



## A Comparison of Fear Levels of Endodontic Treatment in Iraqi Population

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### ABSTRACT

**Introduction:** Dental fear is defined as the patient's specific reaction towards stress related to dental treatment in which the stimulus is unknown. **Aim of the study:** To analyze the causative factor of fear during endodontic treatment. **Materials and methods:** A simple random sampling technique was used for the study and a sample size of 141 patients with an age group of 12-65 years, attending outpatient the Department of Operative Dentistry. The survey done was based on 5 questionnaires before and during endodontic treatment. **Results:** The percentage of the females was 55% while the males were 45% of the patients attending dental office, 57% of the patients were found not afraid of attending dental office, 62% of the patients were found afraid of seeing the anesthetic needle, 59% of the patients were feeling pain during removal of pulp, 55% of the patients were found not afraid of sensation of file introduced in the canal, and 57% of the patients experienced unpleasant taste of endodontic materials. **Conclusion:** The present study concluded that seeing the anesthetic needle, feeling pain during removing the pulp and experiencing the unpleasant taste of endodontic materials were the most causative factors respectively for the fear of endodontic treatment.

**Keywords:** Fear from endodontic treatment, Fear from seeing the anesthetic needle, Anxiety before and during dental treatment

### INTRODUCTION

Dental fear and anxiety are defined as a patient's specific reaction towards stress related to dental treatment in which the stimulus is unknown [1,2]. Dental fear is a reaction to unknown danger because it occurs in people who already had a number of negative dental experiences and who expect the bad experience to be repeated. The most intense form of the fear of the dentist is dental phobia [3,4]. Pain which is present during dental procedures is among other things related to the emotional state of the patients. Other factors that influence the experience of pain are age, gender, oral health, the frequency of dental visits, socio-economic status and the dentist's way of dealing with the patients [5]. Despite the progress in the way of conducting dental procedures and methods of pain control, most patients described a visit to the dentist as a painful and unpleasant experience [6,7]. Dental fear appears to vary according to the type of treatment. Periodontal or endodontic treatment has been shown to cause a higher level of fear than restorative or prophylactic treatment [8,9]. Anticipation and experience of root canal associated pain is a major source of fear for the patient and a very important concern of dentists. Pretreatment, treatment and post-treatment pain is anticipated experienced remembered and shared by patients. The pain of endodontic origin is widely feared by the public [13,14]. Root canal procedures are commonly believed to be the most painful dental treatment but only 17% of subjects experiencing root canal treatment described it as their most painful dental experience [15]. Accurate knowledge of pain prevalence and severity associated with pulpal or peri-radicular disease and its diminution by root canal treatment has the potential to change the attitudes of the public, dentists and other healthcare professionals thus, allowing more natural teeth to be retained. Dentists could be better guided by the best evidence in making anesthesia and pain management treatment decisions [16,17].

### MATERIALS AND METHODS

A simple random sampling technique was used for the study and a sample size of 141 patients aged 12-65 years attending outpatients the Department of Operative Dentistry. The percentage of females was 55% while the percentage of males was 45%. The survey done was based on 5 questionnaires. The first questionnaire was "are you having fear

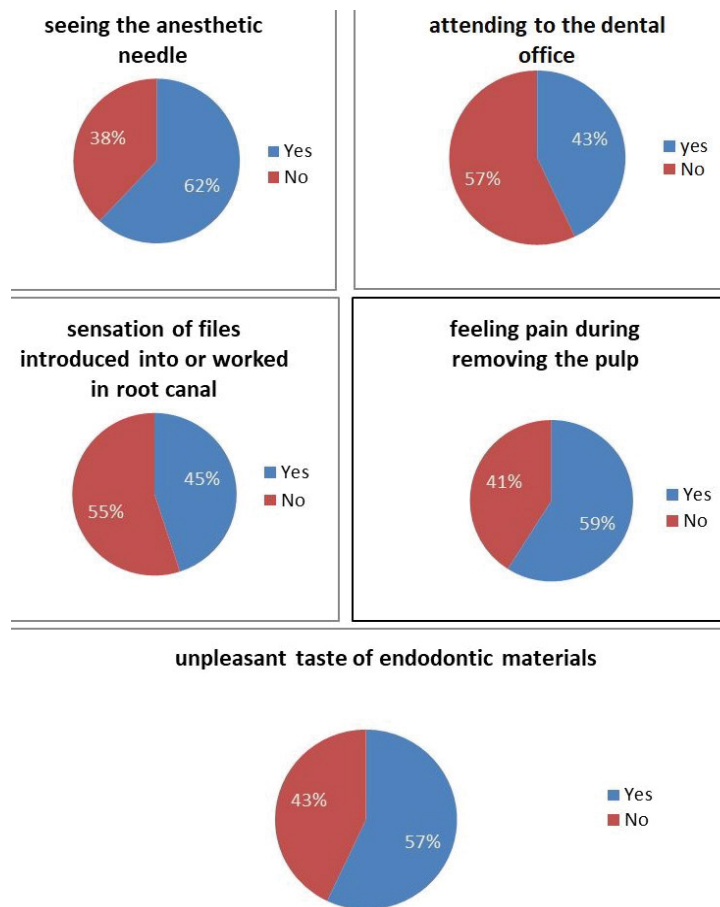
of attending dental office?” The second questionnaire was “are you having fear of seeing the anesthetic needle?” The third questionnaire was “are you having fear of feeling pain during removing the pulp?” The fourth questionnaire was “are you having fear of sensation of files introduced into or worked in a root canal?” The fifth questionnaire was “are you having fear of the unpleasant taste of endodontic materials?” Data were presented using descriptive statistic.

**RESULTS**

Total 57% of the patients were found not afraid of attending the dental office while 43% of the patients were afraid. Around 62% of the patients were found to be afraid of seeing the anesthetic needle while 38% of the patients were not. Total 59% of the patients were found to be afraid of feeling pain during removal of the pulp while 41% of the patients were not. About 55% of the patients were found not afraid of the sensation of file introduced in the canal while 45% of the patients were found afraid. Total 57% of the patients were found to be afraid of the unpleasant taste of endodontic materials while 43% of the patients were not afraid (Table 1 and Figure 1).

**Table 1 The percentage of fear of endodontic treatment**

Variables	Yes	No
Are you having fear of attending dental office?	43%	57%
Are you having fear of seeing the anesthetic needle?	62%	38%
Are you having fear of feeling pain during the removal of the pulp?	59%	41%
Are you having fear of sensation of file introduced into or worked in a root canal?	45%	55%
Are having fear of unpleasant taste of endodontic materials?	57%	43%



**Figure 1 Percentage of fear of endodontic treatment**

**DISCUSSION**

As dental professionals, we know how people feel about root canals, most of these feelings are based on an unfounded

preconception about the procedure. Our patients often tell us that they are afraid of getting a root canal because of the pain they expect to experience and they also believe that recovery times for a root canal are lengthy, neither of these is true: today, a root canal is about as 'intense' as filling a cavity. Furthermore, your root canal recovery time is relatively short and is characterized by tenderness around the tooth that was treated (this can be treated with over the counter pain relievers). Psychological stress peaks early in an RCT appointment around the time of local anesthesia delivery and initial instrumentation [10,11]. In our study, 62% of the patients were afraid of seeing the anesthetic needle and agrees with Ali, et al., [12]. Dental patients have become increasingly less tolerant of any dentist or dental procedure that causes pain. In our study, 59% of the patients were afraid of pain during removal of the pulp so offering adequate local anesthesia is essential for successful patient management and represents a practice-building strategy that increases both patient loyalty and treatment acceptance. Endodontic pain management must encompass all aspects of treatment preoperative pain control includes accurate diagnosis and anxiety reduction; intra-operative pain control revolves around effective local anesthetic and operative techniques and post-operative pain management can involve a variety of pharmacological agents [18]. The root canal treatment in teeth with irreversible pulpitis was more painful than that in teeth with normal or necrotic pulp [19]. In our study, 57% of the patients are afraid of the unpleasant taste of endodontic treatment to decrease that feeling we can use the rubber dam. Rubber dam protects the patient's oropharynx from the possible aspiration or swallowing of the instruments, medicaments, irrigating solution and tooth material debris [20]. So that rubber dam reducing flooding of the oral cavity with fluid especially those with unpleasant taste "i.e sodium hypochlorite (NaOCl)" [20]. Irrigation with sodium hypochlorite should be accompanied by isolation of the operating field with a well-fitting rubber dam.

#### CONCLUSION

In order to minimize patient's fear from endodontic treatment, the management must encompass all aspects of treatment preoperative pain control which includes accurate diagnosis and anxiety reduction. Using sufficient anesthetic solution to control the pain. And always use rubber dam during endodontic treatment to minimize the unpleasant taste because rubber dam ensures that it maintains a tight seal against the tooth and gingiva and endodontic medicament.

#### DECLARATIONS

##### Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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