

ORIGINAL ARTICLE

INTRICATE ASSESSMENT AND EVALUATION OF LEVELS OF SATISFACTION AND MAINTENANCE AMONG PATIENTS WEARING REMOVABLE PARTIAL DENTURES; A SURVEY BASED STUDY

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ABSTRACT:

Background: Satisfaction is a basic segment in evaluating the accomplishment rate of a treatment. This study was planned to survey patient's fulfillment with removable fractional dentures (RPDs), as maintenance, retention, chewing ability, and aesthetics during the observation period. **Materials and methods:** An aggregate of 70 patients with RPDs, took part in this investigation. The accompanying information was gathered: Kennedy order, denture plan, denture support, satisfaction and accomplishment of RPD. Patients impression of clinical outcome of aesthetics, masticatory productivity, speech, and comfort of the RPD. **Result:** Achievement rate of 72.5% was seen in male contrasted and 61.3% for female. Maxillary RPDs demonstrated a higher achievement rate (72%) contrasted and the mandibular (67.7%). As many as 24.3% of respondents complained of aesthetic problems, 14.7% complained of pain during mastication, 12.9% complained of gag reflex, and 7.1% complained of phonetic problems. However, the majority of respondents (41%) had no complaints. **Conclusion:** The majority of the patients were happy with the nature of removable partial dentures treatment. Oral rehabilitation with RPDs ought to be applied with care when patients have high aesthetic requests.

Key Words: Aesthetics; Dental prosthesis; Oral complaints; Patient's satisfaction, Removable partial denture quality.

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INTRODUCTION:
Tooth loss can have negative impacts on facial appearance, speech, and mastication. The replacement of missing teeth by appropriately designed prostheses is in demand, and is required to maintain a good health status and normal life.¹ There are several modalities of treatment for rehabilitation of partially edentulous patients. These include implants supported prostheses, teeth-supported bridges, and removable partial dentures (RPDs). However, some options such as dental implants, can be difficult to implement due to general and/or oral limitations, financial issues, and patient preferences.² Fixed partial denture enhance feel and capacity however it is extremely damaging for tooth structure and cause gingival aggravation due to subgingival edge of the projections teeth, which may prompt issue with the endodontic status of the abutment tooth.^{3,4} Implant restoration improve esthetics and function and offers

preferences over regular bridges, yet embed disappointment have been accounted for. After embed disappointment, a few patients pick Fixed partial denture or all around built removable partial denture.⁵ Besides the cost of the embed is likewise main consideration for the patients not to acknowledge embed as doable method of administration. Removable partial denture is helpful in expansive somewhat edentulous traverse case which offers capacity and feel, RPD considered retentive prosthesis because of quality of clasps which can oppose denture dislodgement.⁶ As a result of the higher cost of the treatment and absence of protection for different reasons, partial dentures keep on being broadly utilized as a treatment of decision for the substitution of missing teeth.⁷

RPDs are connected to reestablish facial frame and masticatory work after loss of normal teeth. Truly, a few distinct materials have been created for the development of RPD structures. Acrylic polymers (Polymethyl

Methacrylate [PMMA]) Andmetallic (Chrome Cobalt Combinations) materials are routinely utilized. Be that as it may, because of the extensively minimal effort, simplicity of control, and use of reasonable hardware, acrylic denture bases are the most prevalent material for RPD system manufacture.⁸ Besides, regarding adaptability, nylon-determined denture base material has been reformed as a compelling option material to beat a few impediments and downsides of acrylic dentures. There is an absence of accessible data on quiet fulfillment and protests with RPD use. A few investigations led crosswise over various populaces demonstrated that the greater part of patients is for the most part happy with their RPDs. In spite of the fact that RPDs are a non-obtrusive and reversible treatment alternative, with a more adequate cost and less demanding oral cleanliness strategies by and large, they are related with a few oral objections, for example, speech, mastication, pain, and aesthetic issues.⁹ Satisfaction with RPD relies upon uniqueness of patients, demeanor towards RPD, past RPD encounter, consolation for denture and plan and manufacture strategy for RPD. Retention, biting capacity, aesthetics, appear to be the most vital elements for RPD acknowledgment.¹⁰ Patient's disappointment with removable partial denture additionally relies upon some of reasons, for example, hazard to neighborhood harm of the rest of the teeth, for e.g. caries, periodontal infection, plaque accumulation, oral candidiasis, denture stomatitis, and so forth.¹¹ Additionally, RPD is an aesthetic issue for the vast majority and can influence the appearance and relational correspondence. This study aimed to evaluate patient's fulfillment with removable incomplete dentures (RPDs), for retention, chewing ability, aesthetics during the observation period.

MATERIALS AND METHODS:

This study was conducted in department of prosthodontics of the dental institution. A sample of 70 patients, 37 males and 33 females aged from 35 to 65 years with RPD has taken an interest in this investigation. Incorporation criteria were; patients with mostly RPDs wearers, no parafunctional propensities, no known incapacities that may affect RPD maintenances, contradicting normal teeth or restricting RPDs wearers. Informed consent was gotten from each subject taking an interest in this examination. The patients with tempromandibular disorder and poor oral health were definitely not considered appropriate. A questionnaire devised for the purpose of the study was completed by the patients. It comprised of two sections, in the initial segment, understanding was required to answer inquiries on sex, age, conjugal status, oral cleanliness and the ordinal number of dentures. In the second part the patients were made a

request to grade partial dentures, as indicated by the level of their satisfaction extending from strong satisfaction to strong dissatisfaction. The term patient satisfaction was utilized as a part of this composition for the level of fulfillment of denture wearer to the prosthesis (partial denture) gave to them, as far as retention, stability, aesthetics, speech, pain, discomfort, communication (with people), mastication, comfort, cleaning and wearing time.

RESULT: Details regarding age, gender, type of RPD is given in Table 1. All the data were comprised of the evaluations of the calibrated assessors except patient acceptance. Patient acceptance involved the patient's input in relation to other criteria, such as stability, retention, esthetics, etc (Table 2 and Graph 1A, 1B, 1C) . Achievement rate of 72.5% was seen in male contrasted and 61.3% for female. Maxillary RPDs demonstrated a higher achievement rate contrasted and the mandibular. As many as 24,3% of respondents complained of aesthetic problems, 14.7% complained of pain during mastication, 12.9% complained of gag reflex, and 7.1% complained of phonetic problems. However, the majority of respondents (41%) had no complaints.

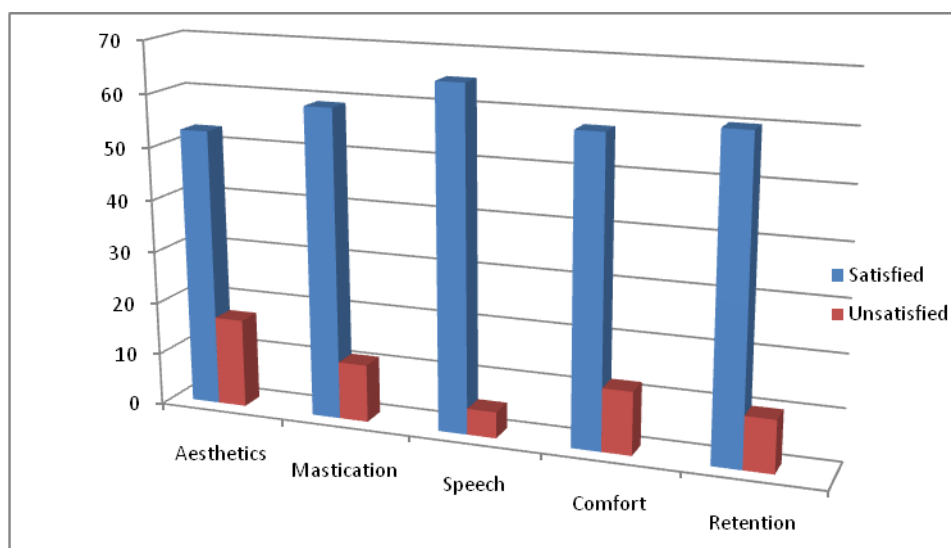
Table 1: Demographic details of patients with RPD

VARIABLES	NUMBER
Age (years)	43.7±7.5
Gender	
Male	37
Females	33
Type of RPD	
1. Flexible	21
2. Metal	13
3. Acrylic	36
1. Maxillary	39
2. Mandibular	31
Medical history	
Present	23
Not present	47
Age of prosthesis	
< 1 year	24
2-3 year	27
>4 years	19
Opposing dentition	
Natural	34
RPD	17
CD	19

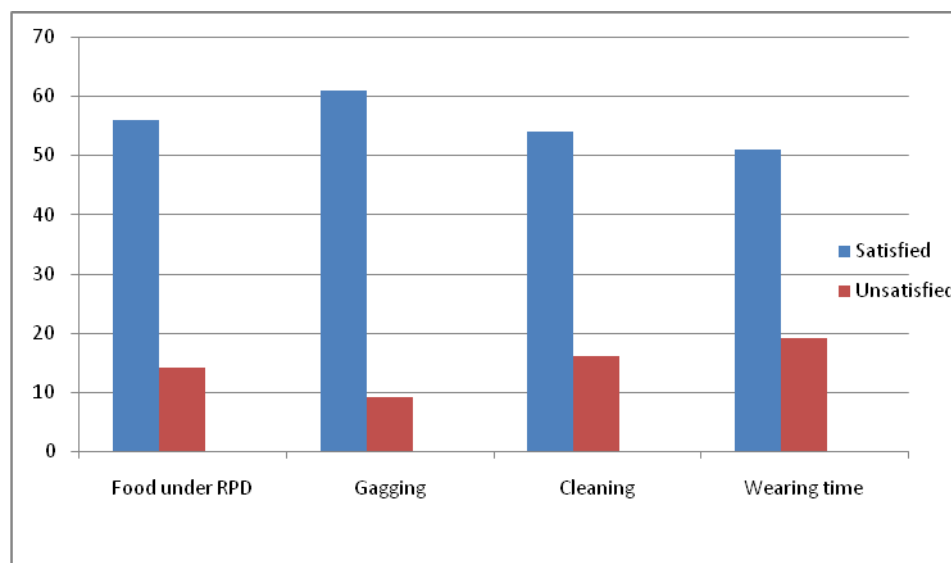
Table 2: Level of satisfaction

Variables	Satisfied	Unsatisfied
Aesthetics	53 (75.7%)	17 (24.3%)
Mastication	59 (85.3%)	11 (14.7%)
Speech	65 (92.9%)	5 (7.1%)
Comfort	58 (84.5%)	12 (15.5%)
Retention	60 (86.1%)	10 (13.9%)
Food under RPD	56 (80.3%)	14 (19.7%)
Gagging	61 (87.1%)	9 (12.9%)
Cleaning	54(77.6%)	16(22.4%)
Wearing time	51(72.5%)	19(27.5%)
Taste effect	49(70.1%)	21(29.9%)
Stability	56(80.3%)	14(19.7%)
Overall satisfaction	29 (41%)	41(59%)

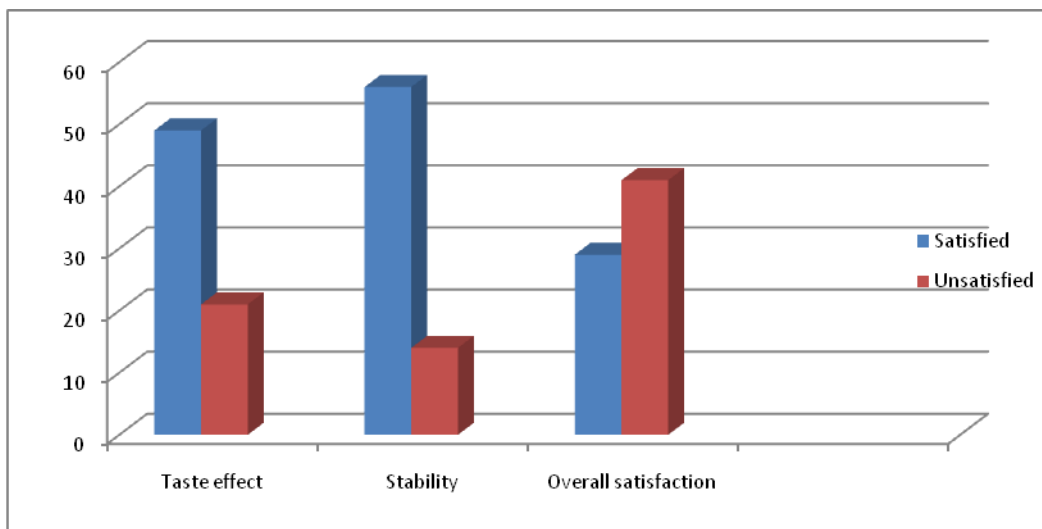
Graph 1A: Level of satisfaction



Graph 1B: Level of satisfaction



Graph 1C: Level of satisfaction



DISCUSSION:

Distinctive variables may impact patient satisfaction with their dentures. Aside from psychological factors, different elements incorporate nature of the denture bearing region, nature of the oral mucosa, impact of the encompassing muscles on denture flanges, consistency of salivation, patient's age and capacity to get used to a denture, status of abutments, status of other teeth in the mouth, connection amongst level and vertical dimension of occlusion, cleanliness propensities, diet, position of patient's teeth in the mouth and so on.

The impact of the patient's age, sexual orientation, oral cleanliness status, conjugal status and so forth on the patient's fulfillment has been analyzed in a few studies.¹² Results of this investigation are in concurrence with comparable examinations on the patient's fulfillment with removable partial denture.¹³ The present investigation demonstrates that the larger part of patients were happy with their RPDs treatment. This outcome is in concurrence with comparative examinations in different nations on the patient's satisfaction with RPDs.^{14,15} The mean age of RPD clients in the present example was 43.7±7.5 years. Past examinations likewise wrote about a patient example with a comparable age range.¹⁶ There was no huge relationship amongst age and RPD fulfillment rate in the present investigation. This result is likewise tantamount to that saw by a past study.¹⁷ Despite the fact that RPDs are broadly utilized for the substitution of missing teeth, numerous grievances related with their utilization have been accounted for among various populations.

In the present examination, the most widely recognized grumblings from RPDs clients were aesthetic issues took after by pain after eating. Correspondingly, in KSA, Akeel (2010) announced that pain and discomfort were the most widely recognized purposes behind non-utilization of RPD, no noteworthy affiliation was found in connection to

opposing dentition, despite the fact that there were a high RPDs patient's fulfillment when they are contradicted either by natural teeth, complete dentures (CD) or fixed partial denture (FPD).¹⁸ This is in concurrence with the discoveries of Frank et al. in any case, conflicting with the aftereffects of Akeel who brought up that there is more RPDs dismissal when they are restricted by natural teeth or complete dentures.¹⁹ Likewise, Akeel said that patients treated by RPDs in each jaw demonstrated less RPDs dismissal than patients treated by a solitary RPD in one jaw and there is no conspicuous clarification for this perception. A huge affiliation was just found regarding the period of prosthesis. This proposes patient's satisfaction with their RPDs utilize gradually increases as the age of prosthesis increases.

It has been proposed that RPDs utilize does not really enhance quiet fulfillment unless it increments occlusal units.²⁰ Patients with no less than 25 in place teeth are more happy with a prosthesis than patients with 1 to 24 in place teeth.²¹ Different investigations have demonstrated that enhanced feel is more critical motivation for patients to wear RPDs than work.²²⁻²⁵ As per Yen YY et al., denture fulfillment is helpful for surveying the impact of denture treatment on the oral health related quality of life of elderly people wearing RPD.²⁶ What's more loss of maintenance of the dentures may have disabled the patients' capacity to bite causing disappointment. Treatment with removable partial dentures is a continuous procedure and requires cautious consideration regarding the particular needs of the patient. There is a lack of clinical execution thinks about on RPDs that further explore the impact of components, for example, sex and intra-oral area.

Within the limitations of this study, the majority of patients were satisfied with their removable partial dentures treatment, indicating that the quality of RPD treatment met patient demands. The most common complaint was aesthetic issues, which suggests that dental treatments with

RPDs should be applied with care when patients have high aesthetics concerns.

CONCLUSION

The clinical execution of the RPDs demonstrated higher achievement rates in male patients contrasted with female patients. Likewise, the maxillary RPDs demonstrated higher achievement rates contrasted with mandibular RPDs. A basic determinant influencing achievement rates and the distinction in progress rates was the acknowledgment (or level of patient fulfillment). In this way, no doubt quiet factors would be as critical, if not more persuasive, as elements controlled by the professional. Experts must distinguish and remember every one of the elements that influence RPD treatment out-comes. Notwithstanding the sex of the patient or the intra-oral area of the prosthesis, the significance of legitimate treatment arranging and appropriate patient instruction is emphasized as a fundamental part of the specialist. Patients must be instructed and made aware of the limitations and shortcomings of RPDs to ensure realistic expectations.

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