



Knowledge, Attitude, Practice of Dental Students and Interns about Pediatric Dentistry and their Future Perception

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Abstract

Background: The aim of the study was to assess the Knowledge, Attitude, Practice of Dental Students and Interns about Pediatric Dentistry and their future perception.

Material and Methods: A total of 220 BDS final year students and interns at Sudha Rustagi College of dental sciences and research, Faridabad answered a questionnaire about Knowledge, Attitude, Practice of Dental Students and Interns about Pediatric Dentistry and their future perception. The questionnaire was given to the students chosen from a random selection. The filled questionnaire was then collected and results were analyzed.

Results: The results were analyzed using Statistical Package for Social Sciences (SPSS) version 21. Statistically significant differences were seen in BDS final year students and interns. Amongst 220 subjects higher proportion of responses was given by female subjects as compared to males and higher responses of data was collected by BDS final year students.

Conclusion: Our study concluded that both BDS final year students and interns presented more positive response toward pediatric dentistry and more no. of students like to opt pediatric dentistry as their post-graduation course.

Keywords: Knowledge; Attitude; Practice; Pediatric Dentistry; Future Perception

Introduction

The most important decision that will ever be taken is "Choosing a Career Path" [1]. After completing under-graduation, several students apply for postgraduate admissions [2] because of social and professional status, enhanced quality of life and salaries. Inspirations for picking post-graduation in the dental college are influenced by teachers, guardians, relatives, companions, and instructors and also because of many other related factors like family impact, fewer seats in interesting branches, high expense fee structure. Of all the services offered by dental surgeons, the most needed yet overlooked area is considered to be Pediatric Dentistry [3]. A Pediatric dentist is a specialist who is trained, educated, and qualified to provide extensive oral health care including primary, preventive, comprehensive, and therapeutic care for infants and children including those with special needs for health care. Each dentist must provide the highest standard of treatment for indi-

vidual pediatric patients and incorporate advancements in science and technology to continually improve oral health. As a result, clinical reference needs to be balanced with the doctor's professional experience and the patient's choice. The lack of experience, clinical skill, or devotion to the vital performance of treatment procedures is the shortcoming of most dental surgeons when treating children. Pediatric dentistry is a subject in which the student usually develops a little interest during graduation perhaps due to reasons such as the subject is taught more theoretically and less practically during under-graduation [4]. That is why it will be troublesome for the students to choose the correct specialty course.

Various studies have been subject to find out reasons for choosing pediatric dentistry as a career option among postgraduate students in India but knowledge, attitude, and practice of under-graduation students towards pediatric dentistry has not been considered.

Hence, the present study was conducted to determine the knowledge, attitude, and practice of dental students and interns about pediatric dentistry and their future perception.

Subjects and Methods

A study was conducted in the Department of Pediatrics and Preventive Dentistry of Sudha Rustagi college of dental sciences and research, Faridabad. A 19-item self-administered questionnaire was prepared and validated which consisted of 4 sections: Section 1 consist of General demographics, Section 2 on knowledge, Section 3 on attitude, Section 4 on the practice of BDS final years Dental Students and Interns about Pediatric Dentistry and their future perception. The questionnaire was given to the students of BDS final year and interns respectively. Participants were asked several questions about materials used in the deciduous tooth, their future perception towards post-graduation and will they opt pediatric dentistry as their post-graduation course, are they comfortable in providing comprehensive care for (0 - 6) yrs old child, do they have been trained to diagnose pediatric patients. A questionnaire was distributed to the participants and data was collected. Responses were analyzed and tabulated using Statistical Package for Social Sciences (SPSS) version 18.

Results

The present study comprised of 220 participants. Results of the present study showed that the higher proportion was comprised of female subjects and were in the age group of 21 - 23 years (Figure 1). It has also showed that interns responded in higher proportion as compared to BDS final year students (Figure 2). The descriptive analysis of the knowledge, attitude, practice of dental students and interns about Pediatric Dentistry and their future perception with 19 questions in the questionnaire, which was divided into 4 sections showed in table 1-3 and figure 3-5.

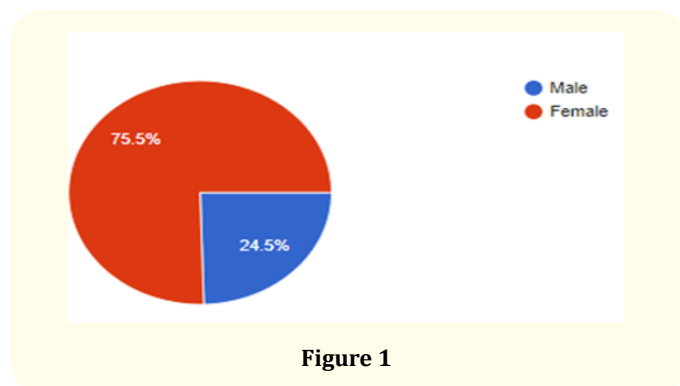


Figure 1

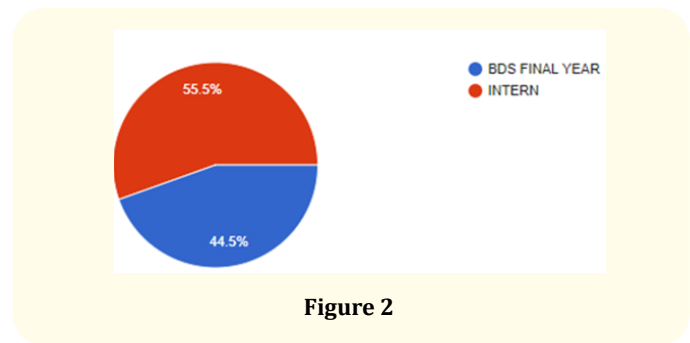


Figure 2

Questions	BDS Final Year		Interns		P value
	n	%	n	%	
Deciduous tooth can be used as natural space maintainer	31	1.6%	53	43.3%	0.161, NS
Is formocresol therapy obsolete for pulpotomy procedures	11	11.2%	22	18.0%	0.256, NS
Is fiber reinforced core can be given in deciduous tooth	13	13.3%	14	11.5%	0.075, NS
SDF can be used in deciduous tooth	11	11.2%	16	13.1%	0.139, NS
Milk can be used as storage media for avulsed tooth	48	49.0%	39	32.0%	0.019, NS

Table 1: Knowledge of the BDS final year and interns about pediatric dentistry was assessed and results were analyzed. Intergroup comparison of proportion of participants who responded as 'strongly agree'.

Questions	BDS Final Year		Interns		P value
	n	%	n	%	
Do you plan to do post-graduation after under graduation	58	59.2%	98	80.3%	< 0.001, NS
Will you opt pediatric dentistry for your post- graduation	22	22.4%	67	54.9%	< 0.001, NS
Do you predict more dentists are choosing to specialize in pediatric dentistry	42	42.9%	72	59.0%	0.046, NS
Do you feel pediatric dentistry offers a scope of practice unlike any other field of dentistry	69	70.4%	95	77.9%	0.337, NS
Do you think, pediatric dentistry offers a potential for greater income	61	62.2%	84	68.9%	0.519, NS

Table 2: Attitude of the BDS final year and interns about pediatric dentistry was assessed and results were analyzed. Intergroup comparison of proportion of participants who responded as 'YES'.

Questions	BDS Final Year		Interns		P value
	n	%	n	%	
Do you feel comfortable in providing comprehensive care for (0 - 6)yrs old patient	66	67.3%	70	57.4%	0.126, NS
Will you be comfortable in treating child with special needs	63	64.3%	58	47.5%	0.001, NS
Have you been trained to diagnose pediatric patients	53	54.1%	63	51.6%	0.675, NS
Are you aware of radiation protection option available for children	68	69.4%	77	63.1%	0.621, NS
Do you plan to provide counseling in your practice after graduation	66	67.3%	69	56.6%	0.106, NS

Table 3: Practice of the BDS final year and interns about pediatric dentistry was assessed and results were analyzed.

Intergroup comparison of proportion of participants who responded as 'YES'.

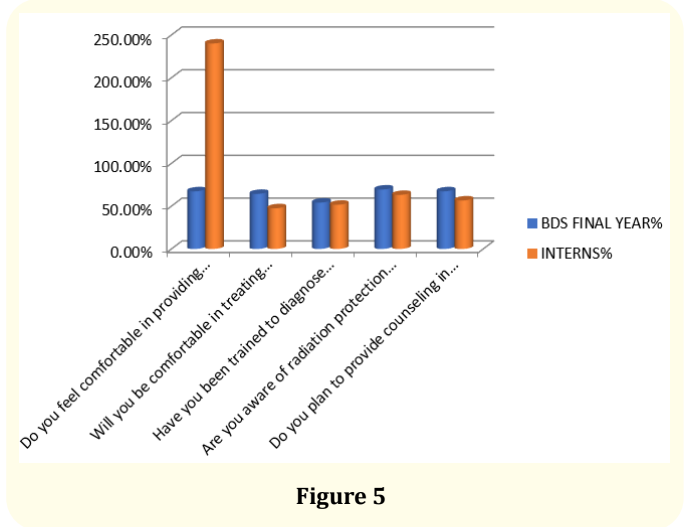


Figure 5

Statistical analysis

The data was analyzed using SPSS version 21. All the variables were categorical in nature, thus summarized as frequencies. The inferential statistics were computed using chi square test. The level of significance was set at 0.05. The graphs were prepared on Microsoft excel.

Discussion

Pediatric dentistry is considered to be the most significant, but overlooked area of all the services of dental surgeons. If doctors regularly check the oral cavity dental disorders can be handled at the early stages. The Third National Review of Health and Nutrition (1988 - 1994) survey found that in 1 in 5 children aged between 2 and 5 years, decayed teeth were found [5]. Dental surgeons are required to successfully diagnose and treat childhood dental diseases. This study was designed to assess the Knowledge, Attitude, Practice of BDS final year Students and Interns about Pediatric Dentistry and their future perception in Sudha Rustagi College of dental sciences and research, Faridabad. A questionnaire was divided into 4 sections: Section 1 consist of general demographics, Section 2 based on knowledge, Each item on the questionnaire contained a statement which required the respondent to indicate their level of agreement as strongly agree, agree, neutral, disagree, strongly disagree, Section 3: based on attitude, Each item on the questionnaire contained a statement which required the respondent to indicate their level of agreement as Yes, no, don't know, Section 4: based on practice, Each item on the questionnaire contained a statement which required the respondent to indicate their level of agreement as Yes, no, don't know. In the present study, females responded in a higher proportion as compared to males, increased

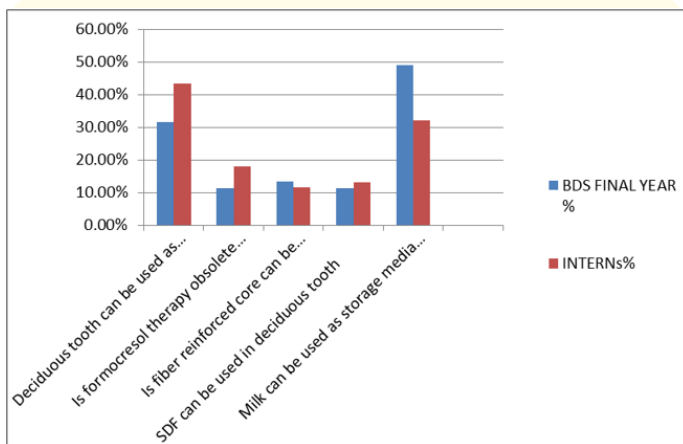


Figure 3

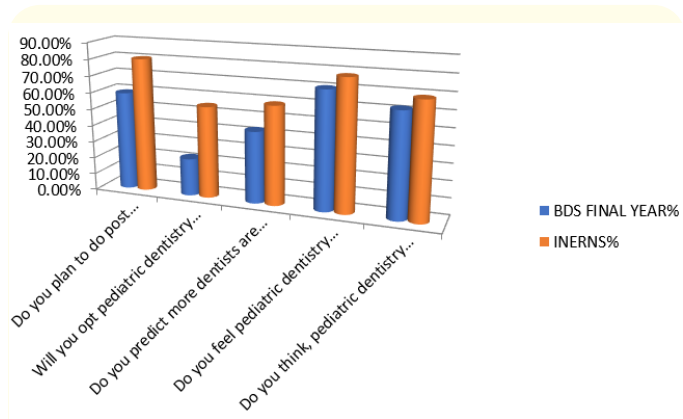


Figure 4

female participation in dental schools can be attributed to women's perception because of the belief of women that they can effectively handle family and personal problems. Professional life, since in the dental profession, a more flexible working schedule is possible. In an analysis of gender differences in motivations, the male student's regarded self-employment and business-related motivations as more significant, whereas female dental students valued people-oriented motives more highly [6] and the more number of responses were given by interns as compared to BDS final year students. We assumed that final year students had adequate exposure to dentistry to be able to have an informed opinion on the choices they make.

Knowledge

When asked about certain concepts prevalent in pediatric dentistry, the present study showed that interns have a better understanding as compared to BDS final year students though the results are not significant. 43.3% of interns strongly agreed as compared to 31.6% of BDS final year students that deciduous tooth can be used as a natural space maintainer. The deciduous tooth should be retained in the arch as they guide the permanent tooth to erupt and maintain the arch perimeter [7]. 18.0% of interns responded strongly agree as compared to 11.2% of BDS final year students that is formocresol therapy obsolete for pulpotomy procedures, Since June 2004, the International Agency for Research on Cancer has reclassified formaldehyde as a known human carcinogen it was also found that formaldehyde was associated with leukemia. Formocresol is very likely no longer suitable for use in dentistry, it should be abandoned instead of formocresol ferric sulfate (FS), calcium hydroxide (CH) and mineral trioxide aggregate (MTA) can be used [8]. As compared to 13.3% BDS final year students, 11.5% intern students agreed strongly that fiber-reinforced post can be used in the deciduous tooth though the difference was not significant between both the groups. The new alternative to post system in pediatric dentistry is Glass fiber-reinforced composite resin posts (GFRC), properties of which are reliant on the interface strength, nature of the matrix, geometry of reinforcement and fibers [9]. 13.1% of interns responded strongly agree as compared to 11.2% BDS final year students about the use of a newer non-invasive product in a deciduous tooth that is silver diamine fluoride (SDF) which is effective cariostatic agent.

Sports dentistry is concerned with the prevention of oral/facial athletic injuries and related oral diseases and manifestations. A dentist must be knowledgeable to provide comprehensive care. Various dental traumas experienced during sports include luxation

tooth injuries, avulsions, bone fractures, and concussion injuries. Prevention of these injuries during sports is important [10]. Milk as storage media for a avulsed tooth is significantly better than other solutions for its physiological properties, including pH (6.5 - 7.2) and osmolality (270 mOsm/kg) Lekic, *et al.* demonstrated that milk was as effective as HBSS for storing avulsed teeth for up to 1 hour and superior to saline, saliva or water [11], 49.0% BDS final year students strongly agreed that milk can be used as a storage media as compared to 32.0% interns.

Attitude

After reviewing various aspects based on Attitude of students towards post-graduation and pediatric dentistry, our study showed that the interns 80.3% responded more positively towards doing post-graduation after under graduation as compared to 59.2% BDS final year students. Sultan S., *et al.* [4] stated in his study that most of the students 65% opted pediatric dentistry as choice and 35% opted pediatric dentistry by chance as their future career, Aditya S., *et al.* [12] also concluded in her study that 35.1% interns will do Post-graduation in India and 13.5% will do Post graduation abroad. Our study showed that 54.9% interns will do post-graduation as compared to 22.4% BDS final year after under graduation. Interest in the pediatric dentistry stands as the second reason for choosing the subject most of them highlighted the fact that pediatric dentistry subject is liked by most of the students. This trend is good in the perception of there being still a shortage of pediatric dentist across nation in professional dental colleges due to increasing oral health menace in children day by day. Our study showed that 59.0% interns predicts more dentists are choosing to specialize in pediatric dentistry as compared to 42.9% BDS final year students, whereas Aditya S., *et al.* [12] concluded that 7.6% Students are interest in pediatrics and preventive dentistry as their dental specialty area for post-graduation subject. Arora R., *et al.* stated that about 87.6% of the postgraduates opted pediatric and preventive specialty because they felt that specialty is emotionally/socially and financially rewarding in contrast to that our study also showed that about 77.9% interns and 70.4% BDS final year responded that pediatric dentistry offers a scope of practice unlike any other field of dentistry and approximately 35.3% of graduates have chosen Pediatric Dentistry as their career option because of greater financial viability and easy way of life. They thought this specialty will give them a better economic setup in their life whereas our study showed that 68.9% interns responded more positively as compared to 62.2% BDS final year students that pediatrics offers a potential for greater income.

Practice

In a study by Folayan, *et al.* over 70% of respondents felt that pediatric dentistry as a specialty was useful for the community (79.3%), valuable service (74.3%), efficient (73.8%), essential (72.7%) and scientific (71.5%). In our study, there was no significant difference observed in the practice of BDS final year students and interns though BDS final year students responded more positively. The reason may attribute that BDS final year students are more theoretically involved in the subject of pediatrics and preventive dentistry whereas interns are not. The American Academy of Pediatric Dentistry (AAPD) recognizes that providing both primary and comprehensive preventive and therapeutic oral health care to individuals with special health care needs (SHCN) is an integral part of the specialty of pediatric [13], 67.3% BDS final year and 57.4% interns responded that they can provide comprehensive care for (0 - 6) yrs old patient. According to Rani Thabitha S., *et al.* [14] 62.5% of practitioners had difficulty in treating a special child in their routine practice, but in our study, 64.3% of BDS final year students and 47.3% of interns responded that they are more comfortable in treating the child with special needs and both the groups have not attended any special training to diagnose pediatric patients. When data was validated 69.4% of BDS final year students and 63.1% of interns responded that they are aware of radiation protection options available for children. The radiation protection principle is not only intended to reduce radiation exposure to pediatric patients but should also provide a positive outcome from the use of dental radiographs [15]. Therefore, this study was conducted to analyze the various parameters related to pediatric dentistry.

Conclusion

As BDS final year students are under the strict supervision of the faculty and they are more practically involved in the specialty. However, interns are more theoretically involved as most of them are preparing for their entrance exam. Our study concluded that both BDS final year students and interns presented more positive response toward pediatric dentistry. More than half of the interns would like to opt for pediatric dentistry as their post-graduation course because they feel it offers a scope unlike any other field of dentistry and a potential for greater income.

Conflicts of Interest

The authors of this manuscript declare that they have no conflicts of interest, real or perceived, financial or nonfinancial in this article.

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