



ORIGINAL RESEARCH

Factors affecting future speciality choice among dental students in Haryana

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ABSTRACT : Background: In recent years, there has been a growing appreciation of the issues of career preference in dentistry. But there is a little knowledge about the future aspirations and career perspective among dental students pursuing graduation.

Objectives : This study was carried out to investigate the career preferences of students in dental colleges of Haryana and to determine the factors that might influence their career decisions.

Methods: This cross sectional observational study was conducted among 644 students from 6 dental colleges in Haryana. Participants were chosen randomly after obtaining permission from the administration of the respective colleges. A close-ended questionnaire was administered and the data was analyzed using SPSS version 19.0.

Results: Out of total subjects, 76.40% were willing to opt for a master's degree in the field of dentistry. Oral surgery was the most preferred choice (35.77%) and paedodontics was the subject of least preference (0.81%). Personal interest in the subject was the most common reason associated with the choice of speciality. The reason least chosen as a factor for determining the future specialization choice was easiness of the subject.

Conclusions: Our study revealed that the most preferred speciality was oral surgery followed by orthodontics and endodontics. A variety of factors appear to inspire dental students to choose a dental speciality. Further research work needs to be done to find out the changing nature of perceptions regarding future specializations and unidentified factors impact on graduates' career preferences in the field of dentistry.

Key-words: *future speciality, career choices, post graduation*

Introduction:

Increasing awareness about dental education among Indian population has raised their expectation from the dental practitioners and many patients prefer consulting a specialist, than an under graduate. As only limited seats are available for post graduation in dentistry, the students have to undergo heavy competition for pursuing their masters. Factors such as social standing and high professional status seem to be inspiring students to choose their major speciality. Many young graduates try to search other alternatives for career growth. Some look for overseas, health care management, clinical research and administration services, while some others quit health care and prefer different field (1). With increase in number of undergraduate dental seats, there is an increase in the demand for speciality training, at both graduate and undergraduate levels. Post-graduate specialization is perceived as essential for success, and there is high competition for post

graduate seats, especially in clinical specialties (2). Factors influencing choice of subject for specialization includes determinants what made the students decide to be a dentist and the problems faced in context to different speciality subjects during their graduation. Number of seats available for MDS is only around 3000 compared to each year pass outs of 25000 BDS students (1). Undergraduate dental training in India lasts for 4 years, followed by a year of compulsory internship. The interns are posted to all the major specialties. Choice of speciality in dental students is a complex decision-making process depending on multiple interrelated factors. Yang and Tsai (3) found that the major aspects affecting interns' choice of speciality were compensation factors, study experience, other people's expectations, and personal factors. Kao et al (4) found that the main factor influencing speciality selection was personal interest, followed first by compatibility with personality, and second by workload and work

pressure. Studying career preference can help provide important information to aid in planning educational programs, set priorities, and plan for the provision of adequate health care. The preference of specialities chosen by dental graduates plays an important part in the future workforce in health-care system, especially in times of over or undersupply of dentists (5). Only few studies have been conducted regarding the choice of future specialization among dental students (6,7,8). Hence, this study was done to assess the interest, choice of speciality and factors associated with this choice among final year students and interns pursuing bachelors in dental colleges of Haryana.

Methodology

A cross-sectional observational study was conducted among the final year students and interns from dental colleges of Haryana. Out of 12 dental colleges, 6 were selected by cluster random sampling. The eligibility criteria were willingness to participate and presence on the day of visit. Two visits were made to each college. Permission was obtained from the principals of the dental colleges in Haryana to administer the questionnaire to the final year students and interns of the respective colleges. A structured, close-ended questionnaire was circulated among the subjects. The questionnaire covered demographic characteristics, speciality preferences, and factors that influenced career preferences. The first question was formulated as 'Would you like to pursue a post graduate degree in the field of dentistry'. The second question was about the speciality subject they would like to opt, followed by the reasons behind this choice in the next question. Students were asked to consider 9 speciality options and select the 1st and 2nd most preferred career choices. Specialities listed were oral surgery, orthodontics, prosthodontics, endodontics and conservative dentistry, paedodontics, periodontics, oral pathology, oral medicine and radiology and public health dentistry. Reasons associated with the choice of preference were anticipated income, prestige and reputation of speciality, benefits for the patient, better job opportunities, easiness of the subject, personal interest and others. Instructions on how to properly fill the questionnaire were given to the study subjects. The data were entered into Microsoft excel and analysed using SPSS version 19.0 software (SPSS Inc, Chicago, IL, USA). Descriptive statistics were used for data

summarization and presentation. Degree of association was measured using the Chi Square test to assess the significance between different variables, with significance level set at $p < 0.05$.

Results

A total of 644 students participated in the present study in which 516 (80.12%) were females and rest were males. Mean age of the study subjects was found to be 21.93 years. Out of the total subjects, 332 (51.55%) were final year students and rest were interns. Around 76.40% of subjects were willing to opt for a master's degree in the field of dentistry. Table 1 shows the descriptive statistics of the study population. A statistically significant difference was found between the willingness of females to opt for a post graduation degree when compared to their male counterparts ($\chi^2 = 727.90, p < 0.05$). When the final year students and interns were compared for their willingness to pursue a post graduation degree, statistically significant differences were found ($\chi^2 = 744.24, p < 0.05$). Oral surgery was the most preferred speciality (35.77%) followed by orthodontics and endodontics and conservative dentistry (15.45% each). Paedodontics was found to be the least preferred subject (0.81%). When asked about the 2nd most preferred subject, 20.32% of the respondents chose endodontics and conservative dentistry as the first choice of subject followed by periodontics (17.07%) (Table 2). The most common reason associated with the choice of speciality subject was personal interest accounting for 304 (61.78%) subjects. Prestige and reputation of the speciality (9.76%) was the second most common reason behind choice of specialization followed by better job opportunities (8.94%). The reason least chosen as a factor for determining the future specialization choice was easiness of the subject (2.44%) (Table 3).

Discussion

The choice of post graduate specialization and the underlying influencing factors affecting these have been studied in different type of professional students. The career choices of medical undergraduate students have also been studied (4,5,9,10), but there has so far been very little published work on the career choices of dental students. Around 80.16% of the subjects were females, representing feminization of the profession also reported by Kapoor S et al (11). A few other studies

Table 1: Distribution of study subjects based on gender, year of study and willingness to pursue post graduation

Total no. of subjects	Gender		Year of Study		Willingness to pursue post graduation	
	Males	Females	Final Year	Internship	Yes	No
N=644	128(19.88%)	516(80.12%)	332(51.55%)	312(48.45%)	492(76.40%)	152(23.60%)

Table 2: Shows the 1st and 2nd most preferred speciality subjects

Speciality subject	1st Preference	2nd Preference
Oral Surgery	176(35.77%)	56(11.38%)
Orthodontics	76(15.45%)	68(13.82%)
Prosthodontics	44(8.94%)	64(13.01%)
Endodontics and Conservative Dentistry	76(15.45%)	100(20.32%)
Paedodontics	4(0.81%)	20(4.07%)
Periodontics	56(11.38%)	84(17.07%)
Oral Pathology	8(1.63%)	20(4.07%)
Oral Medicine and Radiology	24(4.88%)	36(7.32%)
Public Health Dentistry	28(5.69%)	44(8.94%)

Table 3: Reasons associated with choice of preferred post graduation branch

Reasons associated with choice of speciality	n (%)
Anticipated income	24(4.88%)
Prestige and reputation of speciality	48(9.76%)
Benefits for the patient	24(4.88%)
Better job opportunities	44(8.94%)
Easiness of the subject	12(2.44%)
Personal interest	304(61.78%)
Others	36(7.32%)

(12, 13, 14) have also shown female predominance in the field of dentistry. These figures, however contrasted with those reported by Butters JM et al (15), Scarbecz M et al (16) and Hawley NJ et al (17). The majority of the respondents felt that post graduation was essential (76.40%). This may be because it is perceived that income and status are lower in general practice than specialties (18). This finding is in line with one reported by Ravi K et al (8), Khami et al (19) and Gallagher et al (20) but the trend is different from the results found by Karibe et al (21) where only 37% and 17 % of Swedish and Japanese students preferred specialization in dentistry respectively. Our result was also in contrast from one reported by Aditya S (22), who found a willingness of 35.1% to pursue post graduation among dental interns from India.

In the present study, oral surgery has been the most preferred speciality, similar findings was seen in studies conducted by Ravi K et al (8) and Garla BK (23). Datta P et al reported with similar results (24). This may be due to the possibility that it provides an opportunity to perform maxillofacial surgery, fulfils a desire to teach dental students and surgical residents, and is associated with good monetary return (25). This could also be due to the prestige and reputation of the branch. In contrast to this finding, in other study by Karibe H et al, oral surgery was found to be very unpopular (26). It can be assumed that some graduates won't prefer oral surgery due to reasons like sight of blood, overnight duties and hectic procedures like handling of trauma cases. Orthodontics as well as endodontics and conservative dentistry were the 2nd most preferred subjects with equal number of responses. Aesthetic concern and relief from pain / maintenance of normal function of oral cavity may be the prime reasons behind seeing an orthodontist and endodontist respectively. These branches seem to yield a good financial reward. Paedodontics was found to be the least preferred speciality. Knowledge about child psychology and behaviour management of children is an essential aspect of this speciality. Difficulty in handling uncooperative child patient may be a reason behind this finding of our study. Personal interest in the subject accounting for 61.78% of the respondents, was found to be the most important factor influencing the choice of speciality, followed by prestige and reputation of the speciality (9.76%). This finding was in concordance with that found out by Huda N et al (27) and Chang PY et al (28) in Pakistani and

Taiwanese dental students, respectively. Twelve of the respondents also mentioned 'easiness of the subject' as the associated reason with choice of speciality. This is in line with the finding reported by Dikici MF et al (29) in a study conducted on Medical students in Turkey. It is likely that a network of factors operating before, during and after graduation is involved in any individual's career decision. Age, gender, ethnicity and parents' educational background have been mentioned as factors which may affect the career choices to varying degrees among different populations (20, 21). Other factors like matrimonial considerations, availability of a role model, experiences during graduation, financial constraints, advice from family/friends/faculty might have influenced the results. As perception is subjected to change over time, there is a need of longitudinal studies to capture the dynamics and changes in attitudes within the same group of students at different points during their studies. The self-reported nature of the data could have resulted in information bias. Keeping in mind these limitations, further research work needs to be carried out to find out the changing nature of perceptions regarding future specializations and unidentified factors impact on graduates' career preferences in the field of dentistry.

Conclusion

The study has investigated the reasons behind students' willingness to pursue post graduation in respective choice of subject was mostly due to their personal interest and prestige and reputation of the speciality. Our study reveals that the most preferred specialties of the students were oral surgery followed by orthodontics and endodontics. A variety of factors appear to inspire dental students to choose a future dental speciality. So, further study is needed with larger sample size and different areas to confirm the trend of change of behaviour regarding future speciality choice and associated factors among dental students with years of study of dentistry.

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