



## Research Article

# REHABILITATION PROSTHESIS PROVIDED TO THE PARTIALLY EDENTULOUS PATIENTS VISITING PIRAMERD DENTAL CENTER

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### ABSTRACT

**Background:** Teeth are the fundamental component of the entire stomatognathicsystem.

**Aim:** the objective of the study was to figure out the prevalence of modes of rehabilitation provided to manage the partial edentulism.

**Methodology:** The study conducted on 180 patients (108 females and 72 males) who were treated with different types of partial denture and visited piramerd dental center for routine dental treatment. The prevalence of different mode of rehabilitation was detected.

**Result:** Acrylic RPD was found in 57.77% of the patients, Fixed partial dentures was found in 35.55%, Cast RPD was found in 4.44% and dental implant was found in 2.22%.

**Conclusion:** The most frequent type of dental rehabilitation was Acrylic RPD, while the dental implant was the least type. Female found to seek dental rehabilitation more than males.

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## INTRODUCTION

Teeth are the main functional component of the oral cavity. Teeth provide variety of function includes mastication, speech and esthetics. Absence of teeth in the oral cavity resulting in difficulty in chewing food, alteration of speech and poor esthetics, greatly affect the quality-of-life (Stratton and Wiebelt, 1988; Naveed *et al.*, 2011). Partial edentulousness is a dental arch in which one or more but not all natural teeth are missing. Generally, it occurs by caries, periodontal problems, traumatic injuries, impactions, supernumerary teeth, neoplastic and cystic lesions (Muneeb, 2013; Abdel-Rahman *et al.*, 2013). Some studies have reported caries as the main causative agent for tooth loss (Prabhu *et al.*, 2009; Akinboboye *et al.*, 2014). To the majority of people the loss of teeth is a matter of great concern, and their replacement by artificial substitutes is vital to be continuance of normal life (Fenn *et al.*, 1989). For younger adults the most common prosthodontic need was found to be for fixed and /or removable partial dentures (RPDs). In contrast, among old ages (65+) years of age, the greatest need was for treatment with complete dentures, (Douglass *et al.*, 1988; Ettinger *et al.*, 1984). Various modalities are available for the management of partial dentulism such as removable partial denture, fixed partial denture, resin bonded fixed prosthesis and implant retained prosthesis.

A fixed partial prosthesis is a partial denture that is luted or otherwise securely retained to natural tooth, tooth roots, and/or dental implants abutment that furnish the primary support for the prostheses (The glossary of Prosthodontics terms, 2005). The tooth distribution in mouths restored with RPDs is a good indication of their incidence in practice and suggests the types of RPDs that should be taught. In Sweden, it was calculated from epidemiologic studies that approximately 6.2% of the population has RPDs (Axell and Owall, 1979). The last restorative option, the dental implant, is a prosthetic device of alloplastic material implanted in the oral tissues beneath the mucosa and/or periosteal layer and on/or within the bone to provide retention and support for a fixed or removable prostheses (The glossary of Prosthodontics terms, 2005). Among them the removable partial dentures are considered as the all-rounder prosthesis in our day to day management of missing teeth (The glossary of Prosthodontics terms, 2005). The aim of this study was to find out the modes of rehabilitation provided to the partial edentulous patients to manage their missing teeth.

## MATERIALS AND METHODS

The patients who were attributed in this study were (180) patients (108 females and 72 males) with different age groups, who were treated with partial dentures and visited piramerd dental center for routine dental treatment.

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Table 1. Gender distribution in varies type of dental rehabilitation

Gender	Acrylic RPD		Cast RPD		Fixed partial denture		Dental implant		Total	
	n	%	n	%	n	%	n	%	n	%
Male	46	25.55	3	1.66	22	12.22	1	0.55	72	40
Female	58	32.22	5	2.77	42	23.33	3	1.66	108	60
Total	104	57.77	8	4.44	64	35.55	4	2.22	180	100

Intra oral examination have been carried out after the agreement of the patient, the type of the partial dentures that have been provided to the patient was recorded and divided into 4 categories(Acrylic RPD, Cast RPD, Fixed partial denture, Dental implant) and the prevalence of each type was detected. Another categorization of the type of partial denture rehabilitation depending on the gender to determine the frequency of the specific type of the treatment in different sexes

**RESULTS**

The sample comprised of total 180 dental records (108 females and 72 males). Regarding the gender evaluation of the results showed that females (60%) found to seek dental rehabilitation more than males (40%). Further analysis of the results was showed in (table1 and figure 1) which revealed that the most frequent type of partial dentures was Acrylic RPD (57.77%), while the second common type of partial denture was fixed partial denture (35.55%) and the third common type was cast partial denture (4.44%) and the least common type of dental rehabilitation was dental implant (2.22%). The prevalence of each type of dental rehabilitation is illustrated in figure 2.

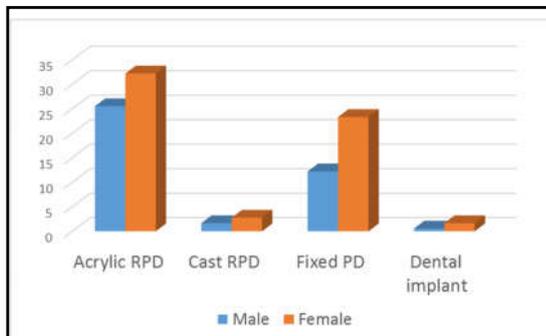


Figure 1. Distribution of gender in different partial dentures

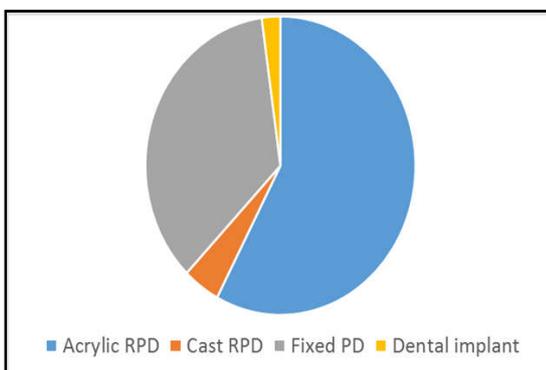


Figure 2. Prevalence of each type of Partial denture

**DISCUSSION**

Informations about the pattern and prevalence of partial dentulism aid clinician to understand the needs of oral rehabilitation and materials to be used.

Therefore, regarding this concern the objectives of the study conduct on analyzing the local community of sulaimani city for the modes of rehabilitation to treat it. This study found that the partial dentures is more common in females, which is harmonious with did by Baqar *et al.* (2015) Naeem, (2003) Ali *et al.* (2012) Lana, (2012) Clarkson *et al.* (1983) Axell *et al.* (1979) higher prevalenceof partial dentulism in females may be due to more tooth loss in association to additional interventional dental procedures to enhance their appearance (2012). Higher frequency in our study might also be due to the fact that more females reported to the dental clinic reflecting their concern to esthetics. But this finding disagree with Muneeb *et al.* (2013) Thomas *et al.* (2010). They found that males have higher incidence of partial dentures as compared to females.

Regarding the mode of rehabilitation, acrylic RPD was the most frequently prescribed prosthesis followed by fixed partial dentures while cast partial dentures and dental implants are rarely used treatment regarding partial dentulism. This is in agreement with survey conducted in Bahrain private dental set up where 89% patients entertained with transitional acrylic RPD (Graham *et al.*, 2006). A study conducted on 1800 patients in dental hospital of Chennai (Prabhu *et al.*, 2011) and Athens (Pun *et al.*, 2011), highlight equivalent findings to our work, They stated that the highest delivery rate of acrylic removable partial denture to manage tooth mortality. The dependent factors of its high frequency rate may be related to its cost effectiveness, simple fabrication, reversible procedure, limited visits as compared to other prosthetic modalities. Our finding of the current study about the least frequent treatment mode which is dental implant with low socioeconomic status may be the significant factors in promoting acrylic partial dentures. Jepson N J A *et al* also support the above stated fact (Jepson *et al.*, 1995).

**Conclusion**

Acrylic RPD are the most frequent prescribed processes for partially edentulous patient. And dental implant was the least. Dental rehabilitation was found to be more frequent in females than males.

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