



MOTIVATIONS AND CAREER PREFERENCES AMONG FINAL-YEAR DENTAL STUDENTS: FOCUS ON INTEREST IN PAEDIATRIC DENTISTRY

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ABSTRACT

People have long wanted to explore the reasons behind studying dentistry because it helps uncover students' psychology and satisfaction at work. You can find out what students expect as part of the profession. The study was designed to investigate what influenced the choice of dentistry and to understand what dental students planned for their futures, paying special attention to their interest in paediatric dentistry. A cross-sectional method was applied using a standard questionnaire that participants completed on their own. Participation was open to final-year students from several dental institutions. Those surveyed ranked several motivating factors and career choices from very unimportant (zero) to extremely important (five). Researchers carried out factor analysis to identify the most important themes related to their reasons for studying, hoping to become dentists, their opinions and what drew them to paediatric dental practice. Our survey was answered by 179 respondents (80.3%) out of the 223 approached. Why I chose dentistry is due to both the nature of the field, my intention to assist others, challenging ideas in dentistry, the art involved and the encouragement of my parents. There were 67.1% of participants interested in further education and 50.8% expressed an interest in specialising in paediatric dentistry. The interest is mainly influenced by my own positive interest in working with children and the support and advice of my close family. Only the level of interest in paediatric dentistry varied by gender, but the main reasons behind this interest were not much different. All in all, that gender has little impact on choosing this career might point to a lessening of the influence of traditional cultural elements in people's career decisions.

Key words: - Dental education, Career motivation, Paediatric dentistry, Student preferences, Gender differences.

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INTRODUCTION

The motivations driving students to pursue Dentistry have attracted scholarly attention for many years, as they provide insight into the psychological profile of future practitioners and their potential job satisfaction. Understanding these motives also aids in clarifying expectations associated with the profession Research

conducted globally has demonstrated that the majority of dental students rank "professional characteristics" and "social status and job security" as their primary reasons for choosing dentistry [1-4]. Few students, however, identified altruism and intellectual challenge as their foremost motivations, indicating that a commitment to public service is not typically a leading factor in their decision to study dentistry [3]. In one regional study, interest in the field, prestige, promising employment opportunities abroad, and stable working hours were among the highest-ranked

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reasons for pursuing dentistry [5]. These findings underscore the importance of dental education systems fostering a sense of social responsibility among students [3, 6, 7]. Additionally, differences based on gender have been reported regarding students' study motivations and career preferences [5, 7-12]. Prior investigations have also revealed that most students tend to plan on continuing their education toward obtaining specialty qualifications [7, 13-15]. This trend has significant implications for workforce planning in dental health services. Although many studies on specialty preferences exist in Europe and North America, similar data are limited in other regions. In one such study, approximately 25% of respondents expressed an intention to specialize in oral surgery, while only 8.6% preferred paediatric dentistry [16].

There is a notable shortage of specialists in paediatric dentistry within this region. At the time this study was conducted (2012), there were only 25 practicing paediatric dental specialists, with 15 engaged in academic training roles. This number is considerably low relative to the large population of children under 15 years of age served by these practitioners [17]. For comparison, in 2002, the United States reported 4.03 paediatric dental practitioners per 100,000 children under 18 years [18]. In the same year, paediatric dentistry ranked fifth in terms of the number of specialists trained among nine recognized dental specialties by the National Postgraduate Medical College, following Oral and Maxillofacial Surgery (33%), Oral Pathology (16%), Conservative Dentistry (12%), and Orthodontics (9%). Paediatric dentistry accounted for 7% of specialists trained [19]. Delivering comprehensive oral health care, including specialized services for children, is critical given the high burden of oral diseases among young populations. Studies have shown a high prevalence of dental caries, with untreated caries in primary teeth reaching levels as high as 92% and 95.6% in some urban areas [20,21]. The development of human resources for both general and specialized dental care is vital, especially in anticipation of increased awareness and utilization of dental services following the successful integration of oral health into primary health care systems, as outlined in new national oral health policies [22].

Understanding what motivates dental students to pursue specialization in paediatric dentistry is therefore essential to promote child-focused dental specialties in regions characterized by diverse cultural and socio-economic contexts, which differ markedly from those in Europe and North America [23]. This study was carried out across multiple dental schools within the region. Dental education there typically spans six years: three years devoted to basic sciences such as anatomy, physiology, pharmacology, and biochemistry; one year focused on medicine, surgery, and pathology; and two years in clinical dental training involving rotations through ten specialties, including paediatric dentistry, orthodontics, oral and maxillofacial surgery, oral pathology, periodontology, oral

medicine, community dentistry, restorative dentistry, prosthodontics, and oral diagnosis and radiology. In four of the participating dental schools, paediatric dentistry instruction is delivered by specialist trainers. The present study aimed to identify the study motivations and career preferences of final-year dental students and to explore factors influencing their interest in paediatric dentistry as a potential career. This research forms part of a larger project, with some data previously published [20].

METHODS

A pilot study was completed in order to improve and refine the first version of the structured questionnaire. Six students who were preparing to retake failed final papers filled out the forms and gave opinions about how clear the directions and terminology were. Using the team's thoughts and the discussions that followed, the questionnaire was perfected. Twenty-two three questionnaires were sent out and 179 (80.3%) of them were completed and returned.

Each class was given a questionnaire and they completed and handed them in right after they finished writing. People who took part remained anonymous. Students learned what the study aims to accomplish and that their involvement was not mandatory. Apart from asking age and gender, the questionnaire also covered the areas described below. To learn about their motivations for studying dentistry, students rated 12 different reasons on a scale from 0, meaning no influence, to 5, meaning a major influence.

Those considering the profession had three options: not getting accepted to other fields, parents suggesting dentistry, help from friends or family, their own desire to study dentistry, preference for physical labor, liking creativity in dentistry, the hope for earning a good income, being self-employed, feeling certain dentistry would give social status, the willingness to improve people's health, participating in community health or doing research in dentistry. Scores were worked out for each motive and then used to place the reasons for travel into order. Scores of 0, 1 and 2 were given as an indication of low motivation and 3, 4 and 5 were read as strong motivation. Comparing a subgroup against the dichotomous group was easy. Researchers measured how students viewed paediatric dentistry by administering a seven-point semantic differential scale.

A rating between 5 and 7 meant favorable opinions, according to the study. The qualities considered were community benefit, importance, essential role, efficiency, use of science, attractiveness, value, simplicity, low cost and good use of time by the dentist. Only those who wanted to practise paediatric dentistry ranked 10 ways in which this career would affect them. Every factor was graded from 0 (not significant) to 5 (highly important) which enabled some factors to receive identical marks. Respondents were also able to name more important

factors and arrange them in order of importance. A score of 0, 1 or 2 was defined as low influence, but 3, 4 and 5 showed strong influence.

Statistical Analysis

The chi-square test was chosen to check whether there were significant differences in frequency between subgroups. People were grouped as male, female or other and age was sorted into three equal groups. The research team used the varimax principal component method to look for different dimensions in study motives, career preferences, views on paediatric dentistry and interest in this branch of dentistry. Because of this approach, we came to know some central reasons that shape students' motivation [10]. Items that had a factor loading of 0.60 or more on one factor were used in the setup for that item [8,13]. Composite variables were made by taking the scores from the highest loading items on each factor, adding them, then dividing the total by the number of items in the group. To check how reliable each scale was, Cronbach's alpha was used.

Participants were asked to score importance on a scale from 1.0 to 5.0. Scores were worked out for males and females separately by age group and the differences were examined. The Health Research Ethics Committee of the teaching hospital complex granted approval for the study. All participants provided their informed consent to take part. No personal information was used when gathering the data. Throughout the study, we worked hard to maintain all the ethical requirements regarding research participant care, data privacy and research methodology.

RESULTS

Survey responses indicate that being interested in dentistry and having the ability to own a business were the top reasons, both scoring an above average 3.40 and 3.30. They reveal that students mainly feel independent and very enthusiastic about teaching. Being well-paid and seen as socially important were strong factors for aspiring dentists. The average score of parents' recommendation was 3.50, indicating that family ideas play a key role in students deciding on their careers. Alternatively, motives connected to altruism such as wanting to improve oral health and participating in promoting community health, were given lower mean scores than other motives. This method further demonstrated that professional and financial factors play a strong role. Encompassing high income, being able to work for oneself and social status contributed 38% of the total variance and they were reliable indicators of students' motivations, with a good reliability score (Cronbach's alpha = 0.88). The load of community service and research interest was lower on this factor, suggesting that these play a less important role. Looking at the data by demographic factors, only minor differences were found between males and females and also between younger and older age groups, though these were not very significant. A slightly bigger number of male students recognized the main aspects of the profession relative to female students. On the whole, being ambitious as well as influenced by others helped guide the participants to decide to study dentistry. Educators and policy officials should understand these motivations to coordinate education and job planning with what students and society need.

Table 1: Distribution (%) of the responses by Nigerian dental students (n = 179) to the presented motives to study dentistry, and the mean scores given to each motive

Statements	Mean score	Frequency (%) of choices					
			0	1	2	3	4
Improving the oral health of people	2.65	25.0	15.0	10.0	12.0	13.0	25.0
Promoting health in communities	2.40	28.0	18.0	12.0	14.0	10.0	18.0
Having a research career in dentistry	2.20	30.0	20.0	10.0	13.0	12.0	15.0
Dentist by profession	3.40	10.0	10.0	8.0	14.0	18.0	40.0
A desire to work with one's hands	3.15	12.0	15.0	7.0	16.0	20.0	30.0
In dentistry, there are artistic themes	2.55	20.0	18.0	9.0	15.0	14.0	24.0
Dentists earn high incomes	2.75	18.0	10.0	15.0	18.0	15.0	24.0
Self-employment capability	3.30	12.0	12.0	8.0	10.0	20.0	38.0
Dental professionals' social status	2.90	17.0	10.0	13.0	15.0	18.0	27.0
Advisory from parents	3.50	10.0	8.0	10.0	16.0	20.0	36.0
A friend or relative's recommendation	3.25	11.0	14.0	12.0	15.0	17.0	31.0
Other programs not accepted	2.50	20.0	20.0	15.0	15.0	12.0	18.0

Table 2: Factor loadings* on study motives amongst senior dental students in Nigeria (n = 179).

Statements	Factors
	1
Dentists earn high incomes	*0.712
Being able to work for yourself	*0.758

Social standing of a dentist	*0.729
Helping people to improve their oral health	0.450
Contributing to the promotion of community health	0.375
Having a research career in dentistry	0.402
In dentistry, there are artistic themes	0.285
Parents' recommendation	0.125
Percentage of variance explained	0.38
Cumulative variance explained	0.38
Cronbach's Alpha	0.88

Table 3: Motive scale percentage distribution and mean for the final year dental students (n = 179) according to their four top-ranked motive to study dentistry and their background factors.

Motives	All (N=179)	Sex	P	Age	P
	%	Mean (SD)	Men (N=106)	Mean (SD)	Women (N=73)
Characteristics of the profession	50.8	2.54 (1.65)	52.8	2.60 (1.70)	47.9
Altruism and intellectual challenges	48.7	2.38 (1.60)	51.9	2.45 (1.64)	44.4
Existence of artistic theme in dentistry	43.5	2.05 (1.83)	41.5	2.10 (1.85)	46.6
Parents' recommendation	42.5	1.68 (1.69)	45.3	1.72 (1.71)	38.4

Figure 1: Motivations for Choosing Dentistry, Survey Results: Response Distribution with Mean Scores Overlay.

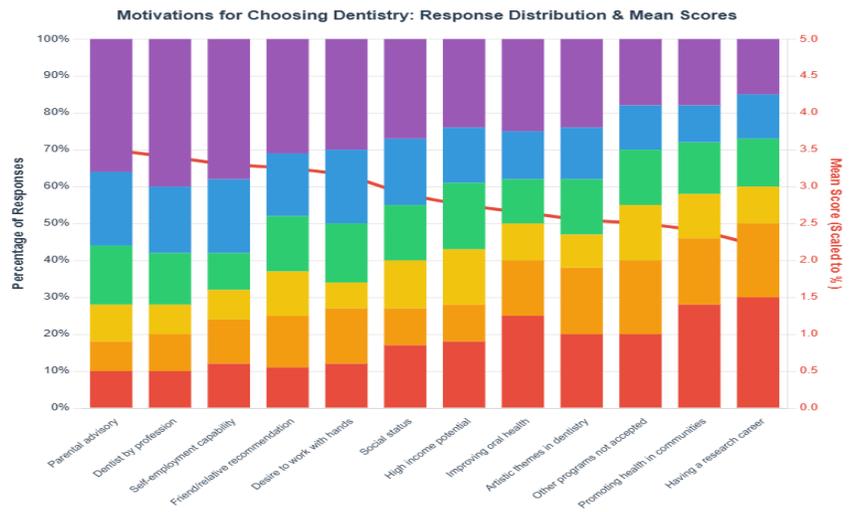


Figure 2: Factor Analysis: Study Motives, Factor Loadings Among Senior Dental Students in Nigeria (n = 179)

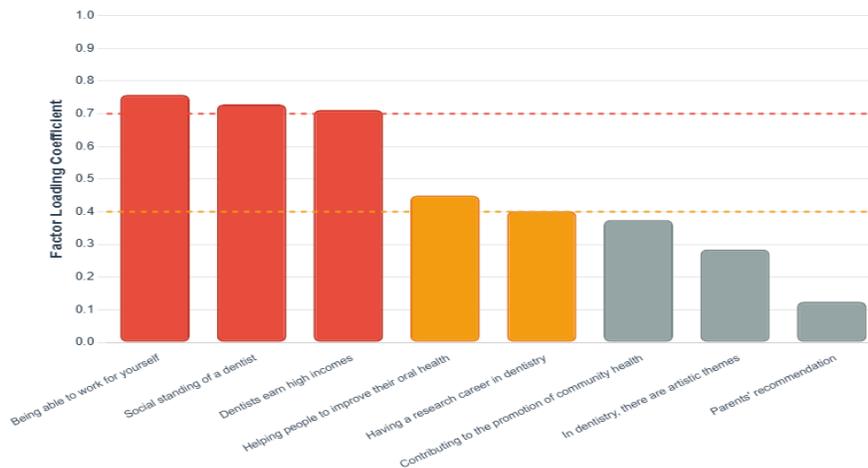
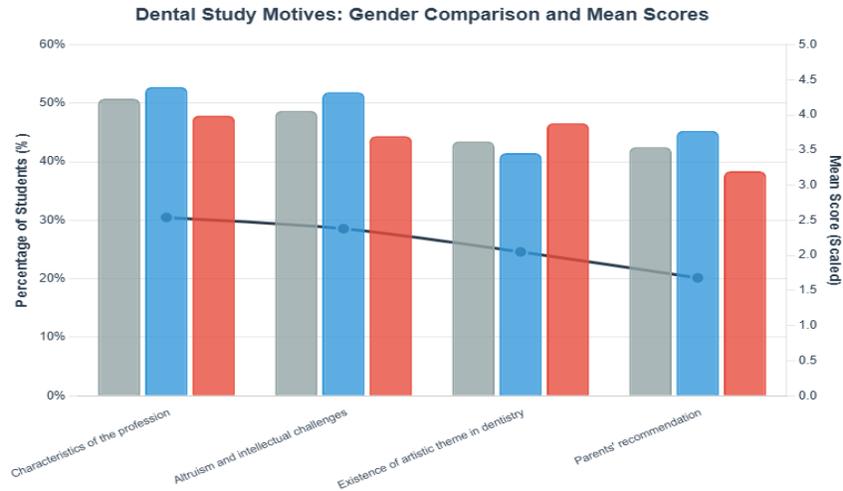


Figure 3: Dental Study Motives by Gender, Top-Ranked Motives Among Final Year Dental Students (N = 179).

DISCUSSION

We chose final-year students for our study because we thought they had enough time in the clinic to choose their future career paths wisely. Parental support, family or relative influences and the opportunity to work alone were the biggest reasons motivating students to pursue dentistry. It differs from reports in other regions, where dentistry was said to be a popular choice mainly because of social standing [8]. Our results support earlier findings [1–4,8] that job security is a major factor for students deciding on dentistry. People in environments where social security systems are lacking prefer fields that make it possible for them to earn money, develop their skills and control their own destiny. It was found that over 45% of those surveyed were the most motivated by pursuing altruistic and mental challenges. This situation is different from that seen in other countries where these factors received lower ratings [3,8]. The authors argue that, while community service is not emphasized in the curriculum, students' kindness to their community may be learned from their culture and society. High religious beliefs and social values that encourage caring in health situations could be involved. There is a risk that respondents answered in a way that was socially acceptable which is a problem common in research based on questionnaires [25]. Among the respondents, medical and dental research was the main route many chose, drawn in large part by the challenge to keep learning. This result is important for guiding workforce development activities. There are reports suggesting that male and female teenagers choose different subjects for different reasons but this study did not confirm such differences. Because of different cultures and societies, gender roles and expectations can be displayed in research differently. There were some small variations identified, so deeper research into what shapes these gendered career preferences in dentistry is needed. For the most part, students saw

paediatricdentistry favorably, but they thought it did not offer much room for financial gains. The reason may be that there are not many exclusive private paediatric dental practices, in comparison to orthodontics or oral surgery. For this reason, those who want to make more money might not choose to specialize in paediatric dentistry. Private practitioners usually make more money than public sector employees do. About 50% of the participants expressed interest in paediatric dentistry and many more males than females selected it. Female students are concentrating increasingly on paediatric dentistry in some countries according to previous studies [25]. In fact, the statistics for the past few years highlight that a larger share of males are applying for paediatric dentistry residency programs. Those choosing paediatric dentistry as a career did so because they were drawn by personal and professional interest, as well as by influence from family members. Most participants did not differ by gender or age in their motivations which points to a move beyond outdated ideas about radiology. It could suggest that wider societal shifts or strategic reasoning by students play a role, partly because some dental schools lack staff trained in paediatric dentistry, creating chances for new hires. A key advantage of this study is the high participation level which guarantees data reflects the target group. But, although questionnaires people answer themselves save time and money, they increase the possibility of socially liked responses. To assess motivation in paediatric dentistry, we used a questionnaire for dental students that had been used to measure their interest in general dentistry before [8]. Even if this adaptation makes sense, we still suggest further testing for it in future studies.

CONCLUSION

Final-year dental students were driven to pursue dentistry due to the inherent attributes of the profession, a sense of altruism and intellectual stimulation, the

presence of an artistic aspect within dentistry, and encouragement from their parents. The primary motivations for expressing interest in paediatric dentistry included personal enthusiasm, professional commitment, concern for the well-being of children, and family influence. Notably, a greater number of male students

than female students showed interest in paediatric dentistry; however, the underlying reasons for this interest did not vary significantly with gender or age. This trend may indicate evolving cultural influences shaping career decisions.

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