

Patients Knowledge, Awareness Towards Root Canal Treatment Among Adults In Chennai

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ABSTRACT:

Introduction: Endodontics Is The Branch Of Dentistry That Deals With Diseases Of The Tooth Root, Dental Pulp, And Surrounding Tissue In Humans. The Root Canal Treatment (RCT) Involves The Removal Of Diseased Pulpal Tissue And Protection Of The Disinfected Tooth From Future Problems Produced By Microorganisms. RCT Helps In Proprioception For Occlusal Feedback And Also In Efficient Chewing. One Of The Essential Objectives In Dentistry Is Prevention Of Oral Disease.

Aim: The Main Aim Of The Study Is To Propose And Evaluate Patients' Knowledge, Awareness Towards Root Canal Treatment Among Adults In Chennai.

Materials And Method: A Survey Was Designed To Analyse The Result. The Questionnaire Was Prepared In Google Forms (Online Survey Link) And Was Distributed To 100 Adult Patients. Chi Square Test Was Done, $P < 0.05$ Was Considered Statistically Significant. The Responses Were Then Collected And Levels Of Significance Were Analysed Using SPSS Software.

Results: Regarding The RCT Knowledge, It Had Been Revealed That Patients With Previous RCT History Were Having Better Knowledge Than Patients Without RCT History Or Those That Were Getting To Undergo The RCT Procedure P Value: 0.000 ($P < 0.05$) And Was Statistically Significant. After Discussing The Results Of The Present Study, It Was Seen That Many Were Aware And Knew About Root Canal Treatment.

Conclusion: From This Study, We Came To Know That Patients Have Some Knowledge And Awareness About Root Canal Treatment And Its Effects.

Keyword: Root Canal Treatment, Patients, Pain, Adults, Awareness, Innovative Techniques.

INTRODUCTION:

Endodontics Is The Branch Of Dentistry That Deals With Diseases Of The Tooth Root, Dental Pulp, And Surrounding Tissue In Humans. Endodontic Treatment Causes Pain Which Is Widely Feared By The Public (1). Root Canal Procedures Are Commonly Believed To Be The Most Painful Dental Treatment Experience. The Root Canal Treatment (RCT) Involves The Removal Of Diseased Pulpal Tissue And Protection Of The

Disinfected Tooth From Future Problems Produced By Microorganisms (2). RCT Helps In Proprioception For Occlusal Feedback And Also In Efficient Chewing. In Everyday Clinical Practice The Main Essence Is Making A Clinical Decision. This Process Involves Interaction & Application Of Clinical And Biomedical Knowledge, Weighing Probabilities And Various Outcomes, Problem-Solving, And Balancing Risk-Benefit (3,4). Root Canal Treatment Is Technically Demanding And It Fails When Treatment Falls Short Of Acceptable Standards(5). Either A Simple Filling Or Taking Antibiotics Can Not Resolve The Tooth Infection. Further, If Treatment Is Delayed, The Tooth Can Undergo Extensive Decay (6). Clinicians Must Be Well Educated Of The Results Of Endodontic Surgery In Order To Provide Patients With The Most Up-To-Date And Predictable Treatment Preparation. It Is Important To Recognize That The Result Of Root Canal Treatment Is Determined Not Only By Particular Factors Such As Root Canal Infection And Root Canal Morphology Sophistication, But Rather By Less Specific, More Distinct Factors (7) .

Janczarek Et Al In Their Survey-Based Research On Patients' Knowledge About Endodontic Treatment Concluded That There's An Improvement Of Data And Awareness Of Patients About The Endodontic Treatment, And The Majority Of Patients Surveyed Are Conscious Of The Opportunities Which They'll Use During The Course Of Endodontic Treatment: Different Sorts Of Anesthesia, Passage Treatment, Modern Techniques And Treatment Outcome Prediction (8). Another Survey Conducted By Sisodia Showed A Moderate Level Of Awareness About Endodontic Treatment Among The Chosen Sample Of Dental Patients. It Also Highlighted The Necessity For Providing More Information To The Patients About The Benefits Of Retaining Teeth Via Endodontic Therapy (9). It Has Been Demonstrated That Dental Anxiety And Expectation Of Pain Had A Profound Effect On A Patient's Ability To Understand Information Provided (10–19),(20–23),(24–28),(29).

In Some Cases, Antibiotics Or Analgesics Are Indicated As Adjuncts To Conventional Endodontic Treatment Procedures (30,31). Prescribing Medicine Has Become A Crucial Issue In Dental Colleges And Hospitals As Well. Prescribing A Medicine Is The Most Important Skill Required By Any Doctor In The Colleges, Hospitals Or Clinical Practice. Medication Use Is A Crucial Issue In Colleges And Among Young Adults, Including Medical Or Non-Medical Use Of Prescription Drugs (32). Most Times, The Sensation Of Pain During RCT Is Inevitable. The Successful Management Of Such Pain Is Both Fundamental For Practice Building And Endodontic Outcome (3). One Of The Essential Objectives In Dentistry Is Prevention Of Oral Disease. This Study Is Necessary For The Patients To Overcome The Barrier Of Endodontic Treatment And Make Them Aware That Pain Is Not A Barrier For The Endodontic Treatment. The Main Aim Of The Study Is To Propose And Evaluate Patients' Knowledge, Awareness Towards Root Canal Treatment Among Adults In Chennai.

MATERIALS AND METHOD:

Study Design:

A Survey Was Conducted Among Adult Patients To Evaluate Their Knowledge Towards Root Canal Treatment. The Sample Size Of The Study Was 100. The Participants Did The Survey Voluntarily. Ethical Approval And Informed Consent From The Participants Were Obtained.

Survey Instrument:

The Survey Instrument, Which Was A Questionnaire, Was Prepared After Extensive Review Of The Existing Literature. The Questionnaire Was Reviewed And Amendments Were Made To Improve Clarity

Of The Questions To Eliminate Ambiguous Responses. The Questionnaire Consisted Of A Total Of 15 Questions. The Questionnaire Was Shared To The Adults In Chennai.

Data Analysis:

Only Completed Surveys Were Taken For Analysis And The Uncompleted Surveys Were Eliminated. The Statistical Test Used Is Descriptive Statistics. All The Responses Obtained Were Tabulated And The Reliability Of The Data Was Checked. The Statistics Were Done Using SPSS Software, Correlation Test Was Done To Check The Association And P Value Of 0.05 Was Said To Be Statistically Significant.

RESULTS:

There Were 100 Participants Whose Ages Ranged From 18-20 And 20-23 Years. The Data Was Collected And Plotted In A Graph.

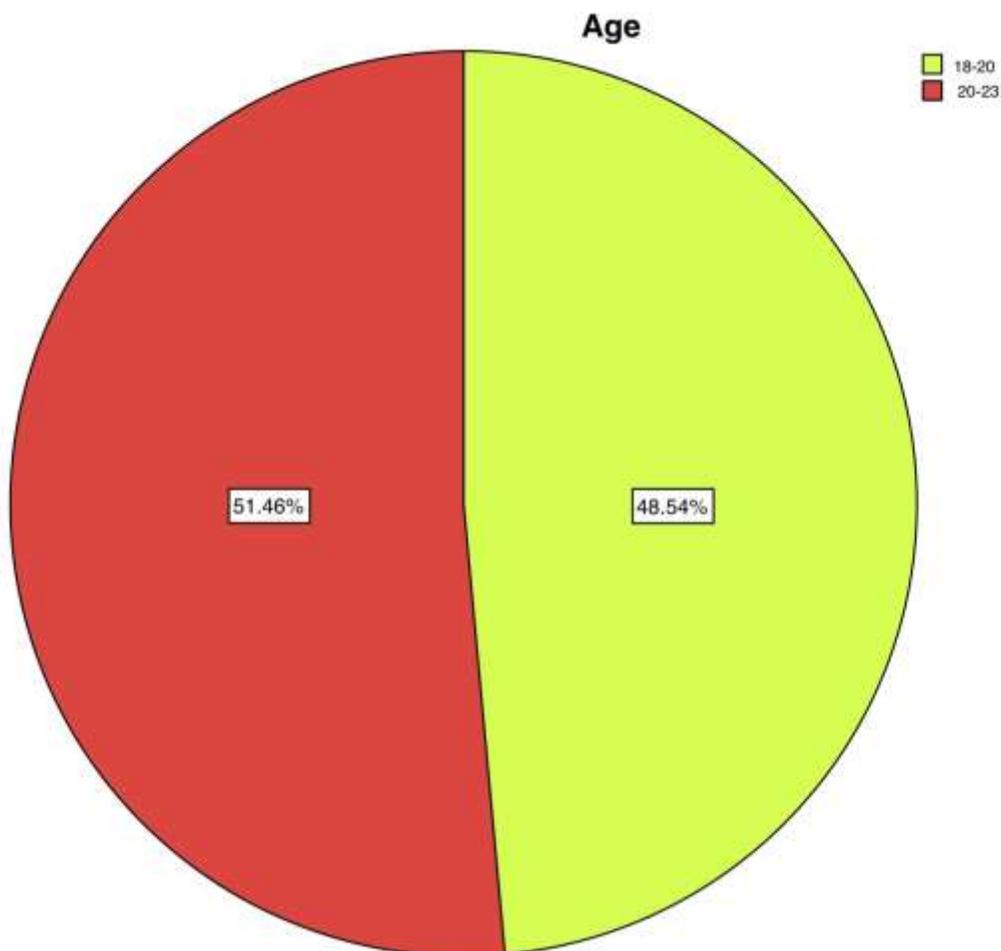


Figure 1 : Pie Chart Depicts The Age Of The Participants Who Responded 20-23 (Red) Is 51.46% And Whose Age Is Between 18-20 (Fluorescent Green) Is 48.54%.

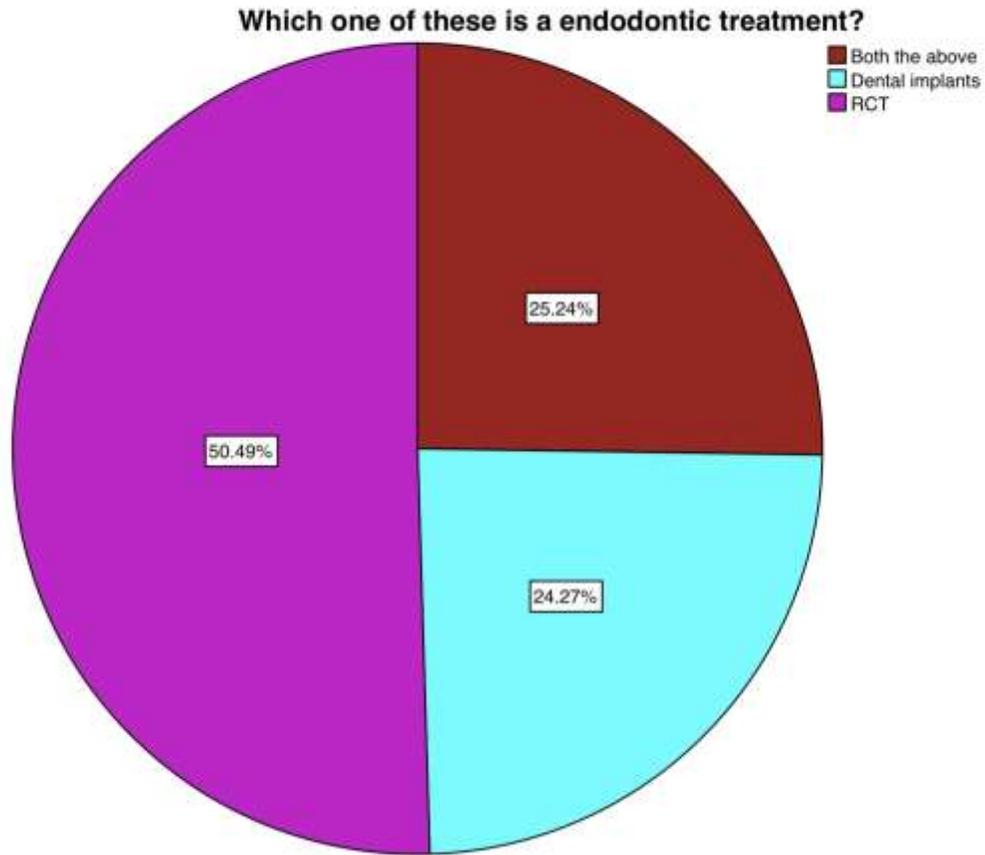


Figure 2: Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned Which One Of These Is A Endodontic Treatment Who Responded Both The Above (Brown) Is 25.24%, Dental Implants (Cyan Blue) Is 24.27% And RCT (Pink) Is 50.49%.

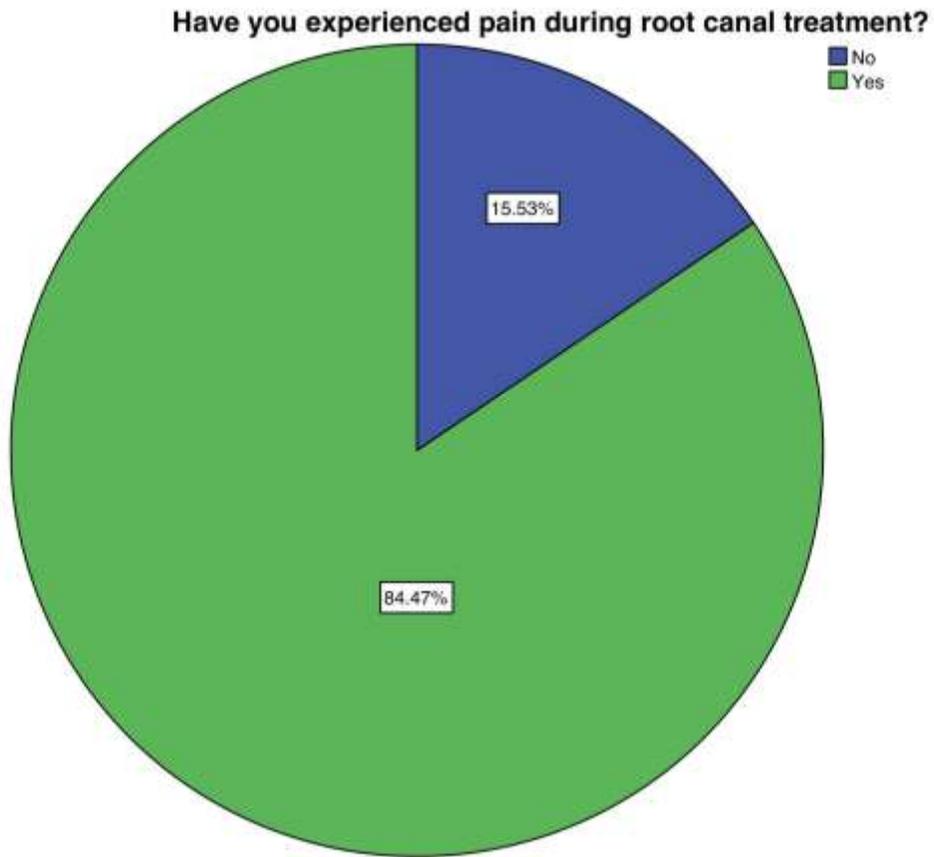


Figure 3: Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned Which One Of These Is An Endodontic Treatment Who Responded No (Blue) Is 15.53% And Who Responded Yes (Green) Is 84.47%.

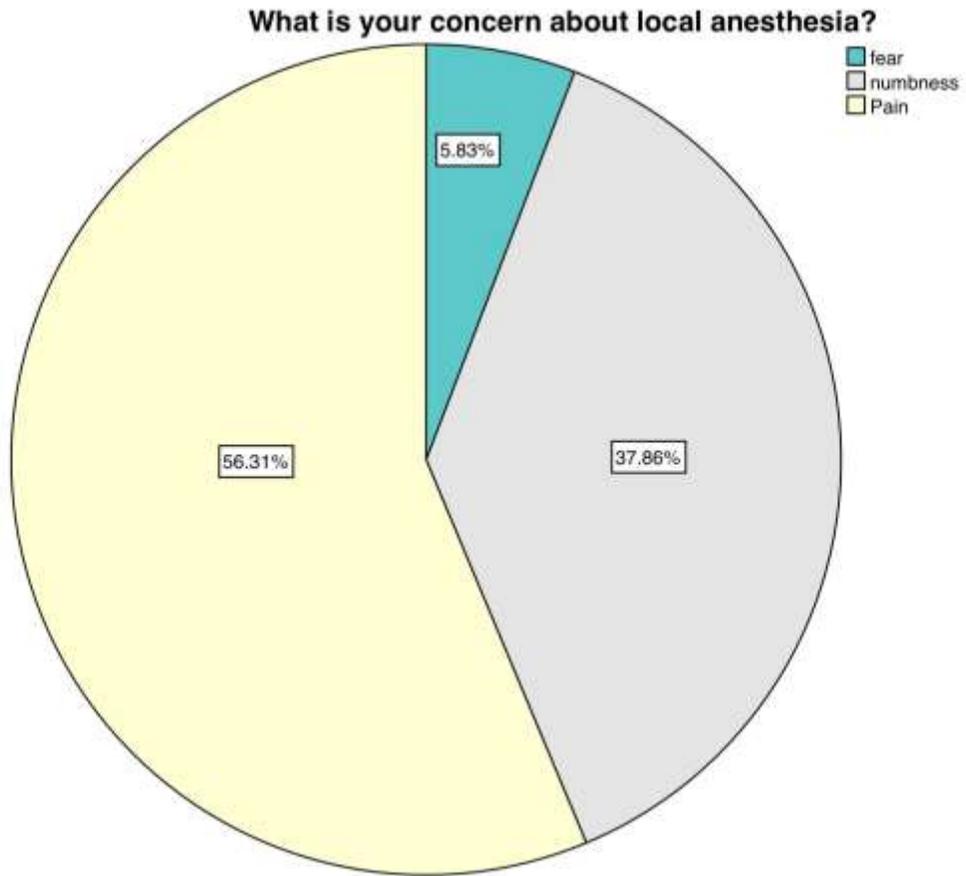


Figure 4: Pie Chart Depicts That The Concern About Local Anaesthesia In Endodontic Treatment Who Responded To Fear (Turquoise Blue) Is 5.83%, Numbness (Grey) Is 37.86% And Pain (Beige) Is 56.31%.

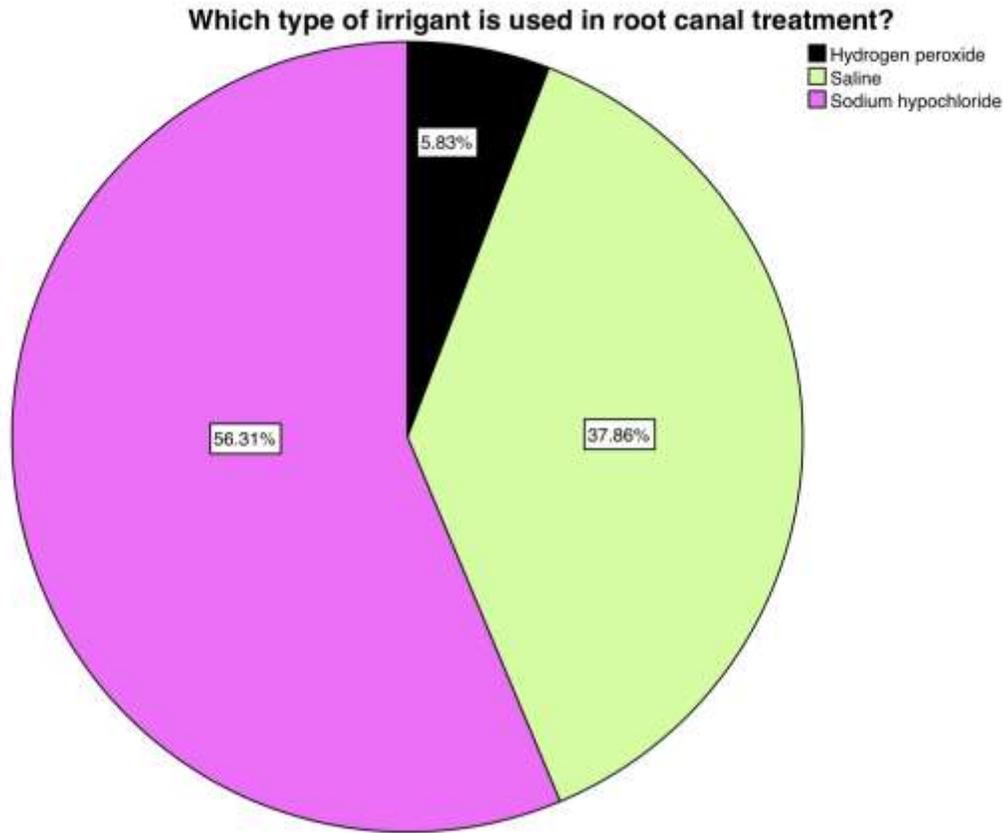


Figure 5: Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned About The Irrigant Used In Root Canal Treatment Who Responded Hydrogen Peroxide (Black) Is 5.83%, Saline (Lime Green) Is 37.86% And Sodium Hypochlorite (Pink) Is 56.31%.

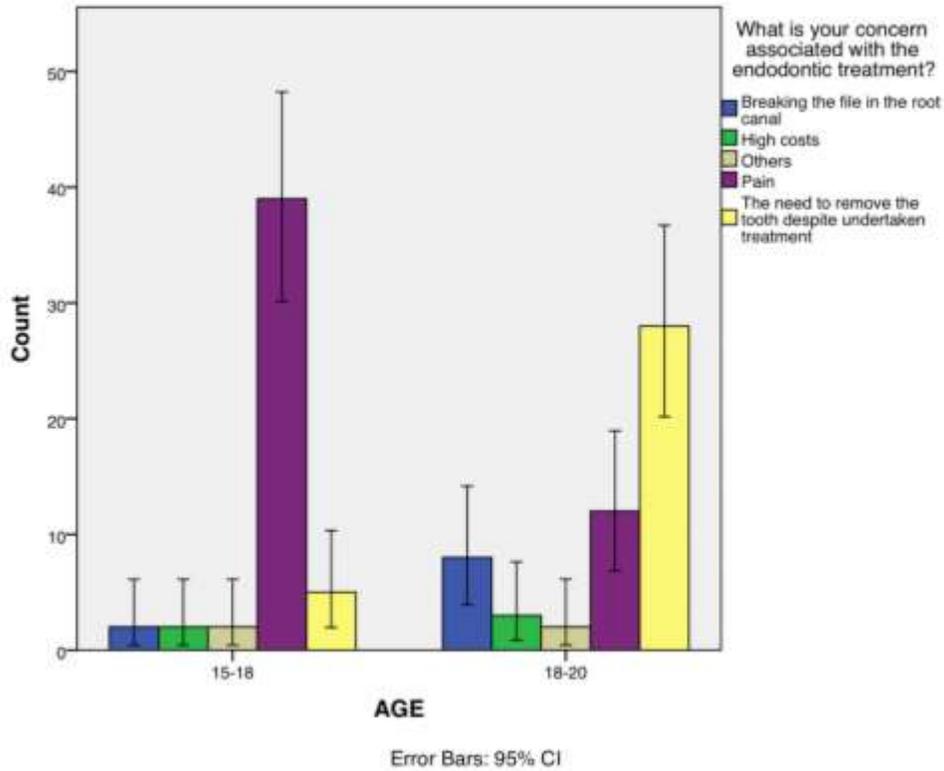


FIGURE 6: Bar Graph Showing The Association Of Responses Based On Age With The Knowledge Regarding Endodontic Treatment. Blue Stands For The Participants Who Aren't Interested In The Course, Green Stands For The Participants Who Ask For Details, Beige Stands For The Participants Who Don't Know Anything, Violet Stands For The Participants Who Know A Lot And Yellow Stands For The Participants Who Have Some Knowledge About It Which Is Gained From The Media. X Axis Represents Age And Y Axis Represents The Knowledge Regarding Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 ($P < 0.05$) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have More Knowledge Regarding Endodontic Treatment.

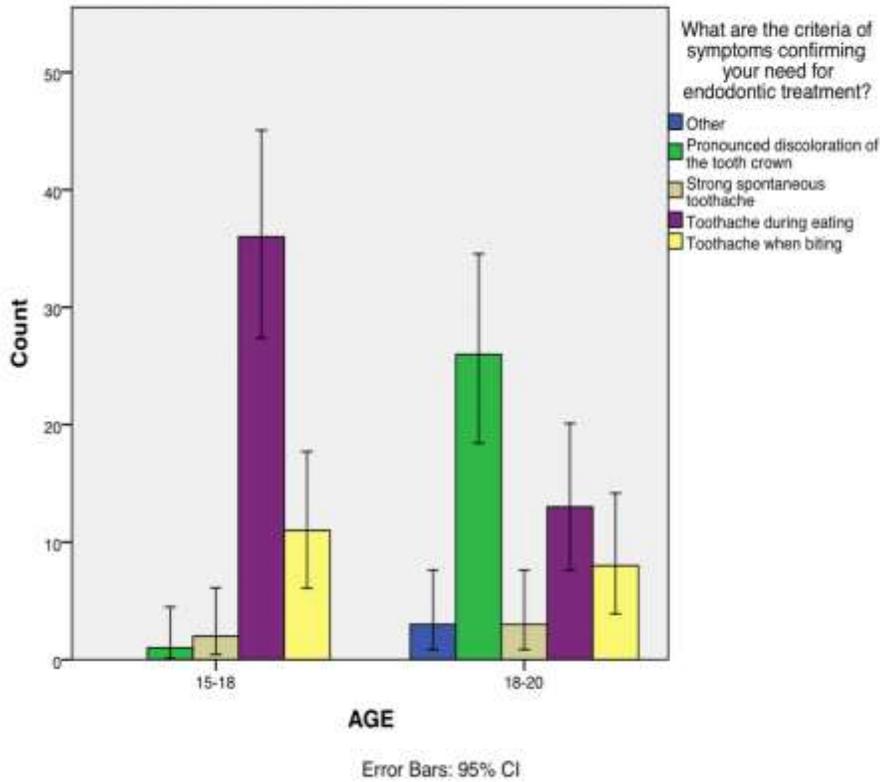
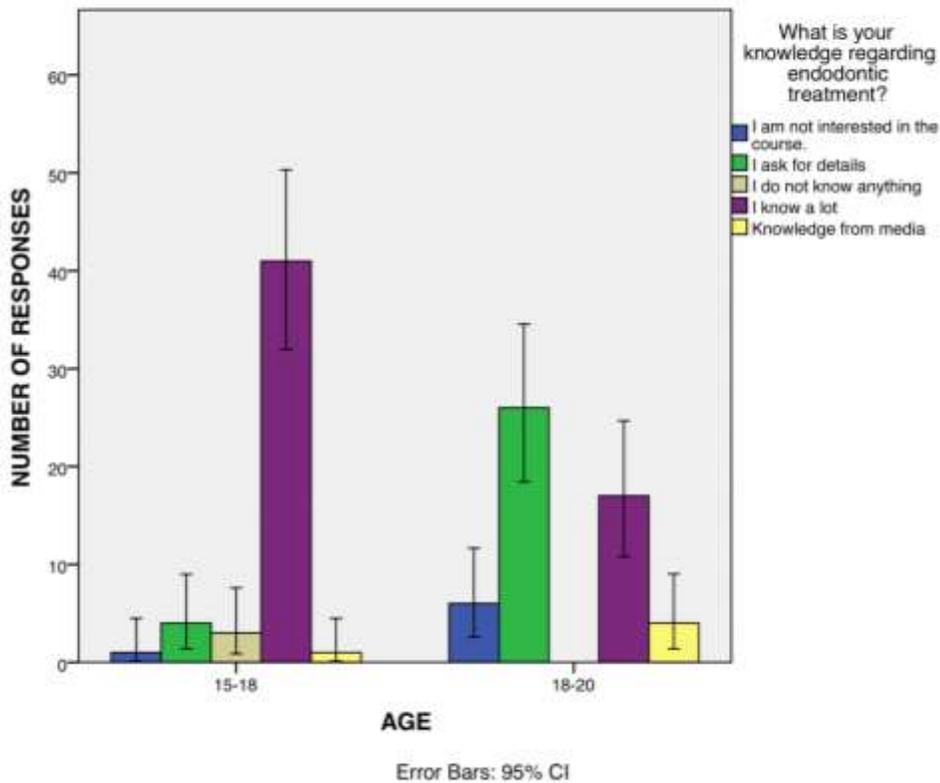


FIGURE 7: Bar Graph Showing The Association Of Responses Based On Age With The Concern Associated With The Endodontic Treatment. Blue Stands For The Participants Who Concern For Breaking The File In The Root Canal, Green Stands For The Participants Who Concern For High Costs, Beige Stands For The Participants Who Concern For Other Reasons, Violet Stands For The Participants Who Concern About Pain And Yellow Stands For The Participants Who Concern The Need To Remove The Tooth Despite Undertaken Treatment. X Axis Represents Age And Y Axis Represents The Concern Associated With The Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 ($P < 0.05$) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have More Concern About Pain.



FIGURE

8: Bar Graph Showing The Association Of Responses Based On Age With The Symptoms Confirming Their Need For Endodontic Treatment. Blue Stands For The Participants Who Other Reasons, Green Stands For The Participants Who Have Pronounced Discoloration Of The Tooth Crown, Beige Stands For The Participants Who Have Strong Spontaneous Toothache, Violet Stands For The Participants Who Have Toothache During Eating And Yellow Stands For The Participants Who Have Toothache When Biting. X Axis Represents Age And The Y Axis Represents The Criteria Of Symptoms Confirming Your Need For Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 (P < 0.05) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have Toothache During Eating.

DISCUSSION:

Within The Limitations Of The Questionnaire At Hand, The Survey Was Conducted And Figure 1 Pie Chart Depicts The Age Of The Participants Who Responded 18-20 (Red) Is 51.46% And Whose Age Is Between 20-23 (Fluorescent Green) Is 48.54%. Figure 2 Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned Which One Of These Is A Endodontic Treatment Who Responded Both The Above (Brown) Is 25.24%, Dental Implants (Cyan Blue) Is 24.27% And RCT (Pink) Is 50.49%. Figure 3 Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned Which One Of These Is An Endodontic Treatment Who Responded No (Blue) Is 15.53% And Who Responded Yes (Green) Is 84.47%. Figure 4 Pie Chart Depicts That The Concern About Local Anaesthesia In Endodontic Treatment Who Responded To Fear (Turquoise Blue) Is 7.77%, Numbness (Grey) Is 36.89% And Pain (Beige) Is 55.34%.

Figure 5 Pie Chart Depicts That The Knowledge Level Of Participants When They Are Questioned About The Irrigant Used In Root Canal Treatment Who Responded Hydrogen Peroxide (Black) Is 5.83%, Saline (Lime Green) Is 37.86% And Sodium Hypochlorite (Pink) Is 56.31%. Figure 6 Bar Graph Showing The Association Of Responses Based On Age With The Knowledge Regarding Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 (P < 0.05) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have More Knowledge Regarding Endodontic Treatment. Figure 7 Bar Graph Showing The Association Of Responses Based On Age With The Concern Associated With The Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 (P < 0.05) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have More Concern About Pain. Figure 8 Bar Graph Showing The Association Of Responses Based On Age With The Symptoms Confirming Their Need For Endodontic Treatment. Chi Square Test Was Done, P Value :0.000 (P < 0.05) And Was Statistically Significant. This Shows Adult Patients Of Age 18-20 Years Have Toothache During Eating.(33)(34)

Much Research Has Been Done On Patients' Knowledge And Awareness Towards Root Canal Treatment Among Different Participants. The Previous Study Done By Janczarek Et Al Depicts Patients' Knowledge About Endodontic Treatment Concluded That There Is An Improvement Of Data And Awareness Of Patients About The Endodontic Treatment, And Therefore The Majority Of Patients Surveyed Are Conscious Of The Opportunities Which They'll Use During The Course Of Endodontic Treatment: Different Sorts Of Anesthesia, Passage Treatment, Modern Techniques And Treatment Outcome Prediction (35). Another Survey Conducted By Sisodia Revealed That The Selected Sample Of Dental Patients Had A Moderate Level Of Knowledge About Endodontic Treatment. It Also Emphasized The Importance Of Presenting Patients With More Detail About The Advantages Of Retaining Teeth By Endodontic Treatment (36,37). Over The Past Ten Years, The Field Of Endodontics Has Seen Significant Advancements. The Sum Of These Advancements Has Resulted In More Consistent Surgical And Non-Surgical Outcomes. With These Advancements In Mind, A Focus On Instructional Techniques Will Help To Encourage Any Of The Big Advancements In General Practice. There Were A Few Limitations In Our Study. The Limitations Of The Study Is That Only Few Participants Are Included. A Convenience Sampling Of Practitioners Who Responded To Our Survey Was Included In The Report. However, This Is A Pilot Study, And We Intend To Perform A Broader Study With A Population That Represents The Whole Nation In The Future. Limitations Seen In This Study Can Be Included In Future Research For Better Spread Of Awareness Among The General Public.

CONCLUSION:

From This Study, We Came To Know That Patients Have Some Knowledge And Awareness About Root Canal Treatment And Its Effects. There Has Been Increased Knowledge And Concern Of Patients About Endodontic Treatment In Chennai. An Expert And Skilled Dentist Is The First Choice Of The Majority Of Patients. Cost Related To Endodontic Treatment Wasn't A Serious Barrier In Chennai.

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