International Journal of Research - GRANTHAALAYAH
December 2025 13(12)
www.granthaalayah.com

Original Article

DEFORMING ORAL HABITS IN SCHOOLCHILDREN AGED 5-12 YEARS FROM THE COLOMBIA MUNICIPALITY, 2020-2022

Dr. Ivón Abreu Fernández [1*], Dr. Carlos Miguel Morera Ramírez [2], Dr. Yuliet Sosa Viamontes [3], Dr. Miguel Ángel Pérez Fernández [4], Dr. Katiana Yusmila González Aguilera [5], Dr. Dairene Cala Pérez [6]

[1] Professor, Head of the Orthodontic Service in Colombia, Las Tunas
[2] Assistant Professor and Associate Researcher, Head of the Teaching Department of the Francisco Caamaño Deño Polyclinic, Colombia, Las Tunas
[3] Instructor Professor, Pediatrician at GBT of the Francisco Caamaño Deño Polyclinic in Colombia, Las Tunas
[4] Instructor Professor, Second Pediatric Opinion of GBT of the Francisco Caamaño Deño Polyclinic in Colombia, Las Tunas
[5] Assistant Professor, Chief of Inspection of the General Directorate of Health in Colombia, Las Tunas
[6] Instructor Professor, Head of the MNT Program in Colombia, Las Tunas

ABSTRACT

A descriptive cross-sectional study was conducted to characterize deforming oral habits in schoolchildren aged 5-12 years of age at the "Cepero Bonilla" Primary School in the municipality of Colombia, in the period from September 2020 to January 2022. The universe was made up of 62 schoolchildren enrolled in this school and the sample by 42 schoolchildren who presented some of these habits. The variables in studies were: Age groups, Sex, deforming oral habits, frequent clinical characteristics and Classification according to frequency and intensity, which were related and statistically analyzed. Information was obtained from data provided from individual medical history and oral examination's located checked and represented in absolute numbers and percent.

Keywords: Habits, Oral, Deforming.

INTRODUCTION

González et al. (2020) and collaborators propose that a habit is the ease that a person acquires to repeat a certain activity. Oral habits are parafunctional behaviors that can be normal at a certain time in life and it has been reported that their persistence over time can lead to the development of malocclusion. There are currents about the origin of malocclusion that emphasize the capacity of the environment and abnormal habits to alter soft tissues and in turn influence craniofacial development and growth. In this way, when the activity exceeds the individual physiological tolerance, an alteration occurs and damage may occur at the dental, muscle or joint level.

*Corresponding Author:
Email address: Dr. Ivón Abreu Fernández (ivon84019@gmail.com), Dr. Carlos Miguel Morera Ramírez (carlosmmr1987@gmail.com), Dr. Yuliet Sosa Viamontes (yulietsosaviamontes29@gmail.com), Dr. Miguel Ángel Pérez Fernández (m28572812@gmail.com), Dr. Katiana Yusmila González Aguilera (katianayusmila5@gmail.com), Dr. Dairene Cala Pérez (caladairene0@gmail.com)
Received: 14 November 2025; **Accepted:** 18 December 2025; **Published** 09 January 2026
DOI: 10.29121/granthaalayah.v13.i12.2025.6574
Page Number: 111-115
Journal Title: International Journal of Research -GRANTHAALAYAH
Journal Abbreviation: Int. J. Res. Granthaalayah
Online ISSN: 2350-0530, **Print ISSN:** 2394-3629
Publisher: Granthaalayah Publications and Printers, India
Conflict of Interests: The authors declare that they have no competing interests.
Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.
Authors' Contributions: Each author made an equal contribution to the conception and design of the study. All authors have reviewed and approved the final version of the manuscript for publication.
Transparency: The authors affirm that this manuscript presents an honest, accurate, and transparent account of the study. All essential aspects have been included, and any deviations from the original study plan have been clearly explained. The writing process strictly adhered to established ethical standards.

García et al. (2020) expressed that a successful treatment approach must be aimed at modifying the functional patterns of oral tissues. Stopping a non-functional habit requires the patient's cooperation and maturity to understand the consequences of a persistent habit. The purpose of this article is to review the current literature on oral habits and identify the most frequent ones, focusing on their incidence, etiology and various treatment approaches.

According to Kamdar and Al-Shahrani (2018). The causes of dentomaxillary anomalies are multiple and complex, the most frequent worldwide being incorrect or deforming oral habits. (3)

Kamdar and Al-Shahrani (2018) stated that much research has been done on the prevalence of these habits as well as how to prevent and eliminate them at an early age, through educational work in the office and in the field. For Vithanaamachichi, all habits have their origin within the neuromuscular system since they are reflex patterns of muscle contraction of a complex nature that are learned.

Álvarez et al. (2020) and collaborators consider that in Cuba, despite the enormous efforts that the Ministry of Public Health has made in terms of prevention to reduce stomatological problems, and within them, the elimination of deforming oral habits as main risk factors for malocclusions, it is evident that a marked increase in their practice is still observed, which is why new methods of prevention and health education are required, in order to eliminate or reduce the incidence of these in the population. child population, achieving early interventions that prevent the appearance of malocclusions that would require more expensive treatments for the country, and at the same time more annoying for the patient. In a study carried out in a group of 270 children from 6 to 11 years old, Fernández et al. (2021) observed that 68.15% practiced deforming habits.

DEVELOPMENT

Type of study: A descriptive cross-sectional study was carried out to characterize the deforming oral habits in children aged 5-12 years from the "Cepero Bonilla" Primary School of the Colombia municipality, in the period from September 2020 to January 2022.

Universe and study sample: The universe was made up of 62 schoolchildren enrolled in said school and the sample was made up of 42 schoolchildren who presented any of these habits.

Methods applied to carry out the research

Empirical (observation), theoretical (analysis and synthesis) and mathematical (percentage calculation) methods were used. For the purposes of this study, bioethical criteria were taken into account.

Inclusion criteria:

Schoolchildren with deforming oral habits.

Authorization of their parents or legal guardians.

Exclusion criteria:

Any patient who does not have the consent of their family members to be included in said study.

Admitted or hospitalized.

Removals and migrations.

Exit criteria:

Schoolchildren who change health areas or die during the study period.

Techniques and procedures

The information was obtained from a primary source, in direct contact with the student and his representatives, where the anamnesis and physical examination were carried out. In addition to secondary sources such as the review of existing documents prior to the study.

Collection techniques:

A preparatory contact was established with the professors and pedagogical assistants of the institution, to direct the search for patients with the pathologies in question. These professionals were explained in a simple and concrete way the oral characteristics that they should take into consideration.

A meeting was called with the patients selected for the study, accompanied by their families, where the objective and methodology of the research was presented. Informed consent was requested from parents or legal guardians, confirming their willingness to participate in the study.

The individual medical records (Annex II) allowed the collection of demographic data such as age and sex.

Processing and analysis:

The information obtained was taken to a Microsoft Excel database and processed automatically on a PC, with a Windows 10 environment, the texts were written in Word 2016 and the results were converted into statistical tables and graphs with the help of the Excel 2016 program.

The percentage was used as a summary measure for quantitative and qualitative variables. The results were compared with other studies carried out both nationally and internationally, and conclusions and recommendations were reached through inductive and deductive analysis.

RESULTS

Table 1 Distribution of students according to age and sex. "Cepero Bonillla" School. Colombia Municipality, September 2020 - January 2022.

Table 1

Table 1 shows that the Most Predominant Sex is Female with 23 Schoolchildren and the Age Group Of 9-10 Years with 15 Schoolchildren Respectively

Sex	5-6	7-8	9-10	11-12	Total
	#	#	#	#	#
Male	6	5	6	2	19
Female	7	6	9	1	23
Total	13	11	15	3	42

Source: Individual Clinical History

Table 2

Table 2 Deforming oral habits

Deforming oral habits	Age and sex groups								Total	
	5-6		7-8		9-10		11-12			
	F	M	F	M	F	M	F	M	F	M
Digital suction	3	2	3	2	4	3	1	1	11	8
Cheioiphagy	0	1	0	0	0	0	0	0	0	1
mouth breathing	1	1	0	0	0	0	0	0	1	1
Tongue thrust	2	1	2	2	3	2	0	1	7	6
Onychophagia	1	1	1	1	2	1	0	0	4	3

Source: Individual Clinical History

Table 2 shows the deforming oral habits in schoolchildren according to age and sex, a predominance of digital sucking is evident in the foreground, tongue thrust in the background and onychophagia in the third plane and finally the habit of cheilophagia.

Table 3

Table 3 Most Frequent Clinical Characteristics

Clinical features	No.	%
Vestivulovertion of upper incisors	32	76.1
Linguovertion of lower incisors	13	30.9
Adaquia	11	26.1
Diastemas	5	11.9

Source: Individual Clinical History

Table 3 shows that the clinical characteristics that predominated were Vestivuloversion of the upper incisors with 76.1%, followed by Linguoversion of the lower incisors, with 30.9% as a consequence of digital suction, which intensifies the formation of malocclusions. It has been reported that the pressure exerted by the finger on the teeth and the upper jaw mostly predisposes to the appearance of said characteristic, because the child generally performs this habit even while asleep, as expressed by Murrieta

Prunceda et al. (2020) and collaborators, since Indeed, the vestibular version of the upper incisors is one of the most common clinical characteristics in patients with deforming oral habits, as referred to in the medical literature, and with which this study agreed.

Table 4

Table 4 Deforming Oral Habits According to Frequency and Intensity

Classification according to frequency and intensity	Age and sex groups								Total	
	5-6		7-8		9-10		11-12			
	F	M	F	M	F	M	F	M	F	M
Non-compulsive	3	2	3	2	3	2	0	1	9	7
Compulsive	4	4	4	2	6	4	1	1	15	11

Source: Individual Clinical History

Table 4 shows the habits according to their frequency and intensity, with compulsive habits predominating with a total of 26.

DISCUSSION

According to Murrieta-Prunenceda et al. (2020) and collaborators, according to the sample studied, this one differs in terms of the predominant sex since in their study the male sex predominated, representing 51.2%.

Different results were reported by González et al. (2020) and Blanco et al. (2020), where the most frequently deforming dental habit was biting habits (onychophagia), in the second plane the habit of Digital Sucking, the third plane was mouth breathing and finally tongue thrusting habits.

The authors consider that deforming oral habits were more common in the female sex because generally the prevalence of malocclusions and occlusion anomalies affect this sex in greater numbers since they are socially repressed, they have greater pressures in the family environment, which generates stress and anxiety, making them more susceptible than men to presenting any type of parafunctional habit.

The stomatology professional plays a fundamental role in correcting oral habits when participating in oral health promotion activities in institutions focused on the care of parents and their children and in this way contributing to the reduction of malocclusions.

However, Fernández and Acosta (2021) and collaborators allude that other dentists have found the vestibular version attached to the adaquia; Both particularities are frequent in various works on the subject, whether produced by digital suction or by the combination of different habits. In fact, the effects of digital sucking are related to the repetition and force with which it is exercised, and to the facial and occlusal constitution of the child.

The authors consider that compulsive habits were the most common because the school under study is located in a rural area and generally these children suffer family conflicts since their parents have a low cultural level and a high alcohol consumption and thus they are involved in some situation of threat or insecurity.

CONCLUSIONS

To conclude:

- In the research there was a predominance of the female sex and the age group with the highest incidence of deforming habits was 9-10 years old.
- Likewise, the most prevalent deforming habit was thumb sucking.
- Among the clinical characteristics, the one that stood out the most is the vestibulobercion of the upper incisors.
- It was evident that oral habits, according to their frequency and intensity, predominated compulsive ones.

ACKNOWLEDGMENTS

None.

REFERENCES

Arocha, A. A., Aranda, G. M., Pérez, P. Y., and Granados, H. A. (2019). Malocclusions and Deforming Oral Habits in Schoolchildren with Early Mixed Dentition. MEDISAN, 20(4), 426–432.

Blanco, V. (2020). Atypical Swallowing and its Influence on Malocclusions. Latin American Journal of Orthodontics and Pediatric Dentistry.

Fernández Torres, C. M., and Acosta, A. (2021). Deforming Habits in Primary Schoolchildren. Revista Cubana de Ortodoncia, 12(2), 79–83.

Flowers, L. S. (2021). Prevalence of Malocclusion Associated with Harmful Oral Habits in Children Aged 7 to 10 years, in two Schools in Quito in the Period October–November 2021 (Undergraduate thesis). University of the Americas, Quito, Ecuador.

García, N., Muñoz, D., and Reyes, N. (2020). Treatment of Deforming Oral Habits in Children from 4 to 13 Years with Auriculotherapy. Camagüey Medical Archive, 21(6), 740–752.

González Ramos, R., González, D., Fors, C., and Ledesma, I. (2020). Dentofacial Anomalies and Deforming Habits in Primary School Students. Habanera Journal of Medical Sciences, 11(4), 464–473.

Kamdar, R., and Al-Shahrani, I. (2018). Damaging Oral Habits. Journal of International Oral Health, 7(4), 85–87.

Murrieta-Pruneda, J. F., Bello, R. I. A., Silva, L. E. P., Juárez-López, L. A., Vieyra, C. L., and Ocampo, A. F. M. (2018). Prevalence of Parafunctional Oral Habits in Preschool Children in Ciudad Nezahualcóyotl, State of Mexico, 2020. Medical Bulletin of the Children's Hospital of Mexico, 68(1), 26–33.

Álvarez, I., Lescaille, Y., Mora, C., Pieri, K., and González, B. (2020). Oral Health Intervention in Schoolchildren with Oral Deforming Habits. MediSur, 11(4), 410–421.