

Conservative Dentistry

Knowledge and Attitude of Urban and Rural Patients towards Endodontic Treatment: A questionnaire-based Study



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Abstract

Introduction

Endodontic procedures are crucial for saving and restoring pulp involved teeth thus preserving their structure and functionality. Despite the pivotal role of endodontics in dentistry, there is a lack of public awareness about the need and effectiveness of such interventions. The objectives of this survey were to assess the awareness of patients in both rural and urban settings with regards to endodontic treatment, identifying areas where understanding is lacking thus aiming to improve patients' knowledge about these treatments, enabling informed decision-making and enhancing oral health literacy in the general population.

Material and Methods

An electronic questionnaire containing 16 questions regarding the knowledge and attitude of participants regarding endodontic treatment were circulated to 100 patients who had visited a private clinic in Mumbai as a part of the urban group and another 100 patients who had visited a private clinic in Wagholi village, Pune as a part of the rural group. The data obtained was tabulated and statistically analyzed using SPSS v 26.0, IBM Software.

Results

In urban areas, 50 % of the participants and in the rural areas 54% of the participants were aware of root canal treatment by the knowledge gained via social media / internet. All participants irrespective of rural or urban settings feared endodontic therapy as they anticipated pain.

Conclusion

Although patients show awareness about endodontics and its indications in dentistry there is a need for updating patients regarding the numerous concepts and advancements in technologies that involve pain free root canal therapy.

Key Words

Dental Caries, Endodontics, Extraction, Root Canal Therapy

|| Introduction

Dental caries, a prevalent global concern, results from factors such as suboptimal dietary habits and irregular oral hygiene routines. It is a multifactorial disease that results in demineralization of dental hard tissues and in chronic cases extends to the pulpal tissue, leading to symptomatic manifestations like pain during mastication, food impaction and discomfort.^{[1][2]}

A vast subset of individuals in India lacks awareness regarding the availability of endodontic treatments, opting instead for immediate relief from pain by extraction, thereby bypassing a more enduring intervention.

Extraction of teeth can initiate a cascade of events, including the displacement of adjacent and opposing teeth, resulting in compromised masticatory function and deleterious effects on aesthetic outcomes.

When indicated, endodontic treatment can not only alleviate pain but also restore the natural tooth to proper form and function. Advancements in the field of endodontics have enabled pain free, cost and time effective treatments indicating the need for patients to become more aware of the same.

This survey was conducted to evaluate the knowledge and attitude of rural as well as urban population regarding endodontic treatment as it is very essential for individuals to know the availability of treatment option that can preserve natural tooth structure as well as provide immediate pain relief.

|| Material and Methods

An electronic questionnaire was meticulously prepared and systematically distributed to 100 patients who had sought services at a private dental clinic in Mumbai and 100 patients who had sought services at a private dental clinic in Wagholi village, Pune that is classified as a rural area as it is governed by Gram Sabha.^[3]

The forms were distributed in both English as well as Marathi language based on convenience sampling to only those patients that had consented to participate in this study. Marathi translation of questionnaire was validated by a FAIMER fellow.

The questionnaire consisted of 16 questions that assessed the knowledge and attitude of patients towards root canal therapy (RCT). The questions were phased into three parts, the first being demographics of the patient. The second phase included questions

regarding how patients deal with dental pain, their awareness of RCT procedure and how they gained the same and the third phase included questions regarding what these patients perceived about endodontics.

Participants were selected based on the following inclusion and exclusion criteria:

Inclusion Criteria:

1. Age group 18 and above
2. Healthy adult patients with no medical history

Exclusion Criteria

1. Individual below 18 years.
2. Physically and mentally challenged patients.

The questionnaire was as follows:

1. Gender

1. Male
2. Female

2. Age

1. 18-24
2. 25-35
3. 35-45
4. 45-55
5. 55-65 onwards

3. Qualification

1. 10th grade or less
2. 12th grade
3. Under graduate
4. Post graduate

4. Occupation

1. Employed
2. Unemployed
3. Student

5. After what intensity and duration of pain have you reported to the dentist for treatment?

1. Immediately
2. Within 1-3 weeks
3. 1 Month/more
4. Not experienced

6. Have you used home remedies for relieving dental pain?

1. Yes
2. No

7. Have you got pain relief after using/trying home remedies?

1. Yes
2. No

8. Can medicine alone resolve your toothache without any treatment?

1. Yes
2. No

9. Have you ever undergone Root Canal Treatment and do you think it is painful?

1. Yes
2. No
3. Not experienced

10. Does any toothache indicate Root Canal Treatment to be done?

1. Yes
2. No

11. Where did you come to know about Root Canal Treatment?

1. Dental clinic/Hospital
2. Internet/social media
3. Family/friends
4. Tv/radio/poster/advertisement
5. Others

12. What concern do you have regarding Root Canal Treatment?

1. Pain
2. Need for multiple x-rays
3. Needs for extraction in the future despite undertaken treatment
4. Long treatment
5. Others

13. Did you experience anxiety during the treatment?

1. Yes
2. No
3. Not experienced

14. Did you experience pain during or after treatment?

1. Yes
2. No

15. What symptoms indicate the need to undergo Root Canal Treatment?

1. Pain during chewing
2. Strong spontaneous toothache
3. Discolored tooth
4. Others

16. Do you prefer root canal treatment over extraction after knowing about the procedure?

1. Yes
2. No

The questionnaire was also distributed in Marathi Language :

1. लिंग
 1. पुरुष
 2. स्त्री
2. वय
 1. १८-२४
 2. २५-३५
 3. ३५-४५
 4. ४५-५५
 5. ५५-६५ व त्याच्यामुळे
3. शैक्षणिक पात्रता
 1. १० वी किंवा त्याहून खाली
 2. १२ वी
 3. स्नातक
 4. पदव्युत्तर
4. व्यवसाय
 1. कामकाजात
 2. बेरोजगार
 3. छात्र

5. तुमच्याकडून दंतचुकीची उपायसूचना किंवा उपचार कसं घेतलेय?

1. क्षणात
2. १-३ आपटे
3. १ महिना किंवा अधिक
4. अनुभवलेलं नाही

6. तुम्ही दंतचुकी संबोधित करण्यासाठी घरगुती उपायांचा वापर केलं आहे का?

1. होय
2. नाही

7. घरगुती उपायांचा वापर केल्यानंतर तुम्हाला दंतचुकीमध्ये किंवा त्याचं आराम होऊन आलेय?

1. होय
2. नाही

8. केवळ औषधांमुळे तुमचं दंतचुकीचं आराम होऊ शकतं का, बिना कोणत्याही उपायांचं केलं?

1. होय
2. नाही

9. कधीतरी तुम्हाला रूट कॅनल ट्रिटमेंट होतंय का आणि तुम्हाला वाटतंय की ती दर्दणाक आहे का?

1. होय
2. नाही
3. अनुभवलंय नाही

10. कोणत्याही दंतचुकीला किंवा दंताचं आराम लागतंय का?

1. होय
2. नाही

11. तुम्हाला रूट कॅनल ट्रिटमेंटचं कुठल्याही आधारांत वाटतंय का?

1. दंत निरीक्षणालय/रुग्णालय

2. इंटरनेट/सोशल मीडिया

3. कुटुंब/मित्र

4. टीव्ही/रेडिओ/पोस्टर/विज्ञापन

5. इतर

12. रूट कॅनल ट्रिटमेंटबद्दल तुमच्याकडून कोणतं चिंतनं आहे?

1. दर्द
2. अनेक x-रे आवश्यकता
3. भविष्यात निकाल करण्याची आवश्यकता
4. लांबी उपचार
5. इतर

13. उपचाराच्या दरम्यान तुम्हाला आत्मविश्वास होतं का?

1. होय
2. नाही
3. अनुभवलंय नाही

14. उपचाराच्या दरम्यान किंवा उपचारानंतर तुम्हाला दर्द होतंय का?

1. होय
2. नाही

15. कोणत्याही लक्षणांनी दर्दनिरास करायचं त्यामुळे तुम्हाला रूट कॅनल ट्रिटमेंट होऊनार आहे का?

1. चबूक वेळी दर्द
2. मजबूत स्वतंत्र दंतचुकी
3. रंगांतर दंत
4. इतर

16. प्रक्रियेचं कारण जाणून घेतल्यानंतर तुम्हाला रूट कॅनल ट्रिटमेंटपेक्षा दंतनिकालन करणं आवडतंय का?

1. होय
2. नाही

Results

Master Chart

Table 1: The data was collected, tabulated and evaluated in following for the patients located in the urban area:

Questions	Options	Response
1. Gender	Male	54
	Female	46
2. Age	18-24	12
	25-35	27
	35-45	23
	45-55	20
	55-65 onwards	18

3. Qualification	10 th grade or less	-
	12 th grade	12
	Under graduation	65
	Post graduation	24
4. Occupation	Employed	57
	Unemployed	19
	Student	23
5. After what intensity and duration of pain have you reported for treatment to dental clinic?	Immediately	57
	Within 1-3 weeks	22
	1 month/more	16
	Not experienced	5
6. Have you used home remedies for relieving pain?	Yes	43
	No	57
7. Have you got pain relief after using/trying home remedies?	Yes	23
	No	20
	Not used	57
8. Can medicine alone resolve your toothache without any treatment?	Yes	33
	No	67
	Yes	1
9. Have you ever undergone Root Canal Treatment and do you think it is painful?	No	14
	Not experienced	85
10. Does any toothache indicate root canal treatment to be done?	Yes	25
	No	75
11. Where did you come to know about root canal treatment?	Internet/social media	50
	Dental clinic/hospital	37
	Family/friends	6
	Tv/radio/poster/advertisement	7
	Others	-
12. What concerns do you have regarding root canal treatment?	Pain	39
	Need for multiple x-rays	14
	Needs for extraction despite undertaken treatment	21
	Long treatment time	19
	Others	7
13. Did you experience anxiety during treatment	Yes	5
	No	10
	Not experienced root canal treatment	85
14. Did you experience pain during or after treatment?	Yes	1
	No	14
	Not experience any root canal treatment	85
15. What symptoms indicate the need to undergo root canal treatment	Pain during chewing	16
	Strong spontaneous toothache	62
	Discolored tooth	10
	Others	8
16. Do you prefer root canal treatment over extraction after knowing about the procedure?	Yes	85
	No	15

Table 2: The data was collected, tabulated and evaluated in following for the patients located in the rural area (Table 2)

Questions	Options	Response
1. Gender	Male	67
	Female	33
2. Age	18-24	13
	25-35	25
	35-45	26
	45-55	21
	65 onwards	15
3. Qualification	10 th grade or less	23
	12 th grade	37
	Under graduation	30
	Post graduation	10
4. Occupation	Employed	39
	Unemployed	42
	Student	19
5. After what duration of Dental pain have you reported for treatment?	Immediately	41
	within 1-3 weeks	21
	1 Month/more	38
	Not experienced	-
6. Have you used home remedies for relieving dental pain?	Yes	47
	No	53
7. Have you got pain relief after using/trying home remedies?	Yes	30
	No	17
	Not used	53
8. Can medicine alone resolve your toothache without any treatment?	Yes	26
	No	74
9. Have you ever undergone Root Canal Treatment and do you think it is painful?	Yes	2
	No	8
	Not experienced	90
10. Does any toothache indicate RCT to be done?	Yes	18
	No	82
11. Where did you come to know about RCT?	Internet/social media	54
	Dental clinic/Hospital	22
	family/friends	18
	tv/radio/poster/advertisement	6
	Others	-
12. What concern do you have regarding RCT?	Pain	34
	need for multiple x-rays	12
	Needs for extraction in the future despite undertaken treatment	31
	Long treatment	17
	Others	6
13. Did you experience anxiety during treatment	Yes	3
	No	7
	Not experienced RCT	90

14. Did you experience pain during or after treatment?	Yes	2
	No	8
	Not experienced RCT	90
15. What symptoms indicate the need to undergo RCT	Pain during chewing	13
	Strong spontaneous toothache	38
	Discolored tooth	10
	Others	31
16. Do you prefer root canal treatment over extraction after knowing about the procedure?	Yes	73
	No	27

Statistical Procedures

All data were entered into a computer by giving coding system, proofed for entry errors

- Data obtained was compiled on a MS Office Excel Sheet (v 2019, Microsoft Redmond Campus, Redmond, Washington, United States).
- Data was subjected to statistical analysis using Statistical package for social sciences (SPSS v 26.0, IBM).
- Descriptive statistics like frequencies and percentage for categorical data, Mean & SD for numerical data has been depicted.

✓ Comparison of frequencies of categories of variables with groups was done using chi square test.

Demographic comparisons have been done using **parametric tests** have been used for comparisons.

✓ Inter group comparison (2 groups) was done using t test.

✓ Comparison of frequencies of categories of variables with groups was done using chi square test.

For all the statistical tests, $p < 0.05$ was considered to be statistically significant, keeping α error at 5% and β error at 20%, thus giving a power to the study as 80%.

* = statistically significant difference ($p < 0.05$)

** = statistically highly significant difference ($p < 0.01$)

= non-significant difference ($p > 0.05$) ... for all tables

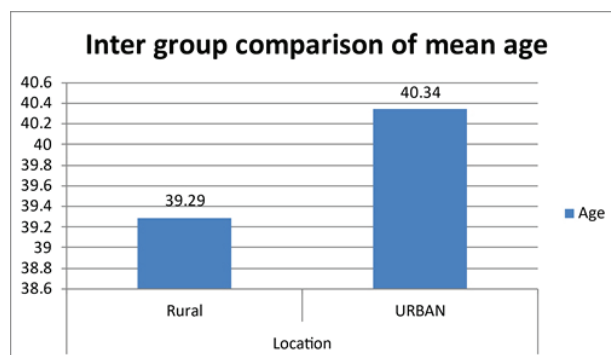
Inter group comparison of frequencies

1. Inter group comparison of mean age (Table 3, Graph 1)

Most participants were of the age group between 25-45 years. There was a statistically non- significant difference seen for the values between the groups ($p > 0.05$)

Table 3: Inter group comparison of mean age

	Location	N	Mean	Std. Deviation	Std. Error Mean	T value	p value of t test
Age	Rural	100	39.29	12.575	1.257	-.590	.556#
	URBAN	100	40.34	12.589	1.259		



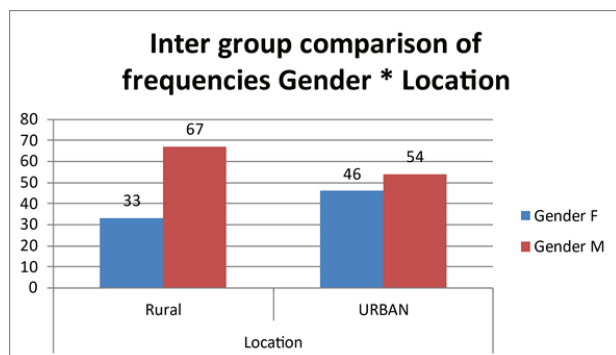
Graph 1

2. Gender * Location (Table 4, Graph 2)

There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 4: Gender * Location

		Location		Total	Chi-Square value	P value of Chi-Square test
		Rural	URBAN			
Gender	F	33	46	79		
	M	67	54	121	3.536	0.060*
	Total	100	100	200		



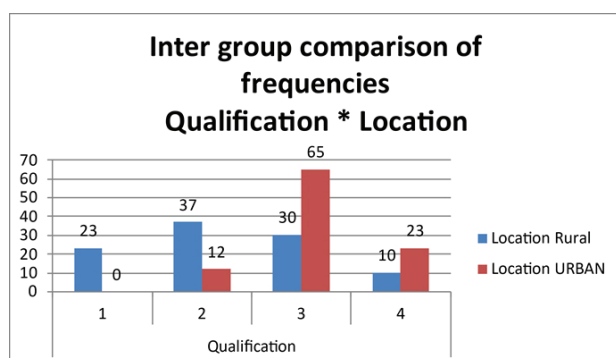
Graph 2

3. Qualification * Location (Table 5, Graph 3)

There was a statistically highly significant difference seen for the frequencies between the groups ($p < 0.01$) with higher frequency for Qualification 2 with rural.

Table 5: Qualification * Location

		Location				
		Rural	URBAN	Total	Chi-Square value	P value of Chi-Square test
Qualification	1	23	0	23		
	2	37	12	49	53.771	0.000**
	3	30	65	95		
	4	10	23	33		
	Total	100	100	200		



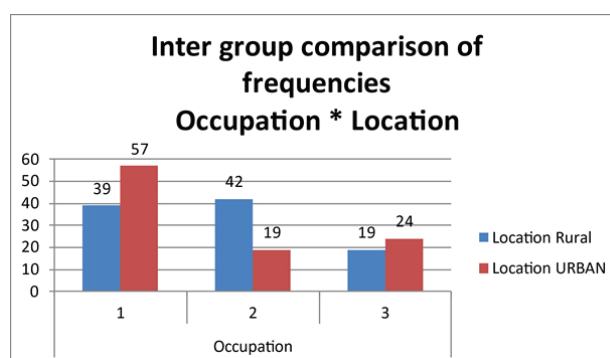
Graph 3

4. Occupation * Location (Table 6, Graph 4)

There was a statistically highly significant difference seen for the frequencies between the groups ($p < 0.01$) with higher frequency for Occupation 1 with urban.

Table 6: Occupation * Location

		Location				
		Rural	URBAN	Total	Chi-Square value	P value of Chi-Square test
Occupation	1	39	57	96		
	2	42	19	61	12.629	0.002**
	3	19	24	43		
	Total	100	100	200		



Graph 4

5. After what duration of dental pain have you reported for treatment * Location (Table 7, Graph 5)

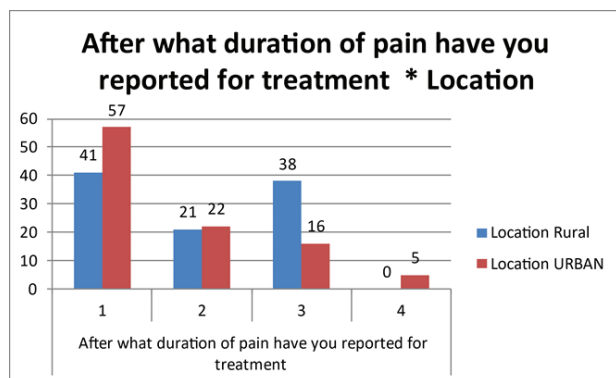
There was a statistically highly significant difference seen for the frequencies between the groups ($p < 0.01$) with higher frequency for response 1 with urban.

Table 7: After what duration of pain have you reported for treatment * Location

		Location		Total
		Rural	URBAN	
After what duration of pain have you reported for treatment	1	41	57	98
	2	21	22	43
	3	38	16	54
	4	0	5	5
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	16.598*	3	.001



Graph 5

6. Have you used home remedies for relieving dental pain * Location (TABLE 8, GRAPH 6)

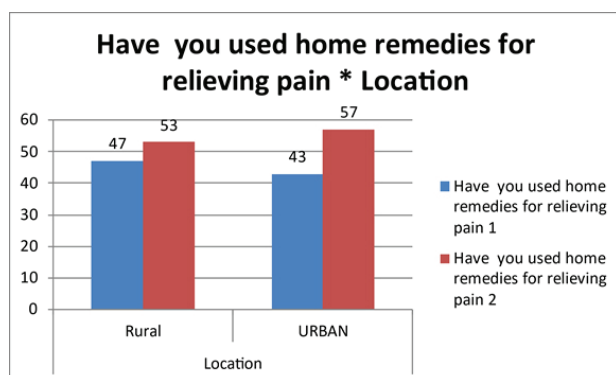
There was a statistically non-significant difference seen for the frequencies between the groups ($p>0.05$).

Table 8: Have you used home remedies for relieving dental pain * Location

		Location		Total
		Rural	URBAN	
Have you used home remedies for relieving pain	1	47	43	90
	2	53	57	110
Total		100	200	

Chi-Square Tests

	Value	df	p value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Chi-Square	323 ^a	1	.570		



Graph 6

7. Have you got pain relief after using/trying home remedies? * Location (Table 9, Graph 7)

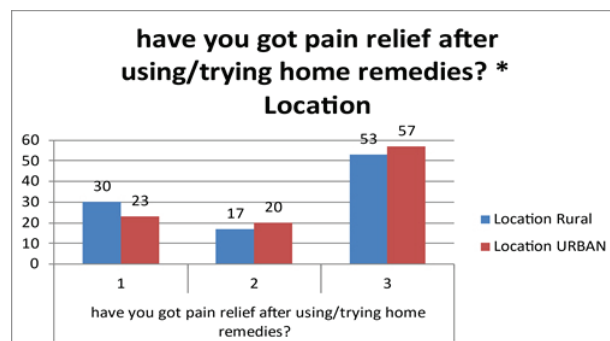
There was a statistically non-significant difference seen for the frequencies between the groups ($p>0.05$).

Table 9: Have you got pain relief after using/trying home remedies? * Location

		Location		Total
		Rural	URBAN	
Have you got pain relief after using/trying home remedies?	1	30	23	53
	2	17	20	37
	3	53	57	110
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	1.313 ^a	2	.519



Graph 7

8. Can medicine alone resolve your toothache without any treatment* Location (Table 10, Graph 8)

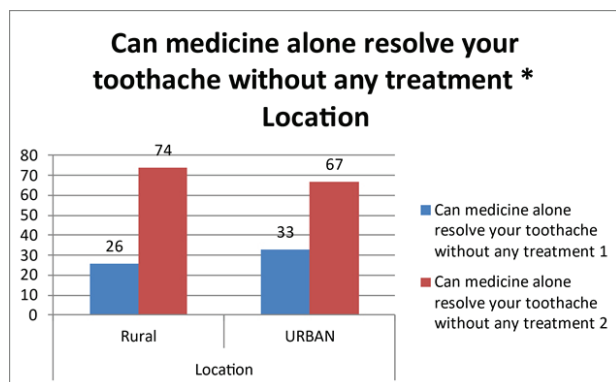
There was a statistically non-significant difference seen for the frequencies between the groups ($p>0.05$).

Table 10: Can medicine alone resolve your toothache without any treatment * Location

		Location		Total
		Rural	URBAN	
Can medicine alone resolve your toothache without any treatment	1	26	33	59
	2	74	67	141
Total		100	100	200

Chi-Square Tests

	Value	df	p value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Chi-Square	1.178 ^a	1	.278		



Graph 8

9. Have you ever undergone Root Canal Treatment and do you think it is painful? * Location (Table 11, Graph 9)

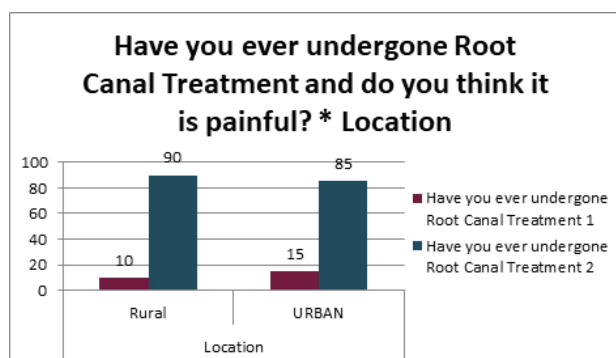
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 11: Have you ever undergone Root Canal Treatment and do you think it is painful? * Location

		Location		Total
		Rural	URBAN	
Have you ever undergone Root Canal Treatment and do you think it is painful?	1	10	15	25
	2	90	85	175
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	1.143 ^a	1	.285



Graph 9

10. Does any toothache indicate root canal treatment to be done? * Location (Table 12, Graph 10)

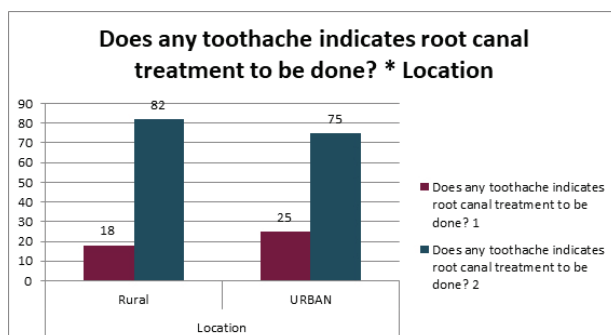
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 12: Does any toothache indicate root canal treatment to be done? * Location

		Location		Total
		Rural	URBAN	
Does any toothache indicates root canal treatment to be done?	1	18	25	43
	2	82	75	157
Total		100	100	200

Chi-Square Tests

	Value	df	p value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Chi-Square	1.452 ^a	1	.228		



Graph 10

11. Where did you come to know about Root Canal Treatment * Location (Table 13, Graph 11)

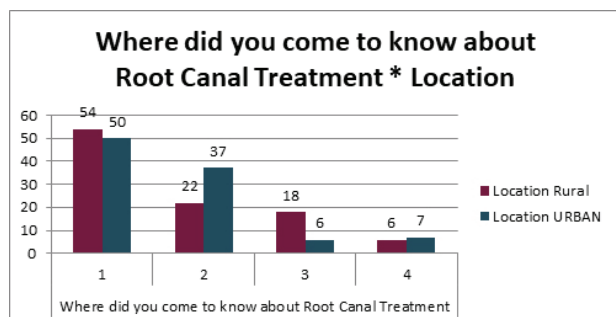
There was a statistically significant difference seen for the frequencies between the groups ($p < 0.05$) with higher frequency for response 1 with rural.

Table 13: Where did you come to know about Root Canal Treatment * Location

		Location		Total
		Rural	URBAN	
Where did you come to know about Root Canal Treatment	1	54	50	104
	2	22	37	59
	3	18	6	24
	4	6	7	13
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	10.044 ^a	3	.018



Graph 11

12. What concern do you have regarding Root Canal Treatment * Location (Table 14, Graph 12)

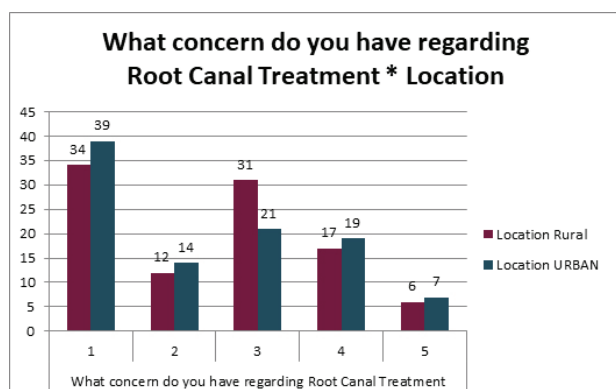
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 14: What concern do you have regarding Root Canal Treatment * Location

		Location		Total
		Rural	URBAN	
What concern do you have regarding Root Canal Treatment	1	34	39	73
	2	12	14	26
	3	31	21	52
	4	17	19	36
	5	6	7	13
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	2.607 ^a	4	.626



Graph 12

13. Did you experience anxiety during treatment * Location (Table 15, Graph 13)

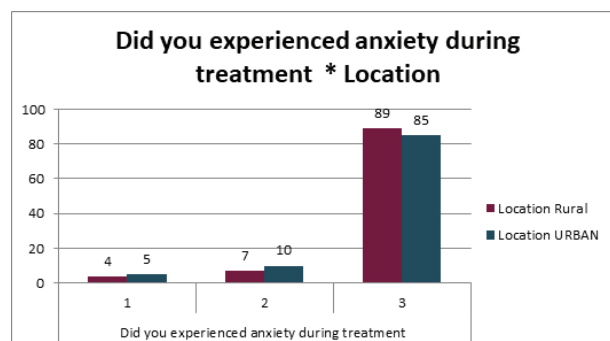
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 15: Did you experience anxiety during treatment * Location

		Location		Total
		Rural	URBAN	
Did you experience anxiety during treatment	1	4	5	9
	2	7	10	17
	3	89	85	174
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	.732 ^a	2	.693



Graph 13

14. Did You Experience Pain During Or After Treatment * Location (Table 16, GRAPH 14)

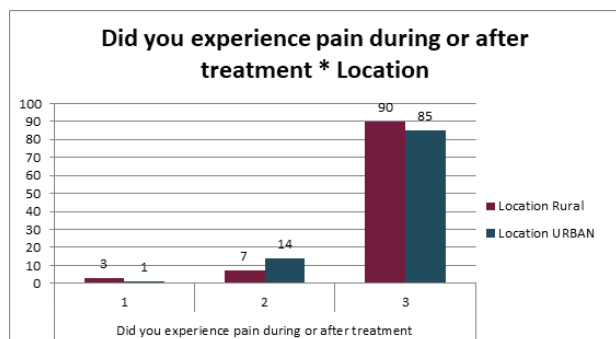
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 16: Did you experience pain during or after treatment* Location

		Location		Total
		Rural	URBAN	
Did you experience anxiety during treatment	1	3	1	4
	2	7	14	21
	3	90	85	175
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	3.476 ^a	2	.176



Graph 14

15. What symptoms indicate the need to undergo Root Canal Treatment * Location (Table 17, Graph 15)

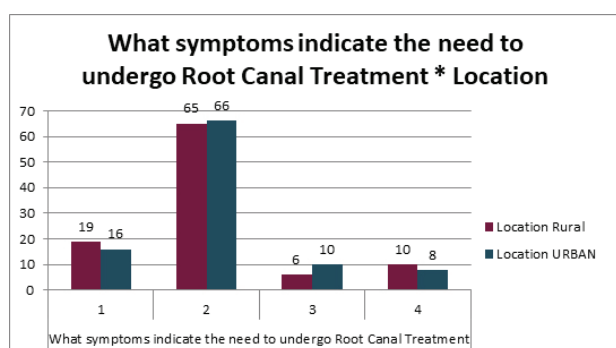
There was a statistically non-significant difference seen for the frequencies between the groups ($p > 0.05$).

Table 17: What symptoms indicate the need to undergo Root Canal Treatment* Location

		Location		Total
		Rural	URBAN	
What symptoms indicate the need to undergo Root Canal Treatment	1	19	16	35
	2	65	66	131
	3	6	10	16
	4	10	8	18
Total		100	100	200

Chi-Square Tests

	Value	df	p value
Chi-Square	1.487 ^a	3	.685



Graph 15

16. Do you prefer root canal treatment over extraction after knowing about the procedure * Location (Table 18, Graph 16)

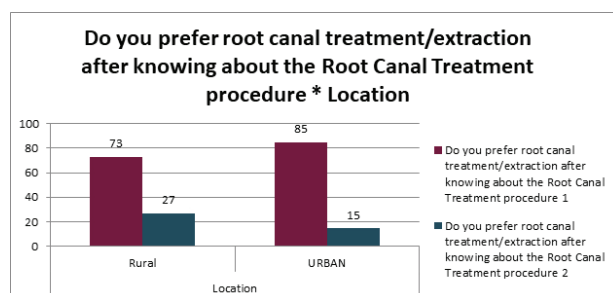
There was a statistically significant difference seen for the frequencies between the groups ($p < 0.05$) with higher frequency for response 1 with urban.

Table 18: Do you prefer root canal treatment/ extraction after knowing about the Root Canal Treatment procedure* Location

		Location		Total
		Rural	URBAN	
Do you prefer root canal treatment/ extraction after knowing about the Root Canal Treatment procedure	1	73	85	158
	2	27	15	42
Total		100	100	200

Chi-Square Tests

	Value	df	p value	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Chi-Square	4.340 ^a	1	.037		



Graph 16

|| Discussion

Patients report to the dental clinic majorly with the symptom of pain for which RCT or extraction procedure is deemed necessary. Extraction indicated for teeth with a hopeless prognosis, may lead to a chain of events, such as the shifting of adjacent and opposing teeth impairing mastication and aesthetics. To prevent these consequences, root canal treatment is recommended, the main aim of which is the complete removal of the debris, destruction of residual microorganisms and an effective seal to prevent recolonization of the root canal system with bacteria.^[4]

Adequate patient knowledge is very essential with regards to the possibility of root canal treatment. This will enable patients to report timely for treatment. The level of patients' knowledge and awareness regarding RCT may influence their decision-making and choice.^{[1][2]}

Questionnaire studies help assess the community and understand patients' attitudes towards root canal treatment.^{[3][5]} It's crucial, especially in developing countries like India, where people often neglect oral

health due to insufficient knowledge or myths about dental treatments.^[6]

This study was conducted based on an electronic questionnaire distributed to 200 participants based on convenience sampling of which 100 visited a private clinic in Mumbai (Urban group) and 100 visited a private clinic in Wagholi Village, Pune (Rural group).

The mean age group of the participants were between 25-45 years of age. 21% rural and 22 % urban patients wait for dental pain to subside on its own, seeking a dentist only if it persists after 1–3 weeks. Meanwhile, 41% urban and 57% rural patients visit a dentist within 1–3 days of experiencing dental pain. Additionally, 16% urban and 38% rural patients seek dental care after a month if the pain persists. There was a statistically highly significant difference seen for the frequencies between the groups ($p < 0.01$) with higher frequency for response 1 with urban population.

Prior to explaining the root canal procedure, the participants were assessed regarding their knowledge about the same. In urban areas, 50% participants and in rural areas 54% were aware of root canal treatment from social media. There was a statistically significant difference seen for the frequencies between the groups ($p < 0.05$) with higher frequency for response 1 with rural population. Among both the urban and rural populations, maximum participants feared root canal procedure as they assumed it to be a painful procedure.

Among the 15 urban participants that had already undergone a RCT only one person found it painful. In rural areas, 10 participants had undergone root canal treatment, and only 2 thought the procedure was painful. This highlights advancements in the field of endodontics showcasing pain-free procedures. Increased patient awareness is essential to dispel the myth that root canal procedures are inherently painful.

After explaining the Root Canal treatment procedure, 85 participants in the urban area expressed willingness to undergo the procedure, whereas in rural areas, 73 participants showed interest. There was a statistically significant difference seen for the frequencies between the groups ($p < 0.05$) with higher frequency among the urban population. This is in accordance to a survey conducted by Bansal et al. (2020) among 450 participants where in majority (84%) participants preferred RCT over-extraction. This indicates the importance of awareness to motivate patients to undergo endodontic procedures.^[7] According to the

study done by Sisodia N et al., it indicates that most of the barriers reported to acceptability of root canal therapy could be overcome by patient education and creating increased general awareness about oral health and different dental procedures through school dental health education programs.^[8]

In recent years, endodontics has been one of the most fastest growing area of dentistry. The use of modern tools like rubber dam, apex locator, Endo motor, microscope in daily practice can improve the prognosis of tooth.^[9] Today, the use of laser to remove smear layer and to disinfect root canals has increasingly attracted attentions.^{[10][11]} Moshkelgosha et al.(2014) concluded that patients prefer dental care having good quality, new and advanced technologies.^[12] Hence patients' knowledge and awareness regarding endodontic treatment and its advancements may influence the decision-making and choice of the treatment. It is important therefore to integrate evidence-based practice concepts into teaching curriculum, continuous education courses, and postgraduate studies to enable dental professionals to educate the general population regarding the importance and advancements in endodontics. However, further studies are necessary to evaluate this trend.

Population-based surveys are valuable for understanding the psychological aspects of patients towards Root Canal Treatment (RCT), especially in developing countries like India, where oral health awareness is lacking. In such regions, misinformation and misconceptions contribute to neglect of dental health, moreover individuals sort to extraction of teeth considering that it is less time consuming and inexpensive.^{[13][14]} Effectively educating patients about available treatment options, debunking RCT myths, and providing guidance on what to expect from the procedure are critical.^[15] Primary care dentists should actively promote RCT, emphasizing the significance of preserving natural teeth and dispelling misconceptions. Patient education on RCT can transform attitudes, fostering acceptance and informed decision-making.^[16]

Additional research is indicated to get a wider perspective of patient attitudes towards Root Canal Treatment (RCT) across diverse socioeconomic and community contexts.

|| Conclusion

There's a notable increase in awareness about root canal treatment (RCT) among adolescents and middle-

aged individuals. Patient awareness of endodontic treatment varies among races and populations. Social media now plays a crucial role in spreading awareness.

Poor oral health in rural areas is attributed to factors such as limited access to dental care, treatment cost, and low socioeconomic status. In contrast, urban areas benefit from higher health literacy and increased awareness of endodontic treatment due to the availability of specialists.

In conclusion, our study indicates higher awareness of root canal treatment in urban populations compared to rural areas.

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Conflict of Interest

There are no conflicts of interest.

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