

The internship dentists self confidence levels during root canal treatment procedures

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Abstract

Self-confidence level assessment in newly graduated students is very important to evaluate the undergraduate endodontic courses.

Objective: The aim of this study was to get information from internship dentists in Alfarabi dental college related to their confidence levels during root canal treatment procedures.

Methods: Anonymous survey forms were sent to 150 internship dentists in Alfarabi dental college. They were asked to indicate their self-confidence level by Lickert's scoring system ranging between 1 and 5.

Results: Removal of broken instruments was determined as a procedure that was not experienced by 25.2% of the dentists. (44.6%) of dentists felt confident about taking radiographs during root canal treatment. 1.9 % of them reported as having very little confidence during retreatment. The irrigation was a procedure in which they felt very confident about (59.2%).

Conclusion: The non-practiced endodontic procedure was clearly related to levels of self confidence among internship dentists; this means; a lot of studies in dental school should be performed to determine the weakness points or gaps in undergraduate endodontic courses.

Keywords: Root Canal Treatment; Endodontics; Self-Confidence; Internship Students

1. Introduction

Dentistry is one of the practical professions that require a lot of knowledge, training, and self-confidence to perform the dental procedure correctly. In truth, some of the dental procedures are difficult and this will have effects on newly graduated internship dentists in a different way from a psychological aspect. Root canal treatment is one of the most difficult procedures in dental office, especially when the newly graduated dentist works independently. The difficulty of this procedure originates from the need to deal with an ached patient ,sometimes difficult to get perfect anesthesia, complex root canal anatomy, and finally to perform the steps of root canal treatment with its own complication. So it is very important to provide those dentists with useful knowledge, improve their skills, to be able to depend on themselves (Martins RC et al. 2012).

Post-graduation, dentist should be able to make a correct diagnosis as regards to endodontic cases and formulate a true treatment plan to carry out a qualified root canal treatment (Tanalp J et al.2013). The aim of this survey was to collect information from internship dentists registered in Alfarabi dental college related to their confidence levels during root canal treatment.

Materials and methods:

150 survey forms were distributed to the internship dentists and they were not be obliged for completing or returning the survey forms. The questionnaires included questions on previous root canal treatment procedures as well as questions about themselves-confidence levels regarding various steps of these procedures. Self-confidence level was indicated by Lickert's scoring system ranging between 1 and 5, 1 corresponding to very confident and 5 corresponding to very little confidence. They were also asked to indicate the types of teeth in which they felt difficulty.

Descriptive statistical methods were used to evaluate the data.

The questionnaire distributed in this study was used in study of Tuba Ayhan et al conducted in Istanbul (Tuba Ayhan et al.2013).

2. Result

Between 150 dentists who were asked to fill the survey; 103 dentists (68.7 %) returned the forms. Table 1 and Table 2 including the answers given by the internship dentists.

25.2% of the dentists reported that they had never removed broken instruments from the root canal. The procedure in which dentists showed the highest level of confidence was the placement of rubber dam for which 62.1% of them scored as very confident. In using rotary instruments in root canal treatment only 1% reported the level of very little confidence.

Table 1: Confidence Percentages Related to the Steps of Endodontic Treatment

	n	%
Achievement of anesthesia		
Very confident	62	60.2
Confident	37	35.9
Neutral	0	0
Little confidence	4	3.9
Placement of rubber dam		
Very confident	64	62.1
Confident	32	31.1
Neutral	3	2.9
Little confidence	2	1.9
Very little confidence	2	1.9
Finding root canal orifices		
Very confident	19	18.4%
Confident	54	52.4%
Neutral	22	21.4%
Little confidence	4	3.9%
Very little confidence	4	3.9%
Using rotary instruments		
Very confident	21	20.4
Confident	46	44.6
Neutral	27	26.2
Little confidence	8	7.8
Very little confidence	1	1
Taking periapical radiograph		
Very confident	36	35
Confident	46	44.6
Neutral	17	16.5
Little confidence	2	1.9
Very little confidence	2	1.9
Removing broken instruments from root canals		
Very confident	7	6.8
Confident	17	16.5
Neutral	34	33
Little confidence	14	13.6
Very little confidence	5	4.9
No experience	26	25.2
Retreatment		
Very confident	22	21.4
Confident	46	44.7
Neutral	18	17.4
Little confidence	8	7.8
Very little confidence	2	1.9
No experience	7	6.8
Obturation of root canals		
Very confident	35	34
Confident	51	49.5
Neutral	13	12.5
Little confidence	1	1
Very little confidence	3	2.9
Irrigation of root canals		
Very confident	61	59.2
Confident	42	40.8
Restoration of endodontically treated teeth		
Very confident	41	39.8
Confident	53	51.5
Neutral	9	8.7

Table 2: Confidence Percentages Related to the Steps of Endodontic Treatment

	N	%
Achievement of anesthesia		
Upper Molar	66	64.1
Lower Molar	37	35.9
Placement of rubber dam		
Upper Molar	31	30.1
Lower Molar	72	69.9
Finding root canal orifices		
Upper premolar	27	26.2
Lower premolar	40	38.8
Upper molar	5	4.9
Lower molar	31	30.1
Using rotary instruments		
Upper anteriors	47	45.6
Lower anteriors	8	7.8
Upper premolars	9	8.7
Lower premolars	18	17.5
Upper molars	2	1.9
Lower molars	19	18.4
Taking periapical radiograph		

Upper anteriors	61	59.2
Lower anteriors	7	6.8
Upper premolars	6	5.8
Lower premolars	7	6.8
Upper molars	5	4.9
Lower molars	17	16.5
Removing broken instruments from root canals		
Upper anteriors	34	33
Lower anteriors	16	15.5
Upper premolars	3	2.9
Lower premolars	12	11.7
Upper molars	4	3.9
Lower molars	8	7.8
Retreatment		
Upper anteriors	26	25
Lower anteriors	20	19.5
Upper premolars	14	13.6
Lower premolars	18	17.5
Upper molars	7	6.8
Lower molars	11	10.7
Obturation of root canals		
Upper anteriors	39	37.9
Lower anteriors	35	34
Upper premolars	7	6.8
Lower premolars	11	10.7
Upper molars	5	4.9
Lower molars	6	5.7
Irrigation of root canals		
Upper anteriors	30	29.2
Lower anteriors	21	20.4
Upper premolars	14	13.6
Lower premolars	17	16.4
Upper molars	7	6.8
Lower molars	14	13.6
Restoration of endodontically treated teeth		
Upper anteriors	29	28.2
Lower anteriors	20	19.4
Upper premolars	14	13.6
Lower premolars	17	16.5
Upper molars	10	9.7
Lower molars	13	12.6

3. Discussion

The aim of this article was to determine the obstacles that internship dentists encountered during root canal treatment procedures. Returned assessment and feedback are very useful to improve the curriculum, solve the recent mistakes, and missing parts (Mirza MB. 2015).

The questionnaire response rate of 68.7 % is high enough to provide meaningful data. Variability exists in the literature related to return rates of questionnaires ranging between 47 to 100 % (Martins RC et al.2012, Honey J et al .2011, Davey J et al.2015).

In this study, the questionnaires were sent to internship dentists by email and other media. The dentists were asked 10 questions as seen at the tables on a difficulty scale of 1-5, and they also selected the group of teeth from the list.

During interpretation of the results of the study, clearly molars are the most difficult teeth group for all root canal treatment procedures. This is an expected.

Result because molar endodontic treatment was a complex procedure in which the level of confidence is very low. (Honey J et al .2011, Holmes DC et al .1997, Patel J et al .2006, Bartlett DW et al.2001) Root canal treatment of upper molars is difficult because of their location, which does not allow to see directly and complex anatomy (Tanalp J et al.2013).

Upper molars were also determined to be difficult teeth for procedures such as finding canal orifice, retreatment, using rubber dam, in this study. The mandibular molar was determined to be difficult to be anesthetized comparing with maxillary molars. Some authors reported that failure in IANB is observed with a percentage ranging from 44% to 81% in cases irreversible pulpitis. (Cohen HP et al.1993, Claffey E et al .2004, Bigby J et al.2007).

The internship dentists were found to be very confident in irrigation and confident in filling root canals, using rotary systems and restoration after root canal treatment.

Broken instruments retrieval from root canal is one of the difficult procedures in root canal treatment. In the recent study, (26%) of internship dentists did not perform such a treatment because retrievals of broken instruments are generally referred to the specialists of endodontics of our college.

This study can be performed in all dental schools in the kingdom of Saudi Arabia to make comparisons and put effective plans to improve of the clinical content and curriculum. (Henzi D et al .2006, Gatley S et al.2009).

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