

REASONS WHY PEOPLE DO NOT OPT FOR CROWNING AFTER ROOT CANAL TREATMENT

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ABSTRACT

Teeth get weakened after endodontic treatment and these should ideally be crowned. However, few patients opt for crowns to preserve their teeth, whereas, many do not opt for crowning due to multiple reasons. The aim of this study was to explore how many patients take interest to preserve their teeth after endodontic treatment and to find out reasons for not opting for crowning. A data of 80 patients who had their root canal treatment done was collected during routine visit of various patients for dental treatment at 21 Military Dental Centre in Combine Military Hospital, Quetta. It was a questionnaire based cross sectional study. The collected data was analyzed to see frequency of patients who did or did not get their teeth crowned and possible reasons for not crowning after endodontic treatment. It was found that 36 % people had got their teeth crowned after endodontic treatment and 64% of patients did not opt for crowns. Majority of patients (29.4 %) who did not opt for crowns were found to be ignorant about the procedure, 19.6 % did not have time for their treatment, 15.7% were found to have financial limitation, non- availability of facility for treatment and lack of interest, whereas 3.9% did not opt for crowning due to previous bad experience. It was concluded that there is an absolute need for an educational campaign to create awareness among people to highlight importance of oral health and benefits of crowning of endodontically treated tooth for its longer survival. Government should make an effort to provide dental facility available to masses and introduce measures to provide affordable dental care.

Key Words: *Crowning, endodontic treatment, oral health, awareness.*

INTRODUCTION

Root Canal Treatment (RCT) is a routine procedure adopted by dentists in which infected tooth is preserved by root canal filling. This can be quite challenging as endodontically treated teeth become weaker as compared to healthy ones. There are different treatment modalities that can be adopted for root canal treated teeth. They range from simple restorations such as amalgam or composite, to restorations leading to cuspal coverage such as gold onlays and then to complete coverage of the tooth with a crown.

Crowning helps to protect the teeth, however, at same time it is considered heavy on the pocket of patients as they cost more as compare to conventional fillings.¹ There are two school of thought about the best practices for preservation of teeth, one school advocate endodontic procedures as a mean to strengthen the tooth and other believe it as a step towards weakening the

tooth. However, in this study, crowning and endodontic procedure has been taken as measure to preserve and strengthen the teeth. On the basis of anecdotal evidence, crowns are considered most suitable choice for endodontically treated tooth.² There is generally lack of awareness amongst the masses about the best practices in dental care. Most of people do not visit dentists for routine dental checkup unless it becomes an emergency, therefore, regular dental treatments are not common in our country.³

Usually, most of the oral diseases are not treated timely. Treatment in the public sector is aimed towards emergency measures such as extraction of teeth, rather than preventive approach.^{2,3} Onus of dental practice preference seemingly is now shifting towards private sector rather than public sector, which is actually very expensive and most of the times without any check and balance. Due to lack of awareness, people are still ignorant about the best practices about preservation of their oral health.³

The curiosity to know how many people usually opt to undertake best practices for their dental problems and why people do not choose better alternative for preservation of their teeth has led to undertake this research.

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METHODOLOGY

The research was a cross sectional survey based cohort study using a questionnaire among patients attending dental department of Combined Military Hospital (CMH), Quetta. A self-administered closed ended questionnaire divided into two segments; teeth crowned and not crowned was used to get the information about reasons for not opting for crowning of the teeth after root canal treatment. Six variables; lack of awareness about best practices for preservation, unavailability of time, lack of facility in the area, lack of interest, financial limitations to undertake treatment and previous bad experience about dental treatment were used to know why most of the people do not opt for crowning after RCT. Data of 49 males and 31 females patients of different ages having any root canal treated tooth in good condition visiting CMH during two months duration were subjected for this research. Broken down, carious and periodontically compromised teeth were excluded from the study.

DATA COLLECTION PROCEDURE

- As a protocol, all patients presenting to dental department of Combined Military Hospital (CMH) Quetta were examined in general OPD and those patients who fulfill the criteria were sent to the Prosthodontics department.
- A thorough history was obtained from each patient and detailed oral examination was carried out.
- Each subject was interviewed regarding six variables; lack of awareness about best practices for preservation, unavailability of time, lack of facility in the area, lack of interest, financial limitations to undertake treatment and previous bad experience about dental treatment to know why most of the

TABLE 1: GENDER RESTORATIVE STATUS

		Restorative Status		Total
		Crowned	Not-crowned	
Gender	Male	14	35	49
	Female	15	16	31
Total		29	51	80

TABLE 2: REASONS FOR NOT CROWNING

		Reason For Not Crowning					Total	
		Financial limitation	Un-availability of time	Previous bad experience	Lack of facility	Lack of interest		Lack of awareness
Gender	Male	6	2	1	8	6	12	35
	Female	2	8	1	0	2	3	16
Total		8	10	2	8	8	15	51

people did not opt for crowning after RCT.

- Information collected from each patient was entered into a performa.

STATISTICAL ANALYSIS

Data was entered and analyzed using SPSS version 21.0, descriptive statistics were calculated for both qualitative and quantitative variables. Quantitative variables like age were presented as mean \pm SD. Qualitative variables like reason for not crowning the teeth, were presented in terms of frequencies and percentages. Effect modifiers like age and gender were controlled by stratification and post-stratification Chi-Square test.

RESULT

Eighty subjects were included in this study. Out of these, 36% had their teeth crowned after the endodontic procedure, whereas, a vast majority of 64% did not opt to crowning for various reasons. Table 1 shows the results in detail the restorative status of all patients.

The focus of this research was to find out the reasons for not opting for crowning by both males and females under six different variables. The results obtained are tabulated in Table 2 for better understanding. Most common reason found out during this limited scope research was that 34.3% males were found ignorant about the best practices available for their dental treatment as compared to 18.8% of females. The factor which had least impact on the decision for not opting for crowns was their bad experience while undergoing dental treatment. Total 3.9% of population had bad experience about their dental treatment and therefore, only opted for bare minimum dental treatment and did not go for crowning after RCT. This include 2.9% of total males and 6.3% of total females samples that had bad experience and held themselves back from crowning of their teeth.

DISCUSSION

In total, 29% people were found lacking awareness for benefits of crowns. The second most common reason found was unavailability of time with people. Twenty percent of people did not have time for dental treatment due to its lengthy procedures and number of times they have to visit hospital to complete the procedure. In

this case, 5.7% of total males and 50% of total females who did not opt for crowns were found to have no time for getting their teeth crowned. Financial limitation, lack of facility and lack of interest were found to have equal impact (15.7%) on the overall result. Total 17.1% of males and 12.5% of females could not opt for crowns due to financial limitations. People who were not interested in crowns (15.7%) may be due to careless attitude or phobia /anxiety. This include 17.1% of total males and 12.5% of total females showed lack of interest in crowning.

Tooth coverage is considered as a better option for preservation of teeth after root canal treatment⁴, however, this is only useful information if is known to patients as well. In Pakistan, oral hygiene awareness and practices are main source of concern.⁵ Since, there is no oral health policy spelled out by the government, therefore, it seems that oral hygiene awareness amongst the policy maker of the country is also doubtful. This research was conducted in an army hospital, where defense paid free medical entitled persons were subjective to this study. Troops generally know their privileges and medical incentives as army doctor regularly deliver lectures to educate them on oral health issues. The number of people who lack awareness (29.4%) can increase extraordinary if research is conducted in the remote area of the country.⁶ Similar results were obtained by Smith S⁸ et al in a study conducted to evaluate the reason behind not crowning endodontic treated teeth. The study concluded that it is not a matter of lack of awareness only but the lack of availability of oral health resources, more the availability of a resource, better would be the chances of its knowledge in the masses about the service. On the contrary in a study by Locker D, a vast majority of 57.4% were found to be ignorant of the need of crowning.¹¹ It's the need of the hour to develop a customized oral health policy by the policy maker of the country to overcome the existing oral health problems in the society.⁸ The findings of this study can give a fair idea to policy maker about the existing problems and area to focus to deal with oral health issues.

Oral health care and behaviour also depends upon factors like availability of dental health care centers, awareness and attitude. Patients respond positively towards oral health care practices when informed and reinforced positively. Moreover, beliefs and oral health attitude are also significant contributors for oral health behaviour of general masses.⁹ Oral health behaviour of people are very important for preventive care instead of treatment oriented treatment plan approach. As per World Health Organization (WHO), "Promotion of oral health is a cost-effective strategy to reduce the burden of oral disease and maintain oral health and quality of life".¹⁰

This research concluded that 15.7% of subjects lacked financial resources to afford a crown for their teeth. Financial barriers are not only applicable in the developing countries but also equally applicable for advanced and developed countries where dental cares are on payment. In USA, a study conducted on age group of 18-64 years old regarding oral health of adults in 2008, showed that the leading reason not to visit a dental doctor is unaffordability and non-availability of insurance.⁸ It also showed that financial barriers remained high for dental sector as compare to other part of health care sectors in America.¹¹ Affordability issue is equally applicable to Canadian citizens. The report on financial barriers to dental care on adults shows negative effects on dental visitor/ oral health issues due to financial reasons especially of those of low income segment.¹²

Lack of time had a huge effect on the avoidance of best practices for dental treatment. 20% of the subjects did not have time for dental treatment. This may be due to busy routine life style coupled with non-availability of dental treatment facility. Locker D et al, also concluded financial constraints as one of the leading causes as 28% individuals did not seek dental care due to lack of funds, according to their research. Due to frequent posting of troops from one place to other, subjects have to move to other stations frequently which may not have the dental care setups at their new place of duty. This is evident from the result that 15.7% came out with the reason of non-availability of dental facility for crowning. Time barrier to avoid best practices may not necessarily act as alone and therefore may be combined with non-availability of dental setup, psycho- social, life style and dental anxiety.^{11,12}

Some of patients found were having lack of interest in their betterment and better curing of their dental treatment. Total 15.7% of patients were found in this category. There could be multiple reasons for this behaviour. Freeman R et al concluded that lack of education and awareness, psychological issue, care free life style, dental phobia and anxiety could be major limitations for patients not seeking dental care.¹²

CONCLUSION

It was concluded that majority of the patients do not opt for crowning after endodontic treatment. There could be various reasons for this behaviour. Lack of awareness, un-availability of time, financial limitation, lack of interest and lack of facility for treatment have significant impact towards patient's decision for not crowning of their teeth after RCT. Since this research had limited scope, therefore, every factor which have impact on patient's decision for not crowning their teeth could not be included in this research. Future research regarding dental phobia and its impact shall help dentists serve their patients in a better way.

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| 2 Amna Amjad: | Data collection, interpretation of results and drafting of manuscript. |