breastfeeding. In addition, the use of the teat establishes a sucking pattern different from the one that is physiologically produced during breastfeeding, preventing the formation of the correct bite pattern.<sup>(7)</sup>

In the Province of Pinar del Río, there are few scientific reports or articles published on breastfeeding associated with the presence of deforming oral habits and malocclusions.

Due to the importance of avoiding bad oral habits and promoting adequate maxillary growth and development, this study was carried out to determine the impact of breastfeeding on the occurrence of deforming oral habits and malocclusions in children in the municipality of San Juan y Martínez, Pinar del Río.

## METHOD

The purpose of this descriptive, transversal, and observational research was to establish the impact of

breastfeeding on the occurrence of deforming oral habits and malocclusions in children belonging to the “Hermanos Saiz” Stomatological Clinic, in the municipality of San Juan y Martínez in Pinar del Río, during the period November/2023 to May/2024.

Universe: population of children (N=125) belonging to this clinic.

Sample: (n=75), selected by non-probabilistic sampling by expert criteria.

Patients of both sexes aged between 3 and 6 years, with complete primary teeth, not yet treated in an orthodontic office, whose parents and guardians agreed to cooperate with the investigation, were included.

Patients with premature loss of any tooth, the presence of any permanent tooth, psychiatric conditions, or the presence of any physical or mental disability were excluded.

Theoretical methods such as historical-logical, analysis-synthesis, induction-deduction, systemic and structural, and empirical methods such as document analysis, observation, and questionnaire were used.

### Data collection techniques

Prior to the preparation of the Individual Clinical History of Stomatology and using the clinical method, an interrogation and physical examination of the oral cavity was performed with the appropriate instruments and biosafety measures. With the help of tongue depressors, the cheeks were separated to define the presence (or not) of deforming oral habits and malocclusions, which allowed arriving at the diagnosis together with the data obtained in the interrogation.

A caliper was used to measure the maxilla and to determine the presence or absence of disorders, considering the measures established by Bogue.<sup>(8)</sup>

To detect swallowing disorders, such as tongue protrusion, children were asked to swallow saliva without separating their teeth. Their lips were separated to check if the tongue protruded from the dental arches. To determine mouth breathing habits, a facial examination was performed to check if the child breathes through the mouth, and family members were asked if the child keeps the mouth open frequently.

To detect finger sucking, in addition to interviewing the child, parent, or caregiver, the fingers were also checked for calluses or unusual cleanliness. We also asked if there was any other additional habit the child might have. To find out who used teats (pacifiers), bottles, or both, children, parents, or caregivers were interviewed and confirmed by clinical particularities.

### Instruments and techniques

The data of interest for the development of the study were obtained from the clinical history and from a questionnaire designed for this purpose by the researcher, which were recorded in a database structured by variables. The results were shown in frequency distribution tables.

### Ethical aspects

Fundamental ethical principles such as beneficence and non-maleficence, the principle of justice, and the autonomy of each person were complied with; the informed consent form was prepared in which the family members who agreed to participate in the study were informed about the characteristics of the research, and their willingness to participate in the study was collected. The anonymity of the participants and the confidentiality of the data obtained were respected, and the data would only be used strictly for scientific purposes.

## RESULTS

The sample (table 1) was characterized by a predominance of combined breastfeeding with 72 %, mostly represented in patients aged 5 years (23,9 %) and female sex (37,3 %).

Ages (years)	Type of breastfeeding					
	Exclusive		Combined		Total	
	No.	%	No.	%	No.	%
3	4	5,3	13	17,3	17	22,7
4	2	2,7	14	18,7	16	21,3
5	8	11,9	16	23,9	24	35,8
6	7	10,4	11	16,4	18	26,9
Sex						
Male	10	14,7	23	34,7	37	49,3
Female	10	13,3	25	37,3	38	50,7
Total	21	28,0	48	72,0	75	100

Source: Medical History

Table 2 shows that the most frequent breastfeeding period was from 0 to 3 months with 45,3 %, associated with combined breastfeeding in 38,7 % of the sample.

**Table 2.** Distribution of the sample according to type and time of breastfeeding

Breastfeeding time	Type of breastfeeding					
	Exclusive		Combined		Total	
	No.	%	No.	%	No.	%
0 to 3 months	5	6,7	29	38,7	34	45,3
4 to 6 months	4	5,3	19	25,3	23	30,7
more than 6 months	12	16,0	6	8,0	18	24,0
Total	21	28,0	54	72,0	75	100

Source: Medical History

In table 3, the results observed show a predominance of patients with mouth breathing (41,3 %) and digital sucking (34,7 %). These habits were more frequent in children with less breastfeeding time (0 to 3 months).

**Table 3.** Distribution of breastfeeding time according to deforming oral habits

Deforming oral habits	Breastfeeding time							
	0 to 3 months		4 to 6 months		+ 6 months		Total	
	No.	%	No.	%	No.	%	No.	%
Mouth breathing	13	17,3	10	13,3	8	10,7	31	41,3
Tongue thrust	4	5,3	2	2,7	2	2,7	8	10,7
Digital suction	12	16,0	8	10,7	6	8,0	26	34,7
Lip suction	2	2,7	1	1,3	1	1,3	4	5,3
Object suction	3	4,0	2	2,7	1	1,3	6	8,0
Total	34	45,3	23	30,7	18	24,0	75	100

Source: Medical History

Table 4 shows the predominance of open bite (49,3 %) and mesial step (28 %) as the main malocclusions in the sample studied.

**Table 4.** Distribution of the most frequent malocclusions in the sample

Malocclusions	No.	%
Transverse micrognathism	7	9,3
Scissor bite	6	8,0
Open bite	37	49,3
Straight terminal plane	9	12,0
Mesial step	21	28,0
Distal step	14	18,7

Source: Medical History

## DISCUSSION

In the present study, there was a higher percentage of women, which coincides with the work of Barrero Castillo<sup>(7)</sup>, who obtained a female predominance of 52 %.

Similarly, in the study of Tasayco<sup>(9)</sup>, there was a greater female presence at 54,2 %, and the type of breastfeeding was combined at 55,9 %. The predominant age was three years, 30,5 %, which does not coincide with our study.

According to the type of breastfeeding received, the results are similar to those of Ramírez Herrera<sup>(10)</sup>, where it was found that only 32,1 % received exclusive breastfeeding, while 67,9 % received combined breastfeeding. Sandoval Suárez<sup>(11)</sup> found a predominance of combined breastfeeding of 56 %.

Zamora Oliva et al.<sup>(12)</sup> obtained 42,2 % of children who received exclusive breastfeeding and 40 % combined breastfeeding, which differs from this study. The authors of this study consider that the majority of the sample that received exclusive breastfeeding is due to the preventive work carried out by health professionals from the beginning of pregnancy, in contrast to the results obtained by Pérez Acosta et al.<sup>(13)</sup>, who report a prevalence of mixed breastfeeding from birth and a propensity to artificial breastfeeding before five months of age.

In the analysis of time according to type of breastfeeding, similar results were obtained in the study by Ramírez Herrera<sup>(10)</sup>, who found a higher frequency of children with breastfeeding periods of 4 or fewer months, corresponding to 35,7 %. The sample presented mixed breastfeeding (breast and bottle combined), followed by exclusive breastfeeding.

Reyes Romagosa<sup>(14)</sup> states in his study that there is a relationship between the type and time of breastfeeding infants receive and the appearance of deforming habits. In his study, most of the sample received exclusive breastfeeding for less than 4 months, finding similarities with the results of the present study, where it is inferred that the type of breastfeeding influences dental malocclusions.

Different results were obtained in the study by Zamora Oliva *et al.*<sup>(12)</sup>, where a predominance of exclusive breastfeeding for six months and more was observed at 42,2 %. The authors point out that this preponderance could be attributed to the health system in Cuba, where mothers are granted leave of absence for one year after childbirth, which allows them quality time for the care and nutrition of their children.

Regarding malocclusions, in agreement with our results, Ramírez Herrera<sup>(10)</sup> obtained a predominance of malocclusions in 64,3 % of the children; Sandoval Suárez<sup>(11)</sup> found a high prevalence of malocclusions in 43,6 %, with emphasis on children who received combined breastfeeding (56 %).

Tasayco<sup>(9)</sup> reports that 67,8 % of his sample did not present malocclusions, which behaved similarly (50 %) in children who were exclusively breastfed and in those who were not breastfed.

According to Fuguet<sup>(15)</sup>, 86,6 % of the breastfed children for less than three months presented deformed oral habits, coinciding with the present study.

Mendoza Castro<sup>(16)</sup> concludes that the risk of suffering from malocclusions is greater in children who were not breastfed than in those who were breastfed for short periods, while in the present investigation, the patients who received combined breastfeeding presented a greater frequency of malocclusions.

Barrero Castillo<sup>(7)</sup> obtained a greater number of mouth breathers, 90,1 %; in second place, he registered patients with tongue thrusting at 70,3 %, which coincides with the results of the present study regarding mouth breathers.

Ramírez Herrera<sup>(10)</sup> identified digital suction with 57,1 %, among the most frequent habits found; this result is similar to that of the present study, where digital suction occupied the second place in frequency.

About lip sucking, with 7,1 % obtained by this author, similarity was obtained, being this habit the least frequent in our sample. This author observed a direct association between breastfeeding time of less than four months and the habit of digital sucking.<sup>(10)</sup>

Sandoval Suárez<sup>(11)</sup> also found digital sucking as the most frequent habit in 40,5 %.

There is a divergence with the results of Mendoza Castro<sup>(16)</sup>, where habits such as onychophagia, bottle, blanket, and arm sucking predominated in 38,9 %, while digital sucking was found in only 13,1 %.

Navarrete Angulo<sup>(17)</sup> found no association between the time of breastfeeding and the appearance of malocclusions; malocclusion was found in 79 % of the children who were breastfed for more than one year. The author concluded in this work that family heredity, type and time of breastfeeding, and socioeconomic level do not have a significant relationship with malocclusion.

In the distribution of the most frequent malocclusions, Ramírez Herrera<sup>(10)</sup> determined that the main malocclusions were anterior open bite, which represented 29,5 % and 25 %, respectively, coherent with our investigation.

In a similar study, Sandoval Suárez<sup>(11)</sup> reported that the most frequent terminal plane on the right side was the straight step at 53,2 % and on the left side at 54,6 %, followed by the mesial step on the right side at 42,9 % and on the left side with 42,4 %.

Mendoza Castro *et al.*<sup>(16)</sup> state that breastfeeding for six months or more is directly associated with a risk factor for deep bite, which does not agree with the present study.

Navarrete Angulo<sup>(17)</sup> indicated that 84 % of the children presented malocclusions, the most frequent unilateral posterior crossbite.

Barrero Castillo<sup>(7)</sup> indicated a 1,9 times risk of presenting malocclusions in those children who were not exclusively breastfed. The time of breastfeeding had a significant association with the presence of malocclusion; inferential calculations showed that there was a 3,2 times greater risk of presenting malocclusion in the case of infants breastfed for less than six months.

Combined breastfeeding conditioned the presence of deforming oral habits that, combined with poor maxillary development, can lead to malocclusions. The relationship between infant nutrition and malocclusions should be further studied to provide more diagnostic and practical data.

## REFERENCES

1. Morales López S, Colmenares Castaño M, Cruz Licea V, Del Carmen M, Pérez I, Rincón NM, *et al.* Recordemos lo importante que es la lactancia materna. *Revista de la Facultad de Medicina de la UNAM.* [Internet]. 2022 [citado 02/07/2024]; 65(2): e17. Disponible en: <https://www.medigraphic.com/pdfs/facmed/un-2022/>



un222c.pdf

2. Carrasco Salazar P, Márquez Doren F, Lucchini Raies C. Significado de la experiencia materna en torno al apoyo durante su proceso de amamantamiento. *Enfermería (Montevideo)* [Internet]. 2021 [citado 02/07/2024]; 10(2): 3-28. Disponible en: <http://www.scielo.edu.uy/pdf/ech/v10n2/2393-6606-ech-10-02-3.pdf>
3. Hernández Rodríguez N, Requejo Pupo A, Pavón Martínez T, Naranjo Pérez GM, Osorio Rodríguez EL. Intervención educativa para fomentar la lactancia materna exclusiva en madres de lactantes menores de seis meses febrero/diciembre 2021. *Holguín: II Jornada Científica de Atención Primaria de Salud. APS Gibara2023.* [Internet]. 2023 [citado 02/07/2024]; e17. Disponible en: <https://apsgibara2023.sld.cu/index.php/aps23/Gibara2023/paper/viewFile/160/17>
4. Salas M, Torre P. Políticas públicas en favor de la alimentación infantil. *Gaceta Médica.* [Internet]. 2023 [citado 02/07/2024]; 159: 357-60. Disponible en: [https://www.gacetamedicademexico.com/portadas/gmm\\_23\\_159\\_4.pdf#page=84](https://www.gacetamedicademexico.com/portadas/gmm_23_159_4.pdf#page=84)
5. Cárdenas Bravo ÁM, Redondo Torres MS, Armijos Moreta JF, Gavilánez Villamarín SM. Lactancia materna e influencia del desarrollo de maxilares en infantes de 0 a 5 años. *Rev Ciencias Médicas* [Internet]. 2023 [citado 02/07/2024]; 27(Suppl. 1): e6047. Disponible en: <http://scielo.sld.cu/pdf/rpr/v27s1/1561-3194-rpr-27-s1-e6047.pdf>
6. García Blanco L, Martín Calvo N, Ciriza Barea E, Ruiz Goikoetxea, Fernández Iglesia V, Barandiaran Urretabizkaia A. Lactancia materna y caries dental infantil: ¿tienen alguna relación? *Rev Pediatr Aten Primaria* [Internet]. 2021 [citado 02/07/2024]; 23(90): 133-42. Disponible en: <https://scielo.isciii.es/pdf/pap/v23n90/1139-7632-pap-90-23-133.pdf>
7. Barrero Castillo TC, Viltres Pedraza GR, Arcia Cruz L, Collejo Rosabal Y, Estrada Viltres LC. Factores hipotéticamente influyentes en la aparición del micrognatismo transversal en escolares. *Multimed* [Internet]. 2021 [citado 02/07/2024]; 25(6): e1996. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1028-48182021000600004&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1028-48182021000600004&lng=es).
8. González Rodríguez S, Soto Cantero LA, Rodríguez González L, Pedroso Ramos L, Pérez Valerino M. Diámetro transversal del maxilar en pacientes con maloclusión del Policlínico Mario Escalona. 2019. *Rev haban cienc méd,* [Internet]. 2021 [citado 02/07/2024]; 20(1): e3126. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1729-519X2021000100006&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1729-519X2021000100006&lng=es)
9. Tasayco Ore AC. Influencia de los hábitos de lactancia con las maloclusiones dentales en niños de 3-7 años atendidos en el Centro Odontológico Mini Sonrisas San Miguel-2022. [Tesis en Internet]. Ecuador: Universidad Continental. Facultad de Ciencias de la Salud. Escuela Académico Profesional de Odontología; © 2022 [citado 02/07/2024]. e52. Disponible en: [https://repositorio.continental.edu.pe/bitstream/20.500.12394/11948/2/IV\\_FCS\\_503\\_TE\\_Tasayco\\_Ore\\_2022.pdf](https://repositorio.continental.edu.pe/bitstream/20.500.12394/11948/2/IV_FCS_503_TE_Tasayco_Ore_2022.pdf)
10. Ramírez Herrera CG. Lactancia materna, hábitos orales y maloclusiones en niños de 2 a 6 años. [Tesis en Internet]. Ecuador: Universidad Nacional de Chimborazo; © 2022 [citado 02/07/2024]. e75. Disponible en: <http://dspace.unach.edu.ec/bitstream/51000/9152/1/Ram.pdf>
11. Sandoval Suarez KS. Relación de lactancia materna y hábitos de succión no nutritiva en niños de 3 a 6 años con maloclusión dental en el consultorio NishaDent del Distrito de Jicamarca en el año 2020. [Tesis en Internet]. Perú: Universidad Privada Norbert Wiener. Facultad de Ciencias de la Salud. Escuela Académico Profesional de Odontología; © 2021 [citado 02/07/2024]. e82. Disponible en: [https://repositorio.uwiener.edu.pe/bitstream/handle/20.500.13053/4874/T061\\_70542149\\_T.pdf?sequence=1&isAllowed=y](https://repositorio.uwiener.edu.pe/bitstream/handle/20.500.13053/4874/T061_70542149_T.pdf?sequence=1&isAllowed=y)
12. Zamora Oliva D, Pérez Acosta K, Reyes Suárez V, Espasandín González S. Lactancia recibida y hábito de succión digital infantil asociados a aspectos sociodemográficos maternos. *Medimay* [Internet]. 2021 [citado 02/07/2024]; 28(2): e9. Disponible en: <https://revcmhabana.sld.cu/index.php/rcmh/article/view/1734>
13. Pérez Acosta K, Reyes Suárez VO, Licea Rodríguez Y, Espasandín González S. Tratamiento del hábito de succión digital mediante la técnica de relajación. *Revista de Ciencias Médicas La Habana* [Internet]. 2021

[citado 02/07/2024]; 19(3): 348-57. Disponible en: <http://revcmhabana.sld.cu/index.php/rcmh/article/view/608/105>

14. Reyes Romagosa DE, Quesada ADS, Paneque Gamboa MR, Suárez G del CD, Lastres YM. Influencia del tipo y tiempo de lactancia materna en la aparición de los hábitos deformantes. *Rev Cubana Estomatol.* [Internet]. 2020 [citado 02/07/2024]; 54(4): 1-11 Disponible en: <https://www.medigraphic.com/pdfs/revcubest/esc-2020/esc174g.pdf>

15. Fuguet Boullon JR, Betancourt García AI, Ochoa Jiménez L, González Pérez M, Crespo García A, Viera Rodríguez D. Influencia de la lactancia materna en la prevención de hábitos bucales deformantes. *Rev. Med. Electrón.* [Internet]. 2019 [citado 02/07/2024]; 36(5): 561-71. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1684-18242019000500004&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1684-18242019000500004&lng=es)

16. Mendoza Castro A, Tovar ME. Lactancia materna. Su influjo en las malas oclusiones en niños escolares. *Revista Científica Dominio de las Ciencias.* [Internet]. 2021 [citado 02/07/2024]; 4(1): 322-31. Disponible en: <http://dominiodelasciencias.com/ojs/index.php/es/index>

17. Navarrete Angulo NE, Pita Sobral MA. Factores relacionados con maloclusiones en niños ecuatorianos de 3-9 años de edad. *Rev Cubana Estomatol.* [Internet]. 2020 [citado 02/07/2024]; 57(2): e2111. Disponible en: [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S0034-75072020000200009&lng=es](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0034-75072020000200009&lng=es).

### CONFLICT OF INTEREST

There is no reported conflict of interest on the part of the investigators.

### FUNDING

The research did not require funding.

### AUTHORS' CONTRIBUTION

*Conceptualization:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.

*Research:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.

*Methodology:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.

*Visualization:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.

*Original drafting and editing:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.

*Editing and proofreading:* Laura Nieves Ordaz Galván, Danisbel Pérez Ayala, Ismey Márquez Lozano, Dunia Milagros Labrador Falero, Jadier Wong Silva.