Article **ECORFAN-Bolivia Journal**
December 2018 Vol.5 No.9 49-62

Prosthetic needs in patients attending dental services in Clinics I, II of the Faculty of Dentistry of the Autonomous University of Campeche 2016

Necesidades protésicas en pacientes que asisten a servicios odontológicos en Clínicas I, II de la Facultad de Odontología de la Universidad Autónoma de Campeche 2016

ROSADO-VILA, Graciella*†, ZAPATA-MAY, Rafael, ACUÑA-GONZALEZ, Gladys Remigia y VIDAL-PAREDES, Jorge

Universidad Autónoma de Campeche, Facultad de Odontología y Facultad de Enfermería, San Francisco de Campeche, México

ID 1st Author: *Graciella, Rosado-Vila* / **ORC ID**: 0000-0002-8688

ID 1st Coauthor: *Rafael, Zapata-May* / **ORC ID**: 0000-0002-3750-8137

ID 2nd Coauthor: *Gladys Remigia, Acuña-Gonzalez* / **ORC ID**: 0000-0002-7739-2001

ID 3rd Coauthor: *Jorge, Vidal-Paredes* / **ORC ID**: 0000--0002-4474-3733

Received: September 25, 2018; Accepted: December 20, 2018

Abstract

Oral health is considered an inseparable part of health in general. The loss of teeth, complete or partial, substantially reduces the quality of life of an individual. The needs of prosthetic treatment are the consequence of tooth loss, a problem of oral health, and when not treated in time. When prosthetic rehabilitation is performed, the patient recovers his quality of life since edentulism is the cause of multiple diseases. Besides recovering the masticatory function rehabilitation treatment promotes phonation, masticatory function, and esthetic purposes. In this way they recover social and emotional well-being that is diminished due to deterioration of oral health. General Objective. - What are the prosthetic needs of patients that require dental service in clinics I, and II of the Faculty of Dentistry of the Autonomous University of Campeche 2016?. Methodology. - The entirety of the sample consisted of 260 adult patients who attended the dental clinic at clinics I and II of the Faculty of Dentistry of the Autonomous University of Campeche. Result: 260 patients were studied in terms of prosthetic need. By means of a classification, 21.9% (57) do not need any dental prosthesis, 40.4% (105) need fixed prosthesis 1,2,3, the 7.7% (20) need total prostodontics 4, removable prosthesis 11.5% (30) and with 18.5% (48) need a prosthesis combination. According to the variable dental arches, the highest frequency observed in relation to the need of prosthetics in both dental arches is 44.6% (116), with 22.3% (58) in the upper dental arch, with 11.2% (29) in the lower dental arch and without any prosthetic need in any dental arch with 21.9% (57). According to the type of prosthesis, the most frequent type of prosthesis presented by the patient was identified, it was observed that 60.8% (158) did not present any type of prosthesis, 28.1% (73) had a fixed prosthesis, 6.5% (17) present a removable prosthesis, 2.7% (7) use total prosthesis and 1.9% (5) have a combined prosthesis. Conclusion: The most frequent need for dental service is fixed prosthesis. Patients in this population mostly have never had prosthetic treatment, despite requiring these services they say they do not have these assets due to the economic factors. The most affected population in need of prosthesis was in patients with the age range of 40 to 50. With regard to sex, it was observed that the population that went to dental treatment the most was the feminine one. The recommendation that we can give to the patient is important, since this could serve as orientation and preventive means for their treatment decisions, so they can be carried out in the precise moment.

Dental Prosthesis, Oral Health, Dental Loss

Resumen

La salud oral es considerada como una parte inseparable de la salud en general. La pérdida de dientes, completa o parcial reduce sustancialmente la calidad de vida del individuo. Las necesidades de tratamiento protésico son la consecuencia de la perdida dentaria, por un problema de salud bucal, no tratado a tiempo, cuando se realiza la rehabilitación protésica, el paciente recupera su calidad de vida ya que el edentulismo es causante de múltiples enfermedades además de recuperar la función masticatoria el tratamiento rehabilitador favorece la fonación, función masticatoria y fines estéticos de este modo recuperan el bienestar social y emocional que se encuentra disminuido debido al deterioro de la salud bucal.Objetivo General.- ¿Cuáles son las necesidades protésicas de los pacientes que requieren servicio odontológico en las clínicas I, y II de la Facultad de Odontología de la Universidad Autónoma de Campeche 2016?. Metodología.- El universo de la muestra fueron 260 pacientes adultos que acudieron a consulta dental a las clínicas I y II de la Facultad de Odontología, correspondiente a todas las asignaturas impartidas en las clínicas Odontológicas de la Facultad de Odontología de la Universidad Autónoma de Campeche.Resultado De los 260 pacientes estudiados, en cuanto a la necesidad protésica se consideró por medio de una clasificación en la cual 21.9% (57) no necesita ninguna prótesis dental, 40.4% (105) necesita prótesis fija 1,2,3, el 7.7% (20) necesitan prostodoncia total 4, prótesis removible 11.5% (30) y con el 18.5% (48) necesitan una combinación de prótesis. De acuerdo a la variable de los arcos dentarios en donde se observó la mayor frecuencia en relación a la necesidad protética fue en ambos arcos dentarios con 44.6% (116), con el 22.3% (58) en el arco dentario superior, con el 11.2% (29) en el arco dentario inferior y sin alguna necesidad protética en ningún arco dentario con el 21.9% (57). De acuerdo con el tipo de prótesis se identificó el tipo de prótesis más frecuente que presenta en boca el paciente, se observó que el 60.8% (158) no presenta ningún tipo de prótesis, 28.1% (73) presenta prótesis fija, 6.5% (17) presenta prótesis removible, el 2.7% (7) utilizan prótesis total y con el 1.9% (5) tiene prótesis combinada.Conclusión La necesidad de servicio odontológico más frecuente es la prótesis fija.Los pacientes en esta población en su mayoría nunca se les habían realizado ningún tratamiento protésico, a pesar de requerir estos servicios, ellos dicen no tener estos bienes por cuestiones del factor económico.La población más afectada fue en los pacientes con el rango de edad de 40 a 50 años presentan mayor necesidad protésica. Con respecto al sexo, se observó que la población que más acudió a tratamiento odontológico fue el femenino.Es importante la recomendación que podemos darle al paciente, ya que esto podría servirle de orientación y medio preventivo para sus decisiones de tratamiento, se lleven a cabo en el momento preciso.

Protesis Dental, Salud Oral, Pérdida Dentaria

Citation: ROSADO-VILA, Graciella, ZAPATA-MAY, Rafael, ACUÑA-GONZALEZ, Gladys Remigia y VIDAL-PAREDES, Jorge. Prosthetic needs in patients attending dental services in Clinics I, II of the Faculty of Dentistry of the Autonomous University of Campeche 2016. ECORFAN Journal-Bolivia. 2018. 5-9: 49-62.

* Correspondence to Author (email: gjrosado@uacam.mx)
† Researcher contributing as first author

1. Introduction

Oral health is considered an inseparable part of general health. The loss of teeth, complete or partial, substantially reduces the quality of life of the individual, since the teeth help in the process of digestion of nutrients and by not being able to properly crush the food, they are not absorbed correctly.

The needs of prosthetic treatment are the consequence of tooth loss, a problem of oral health, not treated in time, when prosthetic rehabilitation is performed, the patient recovers his quality of life since edentulism is the cause of multiple diseases besides recovering the masticatory function the rehabilitative treatment favors the phonation, masticatory function and esthetic ends in this way recover the social and emotional well-being that is diminished due to the deterioration of the oral health.

There are different types of prosthesis to rehabilitate the patient, and determine the prosthesis indicated will depend on the need for treatment of the patient, the socioeconomic status and oral status of the individual or cemented.

The removable partial prosthodontics is aimed at replacing missing teeth and the bony structures that are atrophied over time after the loss of teeth organ, through oral devices that are the carriers of artificial teeth; and the total prosthodontics are those that include both the replacement of the lost natural dentition, as well as the associated structures of the maxilla and mandible in patients who have a total demand for their dental organs.

The fixed prosthesis is the art of restoring the damaged teeth with cast metal or porcelain and replacing the missing ones with fixed or cemented prostheses.

The removable partial prosthodontics is aimed at replacing missing teeth and the bony structures that are atrophied over time after the loss of teeth organ, through oral devices that are the carriers of artificial teeth; and the total prosthodontics are those that include both the replacement of the lost natural dentition, as well as the associated structures of the maxilla and mandible in patients who have a total demand for their dental organs.

1.1 Problem Statement

Oral health is the expression of living conditions and these in turn express the difference between the various social groups, the loss of teeth is equivalent to losing oral health and its treatment is aimed at solving various problems caused by said dental absence.

The treatment of tooth loss has been one of the fundamental pillars of dentistry since ancient times, currently the treatment of edentulism is the placement of dental prostheses whether fixed type, removable or prosthodontics, in order to restore functions lost due to the lack of a dental organ.

The realization of epidemiological studies on the needs of prosthetic treatment is of great importance to obtain information on the real need of the population in question, and be able to establish a comparative pattern between different populations.

To identify the most frequent type of prosthesis, in patients that attend the dental service in the Faculty of Dentistry of the Autonomous University of Campeche. The type of prosthesis that the patient brings.

As well as establishing the need for a fixed prosthesis: crown, bridge, incrustations and endoposts, removable bilateral or unilateral partial prosthesis, total superior, inferior or bimaxillary prosthodontics, related to schooling in patients attending the dental service in the Faculty of Dentistry of the Autonomous University of Campeche.

The age range is studied according to the need of the fixed prosthesis to determine the appropriate use of a crown, bridge, incrustations and endoposts, bilateral or unilateral partial removable prosthesis and total superior, inferior or bimaxillary prosthodontics of the patients who attend to the dental service in the Faculty of Dentistry of the Autonomous University of Campeche, where it is worth mentioning that these prosthetic services are provided to the population within the institution, presenting needs in the patients of this dental treatment to support their rehabilitation.

The following research question is made by carrying out the following approach:

ISSN-On line: 2410-4191

What are the prosthetic needs of patients who require dental service in clinics I, and II of the Faculty of Dentistry of the Autonomous University of Campeche?

1.2 Justification

Currently the need for prosthetic treatment has been increasing due to the loss of dental organs as a result of multiple factors: among the main ones are dental caries which is a multifactorial disease with a very high prevalence according to the WHO, periodontitis is also determinant in this problem because it is the result of poor oral hygiene and exaggerated oversight of oral health.

The dental loss leads us to have different consequences such as the lack of different functions that are necessary for the correct nutrition of the organism, for the phonetics, the aesthetics is also affected the lost tooth will obviously leave an empty space inside the patient's oral cavity that in the future will affect the physiognomy of the patient. But beyond having a negative effect on your face, it allows the adjacent teeth to leave their correct positions within the oral cavity. This problem over time can lead to misalignment of the smile and even be the culprit of temporomandibular problems.

When losing a dental organ and not placing a dental prosthesis in due time, they usually suffer from loss of mandibular bone, which changes the appearance of the face over a long period of time. The ability to speak can be affected, especially if a dental organ or more is lost. It goes without saying that this can cause a loss of important confidence and self-esteem, affecting the social life of the person.

The placement of a dental prosthesis will solve this loss of the different functions that are affected by the lack of dental organs. The dental prosthesis will return the masticatory function, this means that it will be able to eat normally, thus improving the tone of the muscles, reducing problems at the level of the joint and improving gastric health.

The phonetic and aesthetic function are greatly improved with the presence of teeth restored by a prosthesis, the pronunciation of the words will be much clearer and better understood, as well as the recovery of smile and confidence.

The patient recovers the vertical dimension that is from the tip of the nose to the chin, which had been lost due to the absence of teeth; this manifests itself in the form of wrinkles in the peri-labial area and depressions in the lips, giving the impression of premature aging. When we recover it, we not only recover the vertical dimension, but also recover the tonicity of the labial and labial muscles, making the appearance recover.

The functionality of the prosthesis means a good quality of life and therefore enjoy good health in all aspects for the patient, it will also allow to preserve the structures of the masticatory system avoiding its possible deterioration; the self-esteem of the patient is recovered with the definitive placement of the prosthesis achieving a better quality of life.

The following study allows us to recognize what are the prosthetic needs of patients and allows to apply certain actions for the motivation of the use of prostheses. There are studies that show that one of the most frequent treatment needs is dental prostheses with different results to the type of prosthesis that requires.

The results obtained from this study present diversity according to the variables included, where data are provided that are used for the prevention and timely treatment of this dental problem, to serve as a basis for more in-depth studies on the needs of prosthetic treatment within the Clinics of the Faculty of Dentistry of the Autonomous University of Campeche.

2 Theoretical Framework

Health is a condition that refers to a state of well-being in the person, and is the absence of disease in the body; according to the WHO "Health is a state of complete physical, mental and social well-being, and not only the absence of diseases or illnesses". The quotation comes from the preamble of the Constitution of the World Health Organization, which was adopted by the International Sanitary Conference, held in New York from June 19 to July 22, 1946, signed on July 22, 1946 by the representatives of 61 states (Official Records of the World Health Organization, No. 2, p.100), and entered into force on April 7, 1948. The definition has not been modified since 19831.

ISSN-On line: 2410-4191

Following this definition, we can identify two major aspects of health, physical and mental. As in the first one, the conservation of the organs is given, and the preservation of the organic functions; in the case of the second, it is about the preservation of the mental faculties. Within these are: the ability to discern, to behave in an appropriate way, to control emotions and behaviors. In conclusion, mental health would be the psychological, and therefore emotional, well-being of the subject.

For health to be preserved, there must be a combination of certain factors that contribute to the balance of the human being, the relationship between oral health and the impact on the organism, numerous studies have already shown their close relationship, because in the mouth they are present different bacteria, including those related to dental caries, periodontal diseases and systemic diseases that affect overall health.

The close bi-directional relationship between oral health and general health, as well as its impact on individual health and quality of life, provide a solid conceptual basis for an approach to the integration of oral health in general health.

The World Health Organization (WHO) defines oral health as "the absence of oral or facial pain, oral or throat cancer, infections or ulcers, periodontal diseases, tooth decay, tooth loss, as well as other diseases and alterations that limit the individual capacity to bite, chew, laugh, talk or compromise psychosocial well-being ".

Oral health is the result of the intervention of all economic, social, biological and cultural factors that promote a longer stay of dental organs in the individual and that is also supported by an attitude of prevention, nutrition, hygiene and physiological harmony that allow the best function with the organs involved in digestion.

Oral health is one of the aspects that affect perceptions about quality of life. The Canadian Dental Association points out that oral health "is a state of the tissues of the mouth and related structures that positively contributes to physical, mental and social well-being, to the well-being and enjoyment of life's possibilities, allowing the individual to speak , eat and socialize unhindered by pain, discomfort or embarrassment".

Sheiham shares this when she affirms that oral health affects people physically and psychologically, influencing their growth, the enjoyment of life, looking, speaking, chewing, tasting food and enjoying social life, as well as their own feelings about their social welfare.

Having a healthy and functional dentition is important in all phases of life to allow essential human functions such as speech, smile, socialization or eating, to maintain these, and the general health of the individual is maintained there must be a oral hygiene.

Among the risk factors of increased indication of exodontia as definitive treatment we find: difficult access to dental care, poor oral hygiene, low educational level, living in rural sector, and age, the latter factor considered by the special conditions of prevalent care and diseases as the years increase.

The loss of teeth alters the functions of the stomatognathic system, such as chewing, phonetics and aesthetics. In the case of chewing function can lead to a change in diet by the person, forcing new dietary practices determined with a greater consumption of soft foods and easy to chew, causing dietary restrictions and compromising the nutritional status of the person.

Edentulism is considered a chronic, irreversible and incapacitating disease, in all partial edentulous, the loss of dental pieces adversely affects the stomatognathic system, reflected in an alteration of the occlusion, the neuromuscular component and often with serious repercussions in the temporomandibular joint. Likewise, the remaining oral structures undergo changes in position and contour and even the formation of a new anatomical component, the edentulous ridge.

Edentulism is preventable, irreversible and constitutes mutilation, a loss of physical integrity and is the result of systemic diseases such as diabetes and prevalent oral diseases, such as dental caries and periodontal disease (PD), or it can be secondary to orthodontic, aesthetic, prosthetic needs, traumatisms, and generated by socioeconomic, cultural and public policy factors that favor inequalities and inequalities in health.

ISSN-On line: 2410-4191

The loss of dental pieces brings with it a series of mechanical, functional, aesthetic and emotional alterations for the patient, the prosthesis allows us to return the oral health and at the same time the general health is recovered, since they are closely related to one another; the usual therapy to recover the loss of a dental organ is necessary the placement of a dental prosthesis, be it a fixed prosthesis, removable partial prosthesis or total prosthodontics.

With the dental prosthesis the dental aesthetics, the smile, volume and shape of the face are recovered, without forgetting the masticatory function that is fundamental for the maintenance of the health in general.

Dental prostheses prevent the adjacent dental organs from being distalized in the place where a tooth has been lost. Dental prostheses prevent possible interferences and the appearance of cavities, solving many problems of the articulation of the jaw. It is essential to replace lost teeth with dental prostheses as soon as possible, in order to prevent the different problems that the absence of a dental piece entails. According to the latest research, prosthetic needs are increasing due to the loss of teeth caused by multiple factors. The replacement of missing teeth is the common need of patients, especially elderly.

For this reason, rehabilitation dentistry specializes in performing treatments in patients with alterations of any level of complexity, returning the function, aesthetics and harmony of the stomatognathic system through the use of fixed, removable and / or total dentures. Replacement of lost teeth, always seeking correct occlusion.

However, there may be poorly adapted or damaged prostheses due to their prolonged time in the mouth, which can prevent the intake of food in a satisfactory manner, causing stomatological damage.

A prosthesis can be made to replace a tooth, two teeth, three teeth, and so on up to all the dental organs. For each situation there is a recommended type, or several types of possible prostheses.

Fixed prosthesis

The treatment with fixed prosthesis consists of the replacement or restoration of the natural teeth by means of the placement of artificial analogs that are going to be fixed in the mouth. The fixed prosthesis ranges from the restoration of a single tooth to the rehabilitation of the entire occlusion, this depends on the patient's treatment needs.

Missing teeth can be replaced with fixed prostheses that improve comfort, the masticatory capacity of the patient in many cases, the concept he has of himself. It is also possible, through fixed restorations, to make the basic and extensive corrections needed to treat problems related to the temporomandibular joint and the neuromuscular components.

At the moment of the placement of a fixed prosthesis, the chewing function is recovered, the aesthetic for it influences some factors such as color, shape, size, texture of the tooth, middle line, dark background of the mouth, oral corridor, degree of opening of the incisal embrasures, height of the occlusal plane, gingival tissue and the need or not of artificial gingiva and phonation.

Among the fixed prostheses we can find various treatment options such as individual crowns, which are cemented restorations that reconstruct the morphology, function and contour of the damaged coronal portion of a tooth, it must protect the remaining structures of the tooth from further damage, if it covers the entire clinical crown, it is a complete crown; if only part of it is covered, it is called a partial crown, a crown can be made of some metal free of corrosion, porcelain fused to metal, porcelain only, resin or resin only.

The incrustations are intracoronal cast restorations that are used for the repair of proximal occlusal lesions, or moderate or minimal gingival lesions. If the occlusal face is covered, the intracoronal restoration is called onlay and is very useful for repairing extensively damaged teeth and those that require a mesio-occlusal-distal restoration.

A bridge is a prosthesis that replaces one or several missing teeth, permanently fixed to the remaining pieces.

ISSN-On line: 2410-4191

There are some indications that must be taken into account when making a fixed prosthesis. The realization of crowns will represent an intervention of difficult equilibrium for the integrity of the functional and biological principles of the masticatory organ, for this reason it is advisable to choose a conservative therapeutic procedure that protects as much as possible both the pulp and the marginal periodontium and the hard tissues.

General indications for the placement of a crown: extensive caries, morphological defects, crown trauma, discoloration, position anomalies, abrasions, erosions, vertical corrections.

Anchorage of bridges

The socioeconomic aspects also influence the placement and the material to choose in the development of a fixed prosthesis, this is because prosthetic restorations of fixed crowns and bridges are usually high cost treatments. They require a great investment of time for the previous treatment as for their definitive insertion. The same oral hygiene is a factor for the placement of fixed prostheses since the main cause of caries and periodontopathies is bacterial plaque, for this reason it is unpredictable to determine the plaque index when starting a treatment, the assessment should be simple, as accurate as possible.

There are contraindications that should be taken into account for the procedure of the fixed prosthesis, should be considered as relative, since usually from the relevant previous treatment can create the necessary conditions for the placement of a crown or a bridge, for restorations fixed. However, tooth cutting should be avoided, especially in the placement of full crowns, in young people, due to the amplitude of the pulp cavity, the relative contraindications are: teeth with necrotic pulp without root treatment, with periapical lesions, oral hygiene deficiency, gingivitis, periodontitis, obstacles and obscure occlusal conditions, insufficient retention and socioeconomic aspects.

Intraradicular restorations

Another of the prosthetic restorations of the fixed prosthesis is those that go intraradicular. When performing the pulpectomy to a tooth, it loses resistance, so it is essential that the dental treatment returns to the piece of resistance lost, objective that can be achieved with the application of intraradicular posts, is that they provide support to the teeth with endodontic treatment, and reduce excessive loads helping to distribute them between the post and the remaining dental tissue.

The endoposts, serve to give resistance to the dental organ, but they are also the structure for the placement of the dental prosthesis (crown) have qualities that should be used to meet the objectives of a restoration in the tooth, likewise the preparation of the teeth. ducts must have different characteristics to ensure stability resistance and especially longevity of the post and the tooth. These possess several characteristics such as, shape and size of the endo post, are made of different materials, there are individualized posts can be made of materials such as: gold, steel, stainless, titanium, semiprecious metal and not precious.

The prefabricated posts can be: a) metallic, gold alloys, titanium, stainless steel, chrome, cobalt b) non-metallic: composed of 36% resin and 64% glass fiber, quartz, carbon and combined. They arose due to the evolution of the adhesion, since they can be united with the dentin by means of the cement of the resin, in this way it is possible to support the functional loads improving the resistance of the tooth.

Removable partial prosthesis

The removable partial prosthesis has the purpose of conserving the remaining teeth and the secondary tissues that can be substituted when they are not, it also helps to improve the phonetics, chewing and aesthetics of the patient. The main purpose of the removable prosthesis should always be the preservation of the remaining teeth and tissues and not their replacement when they are already lost, which is a secondary purpose.

Once the main purpose of the removable prosthesis has been achieved, we can begin to improve the phonetics, increase the masticatory efficiency and aesthetics.

ISSN-On line: 2410-4191

There are several factors that must be considered to achieve the success of a removable partial denture and determine the specific indications for its placement: a) balance the retention of the abutment teeth, b) eliminate interferences, c) establish an optimal aesthetics and d) prepare plans of guide.

The indications that must be followed for the placement of the removable partial denture are the following:

When due to lack of health of the periodontal tissue, the residual ridge should help the support of the masticatory forces.

The edentulous space does not have posterior remanent teeth, except in those cases in which it is not advisable to replace the second and third molars.

In the remaining teeth there is little support tissue and needs splinting through the arch, the PPR can act as a splint stabilizing the teeth weakened by the underlying periodontal disease. The patient's metal or physical conditions do not allow carrying out the necessary procedures for the adaptation, implantation and action of the fixed prosthesis.

There is excessive bone loss in the edentula area and a base in the prosthesis is required, in order to obtain a correct position of the teeth and at the same time give support to the lips and cheeks.

There is a long prosthetic gap, it is necessary to place a PPR that achieves the retention, support and stability of that from the pillars of the opposite side. To serve as cover, support or both in the treatment of cleft palate in maxillofacial prosthesis.

The contraindications of this type of prosthesis are minimal:

- A fixed partial denture can succeed.
- When there is no adequate oral hygiene.
- There is no cooperation on the part of the patient.

There is a classification of partially edentulous arches, and different methods of classifying arcs or partially edentulous spaces are still being applied and are being proposed.

Kennedy Classification

This classification is the most accepted, because it precisely defines the areas of the partially edentulous arch.

When making the modifications applied to classes I, II, III, and IV, the number of edentula zones in the original classification must be taken into account. Dr. Oliver C. proposed several rules to properly use the original classification of Dr. Kennedy, without which such classification is difficult to apply in each case, namely:

First rule. More than precede, the classification must follow all dental extraction that may alter the original classification.

Second rule. If the third molar is missing and it will not recover, it is not considered within the classification.

Third rule. If there is a third molar and it is going to be used as a pillar, then it is considered within the classification.

Fourth rule. If a second molar is absent and will not be replaced, it is not considered within the classification.

Fifth rule. The more posterior edentulous zones or zones always determine the classification.

Sixth rule. The edentulous zones that do not determine the classification are only indicated as modifications and are designated by their number.

Seventh rule. The size or extension of the modification is not considered, but only the number of additional edentulous areas.

Eighth rule. Modifying zones can not exist in class IV (any edentula zone after the bilateral zone that crosses the middle line, determines the classification in turn). Total Prosthodontics

The total prosthodontics is the total rehabilitation of the natural teeth or remnants that have already been lost for different reasons, from the general clinical point of view, partial or total edentulous patients are classified considering their anatomical structures, psychological, pathological, geriatric characters, etc.

ISSN-On line: 2410-4191

They usually occur in mono-maxillary, or inferior and bimaxillary form, separated into three categories:

Edentulous patients pos partial or total extraction.

Edentulous patients not rehabilitated with partial or total prosthesis.

Patients with partial or total defective prostheses.

The edentation means, at the same time, the loss of security in itself, confessed or not, consent or acting from the planes of the subconsciousness.

The prosthetic rehabilitation of the total indentation focused on the human plane is a difficult purpose and presupposes to achieve, in addition to the good biomechanical functioning, other factors that include phonetics, this will allow to communicate psychically with others, and the comfort that involves physical relaxation or psychic of the stomatognathic musculature, which will favor its calm and harmonic relationship with said functional environment.

There are different types of edentulism, prosthetic and calcification treatments for this oral health problem; The American College of Prosthodontics developed a classification method to establish a better level in the diagnosis and complexity of treatments in patients with varying degrees of partial edentulism. This system offers the following benefits: it is an objective method to analyze patients in dental schools and establish normed criteria to measure results of treatments and research, among others. The system establishes four classes according to the degree of complexity, established with the following diagnostic criteria: location and extension of the edentulous areas, conditions of the abutment teeth, occlusion and characteristics of the residual alveolar rims.14

Classification system of partial edentulism according to the degree of complexity:

Grade I: Minimum compromise in the location and extension of the edentulous areas (limited to an arch), of the abutment teeth (without pre-prosthetic treatments), occlusal characteristics and conditions of the residual ridge.

Grade II: Moderate commitment in the location and extension of the edentulous areas in both arches, the abutment teeth and the occlusal conditions require additional treatments and moderate compromise of the residual ridges.

Grade III: Substantial commitment in the location and extension of the edentulous areas in both arches, abutment teeth that require substantial additional treatments, occlusal characteristics that require re-establishment without modification in the vertical occlusal dimension and residual rims that compromise the stability of the bases.

Grade IV: Severe compromise and reserved prognosis in the location and extension of the edentulous areas, abutment teeth that require excessive additional treatment, occlusal characteristics that require re-establishment of the occlusion with modifications in the vertical occlusal dimension and residual ridges that do not provide support and stability.

Dinia Isabel Rodríguez and Cols. In order to determine the need for stomatological prosthesis in patients aged 15 and over from September to December 2014, a descriptive cross-sectional observational research was conducted at the David Moreno Domínguez Polyclinic in Santa Rita, Jiguaní municipality, Granma, since September to December 2014. The study universe consisted of 9622 people aged 15 and over, from which a sample of 1078 people was determined.

A form created by the authors and validated by a committee of experts was used; an oral examination was performed in the patients' home; the data were emptied and processed by descriptive statistics. The variables studied were: need dentistry prosthesis, age, sex, type of prosthesis needed and type of need, and the results is the need for stomatological prosthesis in the area of health studied was 75.60%; the female sex and the age group of 60 and over were the most in need of stomatological prostheses, with 80.92% and 99.29% respectively; the type of dental prosthesis most needed was the partial lower removable with 21.59% and the felt need prevailed over the unfelt, with 88.59%, the need for denture prosthesis in the area under study was high. The female sex and the group of 60 and over were the most needy.

ISSN-On line: 2410-4191

The lower removable partial denture was the most needed and the felt need prevailed over the non-felt.

Gutiérrez, Vanessa and Cols. They determined the frequency of edentulism and the need for prosthetic treatment in adult population between 18 and 64 years of age in the marginal urban area of the Human Settlement El Golfo de Ventanilla, district of Ventanilla, Callao - Lima, 2014, cross-sectional, descriptive, observational study, the population consisted of 1350 people and the calculated sample was 168 adults, who were evaluated by means of a data collection sheet, structured from a questionnaire of the World Health Organization (WHO) for edentulous people., and it was determined that there was a frequency of edentulism in the population of 121 (72%) and the need for partial and total prosthetic treatment present for the upper jaw was 100 (59.6%) and in the lower jaw of 113 (67.3%); the majority of the population had edentulism and need for prosthetic treatment.

San María Abel with the objective of determining the need for prosthetic rehabilitation in a population corresponding to the Hermanos Cruz health area assigned to the stomatological department of the General Teaching Hospital "Abel Santamaría Cuadrado" from September 2013 to August 2014, a descriptive study was carried out , retrospective and transversal to determine the need for prosthetic rehabilitation of patients treated in the stomatological department of the selected hospital from a health area, in the period September 2013 to August 2014.

The Health Situation Analysis corresponding to the clinics involved in that population and the individual clinical histories of each patient were reviewed, the data of interest were emptied into a model prepared for this purpose. The universe was 10 238 patients and the sample of 6 680 patients met the inclusion and exclusion criteria; it was found that only 26.7% of the sample needed rehabilitation, the group of 60 years and more was the most needed, the upper jaw was the most affected and a greater number of patients with partial rehabilitation was detected.

The need for rehabilitation was determined in the population corresponding to the health area of the stomatological department of the General Teaching Hospital "Abel Santamaría Cuadrado" during the period from September 2013 to August 201416

Bermúdez, S., and Cols. They did a research work where the objective was to determine the prosthetic needs of the patients of the population of Río Chico-Edo. Miranda; being a descriptive and transversal study. The data collection instrument was the Clinical History used by both centers, 701 patients were studied between male and female who came to request dental treatment to the urban ambulatory type III Center for Special Medical Dentistry (CEMO) and the outpatient urban type II Association Ladies Salesian (ADS) during the August-November 2010 period.

A data matrix was developed in the Excel program for the organization of the data. Throwing the following results: 72% of the sample were women and 28% were men. The most affected age was between 21 and 30 years (28%). According to the prosthetic needs, 71% required one or more fixed prostheses, 26% required removable partial dentures, both dented-supported and dented-muco-supported and 3% required total prostheses. The importance of this study to provide information to the State entities responsible for providing resources to rehabilitate this population at the oral level is ratified.

Ángel P. and Cols. In 2010, they published a research paper where the objective of this cross-sectional study was to assess oral health status and quantify the prevalence of dental caries, tooth loss and the need for treatment in the Mapuche-Huilliche adult population. that inhabits the Huapi Island. A representative sample of 64 adult inhabitants of Huapi Island, consisting of 31 men and 33 women between 25 and 82 years old, who had at least one surname of Mapuche-Huilliche origin, was examined. The average of the COPD index of the sample was 14.59. All the individuals had a history of cavities. Of those who kept teeth, 71.43% had untreated caries, with an average of 1.25. The 98.43% of the individuals in the sample presented some degree of demerit, 12.5% were edentulous. 100% of the population needed dental care, whether for surgery or prosthesis.

ISSN-On line: 2410-4191

This population presents a great damage in terms of oral health, especially due to loss of teeth. The magnitude of the damage and the importance of the social environment as a determining factor in the generation of this, forces to face the problem and seek solutions developing and applying governmental programs of promotion and attention in oral health to the entire population.

Felix José Amarista Rojas y Cols. They analyzed the prosthetic needs of 51 subjects who attended the Center of Specialties Dentistry of Petare in the period April-May 2011, 60.8% of the Female sex and 39.8% of the Male sex, 56.9% of the subjects are within the age group of 45-64 years and 19% are 65 or older. 94% of the subjects came from the Miranda state, of these 86% came from the Sucre municipality and of these 76% from the Petare parish. The highest percentage of subjects required multiple unit prosthesis followed by the total prosthesis and in a smaller proportion the prosthesis of a unit.

The 53.7% of the subjects that require multiple unit prosthesis corresponds to situations with degree III and IV complexity, it was evidenced relationship between the degree of complexity with age ($p = 0.037$). The results coincide with previous work carried out by Sánchez and Vieira, so it is considered that the table of prosthetic needs corresponds to what has been observed in other services in the Metropolitan Area.

Miguel Á. Fernández-Barrera and Cols. They undertook a research work where the loss of teeth has become a public health problem, determining the prevalence and distribution of edentulism, as well as the associated sociodemographicic and socioeconomic variables in individuals aged 35 years and over. A cross-sectional study was carried out in 656 randomly selected subjects. The dependent variable was edentulism. The average age was 49.06 ± 10.33. The individuals were mainly women (63.3%). The general prevalence of edentulism was 15.7% (95% CI: 12.9-18.5); among women it was 17.6% and in men it was 12.5% ($p = 0.081$). The prevalence of edentulism was higher among the older subjects ($p <0.001$). It was observed that the higher the level of schooling ($p <0.001$), the better the socioeconomic level ($p <0.001$) and those who had a car at home ($p <0.05$), the lower the prevalence of edentulism.

There was a difference in the prevalence of edentulism by age, but not by sex. Socioeconomic differences were observed, suggesting certain inequalities in oral health.

María del Carmen Jiménez Malagóna and Cols. They carried out with the objective of describing the oral epidemiological profile and the needs of dental treatment in HIV / AIDS patients attended in an institution. Design. Transversal descriptive study. Site. School of Dentistry University of Cartagena. Participants. Patients diagnosed with HIV / AIDS and under antiretroviral treatment. Main measurements. Sociodemographicic variables, Oral Hygiene status, history of Caries, Periodontal Disease, oral manifestations associated with HIV / AIDS, need for dental treatment were evaluated. Of the 53 subjects of the study, 59.9% presented regular oral hygiene, 66% showed supragingival calculus and 15.1% gingival bleeding.

The caries was observed in 92.5% of the participants and the absence of teeth in 73.6%. The prevalence of oral manifestations of HIV / AIDS was 45.3%, highlighting those of infectious origin with 28.3%. The presence of lesions not associated with HIV was 81.1%, with oral pigmentation associated with antiretroviral drugs standing out with 28.3%. 100% of the subjects required dental care, requiring 4 different types of treatment, 60.4% of them. The promotion and prevention stand out in 98.1% of the cases, followed by the elimination of calculus in 73.6% and the prosthetic need in 81.2% of the individuals. It becomes evident the lack of attention and the need for treatment of this population. Which presents a state of regular oral health, affirming the right to comprehensive care that this type of patients deserves.

José Francisco Medina-Castro et al. They studied the prevalence of dental caries and the need for treatment. 200 individuals between the ages of 20 and 64 were examined from the San Isidro Welfare and Social Service Center in Lima, Peru, dividing them by gender and ethereal groups, evaluating their status with the DMFT index and the need for treatment. It was found that 95.5% of the individuals were affected by caries. The results obtained were from a population CPOD index of 14.05.

ISSN-On line: 2410-4191

The average of dental pieces for each treatment required for Sealing 14.66% of the pieces; Sealing with an area 13.94%; sealing with more than two surfaces 3.47%; crowns 9.02; pulp treatment 0.23%; extraction 1.47%, removable partial dentures with 3% and complete prosthesis 1%. The general CPOD index was 14.05, being considered as serious according to WHO parameters. The greatest need for treatment was for the need for sealant in the group of 20 to 24 and the lowest (zero) for pulp treatment in the groups of 45 to 54 and 55 to 64. The greatest need for removable prosthetic treatment was for removable partial dentures with 3%.

Rosa Isabel Esquivel Hernández y Cols. In 2010, they published an article in which the Geriatric Oral Health Assessment Index (GOHAI) was designed to detect oral health care needs in the geriatric population and is characterized by high sensitivity and ease of application, which allows timely attention. The objective was to determine the relationship between the self-perception of oral problems and the clinical evaluation of a group of older adults, through the application of GOHAI. It was a cross-sectional, prospective and associative study in a group of 96 elderly volunteers, attending a Rest House in the municipality of Tlalnepantla, Edo. from Mexico.

Two instruments were applied, the GOHAI and the WHO Oral Health Survey. The average age of the group is 67 years, 84.4% are women. The CPOD index is 20.2 (higher in women), and increases with age, At the age of 65 they have an average of 20 teeth. Edentulism was 18.75%. Due to the presence of caries, 37.5% requires dental care, while 79.2% requires repair or new prostheses, whether partial or total. 92.7% obtained values below the established cutoff point that is 57 in the GOHAI, however, those who received dental consultation within the last 12 months or had higher educational level obtained higher score. Those who had a lower CPOD index and a larger number of teeth present in the mouth obtained a significantly higher GOHAI score. The GOHAI has proven to be an instrument with high sensitivity to clinical variables allowing to detect care needs more easily, besides that it does not require qualified personnel for its application.

Carlos Campodónico Reátegui and Cols, with the main objective of this study was to determine the health profile-oral disease of elderly people (AM) of urban Lima, a descriptive-cross-sectional study was conducted in 120 adults over 60 years, living in Lima fenced and districts. The data collection was performed through the method of clinical observation and interview using the WHO indexes and procedures, the average age 71 years, with prevalence of females (70%) and secondary education, presence of hypertension 33 % and diabetes mellitus 10.8%, disorders of the mucosa in 10.8%, being of the ulceration type located on the palate and alveolar ridges. Presence of stones and periodontal bleeding, in 52% of the population. 23.3% needed prophylaxis and only 11% needed root scaling. Of the teeth present in the mouth 23% have lost fixation in 4-5 mm. Only 5.82% of the teeth are healthy, with an average caries 4.43, teeth lost 14.77 of 53%. The CPO had an average of 19.71. DS. 6.74. The 31.7% use total removable upper prosthesis and fixed prosthesis in 19.2%. In the lower maxilla 20% use PPR and 13.3% use total prosthesis and 9.27% fixed. Meeting a high need for removable prosthesis in upper and lower jaw.

Results

Of the 260 patients studied, in terms of prosthetic need was considered by means of a classification in which 21.9% (57) do not need any dental prosthesis, 40.4% (105) need fixed prosthesis 1, 2.3, 7.7% (20) need total prostodontics 4, removable prosthesis 11.5% (30) and with 18.5% (48) need a prosthesis combination. (Table 1, graphic 1).

According to the variable dental arches where the highest frequency was observed in relation to the prosthetic need was in both dental arches with 44.6% (116), with 22.3% (58) in the upper dental arch, with 11.2 % (29) in the lower dental arch and without any prosthetic need in any dental arch with 21.9% (57). (Table 2, graphic 2).

According to the type of prosthesis, the most frequent type of prosthesis presented by the patient was identified, it was observed that 60.8% (158) did not present any type of prosthesis, 28.1% (73) had a fixed prosthesis, 6.5% (17) presents a removable prosthesis, 2.7% (7) use total prosthesis and 1.9% (5) have a combined prosthesis. (Table 3, graphic 3).

ISSN-On line: 2410-4191

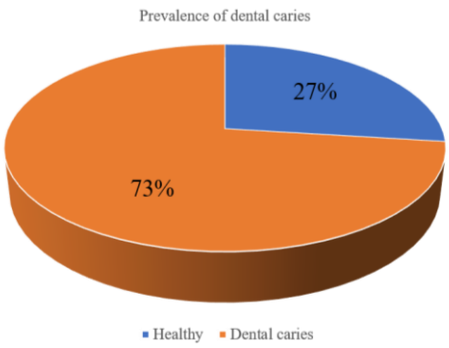
According to the mandibular arches where the most frequent type of prosthesis presented in the mouth was presented, the patient was observed more frequently in the upper dental arch with 25.4% (66), in the lower dental arch 3.8% (10), in both dental arches 8.8% (23) and without any prosthesis 61.5% (160). (Table 4, graphic 4)

Regarding schooling, it was categorized into four groups, 11.2% (29) reported having no studies, 48.1% (125) basic education, 20.8% (54) secondary education and 20.0% (52) higher education. (Table 5, graphic 5).

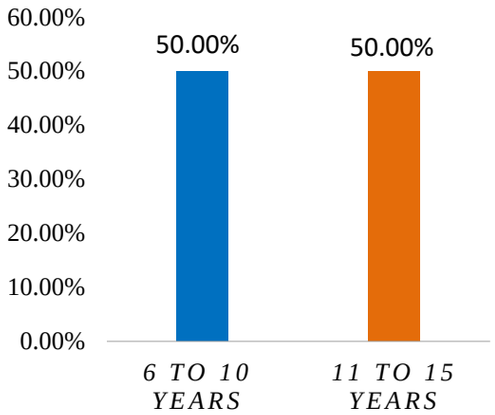
The patients attended by the female sex represent 62.7% of the studied population while the male patients represent 37.3% of said population. (Table 6, graphic 6).

Regarding the distribution by age, the average is 3.00, SD = 1.42, with a population of 260 patients, categorized into five age groups, group I from 18 to 28 years of age with 22.3% (58), group II 29 to 39 years of age corresponds to 14.2% (37), group III from 40 to 50 years of age with 23.8% (62), group IV from 51 to 60 years of age with 20.4% (53) and group V from 61 plus corresponds to 19.2% (50). (Table 7, graphic 7)

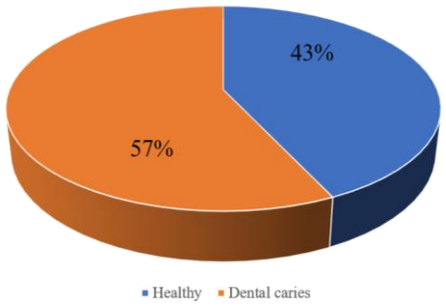
A correlation between the prosthetic need variables, age and degree of study was observed, the Pearson test gave significant to said variables, the lower the degree of studies the patients presented the higher prosthetic need required, according to the age, the higher is more frequent the prosthetic need. (Table 8).



Graphic 1 Prevalence of Dental Caries



Graphic 2 Average CPOD by Age



Graphic 3 Average CEOD with Caries

6 Conclusion

The present study determines that this population has a great prosthetic need in the patients that attend the clinics of the Faculty of Dentistry of the Autonomous University of Campeche.

The most frequent need for dental service is the fixed prosthesis. Most of the patients in this population had never undergone any prosthetic treatment, despite requiring these services, they say they do not have these goods because of the economic factor.

It is worth mentioning some indications that must be taken into account when making a fixed prosthesis. The realization of crowns will represent an intervention of difficult equilibrium for the integrity of the functional and biological principles of the masticatory organ, for this reason it is advisable to choose a conservative therapeutic procedure that protects as much as possible both the pulp and the marginal periodontium and the hard tissues.

Observing a more affected population in patients with the age range of 40 to 50 years present greater prosthetic need.

ISSN-On line: 2410-4191

The female sex of that population observes an attendance to the dental treatment. After having performed the statistical analyzes in this population study in the result, we observed a relationship between the variables of age, schooling and type of prosthesis that these patients require, concluding that the lower the schooling, the greater the need for prosthesis in the clinics of the Faculty of Dentistry of the Autonomous University of Campeche.

7 Recommendations

It is important to mention that timely information within the clinics of the dentistry faculty of this University of Campeche, should be necessary for the option of acquiring a dental prosthesis oriented to the patient motivating them to use it and keep it as part of their oral health, since that this could serve as a preventive means for their future decisions in oral treatment, so that the clinical intervention is carried out at the precise moment required by the patient.

References

Amarita F, Sapene F, Anres E. Sánchez, (2012). Estudio epidemiológico de necesidades protésicas de los pacientes que asisten al centro de especialidades médico odontológicas (CEMO), 50 (4).

Ángel P, Fresno MC , Cisternas P , Lagos M , Moncada G, (2010) Prevalencia de caries, pérdida de dientes y necesidad de tratamiento en población adulta Apuche-Huilliche de Isla Huapi. Rev. Clínica de periodoncia e implantología y rehabilitación oral. 3(2); 69-72.

Atlas de salud bucodental. (2015), El desafío de las enfermedades bucodentales – Una llamada a la acción global (2ª. Ed.). Ginebra: Federación Dental Internacional (FDI).

Bermúdez, S., González, A., Márquez, J., Restuccia, G., Kammann, M., Zambrano, O., Flores-Hidalgo, A., Fariñas, G., Guerra, ME, Osorio, A.Y., Carrasco Colmenares, W. (2014), Necesidades protésicas de la población de río chico edo. Miranda, agosto - noviembre 2010. Acta Odontológica Venezolana,52, 1.

Bermúdez, S., González, A., Márquez, J., Restuccia, G., Kammann, M., Zambrano, O., Flores-Hidalgo, A., Fariñas, G., Guerra, ME, Osorio, A.Y., Carrasco Colmenares, W. (2014). Necesidades protésicas de la población de río chico edo. Miranda. Acta Odontológica Venezolana, 52, (1).

Cisneros del Águila M, Verástegui A, Fernández H. (2014). Prevalencia de edentulismo parcial de acuerdo a la clasificación de Kennedy. Revista cientifica alas peruanas. 1(1).

Cortés,F. (2014). Prevalencia de edentulimo parcial y total en las islas butachauques y tac, quemchi. Revista chilena salud pública, 18 (3).

Cuadrado, M. (2016) Necesidad de rehabilitación protésica en una población seleccionada de salud. Ciencias médicas. 20 (4). Esquivel Hernández Rosa Isabel, Iztacala Juana Jiménez. (2010). Necesidades de atención odontológica en adultos mayores mediante la aplicación del GOHAI. Revista ADM , LXVII, 127-32

Fernandez-Barreraa Miguel Á., Carlo E. Medina-Solís, María de L. Márquez-Coronaa, Sergio Vera-Guzmán A, Arturo Ascencio-Villagrána, Mirna Minaya-Sánchez y Alejandro J. Casanova-Rosado. (2016). Edentulismo en adultos de Pachuca, México: aspectos sociodemographics y socioeconómicos. Revista Clínica de Periodoncia, Implantología y Rehabilitación Oral, 9, 59-65.

Gutiérrez V; León M, Antonio R. (2015). Edentulismo y necesidad de tratamiento protésico en adultos de ámbito urbano marginal. Rev. Estomatol. Herediana, 25 (3) ,179-186.

Gutierrez, V., León, M., y Castillo, A. (2015) Edentulismo y necesidad de tratamiento prostético en adultos de ámbito urbano, marginal. Revista Estomatológica herediana.25 (3) 179 – 186.

Higashida BY. (2015). Educación para la salud.(3rd. ed.). México: McGraw-Hill.

ISSN-On line: 2410-4191

Iturriaga, María. (2017). Necesidad real y sentida de prótesis estomatológica en pacientes mayores de 15 años. Revista CCM, 21 (1), 44-5.

Luengas-Aguirre, María Isabel. (2015). Aspectos sociales y biólogicos del edentulismo en México:un problema visible de las inequiedades en salud. Ciencias clínicas 16(2).
Medina, F; Navarro, E; Pacheco N. (2010) Prótesis parcial removible. México: Editorial Trillas Sa De Cv.

Medina-Castro J, Alvarado-Menacho S, (2012) Prevalencia de caries dental y necesidad de tratamiento en pacientes adultos con demanda de atención diagnóstica Odontol. Clín.-Cient., Recife, 11 (2) 155-158.

Méndez Malagón, María del Carmen; Fang, Luis; Díaz Caballero, Antonio. (2012). Perfil epidemiológico oral y necesidad de tratamiento odontológico de pacientes VIH/SIDA Revista Clínica de Medicina de Familia,5 (2).97-103

Moreno, D., Rodríguez, A, y Tamayo, L. (2014) Necesidad de prótesis estomatológica. Multimet. 21 (1).

Ozawa J. (2010). Fundamentos de prostodoncia total. México: Editorial Trillas Sa De Cv.

Paz, M; Quenta, E. (2017). Postes Intrarradiculares. Acta clínica médica.

Reátegui C, Chein S, Lipa B, Goñi R, Ávila J, Paúcar M, Chiyong T, Morales C, Téllez L, Soriano A, (2013). El perfil de salud-enfermedad bucal y las necesidades de tratamiento de los adultos mayores de Lima urbana, Odontológica. Sanmarquina; 16(2):29-33.

Rosenstiel S FL. (2009). Prótesis fija contemporanea. (4th ed.) Barcelona: Elsevier.
Shillingburg Herbert T. (2002). Fundamentos de prostodoncia fija.(3rd.) Barcelona: Quintessence S.L;

Vieira J. (2009). Análisis de las necesidades protésicas de acuerdo a la complejidad del tratamiento de los pacientes que asisten a la Universidad Central de Venezuela en el período 2006 -2007. Acta Odontológica Venezolana, 47 (2), 2.

ISSN-On line: 2410-4191