

PATIENT PERCEPTIONS AND EXPERIENCES OF ENDODONTIC TREATMENT IMPLICATIONS FOR ORAL HEALTH CARE

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Abstract: Background: Endodontic treatment is an essential procedure for preserving natural teeth and preventing further oral health complications. However, patients' perceptions, knowledge, and anxiety related to root canal treatment may influence their willingness to undergo the procedure and their overall satisfaction with dental care.

Aim: The aim of this study was to examine the association between demographic characteristics—such as gender, age, and educational level—and patients' perceptions, attitudes, and expectations regarding endodontic treatment.

Materials and Methods: A cross-sectional study was conducted using an anonymous online questionnaire among patients residing in Sarajevo Canton. A total of 171 participants who had previously undergone endodontic treatment completed the questionnaire. The questionnaire collected demographic data and information about patients' knowledge of endodontic treatment, previous treatment experience, satisfaction with the information provided by the dentist, perceived pain or discomfort, communication with the dentist, and overall treatment experience. Data were analyzed using IBM SPSS Statistics version 22. Descriptive statistics were used to summarize the data, while the independent samples Student's t-test and one-way analysis of variance (ANOVA) were applied to assess differences between groups. Statistical significance was set at $p < 0.05$.

Results: The majority of participants were female (80.1%), and most had a university degree (60.8%). Male participants reported significantly higher satisfaction with the information provided, the dentist's professionalism, and comfort during treatment compared to female participants ($p < 0.05$). Participants

aged 41 years and older reported significantly higher satisfaction with communication, information provided, and overall treatment experience than younger age groups. Participants with a lower level of education reported significantly higher levels of pain or discomfort during or after treatment ($p < 0.004$).

Conclusion: Patients generally showed a positive perception of endodontic treatment. Effective communication, adequate patient education, and the dentist's professionalism play an important role in reducing anxiety and improving patient satisfaction and treatment experience.

Keywords: endodontic treatment, patient perception, patient satisfaction, oral health.

INTRODUCTION

Endodontic treatment, commonly referred to as root canal treatment (RCT), involves the removal of infected or inflamed pulp tissue in order to prevent pulpal and periradicular pathology, eliminate infection, and protect the disinfected tooth from reinfection. When endodontic therapy is indicated, neither a simple restoration nor antibiotic therapy can resolve the underlying infection. If treatment is postponed, progressive carious destruction may severely compromise the tooth and reduce the possibility of preservation (1). Toothache remains the most frequent reason patients seek dental care and often results in either endodontic treatment or extraction. However, extraction may initiate a cascade of functional and aesthetic consequences, including tooth migration, impaired mastication, and compromised appearance. Preservation of natural dentition, therefore, represents a fundamental objective of contemporary dentistry.

Although endodontic therapy is a predictable and effective method for maintaining teeth, studies evaluating patient awareness and understanding of this procedure remain limited. Doumani et al. reported significant variations in knowledge and awareness of endodontic therapy among different populations (2). Similarly, Janczarek et al. observed an increase in awareness among Polish patients, largely influenced by mass media (3). These findings suggest that knowledge and perception are shaped by cultural, educational, and sociodemographic factors.

Oral health is defined as a state free from disease that enables proper function, aesthetics, and overall well-being. It is widely recognized as an integral component of general health, reflecting systemic conditions and contributing to quality of life. Evaluation of healthcare services, including patient satisfaction and perceived quality of care, represents an important public health tool for improving clinical practice and healthcare planning (4).

Despite advances in modern endodontics and the emphasis on painless and efficient treatment, fear and anxiety remain common among patients (1, 5). Anticipation of pain, insufficient knowledge about the procedure, and misconceptions regarding its complexity frequently discourage patients from seeking timely care. Sociodemographic status, personal attitudes, and previous experiences may further influence decision-making, sometimes leading patients to delay treatment or opt for extraction instead (6, 7). Reports indicate considerable variability in treatment preferences across different populations (3).

Contemporary endodontic practice offers multiple strategies to ensure patient comfort, including effective local and regional anesthesia, sedation techniques such as nitrous oxide, and, when necessary, general anesthesia (8). Nevertheless, persistent beliefs about pain and procedural difficulty continue to affect patient expectations and behavior.

Patient education regarding endodontic procedures can significantly improve attitudes toward treatment and reduce anxiety. By providing clear, accurate, and comprehensible information, dental professionals can help patients understand the importance of tooth preservation and the benefits of endodontic therapy. Variations in patients' levels of knowledge and awareness may substantially influence their expectations, emotional responses, and overall treatment experience (9). Informing patients about the technical aspects of the procedure, anticipated outcomes, duration of treatment, and available pain-control strategies—including management of post-operative discomfort—may enhance cooperation, increase trust in the clinician, and promote more positive perceptions of care.

A patient-centered approach that integrates clinical excellence with effective communication is therefore essential in contemporary endodontics. Strengthening educational efforts and improving dialogue between clinicians and patients may contribute to greater acceptance of recommended treatment, reduced treatment avoidance, and ultimately better preservation of natural dentition (10).

The aim of this study is to examine the association between demographic characteristics—such as gender, age, and educational level—and patients' perceptions, attitudes, and expectations regarding endodontic treatment.

MATERIALS AND METHODS

This cross-sectional study was conducted through an anonymous online questionnaire among patients residing in the Sarajevo Canton. A total of 171 adult participants (aged 18 years and older) who had previously undergone endodontic treatment completed the questionnaire. The study was approved by the Ethics Committee of the Faculty of Dentistry, University of Sarajevo (UNSA), approval number 02-3-4-19-1-11/2024.

Demographic data collected included gender, age, and educational level. The survey explored patients' perceptions of endodontic treatment, encompassing their knowledge of endodontic procedures, the number of treatments previously received, satisfaction with the information provided and the professionalism of the treating dentist, pain experienced during or after treatment, and perceived effectiveness of treatment in maintaining oral and overall health.

Statistical analyses were performed using IBM SPSS Statistics, version 22. Descriptive statistics were used to summarize continuous variables as means and standard deviations, and categorical variables as absolute and relative frequencies. Parametric tests were applied to examine differences in quantitative variables, including the independent samples Student's *t*-test and one-way analysis of variance (ANOVA). All statistical tests were conducted at a significance level of 0.05. Results are presented in both tabular and graphical formats to facilitate interpretation.

RESULTS

Descriptive Statistics

A total of 171 participants who had all previously undergone endodontic treatment were included in the study, comprising 34 males and 137 females. The mean age of male participants was approximately 31 years ($SD \pm 12$), while the mean age of female participants was around 27 years ($SD \pm 10$) (Table 1).

Table 1. Mean age of participants by gender

	Gender					
	Male			Female		
	n	Mean	SD	n	Mean	SD
Age	34	31.09	12.07	137	27.31	9.68

Table 2. Educational level of participants

Educational level of participants	Frequency	%
SE	55	32.2
UE	104	60.8
PG	12	7.0
Total	171	100

SE – Secondary Education; UE – University Education; PG – Postgraduate (Master's/Doctorate)

Table 3. Number of endodontic treatments received

Number of Previous Endodontic Treatments	Frequency	%
Once	62	36.3
Twice	59	34.5
Three times	19	11.1
More than three times	31	18.1
Total	171	100

Regarding educational level, the majority of participants held a university degree (104; 60.8%), followed by secondary education (55; 32.2%), and a smaller proportion had a master's or doctoral degree (12; 7%) (Table 2).

Concerning previous endodontic experience, 36.3% of respondents reported undergoing endodontic treatment for the first time. A substantial proportion (34.5%) had undergone treatment twice, 11.1% three times, and 18.1% had received endodontic treatment more than three times (Table 3).

Independent samples Student's t-test and one-way analysis of variance (ANOVA) were used to compare

mean values of quantitative variables across gender and age groups. Male participants reported significantly higher satisfaction with the information provided about the procedure compared to female participants ($t = 2.94$, $p < 0.005$), although the male sample size was considerably smaller.

Additionally, men rated the courtesy and professionalism of their dentist during endodontic treatment significantly higher than women ($t = 2.47$, $p < 0.015$) and reported feeling more comfortable during the procedure ($t = 2.34$, $p < 0.020$). No statistically significant gender differences were observed for other variables. Results are presented in Table 4.

Table 4. Comparison of mean values of variables between participants by gender

	Gender							
	Male			Female				
	n	Mean	SD	n	Mean	SD	t	p
How informed are you about endodontic (root canal) treatment?	34	3.65	1.22	137	3.28	1.49	1.31	0.192
How satisfied are you with the information provided about the procedure?	34	4.24	1.08	137	3.59	1.39	2.94	0.005
How would you rate your dentist's courtesy and professionalism during the endodontic treatment?	34	4.65	0.69	137	4.26	1.18	2.47	0.015
Did your dentist inform you about possible complications or side effects of the endodontic treatment before the procedure?	34	3.94	1.35	137	3.54	1.54	1.51	0.137
How would you rate the level of pain or discomfort during or after the endodontic treatment?	34	3.76	1.05	137	3.47	1.27	1.27	0.207
How would you rate the communication with your dentist during the treatment?	34	4.41	0.93	137	4.07	1.14	1.63	0.104
How comfortable did you feel during your dental visit for the endodontic treatment?	34	4.18	1.09	137	3.60	1.33	2.34	0.020

n – sample size, Mean – arithmetic mean, SD – standard deviation, t – Student's t-test value, p – probability of rejecting the null hypothesis at a 5% significance level

Table 5. Comparison of mean values of variables between age groups

Age	n	Mean	SD	F	p
How informed are you about endodontic (root canal) treatment?	18-30 yrs	125	3.30	1.48	
	31-40 yrs	25	3.36	1.47	0.75
	41+ yrs	21	3.71	1.23	
How satisfied are you with the information provided about the procedure?	18-30 yrs	125	3.64	1.35	
	31-40 yrs	25	3.20	1.41	9.75
	41+ yrs	21	4.81	0.51	0.000
How would you rate your dentist's courtesy and professionalism during the endodontic treatment?	18-30 yrs	125	4.30	1.12	
	31-40 yrs	25	4.00	1.29	4.65
	41+ yrs	21	4.95	0.22	0.011
Did your dentist inform you about possible complications or side effects of the endodontic treatment before the procedure?	18-30 yrs	125	3.50	1.53	
	31-40 yrs	25	3.32	1.60	6.26
	41+ yrs	21	4.67	0.73	0.002
How would you rate the level of pain or discomfort during or after the endodontic treatment?	18-30 yrs	125	3.46	1.19	
	31-40 yrs	25	3.48	1.39	1.80
	41+ yrs	21	4.00	1.22	0.168
How would you rate the communication with your dentist during the treatment?	18-30 yrs	125	4.07	1.08	
	31-40 yrs	25	3.80	1.38	6.81
	41+ yrs	21	4.90	0.44	0.001
How comfortable did you feel during your dental visit for the endodontic treatment?	18-30 yrs	125	3.72	1.26	
	31-40 yrs	25	2.92	1.44	10.82
	41+ yrs	21	4.62	0.67	0.000

n – sample size, Mean – arithmetic mean, SD – standard deviation, F – F-test value from one-way analysis of variance (ANOVA), p – probability of rejecting the null hypothesis at a 5% significance level

Table 6. Comparison of mean values of variables between education levels

		n	Mean	SD	F	p
How informed are you about endodontic (root canal) treatment?	SE	55	3.15	1.50		
	UE	104	3.46	1.43	0.870	0.421
	PG	12	3.42	1.38		
How satisfied are you with the information provided about the procedure?	SE	55	3.87	1.38		
	UE	104	3.66	1.34	0.594	0.553
	PG	12	3.50	1.45		
How would you rate your dentist's courtesy and professionalism during the endodontic treatment?	SE	55	4.35	1.13		
	UE	104	4.33	1.14	0.036	0.964
	PG	12	4.42	0.79		
Did your dentist inform you about possible complications or side effects of the endodontic treatment before the procedure?	SE	55	3.93	1.36		
	UE	104	3.46	1.56	1.727	0.181
	PG	12	3.58	1.62		
How would you rate the level of pain or discomfort during or after the endodontic treatment?	SE	55	3.93	1.17		
	UE	104	3.39	1.19	5.742	0.004
	PG	12	2.83	1.40		
How would you rate the communication with your dentist during the treatment?	SE	55	4.29	1.05		
	UE	104	4.07	1.13	0.821	0.442
	PG	12	4.00	1.28		
How comfortable did you feel during your dental visit for the endodontic treatment?	SE	55	3.89	1.29		
	UE	104	3.73	1.27	3.926	0.022
	PG	12	2.75	1.36		

SE – Secondary Education; UE – University Education; PG – Postgraduate (Master's/Doctorate)

n – sample size; Mean – arithmetic mean; SD – standard deviation; F – F-test value from one-way analysis of variance (ANOVA); p – probability of rejecting the null hypothesis at a 5% significance level

Participants aged 41 and above reported significantly higher satisfaction with the information provided about the procedure compared to other age groups ($F = 9.75$, $p < 0.001$), while those aged 31–40 were the least satisfied. This age group (41+) also rated the dentist's courtesy and professionalism during endodontic treatment significantly higher than other age groups ($t = 4.65$, $p < 0.011$).

Furthermore, participants aged 41+ expressed a significantly more positive perception regarding the information received about potential complications or side effects prior to treatment ($F = 6.26$, $p < 0.002$) and rated communication quality with the dentist higher than younger age groups ($F = 6.81$, $p < 0.001$). They also reported feeling significantly more comfortable during the endodontic procedure compared to other age groups ($t = 10.82$, $p < 0.001$). Results are summarized in Table 5.

Participants with a lower education level reported significantly higher levels of pain or discomfort during or after endodontic treatment compared to those with a university or postgraduate degree ($F = 5.742$, $p < 0.004$). Additionally, they reported feeling significantly more comfortable during the dental visit for endodontic treatment compared to participants with higher educational levels ($F = 3.926$, $p < 0.022$). Results are presented in Table 6.

DISCUSSION

In recent years, endodontics has become one of the fastest-growing fields in dentistry. The use of modern instruments, rubber dams, and microscopes has significantly improved the quality and longevity of treatment outcomes. Patients increasingly perceive endodontic procedures as less unpleasant than previously assumed. While pain during treatment can still occur, it is generally moderate rather than severe. Various pain management strategies—including local anesthesia, nitrous oxide sedation, preoperative intravenous sedatives, and, in rare cases, general anesthesia—enhance patient comfort (8).

Variability in patient knowledge and awareness can influence treatment acceptance and overall satisfaction (11). Awareness has increased in recent years not only through formal education but also via mass media, including television, internet, and newspapers (12). Improved knowledge can enhance patient experience and reduce treatment-related stress.

Patients are also aware of the benefits offered by modern clinics, such as effective pain control, high-quality procedural care, postoperative follow-up, and radiological monitoring to ensure long-term treatment success and timely intervention if necessary.

Anxiety can amplify perceived pain during dental procedures, including endodontic treatment (13), while perceptions of dental aesthetics may influence overall satisfaction (14).

This study aimed to examine patients' perceptions of endodontic treatment, focusing on factors such as gender, age, and educational level. The findings provide insights into patient experiences, which can inform improvements in clinical practice and enhance patient satisfaction.

The study included a total of 171 participants, of whom 80.1% were female and 19.9% male. The mean age of male participants was 31.09 ± 12.07 years, while females had a slightly lower mean age of 27.31 ± 9.68 years, suggesting that the sample was relatively young, which may influence their expectations and experiences regarding dental treatments.

Regarding educational level, most participants held a university degree (60.8%), followed by secondary education (32.2%), and a small proportion had a master's or doctoral degree (7%). These findings may reflect varying levels of health literacy and the ability to understand the complexity of endodontic procedures. The majority of participants (36.3%) reported undergoing endodontic treatment for the first time, while a substantial number (34.5%) had experience with two procedures. Smaller proportions had undergone three (11.1%) or more than three treatments (18.1%), indicating that most patients lacked extensive experience with endodontic therapy, which may affect their perception and expectations.

Concerning the number of visits required to complete the treatment, the largest group of participants (33.3%) reported that three visits were necessary. Two visits were reported by 24.6%, while 14.6% required more than four visits. These data suggest that treatment duration and the number of appointments may influence patient satisfaction, particularly if the treatment takes longer than expected. Participants typically sought dental care within 24 hours (35.1%) or 2–3 days (35.7%) of experiencing pain, while smaller proportions waited 1–2 weeks (16.4%) or over a month (12.9%). This indicates that most patients seek professional help relatively promptly, which may positively impact treatment outcomes and reflect awareness of oral health importance.

Most participants (63.2%) felt that the duration of endodontic treatment met their expectations, whereas 10.5% were dissatisfied and 26.3% were uncertain. Regarding treatment success, 74.6% believed the procedure effectively resolved their dental problem, 8.8% considered it unsuccessful, and 16.6% were unsure. Furthermore, 77.5% reported that endodontic treatment improved their oral and general health.

These findings indicate a generally positive attitude among patients toward endodontic treatment. High levels of satisfaction may be linked to the dentist's professionalism, treatment efficiency, and quality of communication. Statistical analysis showed that male participants reported significantly higher satisfaction with the information provided about the procedure ($t = 2.94$, $p < 0.005$), the dentist's courtesy and professionalism ($t = 2.47$, $p < 0.015$), and overall comfort during the visit ($t = 2.34$, $p < 0.020$) compared to female participants. These differences may reflect variations in expectations, prior experiences, or gender-based perceptions of healthcare services, with men possibly having lower expectations or being less critical of the care received.

Participants aged 41 and older reported significantly higher satisfaction with the information provided ($F = 9.75$, $p < 0.001$), the dentist's courtesy and professionalism ($F = 4.65$, $p < 0.011$), and communication during treatment ($F = 6.81$, $p < 0.001$), as well as greater comfort during visits ($F = 10.82$, $p < 0.001$). These results suggest that older patients perceive endodontic treatment more positively, potentially due to greater experience with medical procedures or differing expectations compared to younger patients.

Bansal et al. (1) similarly explored patient perceptions of endodontic treatment using a questionnaire. Their findings highlight key factors influencing patient experience and satisfaction, notably the importance of thorough explanations from the dentist before treatment begins. Patients feel more secure when well-informed about the procedure, potential risks, and expected outcomes. Effective communication, including addressing questions and providing emotional support, significantly reduces anxiety and enhances satisfaction. The study also notes that while most patients perceive minimal impact of endodontic treatment on daily life, some express concern about postoperative pain and discomfort.

Ahmed et al. (9) highlighted several key findings regarding patient perceptions of endodontic treatment. The authors report that patients generally exhibit low levels of knowledge and awareness about root canal procedures, leading to unrealistic expectations and frequent misunderstandings about the purpose and outcomes of treatment. The study suggests that patients often associate endodontic therapy with negative experiences, such as pain and prolonged procedures, largely due to lack of information and fear. Patients who received adequate information from their dentist reported higher satisfaction and lower anxiety levels. The authors recommend enhanced patient education on root canal treatments to reduce fear and improve satisfaction, emphasizing the importance of effective

dentist–patient communication to build trust and optimize treatment outcomes.

Similarly, Gautama et al. (7) found that in Nepal, patients had limited knowledge and awareness of endodontic procedures. Most participants had a restricted understanding of the treatment process, its purpose, and expected results, which contributed to misconceptions, fear, and preoperative anxiety. The study also showed that patients with higher levels of information were less prone to negative emotions such as fear and anxiety. The researchers stressed the critical role of dentists in patient education, noting that better communication and accurate information can significantly improve patient experience and satisfaction with treatment outcomes.

Purra et al. (12) reported similar findings in Kashmir, where patients had limited awareness and knowledge of root canal therapy. Most participants were not sufficiently informed about the purpose, process, or benefits of treatment, resulting in fear, uncertainty, and doubts about the success of the procedure.

Perković et al. (15) highlighted that patients often experienced high levels of anxiety prior to endodontic treatment, which directly influenced their perception of pain during the procedure. The study found a significant correlation between anxiety levels and perceived pain, with patients experiencing greater fear reporting more intense pain. Patient satisfaction with dental care, including endodontic treatment, can serve as a key indicator of the quality of services provided (16).

Dugas et al. (17) demonstrated that endodontic treatment positively impacts patients' quality of life, particularly by reducing pain and improving oral health. Comparative studies suggest that endodontic therapy can be as effective as dental implants in enhancing quality of life (18). Post-treatment, patients reported high satisfaction levels, which were associated with successful outcomes and reduced discomfort. Perceived service quality plays a critical role in patients' choices regarding dental treatments and can influence their decision-making (19). Variations in patient satisfaction depending on their endodontic experiences underscore the need for better patient education (20).

In our study, participants with a medium level of education reported significantly higher pain or discomfort during or after treatment ($F = 5.742$, $p < 0.004$) compared to those with higher education or academic degrees. These findings suggest that educational level may influence the perception of pain and discomfort, possibly due to differences in understanding the procedure or expectations of the treatment. The results highlight the importance of an individualized approach, taking patients' demographic characteristics

into account. Dentists should pay particular attention to communication with patients, especially women and younger individuals, to increase satisfaction and reduce anxiety. Providing detailed information about the procedure, possible complications, and expected outcomes can enhance patients' perceptions of the treatment.

Patient education is important not only for anxiety reduction but also for treatment success. Awareness of treatment benefits, prompt access to care, and realistic expectations can improve patient compliance and overall outcomes (21).

Several limitations of this study should be considered when interpreting the findings. First, the sample was predominantly composed of female participants, which may have influenced the results and limits the ability to generalize findings across genders. Second, the overall sample was relatively young, which may affect the perception of endodontic treatment and does not fully represent older populations.

Additionally, the use of a self-reported online questionnaire introduces the possibility of response bias, as participants may have provided subjective or socially desirable answers. The cross-sectional design of the study further limits the ability to establish causal relationships between demographic factors and patient perceptions.

These factors may reduce the generalizability of the results to broader populations. Future studies should include more balanced and diverse samples, as well as longitudinal designs, to provide a more comprehensive understanding of patient perceptions and experiences related to endodontic treatment.

CONCLUSION

The findings of this study indicate that patients generally demonstrate a positive attitude toward endodontic treatment, with satisfaction largely influenced by the dentist's professionalism, courtesy, and effective communication throughout the procedure. Older patients and male participants reported higher levels of satisfaction compared with younger patients and female participants, suggesting that expectations and perceptions of treatment may vary across demographic groups.

Patients with a moderate level of education reported higher levels of discomfort and pain, emphasizing the importance of a personalized approach that takes into account individual patient characteristics. The results also highlight the significant role of comprehensive patient education. Providing clear explanations about the procedure, potential risks, and expect-

ed outcomes can help reduce anxiety and improve the overall treatment experience.

Improving communication, offering clear and detailed information, and tailoring the approach to different age, gender, and educational groups may contribute to reducing discomfort, increasing patient satisfaction, and ultimately optimizing the outcomes of endodontic treatment.

From a clinical perspective, the findings of this study highlight the need for a more individualized, patient-centered approach in endodontic practice. Providing comprehensive, understandable, and tailored information about the procedure, potential complications, and expected outcomes may help reduce anxiety and improve the overall patient experience.

Furthermore, targeted educational strategies should be developed for patients with lower levels of education, focusing on improving understanding of endodontic procedures and pain management, as this group reported higher levels of discomfort. The implementation of standardized communication protocols and patient education tools may contribute to increased treatment acceptance, enhanced satisfaction, and better clinical outcomes.

Abbreviations

RCT - root canal treatment

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Note: Artificial intelligence was not utilized as a tool in this study.

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Sažetak

STAVOVI I ISKUSTVA PACIJENATA O ENDODONTSKOM TRETMANU:
IMPLIKACIJE NA ORALNO ZDRAVLJENikšić Adel,¹ Jakupović Vedran¹¹ Univerzitet u Sarajevu, Stomatološki fakultet, Privatna stomatološka praksa, Sarajevo, Bosna i Hercegovina² Univerzitet u Sarajevu, Fakultet zdravstvenih studija, Zdravstvena nega u zajednici, Sarajevo, Bosna i Hercegovina

Uvod: Endodontski tretman je ključna procedura za očuvanje prirodnih zuba i sprečavanje daljih oralnih komplikacija. Međutim, percepcija pacijenata, njihovo znanje i anksioznost u vezi sa lečenjem kanala korena mogu uticati na njihovu spremnost da pristupe tretmanu i na ukupno zadovoljstvo stomatološkom uslugom.

Cilj: Cilj ovog istraživanja bio je ispitati povezanost demografskih karakteristika—poput pola, starosti i nivoa obrazovanja—sa percepcijom, stavovima i očekivanjima pacijenata u vezi sa endodontskim tretmanom.

Materijali i metode: Sprovedena je studija preseka korišćenjem anonimnog onlajn upitnika među pacijentima koji žive u Kantonu Sarajevo. Ukupno

171 učesnik koji je ranije imao endodontski tretman popunio je upitnik. Upitnik je prikupljao demografske podatke, informacije o znanju pacijenata o endodontskom tretmanu, prethodnom iskustvu, zadovoljstvu pruženim informacijama od strane stomatologa, doživljenoj boli ili nelagodnosti, komunikaciji sa stomatologom i ukupnom iskustvu tretmana. Podaci su analizirani pomoću IBM SPSS Statistics verzija 22. Deskriptivna statistika korišćena je za sumiranje podataka, dok su Studentov t-test za nezavisne uzorke i jed-

nosmerna analiza varijanse (ANOVA) primenjeni za procenu razlika između grupa. Statistička značajnost je postavljena na $p < 0,05$.

Rezultati: Većina učesnika su bile žene (80,1%), a najveći deo je imao univerzitetsku diplomu (60,8%). Muški učesnici su prijavili značajno veće zadovoljstvo informacijama koje su dobili, profesionalnošću stomatologa i udobnošću tokom tretmana u poređenju sa ženskim učesnicima ($p < 0,05$). Učesnici stariji od 41 godine prijavili su značajno veće zadovoljstvo komunikacijom, informacijama i ukupnim iskustvom tretmana u odnosu na mlađe starosne grupe. Učesnici sa nižim nivoom obrazovanja prijavili su značajno veći nivo bola ili nelagodnosti tokom ili nakon tretmana ($p < 0,004$).

Zaključak: Pacijenti su generalno pokazali pozitivnu percepciju endodontskog tretmana. Efikasna komunikacija, adekvatna edukacija pacijenata i profesionalnost stomatologa igraju važnu ulogu u smanjenju anksioznosti i poboljšanju zadovoljstva pacijenata i iskustva tretmana.

Ključne reči: endodontski tretman, percepcija pacijenta, zadovoljstvo pacijenta, oralno zdravlje.

REFERENCES

1. Bansal R, Jain A. An insight into patient's perceptions regarding root canal treatment: A questionnaire-based survey. *J Family Med Prim Care*. 2020; 9(2): 1020-7. doi: 10.4103/jfmpc.jfmpc_880_19.
2. Al-Nahlawi T, Doumani M, Alalo HA, Habib A. Dentists' knowledge, attitude and practice of root canal treatment procedure: survey-based research. *J Contemp Dent Pract*. 2019; 20(3): 347-54.
3. Janczarek M, Cieszko-Buka M, Bachanek T, Chałas R. Survey-based research on patients' knowledge about endodontic treatment. *Polish Journal of Public Health*. 2014; 124: 134-7. doi: 10.2478/pjph-2014-0030.
4. Iyer A, Nair R, Gupta P, Tavane PN, Pawar P. Dental patient's knowledge, awareness and attitude towards root canal treatment: a survey-based research. *Int J Recent Sci Res*. 2018; 9(1): 23214-8. doi: 10.24327/ijrsr.2018.0901.1421.
5. Chugh A, Rastogi R, Choudhary A, Singh S, Chugh VK, Patnana AK. Knowledge, awareness and attitude of oral health and root canal treatment among medical professionals. *J Global Oral Health*. 2019; 2(1): 41-7. doi: 10.25259/JG-OH_55_2019.
6. Melgaço-Costa JL, Martins RC, Ferreira EF, Sobrinho AP. Patients' perceptions of endodontic treatment as part of public health services: a qualitative study. *Int J Environ Res Public Health*. 2016; 13(5): 450. doi: 10.3390/ijerph13050450.
7. Gautam S, Thapa A, Joshi R, Joshi B, Karmacharya A. Knowledge, awareness and expectations of root canal treatment: patients' perspective. *Nepal Medical College Journal*. 2022; 24(4): 363-8. doi: 10.3126/nmcj.v24i4.50595.
8. Manasa N, Naik KB, Singh M, Moiz AA, Kudala VR, John NK. Patient's knowledge and perception of endodontics treatment: an observational study. *J Pharm Bioallied Sci*. 2023; 15(Suppl 1): S571-4. doi: 10.4103/jpbs.jpbs_32_23.
9. Qasim M, Anjum O, Das G, Naz F, Khan SR, Ahmed AR, et al. Root canal treatment from patients' perspective: Knowledge, awareness, and expectations. *Vojnosanitetski preglod*. 2022; 79(4): 325-9. doi: 10.2298/VSP200825112Q.
10. Aleid AA. Patients' perceptions and experiences about the root canal treatment: an exploratory study among Saudi population. *Asian Journal of Oral Health and Allied Sciences*. 2021; 11:5. doi: 10.25259/ajohas_8_2021.
11. Aghila S. Knowledge and awareness of root canal treatment among patients in Tripoli: a survey-based study. *AIQ J Medical App Sci*. 2024; 7(3): 532-9. doi: 10.54361/ajmas.247315.

12. Purra AR, The Great L, Ahangar FA, Farooq R. Patient's awareness and knowledge of the root canal treatment in Kashmiri population: a survey-based original research. *International Journal of Contemporary Medical Research (IJCMR)*. 2018; 5(7): G12-5. doi: 10.21276/ijcmr.2018.5.7.24.
13. Okawa K, Ichinohe T, Kaneko Y. Anxiety may enhance pain during dental treatment. *Bull Tokyo Dent Coll*. 2005; 46(3): 51-8. doi: 10.2209/tdcpublish.46.51.
14. Klages U, Bruckner A, Zentner A. Dental aesthetics, self-awareness, and oral health-related quality of life in young adults. *Eur J Orthod*. 2004; 26(5): 507-14. doi: 10.1093/ejo/26.5.507.
15. Perković I, Romić MK, Perić M, Krmek SJ. The level of anxiety and pain perception of endodontic patients. *Acta Stomatol Croat*. 2014; 48(4): 258-67. doi: 10.15644/asc47/4/3.
16. Bitzer EM, Mehrer L, Petrucci M, Hussein R, Micheelis W, Süßlin W et al. Zufriedenheit mit der zahnärztlichen Versorgung aus Perspektive der Patienten - Der Zahn-ZAP-V1 [Satisfaction with dental care from the patient's perspective - the dental-ZAP-V1]. *Gesundheitswesen*. 2013; 75(6): e59-68. [Article in German]. doi: 10.1055/s-0032-1321763.
17. Dugas NN, Lawrence HP, Teplitsky P, Friedman S. Quality of life and satisfaction outcomes of endodontic treatment. *J Endod*. 2002; 28(12): 819-27. doi: 10.1097/00004770-200212000-00007.
18. Gatten DL, Riedy CA, Hong SK, Johnson JD, Cohenca N. Quality of life of endodontically treated versus implant treated patients: a University-based qualitative research study. *J Endod*. 2011 Jul; 37(7): 903-9. doi: 10.1016/j.joen.2011.03.026.
19. Iqbal M, Jameel A, Girach MM, Murtaza. Factors affecting patients' choice of dental services. *Pak Oral Dent J*. 2014 Dec; 34(4): 691-5.
20. Varatharajan PN, Leburu A, Krishnamurthy M, Kumar VN. Patients' perceptions on root canal treatment and their experiences with it: questionnaire-based survey. *J Oper Dent Endod* 2021; 6(2): 78-81.
21. Lee EYN, Sua ZY, Bhatia S, Kohli S, Rossi-Fedele G, Doğramacı EJ, Nagendrababu V. Oral health-related quality of life and perceptions of patients following primary root canal treatment or non-surgical retreatment. *Aust Endod J*. 2024; 50(3): 559-70. doi: 10.1111/aej.12868.

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