

Content available at: <https://www.ipinnovative.com/open-access-journals>

IP Annals of Prosthodontics and Restorative Dentistry

Journal homepage: <https://www.aprd.in/>

Original Research Article

Evaluation of the anxiety among the undergraduates during endodontic treatment

Athikesavan Jayasenthil^{1,*}, Anjana Rajendran¹, Sree Vidya G¹

¹Dept. of Conservative Dentistry and Endodontics, Priyadarshini Dental College and Hospital, Pandur, Tamil Nadu, India



ARTICLE INFO

Article history:

Received 14-03-2023

Accepted 21-04-2023

Available online 15-06-2023

Keywords:

Stress

Endodontic treatment

Anxiety

ABSTRACT

Aim: To evaluate the anxiety level among the undergraduate dental students during and after endodontic treatment.

Materials and Methods: In this study questionnaire was prepared with 15 questions based on stress level, anxiety, and work load among dental undergraduates during endodontic treatment. The questionnaire were circulated and filled by participants in a self-report method.

Results: 70% of students reported that canal location is the reason for the fear of endodontic treatment, but their anxiety starts before the treatment begins. Around 60% of students have moderate level of anxiety before starting the treatment and 70% manifest sweating during the endodontic treatment. Access cavity preparation of the posterior teeth and oral fluid control were considered as the factors to feel stressed during the procedure among 51% and 29% of the undergraduates respectively.

Conclusion: According to this study, higher level of anxiety were seen among the undergraduates and therefore, the stress control must be focused before starting the procedure, access cavity preparation and while handling endodontic instruments.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

Stress is a reaction to adapt the individuals to factors and conditions that cause mental and physical pressure.¹ Anxiety is defined as the "fear of unknown".² A specific phobia is regarded as the frequently encountered anxiety disorders. Dentistry is a stressful career. This stress associated with dentistry is due to the nature of clinical work, working environment and personality traits of individuals who choose this career as well as the small area to work with. Of all dental treatments, endodontic treatments often cause occupational stress among dentists, dental students, and even endodontists.³

There are several reasons for occupational stress and anxiety in endodontic treatments including lack of a direct vision to the working area, as well anatomical variability

and complexity of the root canal system.⁴ Stressful conditions and anxiety can negatively affect the occupation and wellbeing of dentists. One important group of people is dental students, who are future frontline health care providers.⁵ It is necessary for a dental student to learn about the techniques that can help them to overcome their own anxiety.⁴ A decrease in their anxiety levels would make them confident practitioners, who could in turn treat their patients well.^{6,7}

A questionnaire study was conducted among undergraduate internship students to evaluation the stress and anxiety during the endodontic treatment.

2. Materials and Methods

The study was conducted among undergraduate dental students of three different colleges. Sample size was calculated to be 100 numbers and a questionnaire consisting

* Corresponding author.

E-mail address: ajse2000@gmail.com (A. Jayasenthil).

of 15 questions were prepared. The questions were based on the procedures of root canal treatment. To assess the stress and anxiety level, workload and loss of control during endodontic treatment, a questionnaire was circulated among undergraduate interns and then collected. It was ensured that the questionnaire was understandable for the dental students and had optimal internal validity.

3. Result

This study was to assess the stress and difficulty experienced by the dental students during endodontic treatment. The result was represented using bar chart (Figure 1). 70% of students reported that canal location is the reason for the fear of endodontic treatment, but their anxiety starts before the treatment begins. Around 60% of students have moderate level of anxiety before starting the treatment and 70% manifest sweating during the process of the endodontic treatment.

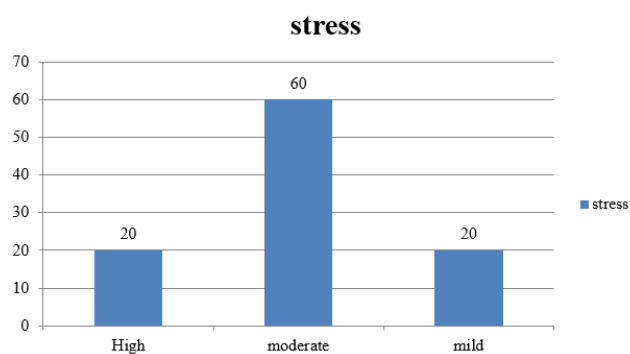


Fig. 1: Level of stress experienced by dental students during endodontic treatment

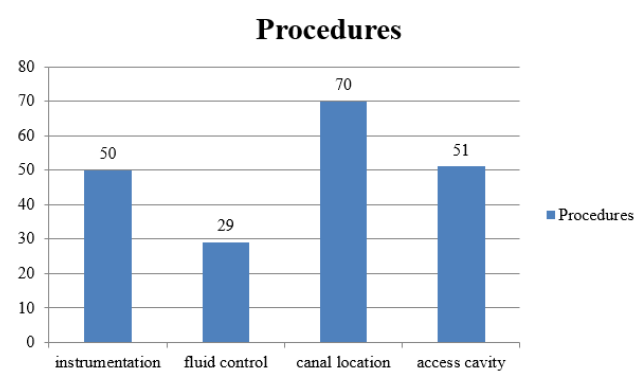


Fig. 2: Difficulties experienced by dental students during endodontic treatment

Access cavity preparation of the posterior teeth and oral fluid control were considered as the factors to feel stressed during the procedure among 51% and 29% of the undergraduates respectively.(Figure 2) According the

result the following factors cleaning and shaping of the canal is the time consuming procedure and 50% of students occasionally experience difficulty in handling endodontic files. On an average of 46% -47% of the dental students get anxious about post-operative pain and RCT failure after the treatment.

4. Discussion

In the present study, generally anxiety and stress during endodontic treatment is common among undergraduate dental students. This primarily refers to difficulty in canal location, more during access cavity preparation of posterior teeth, although the anxiety and stress starts before the treatment.

According to Saqib Ali, et al in 2015 revealed that dental students can suffer from phobia related to different dental procedures, with the limitations which included a small sample size and date a represent from only one dental college.⁸ M. Zare Jahromi, et al in 2012 reported that stress among the undergraduate dental students was more than those of professionals and postgraduate dental students.⁹

SH. Emamikhah Abarghooii, et al in 2016 revealed that the coping strategies had a direct correlation with the level of stress among the dental students, such that effective coping strategies decrease the stress level of students. Stress decreases the efficiency and efficacy of work and increases the risk of procedural errors.¹⁰ Anxiety negatively affects the wellbeing of the dentist.

Anxiety and stress may be due to lack of knowledge of the anatomy of root canal and improper instrumentation skills. To overcome this, proper guidance and supervision should be done by endodontists. Well-designed access preparation is essential for good endodontic results, the clinician should know about the guidelines for access cavity preparation, thus it will eradicate the fear before starting the endodontic treatment and canal location.¹¹

Frequent practice in extracted tooth will help to overcome the fear of access cavity preparation and canal location. As per the results, time consuming is also a factors to be considered for stress during endodontic treatment. On average of 70 students reported that shaping and cleaning the canal during treatment makes them to feel stressed and patient handling is also challenging during procedure (i.e.) patient cooperation, oral fluid control can also make to get fear. Informing about the procedures to patients prior to the treatment will and proper instrumentation decreases the risk of procedural errors. .make patient relax and cooperative. Proper isolation will provide clean operative area to work

5. Conclusion

According to this study, higher level of anxiety were seen among the undergraduates and therefore, the stress control must be focused before starting the procedure, access cavity

preparation and while handling endodontic instruments. For dental undergraduate students, stress controlling training and techniques should be recommended through dental workshop.

6. Conflict of Interest

There are no conflicts of interest in this article.


7. Source of Funding

None.

References

1. Wilson RF, Coward PY, Capewell J, Laidler TL, Rigby AC, Shaw TJ, et al. Perceived sources of occupational stress in general dental practitioners. *Br Dent J*. 1998;184(10):499–502. doi:10.1038/sj.bdj.4809674.
2. Canacki CF, Canacki V. Pain experienced by patients undergoing different periodontal therapies. *J Am Dent Assoc*. 2007;138(12):1563–73.
3. Hilbert K, Evens R, Maslowski NI, Wittchen HU, Ulrike L. Fear processing in dental phobia during crossmodal symptom provocation: an fMRI study. *Biomed Res Int*. 2014;p. 196353. doi:10.1155/2014/196353.
4. Gorter RC, Eijkman MA, te Brake J. Job stress and health in dentists. 2001;108(2):54–8.
5. Rada RE, Johnson-Leong C. Stress, burn out anxiety and depression among dentist. *J Am Dent Assoc*. 2004;135(6):788–94.
6. Zhang Q, Lan YJ, Chen HM. Association of occupational stress with quality of working life. *Sichuan Da Xue Xue Bao Yi Xue Ban*. 2011;42(4):540–3.
7. Al-Omari WM, Al-Omiri MK. Dental anxiety among university students and its correlation with their field of study. *J Appl Oral Sci*. 2009;17(3):199–203. doi:10.1590/S1678-77572009000300013.
8. Ali S, Farooq I, Khan S, Moheet IA, Al-Jandan BA, Al-Khalifa K, et al. Self-reported anxiety of dental procedures among dental students and its relation to gender and level of education. *J Taibah Univ Med Sci*. 2015;138(4):1–5. doi:10.1016/j.jtumed.2015.06.002.
9. Jahromi M, Golparvar M, Borounjeni P, Kheir MK. Comparison of Stress between Endodontists, Postgraduate and Undergraduate Students During Endodontic Therapy. *J Islamic Dent Assoc IRAN (JIDAI)*. 2012;24(4):230–6.
10. Abarghooii SE, Golparvar M, Jahromi MZ. Relationship between Their Coping Strategies. *J Islamic Dent Assoc IRAN*. 2016;28(2):52–6.
11. Jahromi MZ, Golparvar M, Borounjeni PM, Kheir MK. Comparison of Stress Between Endodontists, Postgraduate and Undergraduate Students During Endodontic Therapy. *J Iran Dent Assoc*. 2013;25(1):21–7.

Author biography

Athikesavan Jayasenthil, Professor and Head  <https://orcid.org/0000-0002-8772-6802>

Anjana Rajendran, Reader

Sree Vidya G, Senior Lecturer

Cite this article: Jayasenthil A, Rajendran A, Sree Vidya G. Evaluation of the anxiety among the undergraduates during endodontic treatment. *IP Ann Prosthodont Restor Dent* 2023;9(2):84–86.