

ENDODONTICS: Dental Undergraduate Students' Perception of the Speciality- Original Research

ABSTRACT

Aim:

The aim of this study was to evaluate the dental undergraduate students' perception of the dental speciality Endodontics

Material and Methods:

Multiple-choice questionnaire was distributed to 82 final year dental undergraduate students and 88 interns. The analysis of data was performed using methods of descriptive analysis.

Results: 79.27% of the final year students and 79.55% of interns preferred to pursue Endodontics as a future speciality course. An increase in the understanding of the speciality overall was observed among the interns.

Conclusion: The undergraduate dental students were reasonably informed the speciality Endodontics.

Keywords: knowledge, perception, dental education, Endodontics

1. INTRODUCTION

The choice of speciality training in Dentistry continues to be a subject of interest. Several studies have explored the various reasons for choice of entering the dental profession, working with patients, desire to help people, commitment to personal and financial gains, self-employment, autonomy being some of the reasons. Current literature pertaining to the students' perceptions of speciality programmes is limited.

Endodontics is specialized branch in the field of Dentistry dealing with the diagnosis, treatment and prevention of diseases of the dental pulp and surrounding tissues. Currently this branch along with Conservative Dentistry forms a part of the curriculum for undergraduate students in India and the Dental Council of India offers a three year postgraduate programme. Endodontic therapy has evolved considerably over the years. Research and technological advancements such as ever evolving rotary files, regenerative materials, magnification aids has brought about a change in the understanding and perception of this speciality field. ⁽¹⁻⁹⁾

The aim of this study was to study the perception of the dental undergraduate students regarding the speciality Endodontics.

2. MATERIAL AND METHODS

A structured questionnaire study survey form consisting of 15 multiple-choice questions was distributed to 82 fourth year undergraduate dental students and 88 interns of A. B. Shetty Memorial Institute of Dental Sciences, Nitte (Deemed to be University) and their opinion regarding Endodontics as a field of postgraduate speciality was analyzed. The survey was created by the first author subsequent to reviewing the literature available. (Table 1)

3. RESULTS AND DISCUSSION

Table 1: The response rate was 100 percent.

No.	Questions	Answer choices	Respondent choices	
			Year of study	
			IV year 82	Interns 88
01	Have you ever been treated by an Endodontist?	<ul style="list-style-type: none"> • Yes • No 	5 (06.09%) 77 (93.91%)	2 (02.27%) 86 (97.73%)
02	Have you been trained in preclinical Conservative Dentistry and Endodontics?	<ul style="list-style-type: none"> • Yes • No 	82 (100%) 0	88 (100%) 0
03	Do you find Endodontics an interesting subject to learn?	<ul style="list-style-type: none"> • Yes • No 	68 (82.93%) 14 (17.07%)	83 (94.32%) 05 (05.68%)
04	Do you think preclinical training enables you to confidently deal with patients?	<ul style="list-style-type: none"> • Yes • No 	52 (63.41%) 30 (36.59%)	77 (87.50%) 11 (12.50%)
05	With undergraduate training do you feel confident to diagnose pulpal and periapical lesion?	<ul style="list-style-type: none"> • Yes • No 	47 (57.31%) 35 (42.69%)	69 (78.41%) 19 (21.86%)
06	Would you like to pursue Endodontics as a future speciality?	<ul style="list-style-type: none"> • Yes • No 	65 (79.27%) 17 (20.73%)	70 (79.55%) 18 (20.45%)
07	What according to you is the most common speciality practiced in India?	<ul style="list-style-type: none"> • Conservative Dentistry and Endodontics • Orthodontics • Prosthodontics • Periodontics 	54 (65.85%) 09 (10.96%) 15 (18.29%) 04 (04.90%)	61 (69.32%) 10 (11.36%) 15 (17.05%) 02 (02.27%)
08	What is the most concerning factor during the procedure of Endodontic treatment?	<ul style="list-style-type: none"> • Pain • High cost • Fear 	16 (19.51%) 61 (74.39%) 05 (%)	18 (20.45%) 67 (76.14%) 03 (%)
09	Do you think Conservative Dentistry and Endodontics is the most commercial speciality in Dentistry?	<ul style="list-style-type: none"> • Yes • No 	59 (71.95%) 23 (28.05%)	73 (82.95%) 15 (17.05%)
10	Why do you think Conservative Dentistry and Endodontics is considered superior to other fields of speciality?	<ul style="list-style-type: none"> • Monetary gains • Skill oriented and Technique sensitive approach • 98% cases are mostly treated by an Endodontist 	51 (62.20%) 06 (07.32%) 25 (30.48%)	30 (34.09%) 12 (13.64%) 46 (52.27%)
11	Which aspect of Conservative Dentistry and Endodontics is the most challenging according to you?	<ul style="list-style-type: none"> • Case diagnosing and radiographic imaging • Pain management • Isolation 	43 (52.44%) 28 (34.15%) 11 (13.41%)	50 (56.19%) 19 (21.59%) 19 (22.22%)
12	Why would you choose Conservative Dentistry and Endodontics as a specialty?	<ul style="list-style-type: none"> • Career interest • High patient inflow and monetary gain • Parents are dentists 	38 (46.34%) 44 (53.66%) 0	45 (51.14%) 43 (48.86%) 0
13	Which subbranch of this specialty are you most interested in?	<ul style="list-style-type: none"> • Aesthetics • Endodontics • Microsurgery 	59 (71.95%) 21 (25.61%) 02 (02.44%)	41 (46.59%) 46 (52.27%) 01 (01.14%)

14	Who would you select for your endodontic treatment?	<ul style="list-style-type: none"> • Endodontist • A general dentist 	82 (100%) 0	88 (100%) 0
15	Are you aware of the infection control protocol practiced in conservative dentistry and endodontics?	<ul style="list-style-type: none"> • Yes • No 	75 (91.46%) 07 (08.64%)	84 (95.45%) 04 (04.55%)

The general objective of this study was to assess the perception of undergraduate students regarding the speciality Endodontics. An increase in interest in learning the subject and confidence to diagnose pulpal and periapical lesion was seen in interns which may be attributed to increased exposure to the speciality during their compulsory rotary internship likewise an increase in understanding of the impact of preclinical training on clinical practice was observed. Students undergo preclinical Conservative Dentistry training in their second year of study whereas Endodontic preclinical exposure is gained in the 4th year of study.

Decision pertaining to pursuing further studies after obtaining BDS degree or entering workforce is quite tough and of concern for the students. The distribution of the respondents according to the most preferred subbranch of the speciality was aesthetics followed by endodontics and microsurgery for the 4th year students whereas it was endodontics closely followed by aesthetics for the interns. Endodontics was the most commonly practiced speciality as per the respondents of both year of study followed by Prosthodontics and Orthodontics. 79.27% and 79.55% of 4th year students and interns respectively responded that they would prefer to pursue Endodontics in their further studies. Second year curriculum offers students training in the simulation or preclinical laboratory, fourth year curriculum provides students with clinical hands-on experience and training in the clinical patient care and in the compulsory internship programme the students have opportunity without classroom teaching under the supervision of faculty members closely with the patients. The interns gain more exposure hence capable to take more apt decisions. ⁽¹⁰⁾

Specialization in the field of Dentistry is rewarding and various studies have reported that dental specialists earn a higher income compared to general dentists. The decision to choose dental speciality study as per the final year students mainly due to the high patient inflow and monetary gains whereas the interns responded as an interest in career. As per this study it was seen that the students responded that monetary gain is a main factor as to their choice of this speciality followed by career interest. Some studies have elaborated that students pursue speciality training when educational debt was not a concern whereas in some debt was reported to have very little effect on career choices. The varied responses in different studies may be dependent on the geographic location. ⁽²⁻¹²⁾

The present study can be further elaborated by inclusion of various other parameters such as gender, financial status and increase in sample size.

4. CONCLUSION

A considerable improvement of knowledge and awareness of conservative and endodontic treatment has been observed among final years and interns. The pain was the most important concern associated with the root canal treatment. There has been a need to reduce the treatment duration by shifting to the rotary endodontics and single visit endodontic treatment amongst general dental practitioners.

REFERENCES

1. Al-Dlaigan, Y.H., AlBarakati, S.F., Al-Habeeb, F., Al-Hulaily, M., 2012. Career characteristics and postgraduate education of female dentist graduates of the College of Dentistry at King Saud University, Saudi Arabia. *Saudi Dent. J.* 24, 29–34.
2. Baharvand, M., Moghaddam, E.J., Pouretamad, H., Alavi, K., 2011. Attitudes of Iranian dental students toward their future careers: an exploratory study. *J. Dent. Educ.* 75, 1489–1495.
3. Cleland, J.A., Johnston, P.W., Anthony, M., Khan, N., Scott, N.W., 2014. A survey of factors influencing career preference in newentrant and exiting medical students from four UK medical schools. *BMC Med. Educ.* 14, 151.
4. Dhima, M., Petropoulos, V.C., Han, R.K., Kinnunen, T., Wright, R. F., 2012. Dental students' perceptions of dental specialties and factors influencing speciality and career choices. *J. Dent. Educ.* 76, 562–573.
5. Gallagher, J.E., Patel, R., Donaldson, N., Wilson, N.H., 2007. The emerging dental workforce: why dentistry? A quantitative study of final year dental students' views on their professional career. *BMC Oral Health* 7, 7.
6. Halawany, H.S., 2014. Career motivations, perceptions of the future of dentistry and preferred dental specialties among saudi dental students. *Open Dent. J.* 8, 129–135.
7. Khami, M.R., Murtomaa, H., Jafarian, M., Vehkalahti, M.M., Virtanen, J.I., 2008. Study motives and career choices of Iranian dental students. *Med. Princ. Pract.* 17, 221–226.
8. Saeed, S., Jimenez, M., Howell, H., Karimbux, N., Sukotjo, C., 2008. Which factors influence students' selection of advanced graduate programs? One institution's experience. *J. Dent. Educ.* 72, 688–697.
9. Davey J, Bryant ST, Dummer PMH. The confidence of undergraduate dental students when performing root canal treatment and their perception of the quality of endodontic education. *Eur J Dent Educ.* 19 (2015) 229-234.
10. Kazi FM, Asgar S Ahmed SA. Attitudes of final year dental students towards postgraduate specialization. *JBUMDS* 2018; 8(4):245-249.
11. Kfoury M, Moyses ST, Gabardo MC, Moyses SJ. Gender differences in dental students' professional expectations and attitudes: a qualitative study. *British Dental Journal* 2017; 2223:441-45.
12. Grytten J. Payment systems and incentives in dentistry. *Community Dent Oral Epidemiol* 2017;45:1-11.