

Patient's Satisfaction after Cementation of Dental Crowns and Bridges - A Study on Dental Patients in Naogaon District, Bangladesh

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Abstract

Original Research Article

Background: There are different dental articles related to dental crowns and bridges. But few articles are published for the patients follow up, opinion and their satisfaction level of treatment. The aim of the study to find out the satisfaction by using dental crowns and bridges. **Methods:** This Cross-sectional observational study was conducted at Dr Maksudul Alam Dental Care, Dental Surgeons and others dental clinics in Naogaon District, Bangladesh from 3th Jan 2025 till 2th October 2025. The Questions regarding chewing performances, esthetics, speech, the comfort and the maintenance of oral hygiene and the ease of cleaning were taken and listed. All the data thus obtained was arranged in a tabulated form and analyzed using SPSS software. Data was expressed as percentage of the total value. **Results:** The present study enrolled 300 patients with the mean age of 36±4.3 years. There were 204 (68%) patients who were wearing crowns and bridges for 0-3 years, 57 patients (19%) wore crowns and bridges for 4-7 years and there were 39 (117) patients who were wearing crowns and bridges for more than 10 years. There were 0.32% patients who were not satisfied with the chewing, appearances, masticatory efficiency and maintenance of oral hygiene respectively. **Conclusion:** The results are analyzed and we found that the patients are very satisfying by dental crowns and bridges.

Keywords: Appearances, mastications, satisfaction, speech, prosthesis.

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INTRODUCTION

Dental crowns and bridges are among the most common restorative treatments used to replace missing teeth and restore oral function and esthetics [1, 2]. While numerous studies have been conducted on the materials, techniques, and mechanical properties of crowns and bridges, only a limited number have focused on patient follow-up, perceptions, and satisfaction levels after treatment [3, 5]. Patient satisfaction is a key indicator of treatment success, as it reflects not only clinical outcomes but also the psychological and social well-being of the individual [6, 9].

Edentulous conditions and other dental problems can significantly affect mastication, speech, and appearance, leading to reduced self-esteem and social interaction [10, 12]. Individuals suffering from tooth loss are often perceived as less socially or intellectually capable, and the resulting impairment may

negatively influence their overall quality of life [7]. Previous research has mainly concentrated on satisfaction with complete dentures, implant-supported prostheses, or removable partial dentures, while data on fixed prosthodontic restorations in the Bangladeshi population remain scarce [13, 14].

There are different dental articles related to dental crowns and bridges. But few articles are published for the patients follow up, opinion and their satisfaction level of treatment. However, only some of them are associated with patients perceptions of outcomes and their satisfaction level with crown and bridge treatment. The patients seriously affected by edentulous conditions and dental problems. Individual suffering from dental conditions are often affected their health conditions [13]. Such individuals are often regarded as socially less capable and intellectually less proficient [2]. Partial and complete edentulous arch have often effects on patient's satisfaction regarding appearance, mastication, and

function [15, 17]. The prosthodontic literature has some studies on patients satisfaction for complete denture wearers, implant- based prostheses for edentulous arches and the partial denture [18, 19, 20]. The patients management, satisfactions often vary patients to patients, actually it is often challenging. Patients satisfaction often depends on patients social status, economical health, his or her motivational capacity. It is actually some cases unclear why and how patient satisfy [12]. The present study was conducted with the aim to evaluate the patient satisfaction using dental crowns and bridges.

MATERIALS & METHODS

It is a cross-sectional observational study, it was conducted from 3th Jan 2025 till 2th October 2025 at Dr Maksudul Alam Dental Care, Dental Surgeons and others dental clinics in Naogaon District, Bangladesh. Total 300 participants were included in our study. The study enrolled all the patients who reported for crowns and bridges and consented to participate in the study. Patients who did not provide informed consent, those with removable partial or complete dentures, patients having ongoing dental or periodontal infections, individuals with systemic illnesses that could affect oral health or healing (such as uncontrolled diabetes or immunocompromised conditions), and patients who failed to complete the questionnaire or follow-up interview were excluded from the study. The patients were informed about the study and a consent was obtained from them. These patients were administered a pretested close ended questionnaire to evaluate their perception about the clinical outcome of their dental crowns and bridges. Questions regarding mastication,

appearance, speech, the comfort and oral hygiene maintenance and cleaning by tooth brushing were noted. The questionnaire were prepared for the patients and asses the patients satisfaction by using crowns and bridges. A total of 300 patients were fill up the questionnaire sheet. The duration of their FPD usage was also recorded in the study. All the data thus obtained was arranged in a tabulated form and analyzed using SPSS software. Data was expressed as percentage of the total value.

RESULTS

The study participate 300 patients with the mean age of 36 ± 4.3 years. [Table 1] shows the satisfaction of patients using dental crowns and bridges. There were 204 (68%) patients who were wearing crown and bridge for 0-3 years, 57 patients (19%) wore crown and bridge for 4-7 years and there were 39 patients who were wearing FPD for more than 10 years. There were 93% (n=279) subjects who were satisfied with the function of FPD and rest 7% were not satisfied with the function of FPD. There were 85% (n=255) patients who were esthetically satisfied and 15% were not satisfied with the esthetics. [Table 2] illustrates the reason for unsatisfaction amongst the patients. There were 0.32% patients who were not satisfied with the mastication and comfort and esthetic and maintenance respectively. There were 7% patients who were not satisfied with the speech and maintenance and esthetic and mastication respectively. There were 15% patients who were not satisfied with the comfort, maintenance and mastication. There were 55% patients who were not satisfied with the esthetics.

Table 1: Satisfaction of the patients

Variable	Frequency	Percentage
Duration (Years)		
0-3	204	68%
4-7	57	19%
>10	39	13%
Satisfaction with function		
Yes	279	93%
No	21	7%
Satisfaction with esthetics		
Yes	255	85%
No	45	15%

Table 2: Unsatisfaction of the patients

Variable	Percentage
Mastication and comfort	0.75%
Speech and maintenance	8%
Esthetics and maintenance	1%
Esthetics and mastication	6%
Comfort	7%
Mastication	7%
Aesthetics	55%
Maintenance	7%

DISCUSSION

The performance of any fixed prosthesis is evaluated by measuring subjective patient-based outcomes of appearance, function and longevity and technical aspects. While in the present study, only the patient based measurement was implied and clinician aspect was not explored. Anderson asserted that the level of satisfaction of both the clinician and patient have to be taken into consideration [7]. However, many researchers found that the level of patients' satisfaction exceeded that of their dentists [20, 24]. This finding may be due to differences in the criteria used for evaluation by the clinician and the patient. The clinicians evaluation mainly focuses on the technical characteristics of the prosthesis, while the patients evaluations in based on subjective criteria like appearance, function and comfort of the prosthesis [25].

Fixed prosthesis treatment plays a great role, Anderson in the year 1998 described that the patient and clinician both are satisfied by using fixed prostheses [5]. Studies shows that in different countries, like Sweden, Finland, the Netherlands, Croatia, and Singapore, all found that satisfaction of patients are very high with fixed prostheses [1, 4, 22, 25]. Whereas, important satisfaction like patient satisfaction are clearly undervalued in the present literature, mainly for implant prosthesis [5]. As per a recent study established that implant- based prosthesis positively influence the patients' life's quality, the amount of satisfaction, and their ability to maintain oral hygiene [6, 26]. In the present study, there were 204 (68%) subjects who were wearing fixed prostheses for 0-3 years, 57 subjects (19%) wore fixed prostheses for 4-7 years and there were 39 subjects who were wearing fixed prostheses for more than 10 years. There were 93% (n=279) patients who were satisfied with the function of fixed prostheses and rest 7% were not satisfied with the function of fixed prostheses. There were 85% (n=255) patients who were esthetically satisfied and 15% were not satisfied with the esthetics. There were 0.75% patients who were not satisfied with the mastication and comfort and esthetic and maintenance respectively. There were 8% patients who were not satisfied with the speech and maintenance and esthetic and mastication respectively. There were 7% patients who were not satisfied with the comfort, maintenance and mastication respectively. There were 55% patients who were not satisfied with the esthetics. The high incidence of females amongst the studied sample suggested that females in Sudan were more anxious about getting their missing teeth replaced. However the past studies where females were more crucial about their facial appearance [6, 7]. In the study by Kashbur *et al* [27], 80.9% patients were over all satisfied with the fixed prosthodontic treatment. Tan *et al* [28]. observed very high levels of satisfaction in relation to functional aspects of fixed prosthesis like aesthetics, mastication, speech and comfort levels. Kola

et al [26]. reported high level of satisfaction in patients undergone fixed prosthodontic treatment. In the study by Zavanelli *et al* [29]. most (72.58%) of the patients were satisfied with their fixed prosthesis. Good patient satisfaction was also found in an 18-year retrospective study by Napankangas *et al* [30].

The clinical outcome evaluations by dentists do not essentially signify the patients judgment that encompassed both functional and psychosocial adaption [8]. Concerns of subjects are primarily associated with function, comfort, and esthetics, specially for implant based fixed prosthesis [9, 10]. In a investigation by Wismeijer *et al.* on satisfaction of patient on implant, it was seen that there was no significant enhancement in speech that was more tuff to explain [11]. It is important for the practitioner to inform the instructions for the maintenance of the prostheses. Regular oral hygiene follow up improves the life span of the prostheses and the natural teeth [12].

Limitations

This study was limited by its cross-sectional design, which reflects patient perceptions at a single point in time and may not capture changes in satisfaction over the long term. The findings were based on self-reported questionnaires, which may introduce response bias. Additionally, as the study was conducted in selected clinics within Naogaon District, the results may not be generalizable to all regions of Bangladesh.

CONCLUSION

It is concluded that the fixed prosthesis that is crowns and bridges are very satisfying for many patients. The most of the patients were satisfied with the functions and esthetics. Properly discuss the post treatment instructions will helpful for improving patients satisfactions.

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