International Journal of Medical Research Professionals
P-ISSN: 2454-6356; E-ISSN: 2454-6364
DOI: 10.21276/ijmrp

Original Research Article

Evaluation of Crown and Bridge Treatment: Patients Perspective

Mohammad Sartaj Khan[1], Muhammad Raza[2*], Azhar Iqbal[3], Ali Chughtai[4]

[1]FCPS Prosthodontics, Assistant Professor, AlJouf University, AlJouf KSA, Saudi Arabia.
[2*]FCPS Prosthodontics, Associate Professor, Prosthodontics,
Peshawar Dental College, Peshawar, Pakistan.
[3]Assistant Professor, Operative Dentistry, College of Dentistry,
AlJouf University, AlJouf KSA, Saudi Arabia.
[4]FCPS, FFD-RCSI, Assosiate Professor, Sardar Begum Dental College, Peshawar, Pakistan.

ABSTRACT

Introduction: Success and failure of a treatment plan and its outcome depends mainly upon patient's satisfaction, so the aim of the present was to evaluate the patient's involvement and satisfaction from the provided treatment.

Methods: A questionnaire based covering the different aspect of satisfaction of Fixed Partial denture treatment was filled by 200 patients having single unit crown or three Unit Bridge. Data was analyses by using SPSS version 21. Descriptive statistic were retrieved and Chi Square test were applied at a significant level of p <0.05.

Results: Out of 200 patients 43% crown and 57% were bridge. Mostly 92% patients were not involved in shade selection by dentists. Satisfaction percentage from smile, chewing food, size and color were 26%, 88%, 71%and 69% respectively.

Conclusion: Male were more satisfied than female from the treatment but no significant difference.

Key Words: Satisfaction, Fixed Partial Denture, Evaluation.

***Correspondence to:**

Dr Muhammad Raza
FCPS Prosthodontics,
Assistant Professor, Prosthodontics,
Peshawar Dental College, Peshawar, Pakistan.

Article History:

Received: 29-10-2016, **Revised:** 23-11-2016, **Accepted:** 15-12-2016

Access this article online	
Website: www.ijmrp.com	Quick Response code
DOI: 10.21276/ijmrp.2017.3.1.019	

INTRODUCTION

Esthetic and function play a major role for the replacement of missing teeth in fixed prosthodontics. This is mainly due to the fact the fixed prosthodontics in the form of crown, bridge and implant can provide the patient with the opportunity for full filling these requirements. However, there are situations when majority of these treatments fail. The failure may be not only be due to mechanical or biological, but the prosthesis may fail just merely because it is not up to the expectations of the patient. This conflict of patient's expectation and the practitioner's goal for the treatment may result in failure of the otherwise a good restoration.[1-4]

Research has shown that the in the crown and bridge work the role of the patient has been neglected in majority of cases. It has been shown that this especially occurs in shade selection procedures. Other researcher has shown those patients are totally neglected in selecting the proper size and shapes of the missing teeth. Another study showed that practitioners is involved mainly in dealing the mechanical and esthetical and functional issues of the restorations, while ignoring partially or totally the patient's importance in the success of this treatment.[5-8]

The aim of the present study is to find out the fact that in how much cases the patient has been found involved in the important aspects of treatment phase like shade selection and patients satisfaction from the provided treatment.

This will in turn help us in finding out the precise practicing trend among the dentists in prevailing circumstances. This will lead to the fact that the patient involvement in the treatment procedures is of of most importance for the success and failure for the fixed prosthodontics treatment modalities.

MATERIAL AND METHODS

A total of 200 patients (100 male and 100 female) were interviewed and examined about the prosthesis they had in their oral cavity. The prosthesis included the crown and maximum three unit fixed partial dentures. The fixed partial dentures included all of its types materials and regardless of their positions in the mouth. It included the anterior and as well as the posterior crown and bridge. The subjects were recruited from the outpatient department of the Sardar begum College of Dentistry, Peshawar. It was a cross-sectional study. The time duration of the study was three month from December 2015 to February 2016. For this study a convenient sampling technique was used.

The inclusion criteria were based on all sorts crown and bridge work only. Implants were excluded from the study.

The exclusion criteria included the (1) fresh cases with less than two weeks intra-oral service (2) de-bonded restorations.

A self-administered questionnaire was prepared for this purpose. The questionnaire included the questions regarding the age of the patient, time of first cementation of the prosthesis, satisfaction level of the patients with the prosthesis, involvement of the patient in the shade selection procedure for the prosthesis, comfort level of the patients with the prosthesis, functional ability of the prosthesis, esthetics of the crown and bridge work and etc. For this study patients were divided in two groups. One group included patients who received only crowns and other group included those patients who received the fixed partial denture or the bridge work.The obtained results were statistically analyzed by calculation the frequencies for the various variables and chi square test of significance were applied. P< 0.05

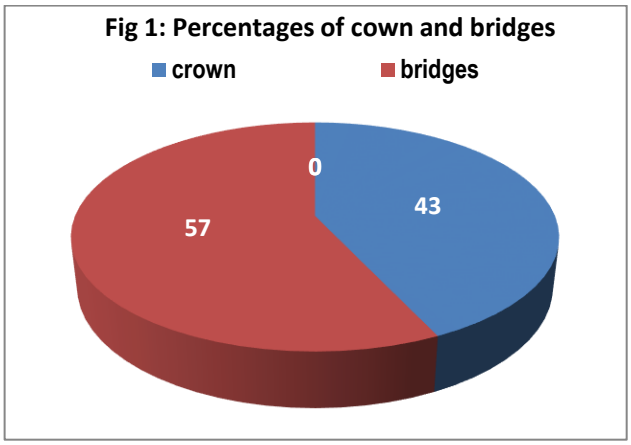
RESULTS

Out of a total of 200 patients who were interviewed for previously done fixed partial denture work, 100 were male and 100 female. It was recorded that out of total sample 43% were crowns and 57% were bridges. The statistical analysis of the variable regarding the avoiding of smile amongst the people, 74% of the patients said that they don't avoid smile when they are amongst the people.

The rest of 26% patients responded they do avoid smile amongst the people, most of them were female (75%). When they were asked do you feel any difficulty with the existing prosthesis while chewing food, 88% of the patients responded that they are satisfied up to their level of satisfaction with the crown or bridge, satisfaction level were higher among the male participant (80%). Only 12% responded in "NO" about this variable. The recorded response for the variable regarding the involvement of the patients in shade selection procedure showed that 92% of the patients said that they were not asked about the shade from their practitioner. Only a small percentage of 8% patients said that the practitioners had consulted them while taking the shade for the crown or bridge. Regarding the variable concerned with the size of the artificial teeth 71% of the patients answered in positive, that they are satisfied with the size of the replacement teeth, female were less satisfied by the size of their teeth. The last variable was about the color of the artificial replacement of the teeth. Almost 69% of the patients recorded the response in positive, meaning that they are satisfied with the color of the crown or bridge work in the oral cavity. The rest of 31% patients responded that they are not satisfied with the color of their artificial replacement. Out of these 31%, female were 66%. Male were more satisfied than female but there were no significant difference among them (p = 0.78).

Table1: Satisfaction percentage of different OBSERVED variables

	Male (Total = 100)		Female (Total = 100)	
Variables	**Satisfied**	**Unsatisfied**	**Satisfied**	**Unsatisfied**
Smile/ esthetics	86 (86%)	14 (14%)	62 (62%)	38 (38%)
Chewing	95 (95%)	5 (5%)	93 (93%)	7 (7%)
Color	90 (90%)	10 (10%)	79 (79%)	21 (21%)
Size	88 (88%)	12 (12%)	83 (83%)	17 (17%)



DISCUSSION

Replacement of missing teeth with the fixed partial denture in the form of crown and bridge work is the treatment of choice for most of the patients throughout the globe. This is the one of reason the patient prefer fixed partial denture work as compared to the removable prosthesis. Other reasons include the durability, long service life, cost effectiveness, natural like feel intra-orally and bearing the heavy chewing forces in the posterior region along with the superior esthetics of the restorations.

Crown and bridge work quality, teeth size, color and shape and there setup are the factors responsible for final esthetic.

Regarding satisfaction it has been find out in this study that female were unsatisfied than male, this observation is in accordance to a study locally[9].These differences may be due to low education level and social setup. Moreover unaesthetic may be due to laboratories fault.

Size of the artificial teeth plays an important role in the overall esthetics of the face. Our findings are in line parallel with another study done by Bell.[8] Our study found that almost two thirds of the patients were found satisfied with this factor regarding the facial esthetics. Color matching with the natural tooth is important for esthetics. Any slight difference can make a profound effect on the esthetics. Our study findings are like the one found by Raptis and others who found that majority of the patients were satisfied with the color of the replacement teeth.[10]

Schwartz focused on the failure of the crown and bridges clinically and found the trend for the failure.[11] Our study found the same that crown and bridge fail if it is not up to the expectation of the patient. Our study found that almost 92 percent of the patients were not involved in the shade selections of the artificial teeth.

Majority of the patients were found that they were satisfied with the crown and bridge concerning the chewing ability with the prosthesis. It was also found the same in another study done by Walton and Kesley.[12,13] The level of this satisfaction is mainly due to the fact majority of the patients want somehow near replacement of the teeth.

CONCLUSION

Within the limitation of the study it was found that majority of the patient were satisfied with the treatment but in one aspect in which the patients were not involved was the shade selection procedure, which needs improvement in this regard. This is because the patient is an equal stakeholder in the treatment along with the practitioner and the laboratory.

REFERENCES

1. Obrien WJ, Johnston WM, Fanian F. Double layer color effects in porcelain systems. J Dent Res 1985; 64:940-943.
2. Okubo SR, Kanawati A, Richards MW. Childress S. Evaluation of visual and instrument shade matching. J Proshtet Dent 1998;80:642-648.
3. Paravina RD. Performance assessment of dental shade guides. J Dent 2009; 37 Suppl 1: e15-20. Epub 2009 Mar 28.
doi: 10.1016/j.jdent.2009.02.005.
4. Bell AM, Kurzeja R, Gamberg MG. Ceramometal crowns and bridges. Focus on failures. Dent Clin North Am. 1985 Oct; 29(4):763-78.
5. Douglas RD, Brewer JD. Acceptability of shade differences in metal ceramic crowns. The J of Prosthet Denty. 1998, 254–60.
6. Karlossan S. Clinical evaluation of fixed bridges 10 years following insertion. J of Oral Rehab, 1986: 13, 423.
7. Strub JR, Stiffler S and Scha Rep P. Causes of failure following oral rehabilitation: biological versus technical factors. Quintessence International, 1988: 19, 215.
8. Wee AV, Monaghan P, Johnston WM. Variation in color between intended matched shade and fabricated shade of dental porcelain The J of Prosthet Denty: 2002: 87, 6; 657–66.
9. Raza M, Fahimullah, Fayyaz M, Akram S: Complications and their severity in patients of conventional metal ceramic fixed dental prosthesis: A clinical study. Pak oral and dent J. 2015; 35:155-58.
10. Raptis NV, Michalakis KX, Hirayama H. Optical behavior of current ceramic systems. Int J Periodontics Restorative Dent 2006; 26:31-41.
11. Schwartz N L, Whitsett L D, Berry T G, Stewart J L. Unserviceable crowns and fixed partial dentures: Life-span and causes for loss of serviceability. J Am Dent Assoc 1970; 81:1395-401.
12. Walton T R: A 10-year longitudinal study of fixed prosthodontics: Clinical characteristics and outcome of single-unit metal-ceramic crowns. Int. J. Prosthodont. 1999, 6, 519–26.
13. Kesley WP, Cavel WT, Blankenau R J, Barkmeier WW, Wilerding T M, Matranga L F: Two-year clinical study of castable ceramic crowns. Quintessence Int. 1995, 26, 15–20.

Source of Support: Nil. **Conflict of Interest:** None Declared.

Cite this article as: Mohammad Sartaj Khan, Muhammad Raza, Azhar Iqbal, Ali Chughtai. Evaluation of Crown and Bridge Treatment: Patients Perspective. Int J Med Res Prof. 2017; 3(1):101-03. DOI:10.21276/ijmrp.2017.3.1.019