

## Original Research

### Evaluation of patient satisfaction for retention, masticatory efficacy, aesthetics and comfort for Removable Partial denture

Ginne Bharti

MDS Prosthodontics, Private practitioner, Jammu, J & K, India

#### **ABSTRACT:**

**Background:** Removable Partial Dentures (RPDs) are provided to restore facial form and masticatory function after tooth loss. However, the evaluation method used by patients is based on daily life parameters, totally different from clinical ones such as the ability to chew certain more or less solid foods, the ability to pronounce words or support speech, esthetic considerations, and the comfort of their denture. **Aim of the study:** To evaluate patient satisfaction for retention, masticatory efficacy, aesthetics and comfort for Removable Partial denture. **Materials and methods:** The present study was conducted in the Department of Prosthodontics of the Dental institution. For the study sample, we contacted 80 patients from the previous medical records of 5 years who got treatment for partially edentulous ridge with removable partial denture and were asked to follow up. 65 patients responded and visited the department on the desired date. The protocol and procedure of the study was explained to the patients and an informed consent was obtained from them. The age of the patients ranged from 18 to 60 years. **Results:** We observed that majority of patients reported excellent aesthetics, comfort, hygiene, masticatory efficacy and retention. 23 patients in total reported bad experience with Removable partial denture. The results were statistically significant. **Conclusion:** Within the limitations of the present study, it can be concluded that the treatment for partially edentulous ridge with removable partial denture is satisfactory with respect to aesthetics, mastication, retention and comfort of the denture. The bad experience was seen in minimal patients.

**Key words:** RPD, mastication, retention, comfort.

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**Corresponding author:** Dr. Ginne Bharti, MDS Prosthodontics, Private practitioner, Jammu, J & K, India

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#### **INTRODUCTION:**

Removable Partial Dentures (RPDs) are provided to restore facial form and masticatory function after tooth loss. Despite the various therapies available for the overcoming of total edentulous, a considerable number of patients is rehabilitated with a conventional removable prosthesis.<sup>1</sup> However, a part of patients with removable prostheses are disappointed by the rehabilitation therapy.<sup>2</sup> This is probably because prosthetic treatments of this type are considered a

success by clinicians when manufactured articles meet only certain quality and clinical standards.<sup>3,4</sup> However, the evaluation method used by patients is based on daily life parameters, totally different from clinical ones such as the ability to chew certain more or less solid foods, the ability to pronounce words or support speech, esthetic considerations, and the comfort of their denture.<sup>5,6</sup> Hence, we planned the study to evaluate patient satisfaction for retention, masticatory efficacy, aesthetics and comfort for Removable Partial denture.

**MATERIALS AND METHODS:**

The present study was conducted in the Department of Prosthodontics. For the study sample, we contacted 80 patients from the previous medical records of 5 years who got treatment for partially edentulous ridge with removable partial denture and were asked to follow up. 65 patients responded and visited the department on the desired date. The protocol and procedure of the study was explained to the patients and an informed consent was obtained from them. The age of the patients ranged from 18 to 60 years. The protocol of the study was approved from the ethical committee of the institute prior to starting the study. It was made sure that each patient had either one of the maxillary or mandibular

RPD for the evaluation. On the day of reporting at department, the patients were asked to fill up a questionnaire. The acceptance of RPD was marked as excellent, good or bad. The patients were asked to rate the acceptance of RPD for aesthetics, comfort, masticatory efficacy and retention. After completion of questionnaire, the patients submitted them to the operator. The data was analyzed and data was tabulated for further evaluation.

The statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student’s t-test were used for checking the significance of the data. A p-value of 0.05 and lesser was defined to be statistical significant.

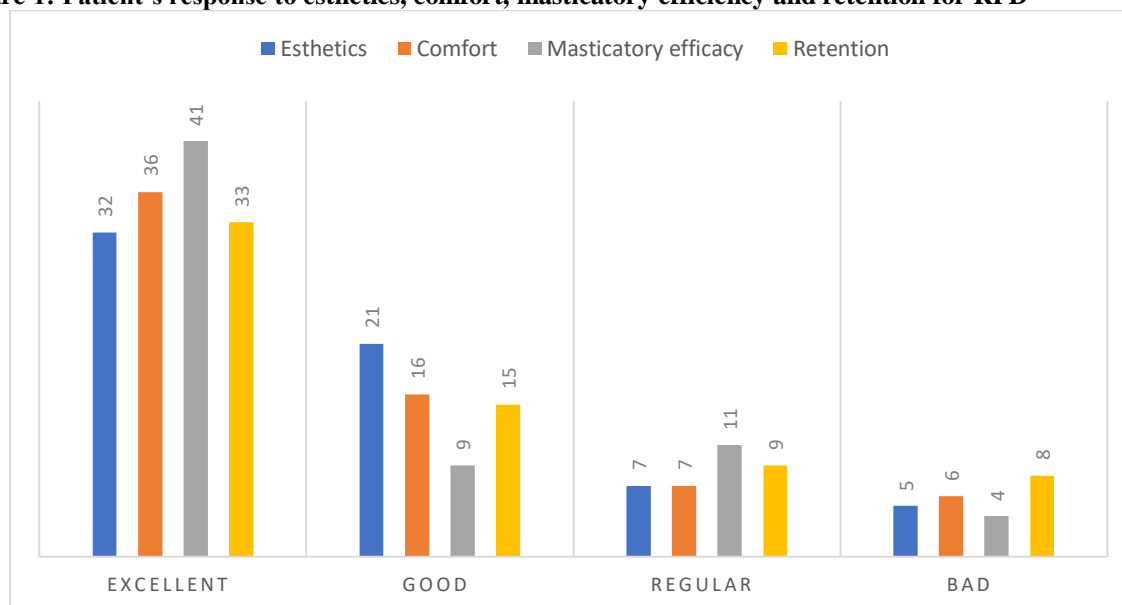
**RESULTS:**

**Table 1** shows the assessment of esthetics, comfort, masticatory efficiency and retention according to patients. We observed that majority of patients reported excellent aesthetics, comfort, hygiene, masticatory efficacy and retention. 23 patients in total reported bad experience with Removable partial denture. The results were statistically significant (p<0.05) [Fig 1].

**Table 1: Assessment of esthetics, comfort, masticatory efficiency and retention according to patients**

	Esthetics	Comfort	Masticatory efficacy	Retention	p-value
Excellent	32	36	41	33	0.002
Good	21	16	9	15	
Regular	7	7	11	9	
Bad	5	6	4	8	
Total	65	65	65	65	

**Figure 1: Patient’s response to esthetics, comfort, masticatory efficiency and retention for RPD**



## DISCUSSION:

In the present study, we observed that patient's satisfaction to the Removable partial denture after 6 years. We observed that majority of patients reported excellent experience with RPD. Very few patients reported bad experience. The patients were highly satisfied with respect to aesthetics, comfort, hygiene, masticatory efficacy and retention. The results were found to be statistically significant. The results were compared with previous studies and results were consistent with previous studies. Celebić A et al compared satisfaction between complete denture (CD) and Kennedy Class I removable partial denture (RPD) wearers. A total of 156 CD and 112 RPD wearers took a part in this study. From the primary group of the examined patients, only those whose RPDs and CDs were assessed as excellent or very good by the dentist, took a part in this study. Patients graded satisfaction of their dentures by using an analogue scale from 1 to 5 (1=unsatisfactory; 5=excellent). Both CD and RPD wearers were mostly satisfied with their dentures (the distribution of the scores of the patients' assessments was skewed towards the highest scores; more than half of the patients scored all the examined variables to the best score category). Complete Denture wearers were significantly more satisfied with chewing, speech and retention of maxillary denture than RPD wearers. Removable partial denture wearers were significantly more satisfied with the retention and the comfort of wearing mandibular denture. There was no significant difference between CD and RPD wearers for general satisfaction with their dentures, aesthetics and comfort of wearing maxillary denture. They concluded that a majority of CD and RPD wearers were satisfied with the dentures. CD wearers were more satisfied with speech, chewing and retention of maxillary denture, while RPD wearers were more satisfied with the retention and the comfort of wearing mandibular denture. Different groups of denture wearers have to make significant, but different adjustments to wear their dentures successfully. Zlatarić DK et al analyze factors related to patients' general satisfaction with removable partial dentures (RPDs), such as esthetics, retention, speech, chewing, and comfort. A total of 103 patients with Kennedy Class I RPDs (34 to 82 years old; mean age: 63; 35 men, 68 women) assessed their satisfaction with dentures. Stepwise multiple regression analysis was used to evaluate the relationship among the factors. Significant correlations were found between general satisfaction and each of the individual components. The patients' assessment of esthetics explained almost 50% of general satisfaction in both arches. Esthetics, chewing, and speech had significant effects on the patients' general satisfaction with dentures.<sup>7,8</sup>

Epifania E et al conducted the study to relate the clinical quality of the complete denture and specific

anamnestic factors to the level of satisfaction perceived by patients. Also identifying possible prognostic parameters that could be predictive of future satisfaction. On the basis of a substantial existing literature, the most appropriate parameters to determine the prosthetic quality have been determined to evaluate the satisfaction perceived by patients about their denture; a completely new questionnaire has been drawn up. Ninety-eight patients have been included in the research, they have undergone a clinical examination, and they have filled out the questionnaire anonymously. The ANOVA test and Pearson correlation test have been employed to relate clinical and anamnestic factors to the overall satisfaction score. The average level of patients' satisfaction was between "quite satisfied" and "very satisfied." There is no significant variability of satisfaction related to the type of prosthesis. The ANOVA test did not verify relationships between the overall satisfaction score and the anamnestic data examined. Pearson linear correlation coefficient between the overall prosthetic quality and the general satisfaction perceived by patients is 0.493. Extension of the prosthetic body and retention are in correlation with the overall patients' satisfaction. They concluded that there is a moderately strong relationship between the overall prosthetic quality and the general satisfaction perceived by patients. Particularly, the retention and the adequate extension of the prosthetic body appear to be factors that are most associated with satisfaction. Instead, the anamnestic factors are not related to overall satisfaction score. Hundal M et compared Cast Chromium Cobalt alloy and flexible Nylon based Super Polyamide for nine clinical parameters. The study was carried out on 30 patients presenting with a Kennedy Applegate class II partially edentulous situation who were divided into two equal groups and clinically assessed. Statistically significant results were obtained in favor of flexible RPDs, in the parameters of 'aesthetics' and 'overall patient satisfaction'. Both groups showed more or less similar values for 'frequency of fracture of the prosthesis during usage' with the incidence being slightly higher for patients wearing the cast RPDs. The clinical parameters of 'oral soft tissue tolerance', 'gingival health', 'periodontal health' and 'adaptability in areas with undercut' were statistically at par for all the 30 patients thus suggesting the comparable biocompatibility of the two materials. The highlight of this study was the relative ease in fabrication of the flexible RPDs as compared to the cast RPDs. They concluded that the flexible RPDs is a viable alternative to cast RPDs in Kennedy Applegate class II partially edentulous situation in the short term.<sup>9,10</sup>

### CONCLUSION:

Within the limitations of the present study, it can be concluded that the treatment for partially edentulous ridge with removable partial denture is satisfactory with respect to aesthetics, mastication, retention and comfort of the denture. The bad experience was seen in minimal patients.

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