



Original Article

Evaluation of Patient Satisfaction with Fixed Prosthodontic Therapy Visiting Prosthodontic Department of a Teaching Dental Hospital

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ABSTRACT

One of the important aspects of any successful prosthodontics treatment is the satisfaction level of patients with that particular treatment. Crowns and fixed partial dentures besides fulfilling clinical and laboratory norms must also satisfy the needs of patients. **Objective:** To evaluate satisfaction level of patients with crown and bridge they received in the past. **Methods:** This cross sectional study had a total of one hundred patients (males and females) who were evaluated for the satisfaction level of crown and bridges they received in recent past. Through a convenient sampling technique and present inclusion and exclusion criteria only those patients were considered who presented with the problem other than the existing fixed prostheses under consideration for the study. Self structured questionnaire was used to assess patient's satisfaction on the basis of type of prosthesis used, material of prosthesis, mastication, perceived aesthetics, taste of food and foul smell. Data were analysed through SPSS version 23.0. **Results:** Study had 46 males and 54 females with a mean age of 37 years. Majority of patients presented with metallic ceramic crowns. Approximately 79% patients were found to be comfortable with mastication. Most of the patients (98%) were satisfied with aesthetic while 93% patients did not feel any bad smell. A very small percentage of patients were not satisfied with their taste of food and speech. **Conclusions:** Overall satisfaction of patients on a scale from 1-10 showed that maximum number of patients were found to be satisfied from their previous crown and fixed partial denture treatment.

INTRODUCTION

Partial edentulism, being highly prevalent oral condition, affects patient daily routine at large. In such conditions patients need replacement of missing teeth in order to enhance masticatory function, esthetic needs, comfort and social wellbeing including patient satisfaction [1-3]. Fixed partial dentures, being economical than implants and without surgical interventions, remains standard care for rehabilitation of short span edentulous spans. Attributes of successful prosthesis like level of comfort, chewing efficiency, integrity and health of dental arches and patient self esteem are enhanced with such replacement therapy [4, 5]. In routine clinical practice, for most of the times, emphasis is focused on mechanical, biological and functional aspects of prosthesis while formulating a

treatment plan for replacement of missing teeth, however, little or no attention is given to the levels of satisfaction and clinical outcomes of such prosthodontics treatment modalities [6]. Patient's satisfaction, acceptance of prosthesis and outcome in-terms of patient perception is important for any successful prosthodontics treatment [7]. Patient satisfactions has been shown to influence compliance and in turn treatment quality [8]. Patient's expectations of prosthetic treatment vary, some patient's priority is to restore masticatory function, while others seek treatment mainly for aesthetic concerns. Patient perceived satisfaction is a multifactorial phenomenon that may vary from different aspects like type of treatment, kind of material used, shade matching,

intraoral condition of patients and skill of practitioners. For this reason various studies have reported a variable range of satisfaction in terms of masticatory efficiency, comfort and esthetics. A number of studies observed a high level of satisfaction with the fixed prosthodontics treatments, ranging from 85% to 91% [9, 10]. Apart from technical and biomechanical aspects of prosthesis a more friendly behaviour of practitioner and supporting staff can also influence the level of satisfaction of patient with regard to the success of dental treatment [11]. Limited information and data is available with respect to patient's satisfaction treated with fixed prosthesis in local area, so this study was designed to assess this important aspect of treatment. The aim of this study was to evaluate the satisfaction of the patients with regards to mastication, aesthetics and phonetics after placement of crowns and fixed partial dentures. The obtained results will be of value to the practitioners in providing a kind of information about the prevailing clinical practices for rehabilitation of partially edentulous arches with fixed partial dentures

METHODS

This descriptive cross sectional study was carried out at Outpatient Department of a private dental teaching hospital, Peshawar Dental College. The study was conducted from March to June-2022, after obtaining certificate of approval from Institutional Review Board. A total of 100 patients were recruited in the study through convenience sampling technique. Study included both males and females, having age from 15 to 65 years. They were selected on the bases of predetermined inclusion and exclusion criteria. It included patients who had received crown and fixed partial denture in the near past, irrespective of the place where the treatment was obtained. Patients with metal ceramic crowns and fixed partial dentures were included in the study. Patients presenting with chief complaints/ complications with failed crowns and fixed partial dentures were excluded. The aims and objective of the study were explained to the patients. Those found eligible and willing to participate were interviewed using self structured questionnaires which consisted of two parts, first part related to demographic data and second related to type of prosthesis, type of material used, mastication, phonetics, aesthetics, comfort, foul smell and perceived changes in taste. Questionnaire consisted of dichotomous questions and patients responses were recorded and marked accordingly on proforma. Questions also aimed to assess various problems related to prosthesis and to assess overall satisfaction level of patient on a scale from 1 to 10. The results were processed using SPSS version 23.0.

RESULTS

A total of 100 patients were enrolled in the present study. Out of total recruited patients, 46 were males while 54 were females (Table 1). A male to female ratio of 0.85 was found. Patients had a mean age of 37 years and having a range of 15 to 65 years.

Gender	Male	54 %
	Female	46 %
	Male to Female Ratio	0.85
Age	Maximum	65 years
	Minimum	25 years
	Mean	37 years

Table 1: Gender wise distribution and Age of Patients

It was observed that majority of patients (92%) were having porcelain fused to metal prostheses and the rest were having all ceramic prostheses (Fig-1).

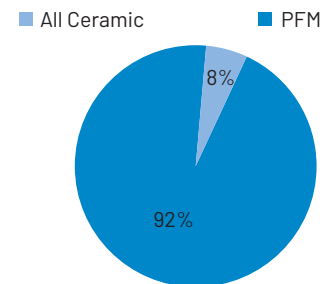


Figure 1: Type of material used in prosthesis (PFM= Porcelain Fused to Metal)

Out of the total observed prostheses, 58% were crowns and 42% fixed partial dentures (FPD) as shown in Figure 2.

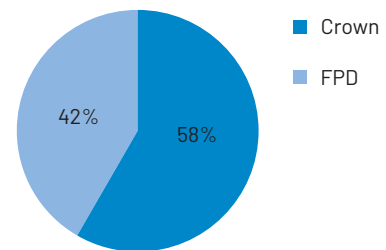


Figure 2: Type of Prosthesis (FPD=Fixed Partial Denture)

Frequencies of various variables such pain, discomfort and aesthetics showed that approximately 79% of patients were comfortable with mastication after wearing fixed prosthesis while 21% patients were not feeling comfortable with the masticatory performance of their particular prosthesis. As far as pain associated with prosthesis was concerned, majority of patients (80%) felt no pain while 20% patients reported some sort of pain (Table 2). The table also shows the level of satisfaction in relation to aesthetics after fixed prosthesis therapy. Most of the patients (98%) were found to be satisfied with aesthetics while only 2% of patients were unsatisfied with their crown or bridge they received in the past. The study observed that

almost 93% of patients did not feel any bad smell after placement of prosthesis while 7% of them reported bad smell. Almost all of the patients reported no problem as for taste perception with the prosthesis is concerned. A small number of patients (3%) reported difficulty in speech after the provision of fixed prosthesis while 97 patients were found to be satisfied.

Variable	Patient Responses					
	Yes			No		
	Male	Female	Total	Male	Female	Total
Mastication Comfort	43	36	79	11	10	21
Pain with Prosthesis	8	12	20	46	34	80
Esthetics Satisfaction	54	44	98	0	2	2
Bad Smell	5	2	7	53	40	93
Food Taste Change	0	1	1	54	45	99
Speech Difficulty	0	3	3	54	43	97

Table 2: Frequencies of responses for various variables

Overall satisfaction of patients on a scale from 1-10 shows that maximum patients were satisfied after receiving crown and fixed partial denture treatment (Figure 3). In ascending order, higher the number on scale the higher is perceived satisfaction level with prosthesis and vice versa.

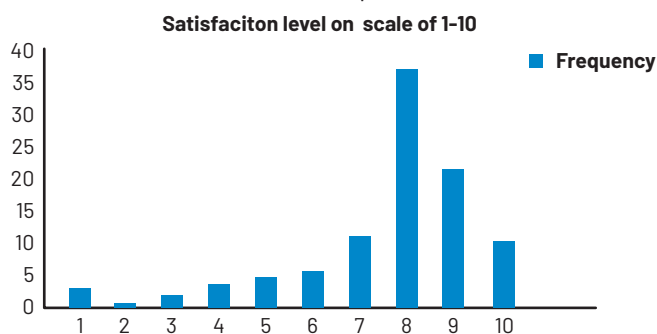


Figure 3: Overall satisfaction on the scale 1-10.

DISCUSSION

For more than a couple of decades an increase in demand of fixed partial dentures has been observed for prosthodontics rehabilitation of patients having partially edentulous arches. Patients usually prefer a type of replacement prosthesis which is closer to their natural teeth in many aspects like appearance, comfort and functions. These will also have a positive impact on self image of such patients. A good quality treatment must fulfill all realistic requirements and expectations of such individuals and must satisfy their needs. Assessment of patients' perceptions of the type of treatment they received is important in terms of assessing the perceived changes after receiving that particular treatment prosthesis. The performance of any fixed prosthesis is evaluated by measuring treatment outcomes such as masticatory function, facial esthetics, and longevity of prosthesis as well as associated technical complications.

Our study found that preponderance of patients (>85%) were satisfied with their fixed prosthesis. Our finding is somehow close to the study done earlier where it was found that more than 2/3rd of their study populations were satisfied with the expectations from their fixed prosthodontics treatment outcome [12]. An identical level of satisfaction was also mentioned in a couple of other similar kind of studies [13]. The high level of satisfaction observed in various research studies in many countries and regions might be attributed to the fact that such fixed prostheses fulfill most of the required predetermined expectations from patient perspectives. Moreover patients usually compare any kind of replacement prosthesis with their missing natural teeth in terms of esthetics, functions and comfort level. Any prosthesis having features closer to the natural teeth can be assumed to fulfill expectation and satisfaction level of patients. One of the major reasons for seeking prosthodontics treatments for missing teeth by patients is the desire to improve masticatory efficiency. In this regard fixed prosthodontics treatment therapy has satisfied quite a large number of patients, as observed in different studies [14-17]. It is desirable from patient perspective that any replacement prosthesis should have no or minimum effect on phonetics of an individual. Alteration in speech due to dental prosthesis can affect social life of patients [18]. Our study found that patients receiving crown or bridges had a minimal effect on speech and that majority of patients (97%) were found to be satisfied with the treatment they received. Our finding is not in agreement with the study done by Kashbur, where more than half of patient population reported altered phonetics with their treatment prostheses [12]. However our finding is in line with a study done earlier by Geiballa [15]. Patient realistic expectations must be met and treatment should satisfy patient needs. Any fixed prosthesis being considered appropriate from practitioners perspective before cementation, should also satisfy the needs of patients from patient perspective after cementation [19]. One of the reasons for the popularity of porcelain fused to metal fixed restoration is the excellent track record for its acceptable esthetics restoration. Therefore both practitioners and patients prefer such kind of aesthetically satisfactory replacement prostheses. Esthetics being a subjective quality, a disparity regarding the level of satisfaction can be anticipated amongst a certain group of people under consideration. Our study observed that almost all of the investigated people were satisfied from their fixed prosthesis except a small number of participants (2%). However another study, somehow closer to our results, found that more than 90% of patients were found to be satisfied from their esthetic requirements provided by their fixed prostheses [20].

CONCLUSION

Study concluded that majority of patients were found to be satisfied from their crowns and bridges they received in the past. Most of the satisfaction were found in terms of esthetics.

Conflicts of Interest

The authors declare no conflict of interest

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