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Survey Based Research on Awareness and Knowledge of Patients Who Visit Marmara University Hospital

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ABSTRACT

Background and aim: This survey presents an analysis of patients' expectations, concerns, and perceptions about endodontic treatment.

Material and Methods: The questionnaire containing 15 questions was prepared based on similar survey-based research. Patients who participated in this survey were older than 18 years old. The questionnaires were given from and retrieved by the same operator. Overall attendance in the study was 100 patients. Patients' identities remained anonymous.

Results: Participants were 61% women and 39% men. The patients over the age of 40 were 47%, from 25 to 40 were 28%, and from 18 to 25 were 25%. Patients who had root canal treatment before was 69%. Of these, 65% said they had a good experience. Forty-four percent of patients who previously had an endodontic treatment had a painful experience. Patients who think root canal treatment is necessary for spontaneous pain is 42%. Patients who have pain prefer to see the dentist in the first place, are 78%, and 72% prefer endodontic treatment to extract the tooth. Patients who prefer an Endodontist to get their treatment are 48%. Overall, 71% of patients choose university dental hospitals for endodontic procedures.

Conclusion: Endodontists should inform patients to understand the importance of endodontics. Patients' awareness should have increased.

1. Introduction

The overall aim of endodontic treatment is to preserve functional teeth without prejudice to the health of the patient. According to the position statement of European Society of Endodontology^[1], Endodontic treatments include, but are not limited to the diagnosis and treatment of pulpal and periradicular diseases, post endodontic disease, root canal treatment, traumatic injuries, vital pulp treatment, surgical endodontic treatment, bleaching and restorations involving the root canal space. Current endodontics is continually evolving. This development offers not only new instruments but also new treatment modalities. The most basic rule of modern endodontics is a painless and effective treatment.^[2] Fear against the dental procedure is relatively common in the population. The study of Oosterink et al.^[3] revealed an exploratory factor analysis (EFA) on 67 stimuli present in the dental setting using a sample of almost 1,000 individuals. As a result, they divided dental fear into two factors; the first one was an invasive treatment-related stimuli factor, and the second factor was a non-invasive treatment-related factor. However, a close inspection of findings revealed that this explanation was unsatisfactory because the two factors were very general. Wong et al.^[4] built research based on the study of Oosterink et al., their EFA showed seven-factor solution (i.e., dental check-up, injection, scale and drill,

surgery, empathy, perceived lack of control, and clinic environment). Their classifications may help us understand the structure of dental fear of patients. Further studies show that the relationship between the dentist and the patient is essential to avoid the fear of treatment.^[5]

The theory of fear of pain seems to be related not only to dental anxiety but also to pain expectations before dental procedures.^[6,7] Different factors affect the treatment decisions of patients. Patients should also participate in the decision-making of the treatment plan.^[8,9] The consequences of the decision should have explained in the most straight forward possible language by the physician. Excess use of medical terms or communicating in a language in which the patient is not proficient may mislead them.^[10] It is essential to know how well the patients understand physicians and how much physicians can tell their patients about the treatment process.^[11,12] Other studies revealed that the patient-dentist relationship strongly affects the patient's feelings of control and safety.^[13,14] There is little data about the knowledge of endodontic treatment amongst patients in Turkey. This study aimed to evaluate patients' knowledge and awareness about endodontic treatment to understand the patients' expectations and concerns and obtain baseline data for dental practitioners.

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2. Material and methods

This questionnaire was prepared based on standardized questionnaires^[2, 6, 8] Ethics approval gave by the Marmara University Clinical Research Ethics Committee (27.12.2018, 2018/254). The questionnaires have distributed in the Endodontology Clinics of Marmara University. The participants of the survey were over 18 years of age and agreed to join the study. After explaining the purpose of the study, its method, and its contribution to science, a hundred questionnaire forms have distributed. The same operator collected the questionnaires. No names, identification, or marks on forms asked from the respondents to guarantee anonymity. The questions asked with multiple choices. Open-ended questions used as little as possible. This survey dealt with questions subdivided into two main topics; the first part of the questionnaire contained basic questions to obtain demographic data. In the next section, questions asked to measure the patients' knowledge, concerns, and experiences about canal treatment. The first seven questions were for patients who previously had root canal treatments. Those questions have intended to understand the patients' experience with root canal treatment. The following eight questions asked to evaluate the knowledge and awareness of patients about root canal treatment. These included the patients' perception of the necessity and the reason for the root canal treatment. The ideal price for the root canal treatment also asked.

3. Results

Participation in the study was 100%. Overall, 61% of the participants were female, and 39% were male. The patients grouped as 18-25, 25-40, and 40 years and over. Of the participants, 47% were over 40 years of age. The first part of the questionnaire was developed for the patients who previously had a canal treatment (n: 69). When these patients asked about their previous experience, 65% responded that they had a good experience. When asked whether the treatment process was painful or not, 44% mentioned that they had pain (Table1).

Table 1. The patients' own experience regarding root canal treatment.

Have you been treated endodontically?	Yes	69%
	No	31%
How do you recall it?	Well	65%
	Badly	25%
	Not important	10%
Was it a painfull treatment?	Yes	44%
	No	35%
	I don't remember	21%

The rest of the questions were for all patients whether they had a previous root canal treatment or not. Forty-two of the respondents said that canal treatment would be necessary in case of spontaneous pain (Table 2).

Table 2. Criteria of symptoms confirming the need for treatment reported by patients.

Symptoms	%
Toothache during eating	12%
Toothache when biting	19%
Strong spontaneous toothache	59%
Discoloration of the tooth crown	8%
Other	2%

Seventy-eight of the participants said that if they had a toothache, the first thing they would do was go to a dental practitioner. However, 22% stated that they would try to find a remedy at home to relieve the pain. Patients asked if they knew what a root canal treatment was, and 53% said that they had common knowledge and would like to receive information before treatment (Table 3).

Table 3. Self-evaluation of patients' knowledge on the endodontic treatment.

I know a lot	15%
Average knowledge, I ask for details	53%
Average knowledge, I am not interested in the course	31%
I don't know anything	1%

In the case of a toothache, 28% stated that they would want the tooth to be extracted (Table 4).

Table 4. Assessment of patients' behavior in case of toothache.

Patients' behavior in case of toothache	%
I refer to the dentist	78%
I use home remedies to relieve toothache	22%

Regarding the endodontic treatment pricing, 61% of the participants said they did not know how much a patient should pay. Overall, 45% stated they would choose the treatment facility because of the free service. Seventy-one percent of patients indicated that they decided university hospitals for their treatment, and 48% who would prefer an Endodontist for their treatment.

4. Discussion

This study investigated the knowledge and awareness of patients about endodontic treatment. In many studies, patients with a common understanding of root canal therapy preferred to keep their natural teeth^[2, 6, 8]. This survey conducted in one of the largest dental university hospitals in Marmara University in Istanbul, the most inhabitants of Turkey. Therefore, we believe that it is a good representative of the whole population in Turkey. The participation rate of the survey was 100%. The reason for this was that the same operator distributed and collected the survey right after the patients responded. The study was performed with patients who came to the endodontics clinic. Patients who either had a root canal treatment or not expressed their thoughts in the parts of the study. The overall rating of the patients for their previous endodontic experience was excellent. But almost half of them said that endodontic treatment was painful. The most common complaint related to endodontic treatment was reported as "pain."^[2, 6, 8, 10, 19] Pain experience causes patients to hesitate treatment and become more frightened of it. Therefore, a painful treatment causes a bad ground for future treatments of the patient.^[8] The main reason for patients to avoid going to the dentist was the fear of pain.^[10, 19] This may be the reason why patients delay treatments until they experience a spontaneous toothache. Nevertheless,

further studies revealed that dental fear might create oral health problems and psychosocial problems for the individual.^[15, 16, 17] Participants stated that painless treatment is much more important than the treatment's expense. Physicians should always try to reduce the stress level of the patient. The most significant part of the patient's tension is a painful experience. Therefore, the dentist should always make decisions in favor of the patients. Nevertheless, almost half of the patients did not know how much is root canal treatment price.

Spontaneous toothache of the patients was determined as the chief reason for the patients to apply to the dental clinics as an emergency.^[18] In our study, 42% of the patients reported that they would go to the dentist in case of spontaneous pain. Spontaneous pain was also the main reason that the participants thought a root canal treatment should have performed. However, 22% of patients would try to find a remedy for themselves at home, and 78% said they would immediately consult the dental practitioner. This result is similar to other studies.^[2, 6, 8] Nearly half of the patients said they would prefer an endodontist to perform the treatment. This rate was much higher in other studies (68%).^[2] The proportion of patients who had not yet acquainted with the endodontist concept was much more than we expected. We believe that this was due to patients being unaware of endodontics.^[2] In previous studies, the essential criterion for patients in dental clinics was the staff's skill and experience^[6, 8], which was by our findings. Participants self-reported that their knowledge about endodontics was average, yet 31% said they would not know what it is about. In contrast, more than half of the participants reported that they would ask for details. Previous studies revealed that the patient-dentist relationship strongly affects whether a patient would feel safe and secure.^[19, 20] The practitioners must explain the course of the treatment with alternative treatment plans to patients. Participants stated that almost half of them would prefer university dental hospitals for their treatments (48%). Nevertheless, only 5% of the patients prefer an Endodontist for their root canal treatments. However, 22% stated that root canal treatment should be performed by an experienced general practitioner. That reveals patients' lack of knowledge about the Endodontist concept. Physicians should clarify the purpose of the procedure and the value of keeping inborn teeth on the outperformed and endodontist job descriptions.

5. Conclusion

The awareness of endodontic treatment changes from society to society. Our survey concluded that patients' greatest motivation to visit the dental clinic was a toothache. All in all, patients' main reason to avoid dental treatment was either pain or Fear from a painful procedure. Other studies revealed that the cost of endodontic treatment is/was not a barrier. This study showed that patients choose university hospitals considering treatment fees. Overall, patients are sensitive to physicians to be professional in their work. To sum up, Endodontists should inform patients to understand the importance of endodontics.

Conflict of Interest

The authors declared that there is no conflict of interest.

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