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Evaluation and perspective towards endodontic treatment among patients visiting to a private dental college in Hazaribagh

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Abstract

Background: Root canal treatment is one of the most apprehensive procedures in dentistry. Various factors are responsible treatment choice of a patient. The present study was conducted with the aim to explore knowledge, attitude towards endodontic treatment among patients visiting to a private dental college.

Materials and Methods: A cross-sectional, questionnaire, exploratory study with random sampling was used. An informed consent was taken from the patient included in the survey. The interview was conducted in 2 months. 235 patients were included in the survey.

Results: Majority of study participants {128 (58%)} thought Root canal treatment to be filling of teeth which includes 92 (68%) of study participants which did not undergo root Canal Treatment. Among all study participants 76 (56%) of patients who had not undergone Root canal treatment thought that root canal treatment is painful while 71(71%) of study participants of patients who had undergone root canal treatment thinks that root canal treatment is not painful.

Treatment: Among all study participants 76 (56%) of patients who had not undergone root canal treatment thought that the procedure is painful while 71(71%) of study participants of patients who had undergone root canal treatment thought that root canal treatment is not painful.

Conclusion: From above it is concluded that better knowledge, positive attitude and good practice regarding endodontic treatment was present in study subject who had the history of endodontic treatment.

Keywords: Endodontic treatment, patients visiting, root canal treatment

Introduction

Endodontic treatment or root canal treatment, is a dental procedure in which the diseased or damaged pulp (core) of a tooth is removed and the inside areas (the pulp chamber and root canals) are filled and sealed^[1]. Root canal treatment is one of the most feared procedures in all of dentistry. Dentist asserts that modern root canal treatment is relatively painless because pain can be controlled. Major setback of root canal treatment is that most patients lack the knowledge. They do not know what root canal treatment entails and what the benefits of such treatment are. Most patients fear root canal treatment because it is painful^[2]. Janczarek *et al* in their survey-based research on patients' knowledge about endodontic treatment concluded that there is an improvement of knowledge and awareness of patients about the endodontic treatment, and the majority of patients surveyed are aware of the opportunities which they may use during the course of endodontic treatment:

different forms of anesthesia, root canal treatment, modern techniques and treatment outcome prediction^[3]. Another survey conducted by Sisodia showed a moderate level of awareness about endodontic treatment among the selected sample of dental patients.

It also highlighted the need for providing more information to the patients about the advantages of retaining teeth via endodontic therapy^[4]. Fear of dental treatment due to anticipated or previously experienced pain has been known to be an important factor causing patients to delay or avoid dental treatment.⁵ Studies have also shown that these patients are more prone to dental decay, have more missing teeth, and less functioning teeth mainly due to poor oral health maintenance^[6]. Dental diseases are prevalent worldwide.

The problems have been reported to lead to tooth loss. Tooth loss due to dental caries can be prevented by root canal treatment. Majority of the patients present with pain and tooth extraction is carried out. Patients prefer tooth extraction to RCT could be due to poor knowledge which could actually lead to poor attitude [7]. Not many studies in India conducted to explore the attitude and knowledge of the patients towards endodontic treatment. Therefore the present study is conducted with the aim to explore knowledge, attitude towards endodontic treatment among patients visiting to a private dental college

Materials and Methods

A cross-sectional, questionnaire, exploratory study was conducted on patients visiting to a private dental college for different dental treatment. The random sampling was used. Every third patient was included in the study and if the patient did not give the consent next patient was interviewed. Ethical clearance was obtained from independent ethical committee of college. The study was conducted by two independent investigators in the Department of Oral medicine and radiology. Permission was availed from Head of Department, and principal. Informed consent was taken from patients. The study included patients above age of 18 years 235 patients were included in

the survey. Internal consistency of questionnaires was measured by applying Chronbachs-Alpha (α) and the value of $\alpha=0.87$ was measured.

Reliability of the Questionnaire was measured by using Test-Retest and the values of measured Kappa (k) =0.93 Weighted Kappa (kw) = 0.8. A closed ended questionnaire was framed to measure the knowledge and attitude and practice of practitioners. The first part of questionnaire consisted of Demographic details of study participants includes Name (Optional), age, gender, socio-economic status of patients. Second part consists of questions explored the Knowledge of patients towards endodontic treatment and third part consisted of questions measuring the attitude of patients towards Endodontic treatment.

Fourth part consisted of practice of study subjects regarding Endodontic treatment. The data collected was checked on daily basis for wrong information. Missing data was also checked. Data entry was done in Microsoft excel 2010. Percentages and frequencies were calculated and presented.

Results

Table 1 shows that majority of study subjects {102(43%)} were between 18 to 27 years of age. Most of study participants {142(60%)} were male. 111 (47%) study subjects belonged to Low socioeconomic status.

Table 1: Demographic Details of Study Subjects

Demographic Variables	Number (%)
1A) Age	18-27 years 120 (46%) 28-37 years 73 (32%) More than 37 years 42 (22%) Total 235 (100%)
1B) Gender	Male 142 (60%) Female 93 (40%) Total 235 (100%)
1C) Socioeconomic Status	Low 111 (47%) Medium 88 (38%) High 36 (15%) Total -235 (100%)

Table 2 shows knowledge of study subjects regarding Endodontic Treatment which shows that majority of study participants {128 (58%)} thought Root canal treatment to be filling of teeth which includes 92 (68%) of study participants which does not undergone Root Canal Treatment. 90 (38%) of study participants answered that

root canal treatment should be done Every time the tooth pains. 108 (46%) answered that antibiotics alone cannot resolve endodontic infections without the need to visit a dentist. Most of study participants {98 (42%)} knows that teeth become weaker after RCT.

Table 2: Knowledge Regarding Endodontic Treatment among the Study Subjects With Root Canal Treatment and Without Root Canal Treatment

Knowledge Total N (%)		Patients With history of RCT N (%)	Patients Without History of RCT N (%)	Total N (%)
2a) What is root Canal treatment?	is removal of teeth?	00 (0%)	0 (0%)	0 (0%)
	is filling of teeth	40(40%)	89(68%)	129 (54.89%)
	is removal of the pulp?	60(60%)	21(15.55%)	81 (34.44%)
	Don't Know	00 (0%)	24 (17.77%)	24 (10.21%)
	Total	100 (43%)	135 (57%)	235 (100%)
2b) When is root canal treatment done?	Every time the tooth pains	32 (32%)	65 (48.14%)	90 (38%)
	When the tooth is dead	15 (15%)	18 (13.33%)	34 (14%)
	When the pulp of the tooth is infected	28 (28%)	8(5.9%)	41 (17%)
	Don't Know	00 (0%)	8(5.9%)	25 (11%)
	All the above	25 (24%)	35(25.92%)	45 (19%)
Total	100 (43%)	135 (57%)	235(100%)	
2c) Can antibiotics alone resolve endodontic infections without the need to visit a dentist?	Yes	15 (15%)	63 (47%)	78 (33%)
	No	85 (85%)	23 (17%)	108 (46%)
	Don't Know	00 (0%)	49 (36%)	49 (21%)

	Total	100 (43%)	135 (57%)	235 (100%)
2d) Do teeth become weaker after RCT?	Yes	44 (44%)	54 (40%)	98 (42%)
	No	45 (45%)	23 (17%)	68 (29%)
	Don't Know	11 (11%)	58 (43%)	69 (29%)
	Total	100 (43%)	135 (57%)	235 (100%)

Table 3 shows that attitude regarding Root Canal Treatment among the study subjects. Among all study participants 76 (56%) of patients who had not undergone Root canal treatment thinks that Root canal treatment is painful while 71(71%) of study participants of patients who had

undergone Root canal treatment thinks that root canal treatment is not painful. 202 (86%) of study participants thinks that more than one day is needed to complete RCT. Among the study participants 162 (69%) prefers saving the teeth that replacement with implant.

Table 3: Attitude regarding Root Canal Treatment among the study subjects with Root Canal Treatment and without Root Canal Treatment.

Attitude		Patients With history of RCT N (%)	Patients Without History of RCT N (%)	Total N (%)
3a) Is Root canal treatment is painful	Yes	29%	76%	105%
	No	71%	35%	106%
	Dont Know	0.00%	24%	24%
	Total	100%	135%	235%
3b) How many visits does the RCT need to be completed?	1 day	00 (0%)	13 (10%)	13 (06%)
	More than 1 day	100 (100%)	102 (76%)	202 (86%)
	Don't Know	00 (0%)	20 (14%)	20 (8%)
	Total	100 (43%)	135 (57%)	235 (100%)
3d) If RCT is indicated, do you prefer saving the tooth or replacing it with an implant?	Saving the tooth	95 (95%)	67(50%)	162 (69%)
	Replacement with implant	05 (5%)	68 (50%)	73 (31%)
	Total	100 (43%)	135 (57%)	235 (100%)

Table 4 shows practice regarding Root Canal Treatment among the study subjects. 135 (57%) of study participants does not undergone any endodontic treatment 100 (43%) of them had availed endodontic treatment. Among the study participants most of study participants 95 (40%) of study

participants only takes antibiotics to reduce dental infection. Among the study participants who had undergone RCT 91 (91%) of patients follow all instruction during Root canal treatment given by the dentists.

Table 4: Practice regarding Root Canal Treatment among the study subjects

Practice	N %	
4a) Have you undergone Endodontic treatment	Yes	100(43%)
	No	135(57%)
	Total	235(100%)
4b) Do you take antibiotic alone or with root canal treatment to reduce infection in your teeth?	Only Antibiotic	95 (40%)
	Both Antibiotic and treatment	78 (33%)
	Only RCT	22 (9%)
	Neither treatment nor antibiotic	40 (18%)
	Total	235 (100%)
4c) Do you follow all instruction during Root canal treatment given by the dentists?	Saving the tooth	91 (91%)
	Replacement with implant	9 (9%)
	Total	100 (43%)

Discussion

The present study was conducted to explore knowledge, attitude and Practice towards endodontic treatment among patients visiting to a private dental college. Not many till now had conducted on the same topic in India. There are various factors which may lead the patients to avail endodontic treatment. It is the duty of dentists to increase the knowledge of patients regarding the Root canal treatment so that can attitude can be positive and improve their practice regarding Root Canal treatment.

In the present study knowledge and attitude towards endodontic treatment was compared between the patients who had availed endodontic treatment and those who do not availed it, as knowledge and attitude of patients towards endodontic changes on availing treatment.

In the present study females comprises of 40% of study participants as compared to study by Aldawsari M *et al.* [8] in which study samples consists of 54.9% of study

participants. Shows better treatment awareness in this study. Same results were seen in study by Doumani M *et al.* [9] In the present study 43% of study subjects had undergone dental treatment. As compared in study by Aldawsari M *et al.* [8] in which 67.7% of patients had undergone endodontic treatment. This may be due to lack of awareness among the study participants in the present study.

In the present study 45% of study participants reported that RCT is not painful while 45% reported it to be painful. Contrasting results were shown in results by study by Aldawsari M *et al.* [8] in which 52.3% of study participants finds RCT to be painful. In a study by Habib AA10 conducted among dental patients reported that 47.5% of study participants find RCT to be painful. While in study by Doumani M *et al.* [9], 57% of study participants reported RCT to be painful.

In the present study, 29% of patients who had undergone RCT find it painful as compared to 56% of study

participants who had not undergone RCT and reported to be painful. Same results were shown in study by Aldawsari M *et al.* [8] in which more patients who had not undergone RCT. In the present study 86% of study participants reported that Root canal treatment takes more than 1 day to complete. While in study by Aldawsari M *et al.* [8] 75% of study participants reported that Root canal treatment takes more than 1 day to complete. In the present study 91% of study participants want their tooth to be saved while in study by Aldawsari M *et al.* [8] in which majority of study participants wants their tooth to be saved.

In the present study 46% of study participants know that antibiotics alone cannot resolve endodontic infections without the need to visit a dentist. While in study by Aldawsari M *et al.* [8] 89.1% knows this.

Conclusion

From above it is concluded that better knowledge, positive attitude and good practice regarding endodontic treatment was present in study subject who had the history of endodontic treatment. More studies in future should be conducted to explore factors affecting the decision of patient to avail endodontic treatment.

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