

# Satisfaction levels among pedodontic postgraduates for postgraduates program - a review

V. Padmaharish<sup>1</sup>, Deepa Gurunathan<sup>2\*</sup>, A. C. Kanthaswamy<sup>3</sup>

## ABSTRACT

Pediatric dentistry has emerged as one of the most dynamic and diverse profession over the years. Pedodontic specialty education programs are emerging as a highly promising option among the graduates in dentistry due to the wide gamut of subjects covered in the same. Pediatric dentists enjoy a wealth of getting their hands on almost everything as far as clinical practice is concerned. Little information exists, however, on the extent to which they are trained appropriately for such broad clinical skills. There is always a direct relationship between the interest in learning and the subsequent performance. Literature shows that the students who enjoy their experience of school perform better academically. Hence, realizing the importance of personal satisfaction levels, interests and their potential outcome, the present study aims to probe the choice factors, program expectations, and future aspirations of the pedodontic postgraduates. Thus, by assessing the choice factors and program expectations of the students, this study will help the PG program to be bettered in such a way that it offers increased satisfaction among students who aspire it.

**KEY WORDS:** Health, Pedodontists, Postgraduate, Satisfaction levels, Specialty education

## INTRODUCTION

In recent decades, pediatric dentistry has emerged as one of the most dynamic and diverse profession. In developing countries, the need for pediatric oral health care is increasing. Each year, published research helps to reshape trends, provide optimal patient care, and educates the practitioner about oral health and disease as it relates to the pediatric or special health care needs of the patient.<sup>[1]</sup> The above-mentioned changes are, however, not as evidently seen in the academic or clinical setup as they should ideally be. In a survey in 1967 by Bennett and coworkers, pedodontists indicated “too little” instruction during their training in orthodontics, dentistry for the handicapped, general anesthesia, premedication, research experience, treatment planning, and patient education.<sup>[2]</sup> Such a scenario is expected to be more pronounced in a developing nation like India where

pedodontics as a specialty for undergraduates was started in 1978, and the Indian Society of Pedodontics and Preventive Dentistry got its affiliation from International Academy for Dentistry for Children in 1982. These are mainly due to the lack of adequate resources and accessibility in our country. Pedodontic specialty education programs are emerging as a highly promising option among the graduates in dentistry due to the wide gamut of subjects covered in the same.<sup>[3]</sup> Pediatric dentists enjoy a wealth of getting their hands on almost everything as far as clinical practice is concerned. Little information exists, however, on the extent to which they are trained appropriately for such broad clinical skills. It is believed that program characteristics which were important to candidates a decade ago may not be seen as essential or desirable by applicants today. Furthermore, there is always a direct relationship between the interest in learning and the subsequent performance. The literature shows that the students who enjoy their experience of school perform better academically.<sup>[4]</sup> Success in pediatric dental practice, apart from technique and skills depends on attitude and behavior.<sup>[5]</sup> Pediatric dentistry

### Access this article online

Website: [jprsolutions.info](http://jprsolutions.info)

ISSN: 0975-7619

<sup>1</sup>Department of Pedodontics, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu, India, <sup>2</sup>Department of Pedodontics, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu, India, <sup>3</sup>Department of Pedodontics, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu, India

**\*Corresponding author:** Dr. Deepa Gurunathan, Department of Pedodontics, Saveetha Dental College, Saveetha University, Saveetha Institute of Medical and Technical Science, 162, Poonamallee High Road, Chennai, Tamil Nadu, India. Phone: +91-9994619386. E-mail: [drdeepa@yahoo.co.in](mailto:drdeepa@yahoo.co.in)

Received on: 16-08-2018; Revised on: 23-09-2018; Accepted on: 22-10-2018

is an age-defined specialty that provides primary and comprehensive, preventive, and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.<sup>[4]</sup> In the past few years, pediatric dentistry is emerging as a dynamic and diverse profession. Research in attitude toward pedodontic specialty helps to reshape practice, provide optimal patient care and educate the practitioners to the special health care needs of the patient.<sup>[5]</sup> Pedodontic specialty is a highly promising branch in dentistry as the wide gamut of subjects are included; also they are trained with the ability to meet the multispecialty need of pediatric patients as far as clinical practice is concerned.<sup>[6]</sup> It is important for the dentist to shift to the quantum phase for qualitative treatments.<sup>[7]</sup> In a survey by Benette and coworkers, pedodontists indicated deficiencies in various treatments, research experience, planning, and patient education.<sup>[8]</sup> The purpose of this study is to determine how the pedodontists perception differs, by (program setting and data-based) analysis of pedodontists attitude toward their specialty education.

It is believed that materials and methods important previously may not be desirable in the present days. Dental visits are a major source of anxiety and a significant stressor for many people including children. To meet the need of child it also involves a child's feelings, fear of dental environment, to gain the child's confidence, and cooperation for the treatment to be carried out in kind and sympathetic manner. This will also promote child's future dental health by stimulating the attitude and behavior regarding dental care. In developing countries like India, the need for pediatric oral health care is increasing, as there are vast unmet treatment needs in society and there are wide range of needs of pediatric patients that are catered by pedodontists; hence, there is utmost need to measure attitude and approach of pedodontists in society toward their delivery of dental care and if found any lacunae, that should be effectively filled by pedodontists themselves. Furthermore, the newer specialty education program can be effectively changed accordingly as it may, in turn, change the approach and attitude of upcoming specialists. This may expand the scope of exclusive pedodontic practice in any city.

## DISCUSSION

After graduation, dental surgeon faces a choice to pursue master's degree (MDS) in one of many specialties of dentistry. The students are confounded and perplexed by the choices available, and the ultimate decision of choosing a specialty depends on the interplay of various factors.<sup>[9]</sup> One of the specialties of choice is pediatric dentistry. It deals with children involving diagnosis, prevention,

and treatment of all aspects of oral diseases in them, making the pediatric dentists, forbearers for establishing a strong foundation on which the lifelong attitude for dental health is built in an individual. It is well known and understood that the choice of career is a critical decision that has an obvious impact on a future life pattern of an individual. Keeping these things in mind, this study was an effort to access the satisfaction levels of students pursuing postgraduation in pedodontic and preventive dentistry nationwide. The results of the study by Neha *et al.* showed that 38% of the postgraduates (PGs) always wanted to be pedodontists, whereas Arora *et al.*<sup>[4]</sup> in their study for assessing the reason for choosing pediatric dentistry as a career reported for 94.6% respondents it was their career of interest. The reason for this difference could be that Arora *et al.* divided these reasons into parental, personal, professional, and vocational reasons and among personal reasons, it was the most common. It was also reported that 73.7% respondents were satisfied with their choice and majority of them preferred government institution. Although this factor has not been studied by other authors, the main reason for this answer could be the handsome stipend given to the postgraduates in the government institutions. Results by Neha *et al.* showed that endodontics was the most preferred branch while pedodontics was almost equally preferred over all other branches except for endodontics.

Results of the study by Neha *et al.* showed that 70% of the respondents were inclined toward clinical practice either exclusively or in combination with academics and of these 58.7% wished to do clinical practice exclusively. Corresponding to the results by Neha *et al.*, Bell and McTigue<sup>[2]</sup> reported 79.2% chose private practice either exclusively or in combination with academics. Although more inclination was seen toward clinical practice, most of the respondents found the research program inadequate to start practice immediately after the training. As preventive dentistry is an integral part of this specialty, the burden of improving public oral health and inculcating the feeling of importance of dental care among children which they carry forward to adulthood also lies on the pediatric dentists. Providentially, according to the study by Neha *et al.* 73%, PGs reported to follow preventive regimens in their practice which can be a boon in a developing nation as ours. In a study on the attitude of pedodontists toward pedodontic specialty education, Bell and McTigue<sup>2</sup> used a 5-point Likert-type attitude scale to indicate the degree of satisfaction perceived toward inquiry areas. They reported that the pedodontists showed a reduced satisfaction level in the prevention/patient education area. Our results showed that only 50% of the respondents did fluoride applications and followed myofunctional therapy and only 40% practiced fixed orthodontics for minor

corrections. In our study, the results showed that 49.3% of respondents were planning to take up job after the training. The findings were in line with those of Arora *et al.*,<sup>[4]</sup> who reported that among professional reasons of choosing pediatric dentistry as a specialty, 65% agreed that it makes an easy way of employment. Fonseca *et al.*<sup>[3]</sup> in their study about the factors influencing the candidates' choice of a pediatric dental residency program reported that over 80% respondents said that shorter length (2 years vs. 3 years) was either an important or critical characteristic in making their choice. This closely corresponded with the results by Neha *et al.* in which 74% of respondents were of the opinion that the PG program should be of 2 years. In a study on a survey of behavior management teaching in predoctoral pediatric dentistry programs, it was reported that of all predoctoral programs, 62% teach that HOME is an unacceptable technique.<sup>[5]</sup> On the same lines, it was seen that 91.5% of respondents did not use HOME as a behavior management technique. The results by Neha *et al.* showed that only 16.9% respondents have done patients under conscious sedation which is far less than reported by Waggoner in 1986<sup>[10]</sup> according to whom 56% of predoctoral pediatric dentistry programs used oral conscious sedation. According to the study done by Virati *et al.*, 59.2% respondents reported to have done patients under sedation and 38% have used general anesthesia, while Bell and McTigue reported a reduced level of satisfaction in the area of sedation.<sup>[2]</sup> Found that 56% of respondents preferred exclusive pediatric dentistry over general practice and 74.6% felt that the conferences were good and would like to attend them. However, to the best of our knowledge, these points have not been studied by other researchers.

Attitudinal surveys which were conducted to assess the satisfaction levels are affected by the respondent's feelings, beliefs, knowledge, and predisposition toward a subject.<sup>[2]</sup> In consideration of these facts, survey methodology followed in various studies incorporate various design measures to minimize bias and increase the usefulness of obtained data. Specific measures incorporated in various studies to assess the satisfaction levels were multiple inquiry items, 5 points Likert-type attitudinal scale, response anonymity, and transmittal letter.<sup>[11]</sup> The difference in the degree of satisfaction indicates the approach and attitude of specialists toward oral health-care delivery. There is relatively positive satisfaction seen with patient and parent education, restorative management, traumatic injury management, interceptive orthodontic care, management of medically or physically special children, academic approach, and scope in the newer era. Highest satisfaction seen was in areas such as management of pulpal diseases, and behavior management of the child. A survey conducted by Ronald bell and Dennis McTigue in 1979 indicated

that positive degree of satisfaction was seen with their educational experiences related to behavior management, restorative dentistry, pulp therapy, traumatic injury, and interceptive orthodontics (Bell and McTigue, 1979). Traumatic injuries to developing teeth can influence growth and maturation,<sup>[12]</sup> in comparison with this survey; interceptive orthodontic and traumatic injury management experiences should be raised in a specialty program. This could incorporate a positive attitude in the health-care delivery system. Specialty training program requires particular improvement in providing such experience due to lower satisfaction than other groups. In the era of technology, patient education with the use of digital aids should be increased as it may incorporate more positive attitude in children and parent regarding oral health care. Early childhood caries in children presents with multisurface caries and extensive cervical damage.<sup>[13]</sup> Caries is a transmittable infectious disease that the child can acquire from the mother.<sup>[14]</sup> Various surveys have shown that pediatrician's awareness regarding the transmission of dental caries is poor despite the publication of reports over two decades back.<sup>[15]</sup> Hence being pedodontists, it is very important to deliver designs of preventive strategies to increase the standard of positive oral health attitude among children. Recent concepts like minimal intervention have evolved as a result of changing principles of disease control, better understanding of cariology and advances in techniques and materials that have dramatically altered the approach to diagnosis and management of dental caries.<sup>[16]</sup> American Academy of Pediatric Dentistry (AAPD, 2008) guideline, which states that the first examination is recommended at the time of the eruption of the first tooth and no later than 12 months of age.<sup>[17]</sup> Non-counseling may also send wrong signals to parents that the prevention of oral health is not of high value. Information concerning the impact of diet on oral health and counseling with regard to oral hygiene should be shared with parents.<sup>[18]</sup> Considering behavior management, the strategy that frequently demonstrates a powerful effect in altering behavior is that of positive reinforcement.<sup>[19]</sup> Several authors have recommended the delivery of reward contingent on appropriate behavior and certainly, giving toys for good operator behaviors would be one application of this technique. Rona Levy and Peter Domoto conducted study on current techniques in behavior management which could not, however, assess the appropriate use of positive reinforcement and the possibility must be considered that the toys were given following bad behaviors, such as crying in the operator.<sup>[19]</sup> The specialist should be aware of this possible phenomenon and should try to use positive reinforcement in its most effective form to encourage appropriate behavior.<sup>[19]</sup> Crossley and Joshi<sup>[20]</sup> in their survey found that younger dentists found the

less authoritarian “voice control” technique more acceptable than older dentists; furthermore, female dentists were more likely to feel uncomfortable with behavioral management techniques such as oral pre-medication and active restraint.<sup>[20]</sup> Hence, it was found that most of the dentists were not satisfied particularly in behavior management, hence, knowledge and experience regarding other techniques should be positively incorporated in a specialty education program for effective management of behavior of the child in dental office. A survey by Aldrees *et al.* shows that in comparison with general practitioners and orthodontic as well as pedodontic specialists, pediatrics practitioners tended to rate the need and urgency for the treatment of the temporomandibular disorder is higher.<sup>[21]</sup> The response for interceptive orthodontics is minimum in this questionnaire study. This further indicates improvement in areas of interceptive orthodontics in newer specialty education program. Relatively reduced satisfaction was seen in hospital-related dentistry especially when emergency drug delivery and their techniques, and knowledge related to hospital protocol were concerned. Considering practice with sedation, only 20% of pediatric dentists periodically retrain the emergency protocol in a survey conducted by Yeonmi *et al.* in 2014.<sup>[22]</sup> Patient’s safety should be considered as a top priority as far as the use of sedation is concerned. Hence, systemic technical training for proper and safe use of sedation and its protocols and related emergency management should be established or should be considered in specialty education program. Positive satisfaction in teaching experience area indicates that perceived knowledge and experience (in specialty program) is beneficial. However, an academically related topic such as conducting clinical research and evaluation of literature review should be emphasized in the specialty program. The percentage of eliciting full-time academic careers represents a substantially lower figure than indicated in the student interest survey.<sup>[2]</sup> Our study gives a brief overview about the satisfaction levels of the PGs and also reports about the various fields in which improvements may be made. As for making improvements in our research program, we must know about the various loopholes of our system. Hence, our study was an effort in recognizing these so that various steps can be taken for the enhancement of pedodontic specialty program.

## CONCLUSION

The results of this review show that the majority of the PGs pursuing pedodontics always wanted to be the same and preferred government institution over private. This review was intended to investigate the level of satisfaction of pedodontists toward their attitude toward specialty education program. Furthermore, to find out the scope of specialty in the

new millennium and their best approach in the process of providing effective treatment. The response of all pedodontists from various studies was correlated to various treatment approaches, and it indicated:

Relatively positive satisfaction was experienced with patient and parent education skill, restorative dentistry, management of traumatic injury, interceptive orthodontics, management of special children, academics, and scope in new millennium.

The significantly high degree of satisfaction was seen in relation to pulpal management of primary and young permanent teeth. Relatively reduced the level of satisfaction was seen with hospital dentistry (sedation).

Considering all the approaches, treatment plan presentation, behavior management by voice control, restoration with stainless steel/zirconia crowns, formocresol pulpotomy, management of avulsed tooth, techniques for the guidance of eruption, managing patient with cardiovascular disorder and epilepsy, treatment under general anesthesia, and minimal intervention were their best treatment approaches.

Knowledge and practice about certain areas such as use of fluorides, practice of fixed orthodontic, and use of myofunctional therapy should be increased as most of them were not satisfied.

As most respondents wish to attend the conference as life members, so the level of these should be raised higher by inviting more of internationally acclaimed speakers and offering better hospitality.

Thus, it can be concluded that pediatric dentistry being a dynamic branch, should be looked on with the aim to raise the level of education and clinical practice which subsequently may increase the satisfaction level of the PGs.

## REFERENCES

1. Rhodes A, Wilson S. Research in pediatric dental postgraduate programs and residencies: Results of a survey. *Pediatr Dent* 2004;26:75-8.
2. Bell RA, McTigue DJ. Attitude toward pedodontic specialty education: A survey of pedodontists. *Pediatr Dent* 1979;1:215-20.
3. Manohar J, Mani G. Knowledge and attitude of parents regarding children’s primary teeth and their willingness for treatment. *J Pharm Sci Res* 2017;9:194-8.
4. Fonseca MA, Pollock M, Majewski R, Tootla R, MurdochKinch CA. Factors influencing Candidates’ choice of a pediatric dental residency program. *J Dent Educ* 2007;71:1194-202.
5. Arora R, Panwar NK, Dhar V. Reason for choosing pediatric dentistry as career – Survey among postgraduate dental students. *J Oral Health Comm Dent* 2011;5:86-9.
6. Waggoner WF. Conscious sedation in predoctoral pediatric dentistry programs. *J Dent Educ* 1986;50:225-9.
7. Ripa LW. Hospital related activities in pedodontic specialty

- training programs. *J Dent Educ* 1973;37:9-12.
8. Bennett IC, Mink JR, Hall DS. Attitudes of pedodontists to their graduate education. *J Dent Child* 1967;34:87-92.
  9. Walker JD, Till MJ, Parkins FM. Survey of pedodontic graduate student interests: 1975-1976. *ASDC J Dent Child* 1976;43:114-8.
  10. Adair SM, Schafer TE, Rockman RA, Waller JL. Survey of behavior management teaching in predoctoral pediatric dentistry programs. *Pediatr Dent* 2004;26:143-50.
  11. Tittle CR, Hill RJ. Attitude measurement and prediction of behavior: An evaluation of conditions and measurement techniques. *Sociometry* 1967;30:199-213.
  12. Agarwal RK, Sharma P, Gupta I, Patil RU, Singh SK, Bharath KP, *et al.* The reverberations of traumatized primary dentition: A practitioner's perspective. *J Contemp Dent Pract* 2011;12:511-5.
  13. Sahu AK, Patil RU, Kambalimath HV, Asokan A, Maran S, Jain S. Spectrum of choices to restore the smile of a child: An update on current paediatric anterior crowns. *J Dent Allied Sci* 2016;5:25-9.
  14. American Academy of Pediatrics (AAP). A Guide to Children's Dental Health; 2012. Available from: <http://www.aap.org/family/dental.htm>. [Last accessed on 2012 Feb 02].
  15. American Academy on Pediatric Dentistry Council on Clinical Affairs. Policy on the dental home. *Pediatr Dent* 2008;30:22-3.
  16. Shashikiran ND, Subbareddy VV, Patil RU. Minimal intervention – Part II a review of minimally invasive techniques in caries management. *J Int Coll Dent* 2004;50:22-30.
  17. Nowak AJ, Warren JJ. Infant oral health and oral habits. *Pediatr Clin N Am* 2000;47:1043-66.
  18. Peddikayli FC, Kottayi S, Kenchamba V. Knowledge, attitude and practices of pediatricians regarding prevention of dental caries. *Health Sci* 2013;2:1-10.
  19. Levy RL, Domoto PK. Current techniques for behavior management: A survey. *Pediatr Dent* 1979;1:160-4.
  20. Crossley ML, Joshi G. An investigation of paediatric dentists' attitudes towards parental accompaniment and behavioural management techniques in the UK. *Br Dent J* 2002;192:517-21.
  21. Aldrees AM, Tashkandi NE, AlWanis AA, AlSanouni MS, Al-Hamlan NH. Orthodontic treatment and referral patterns: A survey of pediatric dentists, general practitioners, and orthodontists. *Saudi Dent J* 2015;27:30-9.
  22. Yeonmi Y, Teojeon S, Seunghoon Y, Seongchul C, Jiyeon K, Taesung J. Survey of sedation practices by pediatric dentists. *J Korean Acad Peadiatr Dent* 2014;41:257-65.

Source of support: Nil; Conflict of interest: None Declared