

Oral Health Behavior in a Cuban Dental Clinic

Jorge Enrique Valledor Alvarez^{1*}, Diana Rosa Mena Madrazo¹, Mileydis Viñas García²
and Manuel Pereira Mengana¹

¹ University of Medical Sciences of Havana, Cuba.

² Maxillofacial Department, "Juan Manuel Márquez" Pediatric Hospital, Cuba.

*Corresponding Author: Jorge Enrique Valledor Alvarez, University of Medical Sciences of Havana, Cuba.
<https://orcid.org/0000-0002-7302-2492>

DOI: <https://doi.org/10.58624/SVOADE.2023.04.0138>

Received: June 19, 2023 Published: July 10, 2023

Abstract

Background: Oral health is a basic human right that, due to the high incidence and prevalence of oral diseases, represents a priority health problem. Oral diseases such as dental caries, periodontal disease and malocclusion are in high demand in dental services around the world.

Aim: to describe the oral health behavior of an adult population attended in the last semester of 2022 at the Ciudad Libertad dental clinic, Havana province, Cuba.

Material and Method: A descriptive, cross-sectional study was carried out on oral health behavior in an adult population who came requesting dental care during the last semester of 2022 at the Ciudad Libertad dental clinic, Havana province, Cuba. A random sample of 100 adult patients over 20 years of age was taken. The variables used were: age, which was represented by age groups; sex, male and female; reason for consultation, review, prophylaxis, filling, pain, extraction and prosthesis; risk factors, poor oral hygiene, cariogenic diet, onychophagia, tongue dysfunction, consumption of hot food, mouth breathing and smoking; clinical diagnosis, dental caries, periodontal disease, masticatory dysfunction, pulp and periapical diseases, malocclusion.

Conclusion: The female sex was the most represented, as well as the group from 20 to 34 years of age. The dental filling prevailed as the first reason for consultation. As risk factors, poor oral hygiene and cariogenic diet were the most present. Periodontal disease was the most diagnosed, affecting more than half of the population.

Keywords: Oral health, adults, oral disease, risk factors.

Introduction

Oral health is a basic human right that, due to the high incidence and prevalence of oral diseases, represents a priority health problem. [1]According to the World Health Organization (WHO), it is the first indicator of well-being and quality of life, which defines it as the correct state of the teeth and orofacial structures, which has a positive impact on the performance vital functions such as breathing, speech and nutrition. [2]

Oral diseases such as dental caries, periodontal disease such as gingivitis and chronic periodontitis, and malocclusion, present a high demand in dental services both in first world countries and in underdeveloped countries, where despite developing in a limited area of the human body, its impact brings consequences to the health of the organism in general. [3,4]

The demographic situation in Latin America and the Caribbean is a fact, characterized by an upward trend in population aging rates. Regarding Cuba, according to the Health Statistical Yearbook, in 2021, its adult population represented 69.9% and 21.6% of the people corresponded to the age group over 60 years.

These data generate a problem, conditioned by the morphological and functional changes that occur in the body, which is reflected in the oral health needs of this group associated with poor oral and mental health. [5,6]

Oral health problems that occur daily in dental clinics constitute an economic burden for the patient and the health system. In the world, the estimated expenses for lost productivity and treatment of oral diseases exceed 500 million dollars. Therefore, it is important to have knowledge about the sociodemographic and epidemiological characteristics of the population, which allows the creation of tools to design programs and intervention strategies with greater effectiveness and impact on society. [7,8]

Given this reference, an investigation was carried out with the objective of describing the oral health behavior of an adult population attended in the last semester of 2022 at the Ciudad Libertad dental clinic, Havana province, Cuba.

Material and Method

A descriptive, cross-sectional study on oral health behavior was carried out in an adult population who came requesting dental care during the last semester of 2022 at the Ciudad Libertad dental clinic, Havana province, Cuba. For this, a random sample of 100 adult patients over 20 years of age was taken, through a collection of data through clinical records and the institution's registry book. The variables used were: age, which was represented by age groups; sex, male and female; reason for consultation, review, prophylaxis, filling, pain, extraction and prosthesis; risk factors, poor oral hygiene (POH), cariogenic diet (CD), onychophagia, tongue dysfunction (TD), consumption of hot food (CHF), mouth breathing (MB) and smoking; clinical diagnosis, dental caries (DC), periodontal disease (PD), masticatory dysfunction (MD), pulp and periapical diseases (PPD), malocclusion. For the selection of the sample and the processing of the data, the statistical program IBM SPSS version 22 was used. For the summary and presentation of the data, cross tables of absolute frequency and relative frequency were used. Regarding the conduct of the study, the authorization of the dental clinic was obtained, as well as the informed consent of each patient participating in the investigation, to whom the scientific and confidential nature of their data was explained.

Results & Discussions

The female sex, as well as the age group from 20 to 34 years old, were the ones that required more dental attention (Table 1). A predominance of the need for a dental filling was observed as the reason for consultation (Table 2). Poor oral hygiene and cariogenic diet manifested in a high percentage of the population: 71% and 65% respectively (Table 3). As a clinical diagnosis, periodontal disease and dental caries were the most prevalent oral diseases, with a high incidence in the first two age groups (Table 4).

Table 1: Distribution of the population according to age group and sex.

Age group	Sex		Total
	Male (M)	Feminine (F)	
20 - 34 years	21	29	50
35 - 59 years	14	22	36
60 - 75 years	8	6	14
Total	43	57	100

Table 2: Distribution of the population according to reason for consultation.

		Reason for consultation					
		Revision	Prophylaxis	Filling	Pain	Extraction	Prosthesis
Sex	M	10	5	13	5	3	7
	F	13	7	14	10	2	11
	Total	23	12	27	15	5	18
Age group	20 - 34 years	15	11	16	8	0	0
	35 - 59 years	7	0	10	7	4	8
	60 - 75 years	1	1	1	0	1	10
	Total	23	12	27	15	5	18

Table 3: Distribution of the population according to risk factors.

		Risk factors						
		POH	CD	Onychophagia	TD	CHF	MB	Smoking
Sex	M	35	21	9	13	16	7	19
	F	36	44	5	10	19	11	14
	Total	71	65	14	23	35	18	33
Age group	20 - 34 years	27	43	10	22	11	0	13
	35 - 59 years	33	18	2	1	16	8	15
	60 - 75 years	11	4	2	0	8	10	5
	Total	71	65	14	23	35	18	33

Table 4: Distribution of the population according to clinical diagnosis.

		Clinical diagnosis				
		DC	PD	MD	PPD	Malocclusion
Sex	M	23	30	16	5	11
	F	28	40	22	11	12
	Total	51	70	38	16	23
Age group	20 - 34 years	28	29	1	8	23
	35 - 59 years	21	31	24	7	0
	60 - 75 years	2	10	13	1	0
	Total	51	70	38	16	23

The Ciudad Libertad dental clinic, due to its geographical location and as part of the strategy of the Cuban National Public Health System, provides dental care to educational centers ranging from the primary level to the university level. Its adult population, which are mainly teachers from the different centers, is characterized by its high educational level; which can be associated with different benefits in terms of greater knowledge about the importance of oral health, greater awareness about the prevention of oral diseases, as well as greater access to information, resources and necessary dental services. In a study developed by Jiang et al. [9], which determined through surveys carried out in the years 1995, 2005 and 2015 to adults between the ages of 35 and 44, that a relationship was established between the educational level and dental loss, where a higher-level education would correspond to a lower prevalence of dental loss.

As the study data show, a predominance of the female sex was observed as the greatest beneficiary of dental care provided by the dental clinic. There may be several factors that justify these values, such as the agreement of the results with the national demographic index exposed in the National Statistics Yearbook [6] and the high presence of females in the teaching sector of the community. This is similar to what was stated by Torrencilla et al. [10] and several studies cited in their research, where the female sex was also the highest representative.

When analyzing the first reasons for consultation, which were represented by the need for a filling and oral revision respectively, an interest on the part of the population towards oral health can be appreciated, as well as acting in post-prevention of diseases. mouth. Despite this, the need for a filling indicated that there is a high prevalence of dental caries in the patients treated, therefore, the importance of establishing educational strategies in order to improve health knowledge should be a priority for the center. Mialhe et al. [8] in their research article, they establish an association between the reason for visiting the dentist and oral health literacy (OHL), where they state that OHL is an important determinant of health and its low-level links it to reasons for consultation such as pain and extraction.

There are many published articles that refer to the poor oral hygiene as the main risk factor that manifests itself in the population. Varela et al. [11] suggest that individual values, motivations, and economic and cultural status are factors that influence each person's oral hygiene habits; arguing that maintaining correct oral hygiene influences the prevention of oral diseases such as dental caries and periodontal disease.

This study is similar to the results of most of the scientific literature found, which reflected with a high representation, poor oral hygiene and cariogenic diet as main risk factors. Pazos et al. [12] described that of the 270 older adults participating in their study, 69.26% had poor oral hygiene. In another investigation carried out by Báez[13], also to a population of older adults, he reflected that of the 154 individuals, 55.2% and 24.6% had poor oral hygiene and smoking respectively, followed by cariogenic diet with 20, 7%.

Regarding the clinical diagnosis, the data obtained were discouraging. The high numbers of diagnosed periodontal disease and dental caries reaffirm the relationship in the results obtained with respect to risk factors, once again highlighting the need for better work in the field of oral health promotion and prevention.

Young adults were the age group most affected by both oral diseases; Of 50 representatives, 29 presented periodontal disease, mostly gingivitis, and 28 presented dental caries. Aquino et al. [14] in their study determined the oral health of a population made up of 276 young adults, where 63.73% had dental caries, which was similar to what was obtained in this study. In another article by Lorenzo et al. [15] higher figures were found, of the 104 young adults, 82.7% had a diagnosis of dental caries.

Regarding periodontal disease, it was detected in 70% of the participants, data that is similar to that developed by Lara et al. [16], where when diagnosing 95 adults, 66.3% presented gingival inflammation classified from mild to severe. Romero et al. [17] evaluated 161 adult patients, of whom 81.9% presented gingivitis or chronic periodontitis as periodontal disease.

Masticatory dysfunction due to tooth loss is associated with oral diseases such as dental caries and periodontal disease, where adults, especially the elderly, are the most predisposing to presenting it. [18] In this study, it was observed that 38% of the patients presented this diagnosis, with the group from 35 to 59 years of age being the most represented, although it should be noted that the age group from 60 to 75 years was the one with the highest affectation with 92.8%. When comparing the data with those described by Zayas et al. [19], it is observed that their figures are lower, since 62.6% of the 80 older adults presented partial or total edentulism. The same happened with the data reported by Rodríguez et al. [20], where 46.7% of the patients corresponded with masticatory dysfunction.

The health system must also be aimed at promoting and coordinating actions on social determinants that play a fundamental role in the health of the population. [21] Despite the fact that actions focused on health education are carried out in the dental clinic, the data provided by this study demonstrate their effectiveness. Therefore, it is important to establish a better strategy that is directed towards solving the main health problems, where the risk factors associated with them are well identified.

Conclusion

The female sex was the most represented, as well as the group from 20 to 34 years of age. The dental filling prevailed as the first reason for consultation. As risk factors, poor oral hygiene and cariogenic diet were the most present. Periodontal disease was the most diagnosed, affecting more than half of the population.

Conflict of Interest

The authors declare no conflict of interest.

References

1. Morales A, Jara G, Werlinger F, Cabello R, Espinoza I, Giacaman R, et al. Sinopsis de la Situación de Salud Oral en Chile- Parte II: Diagnósticos Poblacionales de Salud Oral. *Int J Interdiscip Dent*, 2020, 13(2), 88-94.
2. Oral health [Internet]. [cited 2023 Apr 25]. Available from: <https://www.who.int/health-topics/oral-health>
3. Brito Pérez K, Cañete Villafranca R, Fundora Martínez CL, Afonso de León JA, Brito Pérez K, Cañete Villafranca R, et al. El maestro primario y la prevención de los problemas bucales en escolares. *Journal Médica Electrónica*, 2022, 44(1), 168-79.
4. Rodríguez Albuja MJ, Pablo Jaramillo J. Efectividad de un programa educativo en mujeres adolescentes con gingivitis. *Journal MEDISAN*, 2017, 21(7):850-6.

5. Barrero BRP, Rodríguez W del CG, Moncada CO, Gandaria M de los AC, Galano IEG. Caracterización de la autoestima e higiene bucal en el adulto mayor, Santiago de Cuba 2017. *Journal Inf Científica*, 2019, 98(5), 566–76.
6. Estadísticas de Salud [Internet]. [cited 2023 Apr 25]. Available from: <https://temas.sld.cu/estadisticassalud/>
7. Fernandez Cavalcante L, Barros Vanni DF, Silva T, da Pereira ET, Carlos A. Health technology assessment as a tool for decision-making in public health and universal oral health services. *Journal Brasileiro de Economía da Saúde*, Sao Paulo, 2020, 12(1), 88-91.
8. Mialhe FL, Pereira PL, Júnior AJ de O, Cortellazzi KL, Soares GH. Patient's oral health literacy and associations with sociodemographic, source of information, and oral health variables. *Journal ABENO*, 2022, 22(2), 1971–1971.
9. Jiang L, Li J, Yang Z, Xiaoyanhuang, Zhong X, YiHuang, Liu B, et al. Analysis of epidemiological trends of and associated factors for tooth loss among 35- to 44- year-old adults in Guangdong, Southern China, 1995-2015: a population-based cross-sectional survey. *Journal BMC Oral Health*, 2023, 23(74).
10. Torrencilla Venegas R, Castro Gutiérrez I. Salud bucal y sus determinantes en adultos mayores del área Centro del municipio Sancti Spíritus. *Journal Progaleno*, 2020, 3(2).
11. Varela Centelles P, Bugarín González R, Blanco Hortas A, Varela Centelles A, Seoane Romero JM, Romero Méndez A. Hábitos de higiene oral. Resultados de un estudio poblacional. *Journal An Sist Sanit Navar*, 2020, 43(2), 217-223.
12. Pazos Rodríguez AR, Doval Mulet ML, Rodríguez Chala HE, Lado Romero Y. Comportamiento de la salud bucal en el adulto mayor. Policlínico "Julian Grimau", Arroyo Naranjo. 2016. *Journal Cubana de Tecnología de la Salud*, 2018, 9 (1).
13. Báez Cruz RM. Caracterización del estado de salud bucal en adultos mayores de un consultorio médico de la familia. *Journal Electrónica Dr. Zoilo E. Marinello Vidaurreta*, 2020, 45(4).
14. Aquino Canchari ChR, Huamán Castillón KH. Salud bucal en una escuela de formación profesional policial peruana. *Journal Cubana Estomatol*, 2020, 57(1):e2063.
15. Lorenzo Erro S, Alvarez R, Fabruccini, Massa F. Salud Bucal y Enfermedades no transmisibles en pacientes de un centro de enseñanza universitaria del área Salud, Montevideo-Uruguay. Parte 2. *Journal Odontoestomatología*, 2021, 23(37)
16. Lara Verástegui R, Bustos de la Cruz J, Sihuay Torres K, Sihuay Torres K, Castro Rodríguez YA. Intervención comunitaria en salud bucal en la población de San Pablo de Pillao, Perú, 2018. *Journal Cubana Estomatol*, 2020, 57 (2):e2899.
17. Romero Castro NS, Castro Alarcón N, Reyes Fernández S, Flores Alfaro E, Serna Radilla VO, Parra Rojas I. Periodontal disease distribution, risk factors, and importance of primary healthcare in the clinical parameters improvement. *Int. J. Odontostomat*, 2020, 14(2):183-190.
18. Llorente Reyes LN, Cabrera Cruz G, Jolas Serra L, Gutiérrez Hernández ME, de la Cruz Rodríguez IL, Rodríguez Larrinaga B. Lesiones mucosales en adultos mayores portadores de prótesis. Facultad "Raúl González Sánchez". 2019-2020. *Journal Cubana de Tecnología de la Salud*, 2022, 13(4):e3992.
19. Zayas Somoza E, Ferrer Hurtado O, Fundora Álvarez V. Sobre las asociaciones entre la disfunción masticatoria y el estado nutricional en adultos mayores. *Journal Cubana de Alimentación y Nutrición*, 2022, 31(2).
20. Rodríguez García K, Chi Rivas JC, Del Todo Pupo LJ. Determinantes psicosociales del estado de salud bucal en adultos. *Journal Inmedsur*, 2022, 5(2): e202.
21. Cueto Salas A, Batista González NM, González Ramos RM. Determinantes sociales y condiciones de salud bucal de los adultos mayores. *Journal Cubana Estomatol*, 2019, 56(2): e1751.

Citation: Alvarez JEV, Madrazo DRM, García MV, Mengana MP. Oral Health Behavior in a Cuban Dental Clinic. *SVOA Dentistry* 2023, 4:4, 123-127.

Copyright: © 2023 All rights reserved by Alvarez JEV. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.