

# Patient's satisfaction and complications rates of their removable partial dentures

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## ABSTRACT

**Aim:** The aim of the present study is to evaluate patient satisfaction with esthetics, chewing ability, denture retention, and speech comfort while wearing dentures. This study was done using a questionnaire. **Background:** Patient's satisfaction or dissatisfaction with their partial dentures is an important part of the treatment. Patients are sometimes not satisfied with the constructions which are best, according to the therapist's assessment. The background of this study was to evaluate patient's satisfaction with their partial dentures. **Methodology:** A total of 27 patients were reviewed using a questionnaire, of which 14 patients (8 male and 6 female) responded. Subjects' age, gender, occupation and any systemic diseases (if present), and age of the present dentures and presence of prosthetic complications were recorded. **Results:** The complication rates of the removable partial dentures (RPD) patients exceed the satisfactory rates in most of the patients reviewed. **Conclusion:** From the present study, it is found that the most frequently encountered complication in the patients reviewed in this study is the prevalence of irritating sensation due to the dentures and also found that the patients prefer fixed partial dentures when compared to RPD.

**KEY WORDS:** Complications, Esthetic appearance, Food clearance, Patient satisfaction, Removable partial denture

## INTRODUCTION

A century ago, tooth loss was thought to be inevitable. Advances in preventive dentistry and changes in the attitudes of patients in favor of retaining teeth rather than their extraction during the past 50 years have resulted in a significant decrease in the prevalence of tooth loss in many industrialized nations.<sup>[1-3]</sup> The loss of teeth can have significant impact on patient health by impairing normal masticatory function, esthetics, and speech.<sup>[4]</sup> Tooth loss may lead to nutrition and weight problems, emotional disturbances, and neuromuscular alterations. Hence, the remaining teeth may suffer from overload, drift, elongation, or abrasion.<sup>[5]</sup> Since tooth loss can cause other oral impairments, prosthodontics are important for restoration of the dentition. Partial edentulism has become more common in middle-aged population due to trauma and other periodontal problem. Treatment options for partial edentulism include no treatment, removable partial dentures (RPD), or implant or tooth-supported

fixed partial dentures (FPD). A number of considerations must be taken into account when deciding which treatment option to pursue. Removable dentures are an economic and easy treatment modality for edentulous or partially edentulous patients and are still widely used.<sup>[6]</sup> RPD's can be removed and inserted by the patient, which gives them an advantage over FPD's in terms of accessibility for oral hygiene. A RPD is typically indicated for a long edentulous span, no posterior abutment teeth, and is usually less expensive when compared to FPD options. However, these dentures can be associated with various complications. As oral health is related to quality of life, the prosthodontics treatment is related to oral health of patient.

The present clinical trial was designed to gather data about patient satisfaction and complications related to RPD provided, and to evaluate their possible relation with several denture-related parameters.

## METHODOLOGY

Patients who visited Saveetha University Clinic for their RPD's have been examined, interviewed, and

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informed consent has been obtained. The criteria of selection were that patients had worn conventional partial dentures for at least 2–18 months. 14 patients (mean age: 54.35 ± 1.5 years; 8 male patients and 6 female patients) who had met the inclusion criteria were included in the present study.

Subject's age, gender, occupation, and any systemic diseases (if present), and age of the present dentures and presence of prosthetic complications were recorded. The questionnaire was used to assess the complications and satisfaction rates of the patients which are shown in [Figures 1 and 2].

## RESULTS

Of the 14 patients reviewed in the present study, the complication rate of the RPD exceeds the satisfaction rate in most of the patients which are shown in the following [Graphs 1 and 2].

## DISCUSSION

Although a major part of the population in many countries has an incomplete dentition, a substantial number of patients remain either not prosthetically restored<sup>[7]</sup> or functioning with a shortened dental arch without any need for treatment.<sup>[8]</sup> Nevertheless, the restoration of oral function and esthetics, especially in higher economic groups is preferred. The replacement of missing teeth can be achieved by fixed

or removable appliances, but generally it is accepted that removable dentures deteriorate in a shorter time period,<sup>[9]</sup> even though there are studies indicating more favorable results by careful planning, regular

**SATISFACTION AND COMPLICATIONS OF PATIENTS WEARING RPD DENTURES:**

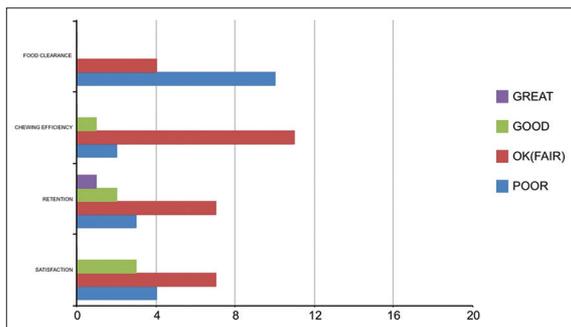
Name: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_  
 Address: \_\_\_\_\_ Occupation: \_\_\_\_\_

Systemic diseases (if present): \_\_\_\_\_

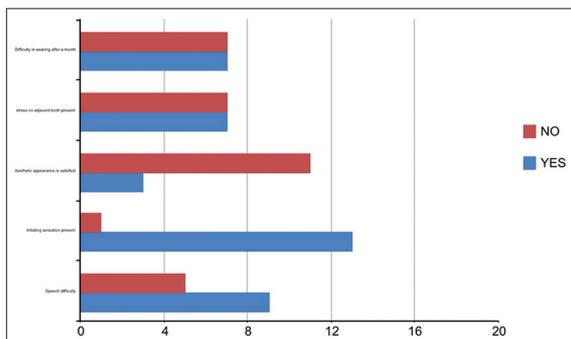
Questions:

1. Duration of wearing removable partial dentures?
2. Is the denture gives complete satisfaction to you?  
 [a] Great [b] Good [c] Ok [d] poor
3. How is the retention of the dentures?  
 [a] Great [b] Good [c] Ok [d] Poor
4. Is there any difficulty in speech?  
 [a] Yes [b] No
5. Do you have irritating sensation due to removable partial dentures?  
 [a] Yes [b] No
6. What type of food would you like to prefer?  
 [a] Veg [b] Non-veg
7. How is your chewing efficiency on your preferable food?  
 [a] Great [b] Good [c] Ok [d] Poor
8. Do you feel satisfactory with the aesthetic appearance of your denture?  
 [a] Yes [b] No
9. How is the food clearance under your denture?

**Figure 1:** The questionnaire format used to assess the complication and satisfaction rates



**Graph 1:** Satisfaction rates of the removable partial dentures in the patients reviewed



**Graph 2:** The complication rates of the removable partial dentures in the patients reviewed

[a] Great [b] Good [c] Ok [d] Poor

10. Is there any occurrence of mouth ulcers and any other complications after denture insertion?
11. Do you feel stress on the adjacent side of the denture?  
 [a] Yes [b] No
12. Do you feel any difficulty in wearing the denture after a month?  
 [a] Yes [b] No

Informed consent:  
 I am willing to participate in this study on my own will.

Patient's signature: \_\_\_\_\_

**Figure 2:** The informed consent obtained from the patients assesse.

recall appointments, patient instruction, and prosthetic adjustments.<sup>[10,11]</sup>

Lack of stability and retention of the mandibular dentures, increasing in time with ongoing residual bone resorption, and the impaired chewing ability are the main complaints of complete denture wearers.<sup>[12]</sup> These handicaps combined with the consequential pain and impairment of patients' ability to communicate may cause dissatisfaction.

The most frequent complication in the present study was the loss of retention which is in agreement with previous reports.<sup>[13-15]</sup> Most of the patients in the present study complained about the looseness and misfitting of their dentures. This complication is the main reason of need for replacement of their dentures. In addition, loss of retention caused dissatisfaction of patients related to function. The loss of retention of the dentures may have impaired the patient ability to chew. A denture sore spot which is the second frequent encountered complication might also be related to the misfitting of the dentures. Sheppard *et al.*<sup>[16]</sup> revealed denture looseness as the main cause of complaints of denture wearers followed by pain which corroborates the results of our study. Furthermore, with the presence of denture sore spots, patients reported lower phonetic and chewing satisfaction scores. The low phonetic visual analog scale (VAS) scores may be due to the overextension of the upper dentures onto the soft palate which generally results in speech difficulties and the low chewing VAS scores may be the reason of the sore spots in buccal surfaces of the maxillary tuberosities, and buccal and lingual surfaces of mandibular crest due to instability or frenulum impingements. An interesting finding of this study was the insignificant difference between the complication number, complication type, and type of the prosthesis. It is usually estimated for the RPD to show fewer complications than complete dentures due to the presence of teeth which consequently result in more retentive dentures. This finding may be due to the unequal distributions of patients into denture groups which can be regarded as a limitation of this study.

In the 1<sup>st</sup> year following tooth extraction, a loss of bone width by 25% and a loss in bone height of 4 mm can be expected.<sup>[17]</sup> With the use of removable dentures, bone loss continues over the years. This might be explained as the ongoing process of bone resorption with removable denture use of the patients and inability of the present dentures to compensate this resorption as well as the overextended impressions taken often by inexperienced clinicians. The complications which occur with the denture will affect the patient the satisfaction results. Sometimes, the dentures undergo damage due to the mishandling of patients that may lead to shrinkage, which the patient has no knowledge

of. It is also a cause for dissatisfaction of the patient. In this study most of the patients gave unsatisfactory results.

## CONCLUSION

In this current study, patients are more preferring the FPD despite its high cost than the RPD. The most frequently encountered complication in the patients reviewed in this study is the prevalence of irritating sensation due to the dentures and also in terms of esthetic appearance, RPD is least preferred when compared to fixed prosthesis. The major limitation of this study is that the sample group consists of patients having sought prosthodontic treatment or repair service at a university prosthodontic clinic. The results may vary in the general population wearing removable dentures. Within the limitations of the present study above-mentioned conclusions have been drawn.

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