Evaluation of Crown and Bridge Treatment: Patients Perspective

Mohammad Sartaj Khan¹, Muhammad Raza²*, Azhar Iqbal³, Ali Chughtai⁴

¹FCPS Prosthodontics, Assistant Professor, AlJouf University, AlJouf KSA, Saudi Arabia.
²FCPS Prosthodontics, Associate Professor, Prosthodontics, Peshawar Dental College, Peshawar, Pakistan.
³Assistant Professor, Operative Dentistry, College of Dentistry, AlJouf University, AlJouf KSA, Saudi Arabia.
⁴FCPS, FFD-RCSI, Associate 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 aspects of satisfaction of Fixed Partial denture treatment was filled by 200 patients having single unit crown or three Unit Bridge. Data was analysed 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.

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.¹⁴

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.⁵⁻⁶

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 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).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male (Total = 100)</th>
<th>Female (Total = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smile/esthetics</td>
<td>Satisfied 86 (86%)</td>
<td>Unsatisfied 14 (14%)</td>
</tr>
<tr>
<td></td>
<td>Satisfied 62 (62%)</td>
<td>Unsatisfied 38 (38%)</td>
</tr>
<tr>
<td>Chewing</td>
<td>95 (95%)</td>
<td>5 (5%)</td>
</tr>
<tr>
<td>Color</td>
<td>90 (90%)</td>
<td>10 (10%)</td>
</tr>
<tr>
<td></td>
<td>79 (79%)</td>
<td>21 (21%)</td>
</tr>
<tr>
<td>Size</td>
<td>88 (88%)</td>
<td>12 (12%)</td>
</tr>
<tr>
<td></td>
<td>83 (83%)</td>
<td>17 (17%)</td>
</tr>
</tbody>
</table>

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. These differences may be due to low education level and social setup. Moreover unesthetic may be due to laboratories fault.

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.

Schwartz focused on the failure of the crown and bridges clinically and found the trend for the failure. 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. 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

Source of Support: Nil. Conflict of Interest: None Declared.
Copyright: © the author(s) and publisher. IJMRP is an official publication of Ibn Sina Academy of Medieval Medicine & Sciences, registered in 2001 under Indian Trusts Act, 1882. This is an open access article distributed under the terms of the Creative Commons Attribution Non-commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.