

## ORIGINAL RESEARCH ARTICLE

# Practical needs of oral prosthodontics in the field of health

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### ABSTRACT

**Reason:** Teeth, related to chewing, aesthetics and vocal function, are an essential element. Therefore, the absence of teeth is considered to lead to the deterioration of oral health. **Objective:** To determine the actual needs of oral restoration in the Northern Health District of Camaguey city. **Methods:** A cross-sectional descriptive study was conducted on the population in the Northern Health District of Camaguey city from October 2013 to April 2015. The study included 574 men and women aged 18 and over. **Results:** Female patients over 60 years old were dominant. Of the 574 people examined, 401 were determined to need artificial rehabilitation, and tooth loss was the main reason. People over the age of 60 have the greatest actual demand for prosthetics. With regard to gender, it was noted that women needed some prosthetic treatment because it was higher than men. **Conclusion:** The actual demand for oral restoration in female patients over 60 years old is widespread, and the main reason is the loss of teeth.

**Keywords:** dental papers; oral health; quality of life; aged; describe epidemiology

## 1. Introduction

Oral health includes the components of teeth, but it is also related to the whole oral dynamic complex. At present, it is recognized that oral diseases have a significant impact on the biopsychosocial field of patients. In terms of pain, deterioration of function and decline in quality of life, as well as social and economic impacts<sup>[1]</sup>.

According to Quez et al.<sup>[2]</sup>, tooth is related to chewing, aesthetics and vocal function and is an essential element, so the absence of teeth is considered to lead to health deterioration. Fuentes and others<sup>[3]</sup> believe that the deterioration of oral health will

not only bring biological problems, but also affect people's psychology. Some patients believe that tooth loss will lead to depression, while for others, this is an inevitable reality and can be attributed to natural causes.

Edentulosis is an oral health condition that corresponds to tooth loss, which is divided into partial and total by Bargas et al.<sup>[4]</sup> (which means that the causes of edentulosis may vary depending on caries and periodontal disease). Hernández Y et al.<sup>[5]</sup> believe that the partial or total loss of teeth must be solved through restorative rehabilitation. Traditional dental restoration has long been the main means of rehabilitation treatment because of its adaptability,

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functionality, biocompatibility and economy.

Obviously, for Navarro and others, dental restoration is an option to restore the health of missing teeth, but in turn, it needs maintenance and care to perform its built function. They provide an aesthetic and functional solution to solve tooth loss and resulting defects, so as to improve the quality of life of the wearer.

Romero and others cited seven studies that revealed that edentulism is a common oral condition in adults. Therefore, a considerable number of people wear dentures, resulting in varying degrees of disability or disability, which can be improved only by partial rehabilitation.

Regardless of the cause of tooth loss, restorative stomatology will provide treatment for patients with any degree of complexity by restoring the aesthetic function and harmony of the oral dynamic system. Therefore, it was suggested to determine the actual needs of the population over 18 years old for oral diseases in the Northern Health District of camagui city.

## 2. Method

From October 2013 to April 2015, a cross-sectional descriptive study was conducted on the population of the Northern Health District of Muni cipio Camaguey. The world consists of 574 people over the age of 18 who agreed to participate in the study voluntarily, but patients who need fixed prostheses are excluded due to the complexity of clinical and laboratory.

In order to collect information, each family used a form, using observation techniques, through questioning and oral examination. The researchers examined the subjects with natural light and a sublingual press. If a person is not at his residence during the visit, he/she will come back twice so that he/she can apply for the form. Surgery was performed as a

variable of interest: Age, gender, actual demand for oral prostheses and reasons for demand. Age: According to the age of completion, the following groups used the scale: 18–29, 30–39, 40–49, 50–59, 60 and above. Gender: Described according to biological conditions.

Determine the patients with partial or total missing teeth or both as the actual needs of oral restoration, define the parameters of actual needs and their causes, and determine through expert consensus. The eight criteria considered by Delphy method are: Some or all of the prostheses in use do not meet the biomechanical, aesthetic and functional requirements. Prosthetics that have been used for more than five years. Partial loss of denture restoration is allowed. Clinical examination showed that due to the existence of extensive, complex and profound cavities, they could not be repaired by conservative methods, and the teeth of patients with residual root and periodontal disease could not be treated with periodontal therapy.

After collecting the data, one of the record tables was revised, and a result processing and analysis database was established in SPSS 15.0 for Windows program. Summary measurements were used for qualitative variables (absolute, relative, ratio, ratio, index) and quantitative variables (absolute, relative, average, average Na, fashion). This information is displayed in tables statistics through Microsoft Word and Excel for Windows XP text editor and prepared together with the final report. Bioethics: It abides by the principles of medical ethics through the individual and dual informed consent of each patient.

## 3. Results

The age and gender distribution of patients were analyzed. Of the 574 subjects, patients over 60 years old accounted for 30.8% and women accounted for 58.2% (**Table 1**).

**Table 1.** Patients who need prosthodontics according to age and gender. North Health District, camague. October 2013 to April 2015

Age group	Female		Male		Total	
	No.	%	No.	%	No.	%
18–29	61	10.6	43	7.5	104	18.2
30–39	49	8.5	35	6.1	84	14.6
40–49	57	9.9	50	8.7	107	18.6
50–59	59	10.3	43	7.5	102	17.8
60 and above	108	18.8	69	12.0	177	30.8
Total	334	58.2	240	41.8	574	100

By assessing the actual demand for dental prostheses and their causes in the whole subject population, it was concluded that of the 574 patients who met the standard, 69.9% did need dental prostheses and 82.2% were mainly due to tooth loss (**Table 2**).

**Table 2.** According to the actual needs of oral restoration

Reason	No.	%
No prosthetics are required	173	30.1
Need a prosthetic	401	69.9
(a) Tooth loss	330	82.3*
(b) Insufficient deformation	119	29.7*
(c) Prosthetics over 5 years old	112	25.4*

\*The relative frequency came from 401 patients who actually needed prosthetics

The distribution of patients who actually need prosthetics according to age group was studied; The elderly over 60 years old most need artificial rehabilitation, accounting for 25.4% (**Table 3**).

**Table 3.** Actual need for prosthodontics by age

Age group	Need a prosthetic		No prosthetics are required		Total	
	No.	%	No.	%	No.	%
18–29	28	4.9	76	13.2	104	18.2
30–39	53	9.2	31	5.4	84	14.6
40–49	89	15.5	18	3.1	107	18.6
50–59	85	14.8	17	2.9	102	17.8
60 and above	146	25.4	31	5.4	177	30.8
Total	401	69.9	173	30.1	574	100

The distribution of patients who actually need oral repair by gender shows that women account for 42.3% compared with men who need some kind of repair and rehabilitation (**Table 4**).

**Table 4.** According to the actual needs of oral restoration according to gender

Gender	Need a prosthetic		No prosthetics are required		Total	
	No.	%	No.	%	No.	%
Male	158	27.6	82	14.9	240	41.8
Female	243	42.3	91	15.9	334	58.2
Total	401	69.9	173	30.1	574	100

It is hoped that most of the people under review belong to the elderly, because the increasing proportion of people aged 60 and over (i.e.

Population aging) is a phenomenon involving the vast majority of developed or non-developed countries. Abascal et al.<sup>[9]</sup> and Leyva et al.<sup>[10]</sup> consider this demographic situation as a fundamental aspect of

economic and social planning, including health action, and are known as the aging countries of Latin America and the Caribbean: Barbados, Uruguay and Cuba supported the conclusions of the current study.

In the scientific article “the impact of repair on the quality of life of patients”, Lages Ugarte M et al.<sup>[11]</sup> mentioned the greater advantages of women’s repair needs and explained how she adapted to the demographic situation of the Cuban population, which is the legitimacy of the statement that women are dominant but less than 100% in the study of Leyva et al.<sup>[9]</sup> and Segura et al.<sup>[12]</sup>. Reported figures ranging from 52.4% to 53.1%.

When analyzing the reasons for the demand for oral restoration in the test population, it is found that the root cause of the problem is the lack of natural teeth. Molina et al.<sup>[13]</sup> believe that one of the main causes of tooth loss in the middle-aged and elderly may be dental caries and periodic diseases, which is the most common problem in oral activities. It also emphasizes the need for early diagnosis and treatment.

Carpio et al.<sup>[14]</sup> made the scientific community reflect on the problem of tooth loss, and pointed out that if you want to maintain oral health throughout the individual’s life cycle, you must replace the missing teeth as soon as possible. If there are some residues, their preservation is very useful for the success of rehabilitation treatment.

Hernández et al.<sup>[15]</sup> found that in any population, many couples or completely toothless people did not undergo any type of restorative rehabilitation, and the number of lost teeth increased with age. It was reported that 20 teeth were lost in people over the age of 60, as was still the case in Holmén et al.<sup>[16]</sup>

Divaris et al.<sup>[17]</sup> emphasize the need for effective prosthetic rehabilitation, not only because the lost function is restored, but also because with the increase of tooth removal time, the reabsorption of the flange is ongoing, and then the supporting

surface of the prosthesis will be damaged in the future.

These data may be due to the high incidence of different types of tooth loss without timely resolution. Sometimes, people in these age groups don’t like to see stomatologists to replace some missing teeth. They don’t think it’s very important, or they think it’s a unique and constant change for the elderly. Therefore, it’s necessary to reflect and strengthen the prevention and health education for the long-lived.

The study cited by Neto et al.<sup>[18]</sup> shows that in the studied population, especially the elderly, most of them need at least one complete denture. Xavier IA et al.<sup>[19]</sup> believe that in general, the need for such treatment has had a significant impact on many people around the world, and this assumption is worth it.

Barbosa et al.<sup>[20]</sup> confirmed in a survey conducted in Araraquara, Brazil, in 2011 that 80% of the adult non institutional elderly who actually need to submit papers need prosthetics, while the proportion of institutional elderly people who need prosthetics ranges from 78.1% to 80.28%. It can be seen that these data are similar to the current study and reflect the advantages of people over the age of 60 (82.5% of the actual needs of this group), but they are different from the data found by Iturriaga et al.<sup>[21]</sup> In assessing the actual needs of oral prostheses in the age group of 35 to 59.

A study conducted by Contreras et al.<sup>[22]</sup>. In Pinar del Rio on the behavior of subplatelet stomatitis in people over the age of 15 found that under the same conditions (59.1% and 40.9% of the total cases), even at the population level, women wearing dentures were superior to men, indicating that women’s various types of tooth loss had higher antecedents. It is generally believed that in some countries, the prevalence of edentulosis is higher in women than in men.<sup>[23]</sup>

According to a study on the health of Mayo res people conducted by Chaves de Mendonça et al. In

Brazil on the 23<sup>rd</sup>, the rate of tooth loss in women increased by 65% compared with men, and these possibilities increased by about 5% after the age of 65. The above results are consistent with the study of Vázquez et al.<sup>[24]</sup> in Mexico, Pérez ML et al.<sup>[25]</sup> in Spain, López A et al.<sup>[26]</sup> in Colombia. Female tooth loss is dominant.

Tamayo et al.<sup>[27]</sup> pointed out that Cuban women have a higher proportion of tooth loss, and there are good reasons to believe that women pay great attention to aesthetics and turn more to zoology services. He also quoted Winkher, who believes that women have a tendency to die early and is more interested in rehabilitation.

Hernández et al.<sup>[15]</sup> found no significant statistical difference between age group or gender and caries index (CPOD) in their clinical evaluation of subjects' dental condition. However, compared with men, the average el (CPOD) of missing components (15.06 missing teeth in women and 12.80 missing teeth in men) in the female group is higher than that in men, which makes it reasonable to believe that women are more likely to receive prosthetic rehabilitation services in stomatology.

## 4. Conclusions

Among female patients over the age of 60, the real demand for oral repair is widespread, mainly due to the loss of teeth.

## Conflict of interest

The authors declare no conflict of interest.

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