

Why Dentistry? A Cross-Sectional Study of Budding Dentists in Andhra Pradesh

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Abstract

Background: The changing nature of the dental workforce and the need to retain the services of future members has made it important to understand why current dental students have chosen dentistry as their carrier. It greatly contributes to discussions concerning dental education, practice and future workforce planning. This study aimed, first to investigate factors that lead to choice of dentistry as a profession among first year dental students in a South Indian State and, secondly to evaluate gender differences in motives for pursuing a career in dentistry.

Methods and Material: A cross-sectional study was performed using a self-administered questionnaire to all first year dental students studying at three randomly selected dental institutions (n=240).

Statistical analysis used: Descriptive statistics and Mann Whitney-U Test

Results: A total of 203 duly filled questionnaires were included in the study. Female (74%) exceeded male students (26%). Only few respondents (24%) had placed dentistry as their first career choice. Desire to work in health care (84%), unable to enter medicine (79%) and independence of work (72%) were the top three influential factors. This study revealed significant differences between males and females with respect to desire to work in health care motive.

Conclusions: The results of this study highlighted some important influential factors in the choice of dentistry as a professional career.

Keywords: Dental education, Dental students, Reason, Dentistry

INTRODUCTION

Humanity is made up of infinity of different individuals. Each one of us travels for motives exclusively our own. If we want to know what makes the world go round, what makes people tick and do what they do, recognizing this fact about motive is essential. Once we cross this bridge we can better understand what will be happening in the future and it will be possible to plan for its betterment.

In India we are facing a gross geographic mal-distribution of dental practitioners. Very few dentists are ready to practice in rural areas where country's most population (74%) resides. As seen around the world "feminization of profession" has also been observed in India but on a wider scale. Many

studies¹⁻³ and literature reviews⁴⁻⁶ suggested that females have different motives and career practice pattern than their male counterparts. Whether in India this will play any significant role in future manpower characteristics is yet to be understood. In present situation it is utmost important to understand why people are motivated towards this profession and subsequently understanding their career perspective. Investigating the motives of health students contributes to a better understanding of how they direct their studies; plan their career; to guide them; and to determine the role they play in society. In a broader sense, such investigations may be helpful for planning and evaluating processes in undergraduate health education and health care services, as these issues may influence institutional curriculum, teaching process and profiles of the future professionals.⁷

Several studies have been done on career choice and professional perspective of dental students worldwide. In general, results indicated that career choices are usually motivated by vocational and professional reasons. Some studies⁸⁻¹⁰ has also suggested that students seem to relate to an image of dentistry as a vehicle for the achievement of personal goals. In India few studies have been done under this regard and students motivations for choosing dentistry are not clearly defined. The present survey aimed to investigate factors that lead to choice of dentistry as a profession among first year dental students in a South Indian state. The objective was to identify the major underlying factors or clusters of motives around which dental students decision-making is organized and to evaluate gender differences in influences and motives.

MATERIALS AND METHODS

Andhra Pradesh is one of the 28 states of India, situated on the country's southeastern coast. It is the fourth largest state by area and ranks 5th in number of dental undergraduate seats. It has 24 dental institutions of which 3 are government and 21 are private. Through stratified cluster sampling, one government and two private dental institutions were selected. All first year students studying in these three institutions were considered for the study (n=240). Institutional review board approved the research protocol for the study. The heads of all the three dental institutions provided signed permission for conducting survey in their respective institutions. Informed consent was obtained from all the participants.

A 15-item questionnaire was adapted from previous studies¹¹⁻¹³ and modified considering Indian context in mind. The questionnaire was pre-tested on a sample of dental students (n=20). Modifications were made to remove areas of ambiguity in the final questionnaire. The students were informed about the nature of the study and confidentiality was assured. The study was done during the period of September-November in the year 2012.

The survey instrument consisted of 15-item self-administered questionnaire. The first section sought to determine students' socio-demographic background such as age, gender, place of residence, parent occupation, institution name and type. The next section of questionnaire consisted of economic, professional, vocational factors and personal reasons to choose dentistry as career. Those respondents for whom dentistry was not the first career choice, two additional questions were asked regarding their opinion about academic performance and future dental practice pattern. Closed questions were utilized permitting students to scale responses such as

whether dentistry is their first career choice, from "strongly agree" (Score-1) to "strongly disagree" (Score-5) on a 5-point Likert scale across all 15 items. The respondents were asked to identify level of influence of various factors on their career choice.

Data collected were analysed using SPSS v.20. Both descriptive and inferential statistics were sought. Mann-Whitney U test was applied to obtain factor differences in individual motive items. The level of significance was set at $p < 0.05$.

RESULTS

Of the 214 questionnaire distributed to the first year dental students, 203 duly completed were included in the analysis, giving an overall response rate of 94.8%. Table 1 describes the socio-demographic characteristics of the respondents. The age of respondents ranged from 17–23 years, with a mean of 18.19 ± 0.84 . A male/female proportion of 1/2.8 was found in the pool of participating students. The majority of the respondents were residing in urban areas (75.4%).

The top three major influences around which the students' career decision-making were organised are desire to work in health care (84.3%), unable to enter medicine (79.3%) and independence of work (72.4%). Only 24.1% of the students had chosen dentistry as their first career choice, but most of them (66.5%) agreed that choosing dentistry was their own decision with negligible peer pressure (8.9%) and family pressure (23.1%). Many students agreed that they had chosen dentistry due to economic reasons such as high income (32.5%) and job security (49.3%). Most of the students gave higher score for professional reasons such as independence of work (72.4%) and flexible working hours (63%). They also gave higher score for vocational reasons like desire to work in health care (84.3%) and practical-artistic skills (53.7%).

Table 1: Socio-demographic characteristics of the study subjects (n=203)

Socio-demographic characteristics	N	%
Sex		
Male	53	26.1%
Female	150	73.9%
Age		
17	37	18.2%
18	102	50.2%
≥19	64	31.6%
Residence		
Rural	50	24.6%
Urban	153	75.4%
College type		
Government	33	16.3%
Private	170	83.7%

Most of the students disagreed that they had joined dentistry due to personal reasons such as for obtaining a doctors' degree (68.5%) or for improving their marriage profile (84.2%). Majority of the students among those who had not chosen dentistry as their first career choice disagreed that there will be any effect on their academic performance or on their dental practice as this profession was not their first career choice. Figure 1 describes students' responses to all 15-items of the questionnaire.

Gender differences with respect to individual motive items were checked. There was significant difference between gender and desire to work in health care motive ($p = 0.04$). Females gave significantly higher score for desire to work in health care motive. There were no significant differences between males and females with respect to other motives. Table 2 illustrates item frequency breakdown of students' response on 5-point scale with respect to desire to work in health care motive.

DISCUSSION

Some students enter dentistry by interest. Some people don't understand why they were pushed or pulled in a particular direction. Some make decision as they don't have better choices and some take path of least resistance like a career path advocated by their parents or elder siblings. Understanding students' motives gives us an opportunity to shape their minds, which becomes important to protect and develop this powerful resource.

The present study was conducted with the aim to investigate factors that lead to choice of dentistry as a profession. Study subjects comprised of only first year dental students, as their responses can be considered more accurate and less influenced by various positive and negative experiences that a student might encounter in higher academic years. A primary survey tool, 15-item questionnaire was created that was able to take a variety of the motives from previous studies into account.

Wide range of influences for selection of dentistry as a career was noticed in the present study. Choice of profession is a multifactorial decision, in which several diverse factors come into play. Most individuals do not hold to one crucial justification but consider various factors in alternatives and decision-making process. Thus all the factors should be analysed together. In the present

Table 2: Item frequency breakdown of response on 5-point scale with respect to desire to work in health care motive

Gender	Desire to work in health care				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Male					
<i>n</i>	18	27	3	3	2
%	34.0%	50.9%	5.7%	5.7%	3.8%
Female					
<i>n</i>	80	46	20	1	3
%	53.3%	30.7%	13.3%	0.7%	2.0%

Differences in proportions are statistically significant ($p=0.04$)

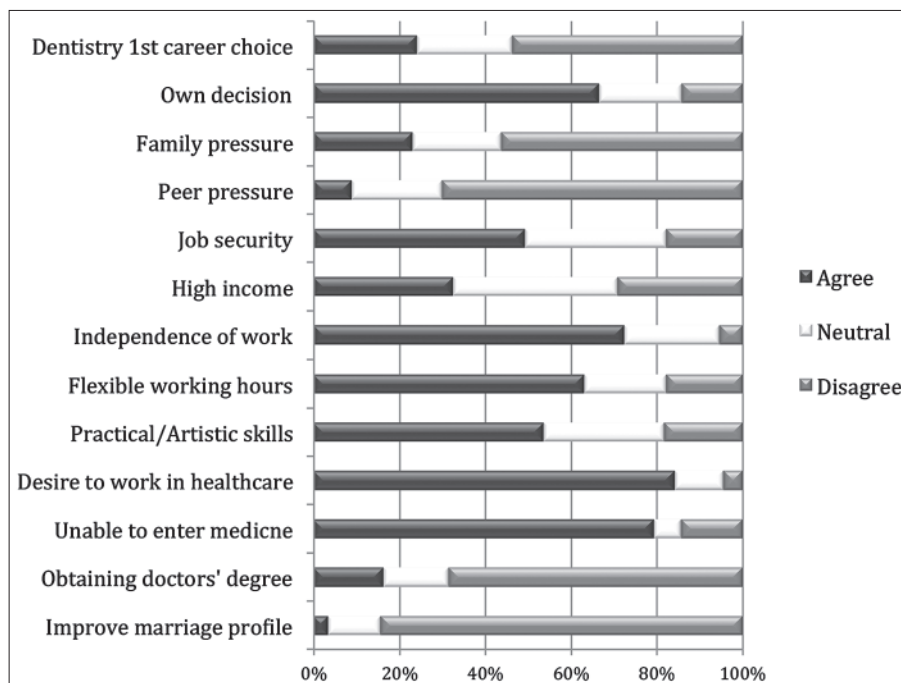


Figure 1: Responses of study population on 15-item questionnaire

study most students were motivated by professional and vocational reasons as also determined by other previous studies.^{7,8,11} Most important motive in the present study was “desire to work in health care” which in accordance to studies done in UK,¹¹ Jordan,¹⁴ Iran¹⁵ & India.¹⁶

Few students had chosen dentistry as their first career choice and majority of them had chosen this profession as an alternative to medicine. The desire to get into a profession, honourable, prestigious and lucrative like medicine was among the top major reasons identified by the study subjects. Similar results were found by various studies.^{8,16,17}

Results showed that females gave higher score for desire to work in health care motive. The reason for this can be explained as helping nature of females. Similar results were also found by various studies.^{11,13,18,19} There is a growing body of evidence that such motives are more commonly found in females. Some studies^{12,14} have suggested that males are more inclined towards economic reasons but no significant gender differences were found in the present study.

The gender ratio found in the present study and other studies^{16,20} done in the country suggest that “feminization of dentistry” continues in India too. This trend is also reported in United States,¹⁸ United Kingdom,²¹ Australia & New Zealand,¹³ France,²² Denmark,¹⁹ and Peru.²³ The proportion of female dental students in India had gradually increased during the past decade, from negligible 20-30% to alarming 70-80%. Admission committees and workforce planners should regard this as a crucial issue as previous research has indicated that women follow a different career pattern than their male counterparts.¹⁻⁶ This fact should not be ignored that the proposed contribution of females to the workforce differs and their long-term participation can be more limited in volume and nature due to family-childcare responsibilities.

Most of the students in present study belonged to urban areas; it becomes obvious that these students will prefer to practice in the same area, further worsening the urban-rural misdistribution of dentists in India. Admission committees and workforce planners can regard this issue by controlling the number of urban aspirants and magnetizing more rural applicants.

CONCLUSION

The results of this study highlighted some important influential factors in the choice of dentistry as a professional career. Desire to work in health care, unable to enter the field of medicine, and independence of work were among the top rated influential factors.

Qualitative and quantitative approaches at national level are required to explore and understand students’ motives for choosing or not choosing dentistry as career. Longitudinal research into the workforce expectations and subsequent understanding of career decisions and pathways is necessary. A reduction in overall applicants in dentistry has been noticed since past years, this calls up to recognize students’ expectations and motives and building strategies to keep momentum in drive to attract suitable aspirants.

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