KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS ROOT CANAL TREATMENT OF PATIENTS VISITING UNIVERSITY OF NAIROBI DENTAL HOSPITAL

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<th>Description</th>
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<tr>
<td>RCT</td>
<td>Root canal treatment</td>
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<tr>
<td>UON</td>
<td>University of Nairobi</td>
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<td>BDS</td>
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INTRODUCTION

Root canal of a tooth is part of pulp cavity, which lies within the roots, and in the healthy tooth contains vital pulp tissue. Root canal treatment is a procedure used to treat problems of dental pulp. It's a way to save teeth and may involve one or more visits to the dentist in which the disease of the pulp is removed and pulp chamber and root canal of tooth are then cleaned and sealed. (Frequently asked questions about Endodontic treatment hosted on Hinari website)

Root canal treatment is one of the most feared procedures in all of dentistry. Dentist asserts that modern root canal treatment is relatively painless because pain can be controlled. Major setback of root canal treatment is that most patients lack the knowledge. They do not know what root canal treatment entails and what the benefits of such treatment are. Most patients fear root canal treatment because it is painful.

Indications of root canal treatment are irreversible pulpitis, per apical periodontitis, crown fractures involving the pulp, acute per apical abscess, when want to create post space, construction of an over denture and when the vitality of pulp is doubtful. Root canal treatment is contraindicated in patient with poor oral hygiene, poorly motivated patients, patients with poor general health, and the very old and in patients with infective endocarditits. (Conservative dentistry by Grundy J. B)

This study aims at determining the knowledge, attitude and practice toward root canal treatment of patients visiting university of Nairobi conservative clinic.
SUMMARY

RCT is a specialized branch of dental sciences which deals with the etiology, prevention, diagnosis and treatment of diseases of the pulp. Unfortunately the attitude of majority of the patients is based on the old concepts of tooth extraction rather than preservation of the existing dentition. This is a descriptive cross-sectional study aimed at determining the knowledge, attitude and practice towards RCT of patients visiting UON dental hospital. The sample size is 91 and random sampling method will be used to select the participants. A semi-structured questionnaire will be used. The findings of this study will be used to come up with strategies to improve knowledge, attitude and practice of patients towards RCT.
One dental procedure, which is probably feared by most people is endodontic treatment (ET). It is claimed that some patients would even prefer having a tooth extracted than receiving ET. One study (Rousseau et al. 2002) concluded that this would be an unwise decision as subjects report more pain during extraction than during ET. It is therefore, not remarkable that anticipated pain for ET is commonly overestimated (Rousseau et al. 2002, Watkins et al. 2002). Apparently, some form of negative image surrounds ET. Indeed, a study commissioned by the American Association of Endodontists regarding beliefs and knowledge about ET (Public Communications Inc. 1984) found that respondents who experienced ET were four to five times more likely to describe the procedure as painless, compared with respondents who did not experience ET personally. In addition, Le Claire et al. (1998) found that approximately 96% of patients with a history of previous ET would be willing to have another root canal treatment when necessary. It is remarkable that patients with positive ET experiences apparently have much less impact on the general view on ET than patients who had a negative experience. These results make evident that patients in general have negative beliefs and knowledge about ET.

A study carried out by Jimena ME of U.P. Manila College of Dentistry using Twenty-five (25) teeth of fifteen (15) elderly patients endodontically treated in a private clinic for the span of three (3) years were evaluated in terms of success and failure of treatment. The attitudes of the patients towards endodontics were determined. Also, medical, dental and radiographic records were reviewed. Of the fifteen (15) patients, 53.3% belonged to age group 60 to 69 years old and the other half belonged to the 70 years and above age bracket. Majority were female, married and college graduates. Premolars constituted 40% of the teeth treated. Post, core and PFM crowns were the most common restoration for both anterior and posterior teeth. Success rate of root canal treatment was a high 84%. Patients gave a more positive attitude to the endodontic treatment mentioning relief of pain, appreciation of better food and self-esteem.

A study was carried out by international Endodontic journal to provide subjects with positive information about endodontic treatment (ET) to reduce fear
of pain associated with ET. A large sample was randomly allocated to read one of five informative paragraphs and afterwards asked to complete two questionnaires. The paragraphs consisted of dental information obtained from patient brochures. One (experimental) paragraph consisted of positive information about pain during ET. The results were Subjects who were given the positive information regarding ET indicated they were less fearful of pain associated with ET. Conclusions: The clinical implication of this experiment is that patients should be accurately informed about pain associated with ET. In this way, the patient may be more at ease before and during treatment, decrease avoidance behaviour and make decisions regarding treatment choice, based on common sense rather than fearful expectations.
RESEARCH PROBLEM

PROBLEM STATEMENT

Dental diseases are prevalent worldwide. The problems have been reported to lead to tooth loss. Tooth loss due to dental caries can be prevented by root canal treatment. Majority of the patients present with pain and tooth extraction is carried out. Patients prefer tooth extraction to RCT could be due to poor knowledge which could actually lead to poor attitude.

STUDY JUSTIFICATION

There is inadequate data available on knowledge, attitude and practice towards RCT in the region. The aim of the study is to determine knowledge, attitude and practice towards RCT. The data collected will be used to come up with strategies to educate the community on importance of RCT.

OBJECTIVES

MAIN OBJECTIVES

To establish the knowledge, attitude and practice of patients visiting university of Nairobi Dental hospital towards RCT.

SPECIFIC OBJECTIVES

1. To establish the knowledge of patients attending UON dental hospital towards RCT.

2. To establish the attitude of patients attending UON dental hospital towards RCT.
3. To establish the practice of patients attending UON dental hospital towards RCT.

**HYPOTHESIS**

Patients have inadequate knowledge and a negative attitude which leads to poor practices towards root canal treatment.

**VARIABLES**

**Socio-demographic:**

Age

Gender

Level of education

Occupation

**Independent**

Knowledge of patient towards RCT

Attitude of patient towards RCT

**Dependent**

Practice of patient towards RCT
METHODOLOGY

STUDY AREA

The study will be carried out at UON dental hospital on Arwings Kodhek road opposite Lee funeral home.

STUDY POPULATION

It comprises of all patients attending UON dental hospital for RCT.

SAMPLING METHOD

Random sampling was used

SAMPLE SIZE

\[ N = z^2 \frac{(p)(1-p)}{C^2} \]

where

\( N \) = sample size

\( z = 1.96 \)

\( p \) (prevalence) = 51%

\( C \) = 1-confidence interval

\[ = (1.96)^2 \frac{0.51(1-0.51)}{(0.05)^2} \]
\[ N = 384 \]

For a population below 10,000 is used to calculate sample size

\[ N_f = n \frac{1 + n}{N} \]

Where \( N_f \) = sample size of population less than 10,000

\( N \) = the entire population that can be studied in a given period

\( N \) = sample size from previous equation

\[ N_f = \frac{384}{1 + 384} \]

\[ 120 \]

\[ N_f = 91 \]
DATA COLLECTION, INSTRUMENTS AND TECHNIQUES

DATA COLLECTION PROCEDURE

A semi structured interviewer administered questionnaire will be used. It includes both open ended and closed ended questions to test the respondents on knowledge, attitude and practice of patients attending university of Nairobi dental hospital towards RCT.

DATA ANALYSIS AND PRESENTATION

The data will be entered in a statistical package for social sciences (SPSS) and it will be described in means, percentages, standard deviation and ranges. The chi square test will be used to determine whether there is a relationship between the knowledge the patient has and how it will affect their attitude towards RCT. Data will be presented in form of tables and graphs. Variables will be assessed using Chi square.

INCLUSION CRITERIA

1. All patients attending university of Nairobi dental hospital for RCT
2. All patients who consent to the study
3. Patients above 18yrs of age

EXCLUSION CRITERIA

1. All patients who do not consent to the study.
2. Patients below 18yrs of age.
ETHNICAL CONSIDERATION

1. Proposal will be submitted to Kenyatta National Hospital and University of Nairobi ethics and research standard committee for approval.

2. Permission from relevant authorities will be sought.

3. Purpose of the study, its benefits and risks will be explained to the participants.

4. Each subject meeting the inclusion criteria will

PROBLEMS ANTICIPATED

1. Inadequate funding

2. Limited time of study

PERCEIVED BENEFITS

1. Data from this study will form a bench work information on knowledge, attitude and practice of patients towards RCT.

2. Data will assist policy makers to come up with dental awareness programs.

3. The study is a partial fulfillment of Bachelor in Dental Surgery degree course.
## PROPOSED BUDGET

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REFERENCES


QUESTIONNAIRE

This is a study to establish the knowledge, attitude and practice towards RCT of patients visiting UON dental hospital seen at the conservative clinic. Participation is voluntary and any information filled here will be treated with utmost confidentiality. Please ensure the following questions are answered to the best of your ability.

NAME:
AGE:
GENDER:

Level of education: High school
College
University
Others (please indicate)

1. What is root canal treatment?
   a) Is removal of teeth?
   b) Is filling of teeth
   c) Is removal of the pulp?
   d) I don’t know
   e) None of the above

2. When is root canal treatment done?
   a) Every time the tooth pains
   b) When the tooth is dead
   c) When the pulp of the tooth is infected
d) I don’t know

e) None of the above

3. When the tooth is aching and you visit the dentist you would prefer?

   a) A root canal treatment

   b) An extraction

   c) I don’t know

4. Have you had any root canal treatment before?

   a) Yes

   b) No

5. If yes how many root canal treatment have you undergone?

   a) 1  b) 2  c) 3  d) 4  e) more than 4

6. was the root canal treatment

   a) Comfortable

   b) Uncomfortable

7. What number of visits did you attend during the root canal treatment?

   a) 1  b) 2  c) 3  d) 4  e) more than 4

8. How many visits did it take to complete the root canal treatment?

   a) 1  b) 2-4  c) 3-5  d) more than 5
9. After the root canal treatment what attitude did you develop towards the dentists?
   a) A positive attitude
   b) A negative attitude

10. After undergoing the root canal treatment would you undergo another root canal treatment?
    a) Yes
    b) No

This is the end of the questionnaire thank you for your participation.