

Perception of Clinical Dental Students and Interns towards Prosthodontics and factors influencing its' choice as a future career.

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Abstract

Aim: The aim of this study was to determine the perception of clinical dental students and interns towards the specialty of prosthetic dentistry and also assess factors that may influence choice of prosthodontics as a future career

Materials and Methods: The study was a descriptive cross sectional study of clinical dental students and interns at the University of Benin and University of Benin Teaching Hospital. Questions focused on the perceptions and factors that influenced choice of the specialty of prosthodontics as a future career. Data was analysed using Statistical Package for Social Science (SPSS) version 17.0. The analysis was done using frequency distribution, cross tabulations, test of significance with chi square. $P < 0.05$ was considered statistically significant.

Results: A total of 122 respondents consisting of 21.3% penultimate students, 41.0% final year students and 37.7% interns returned filled questionnaires. Majority (93.4%) reported they know who a prosthodontist is and 91.8% agreed that there was a need for more prosthodontists in Nigeria. Less than half (35.2%) of the respondents felt that they were well prepared in prosthodontics and 77% thought they did not have enough exposure to prosthodontics. There was statistically significant association between respondents' perception of preparedness and exposure to prosthodontics and choice of prosthodontics as a future career.

Conclusion: There is a need to improve dental students and interns' exposure and preparedness to prosthodontics.

Key words: Perception, dental students, interns, prosthodontics and career.

Introduction

Prosthetic dentistry also known as prosthodontics according to the Glossary of prosthodontics terms is the area of dentistry pertaining to the diagnosis, treatment planning, rehabilitation, and maintenance of the oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth, and/or maxillo-facial tissues using biocompatible substitutes¹.

The prosthodontics subspecialties include fixed prosthodontics, implant prosthodontics, maxillofacial prosthetics and removable prosthodontics¹. It is recognised as a specialty by the

Canadian Dental Association, Australian Dental Association, American Dental Association and Nigerian Dental Association among others.

A career as a prosthodontist is an excellent choice for people with a strong interest in prosthodontics and treating a variety of patients. Patience, manual dexterity, good hand-eye coordination, good judgment, excellent communication, good interpersonal skills, ability to help patients feel at ease and good diagnostic ability are essential characteristics².

A study in the U.S. showed that dental students chose the dental profession mainly because the profession

involved working with people; it is autonomous and has self-employment opportunities³. It has been reported that enjoyment of providing care in a speciality or field was identified as the single most important factor in choosing a specialty in dentistry⁴. Hence, some dental specialties are able to attract trainees in large numbers usually at the expense of others⁵. Douglas and Watson⁶ in 2002 predicted a significant shortage of prosthodontics over the next decade.

Studies have been done on the perception of dental students⁷ and residents^{8,9} towards prosthodontics as a speciality but there is a paucity of such studies in Nigeria. However, studies on other specialties such as orthodontics have been carried out in Nigeria¹⁰.

Recognising the poor manpower in the prosthetic speciality in Nigeria and the need for information about dental students and interns' perception of the prosthetic speciality, this study aims to determine the perception of clinical dental students and interns towards the speciality of prosthetic dentistry and also assess factors that may influence choice of prosthodontics as a future career.

The working hypothesis was; the perception of clinical dental students and interns towards prosthetics dentistry is good and there are no factors that may influence choice of prosthodontics as a future career.

Materials and methods

The study was a descriptive cross sectional study of clinical dental students and interns at the University of Benin and University of Benin Teaching Hospital respectively. Ethical approval was obtained for this study from the College Ethics and Research Committee, College of Medical Sciences, University of Benin, Benin City, Edo state Nigeria.

A convenience sampling technique was employed. Informed consent was obtained from all the participants. The research tool was a self-administered questionnaire. Questions focused on the perceptions and factors that influenced choice of the speciality of prosthodontics as a future career.

Data was analysed using Statistical Package for Social Science (SPSS) version 17.0. The analysis was done using frequency distribution, cross tabulations, test of significance with Chi square. Confidence interval was set at 95% with p value <0.05 considered statistically significant.

Results

A total of 130 questionnaires were distributed 122 were filled and returned giving a response rate of 93.8%. Majority (74.6%) of the respondents were aged 26-30 years. Male to female ratio was 1.6:1. Less than half of the respondents were final year students, with the house officers and penultimate students contributing 37.7% and 21% respectively of the respondents (**Table 1**).

Table 1: Demographic Characteristics of Respondents

Characteristics		Frequency (n)	Percent (%)
Status	Penultimate	26	21.3
	Final year	50	41.0
	Interns	46	37.7
Gender	Male	75	61.5
	Female	47	38.5
Age	20 - 25 years	19	15.6
	26 - 30 years	91	74.6
	31 - 35 years	11	9.0
	>35 years	1	0.8
Marital status	Single	110	90.2
	Married	12	9.8
Religion	Christian	120	98.4
	Muslim	1	0.8
	Pagan	1	0.8
Total		122	100

Majority (93.4%) of the respondents knew who a prosthodontist is. Scarcity of prosthodontists was attested to by 86.1% of the respondents while 91.8% agreed that there was a need for more

prosthodontists. A little above half (54.9%) of the respondents enjoyed prosthetic laboratory work (**Table 2**).

Table 2: Respondents' thoughts about prospects of Prosthodontics

Prospects Of Prosthodontists	Frequency (n)	Percentage (%)
Salary		
Yes	101	82.8
No	21	17.2
Personal quality of life		
Yes	104	85.2
No	18	14.8
Patients' quality of life		
Yes	112	91.8
No	10	8.2
Overall impact on the dental profession		
Yes	112	91.8
No	10	8.2
Total	122	100

Less than half (35.2%) of the respondents felt they were well prepared in prosthetics and 77% thought they did not have enough exposure to prosthetics (**Table 3**). Irrespective of the status of the

respondents most of them felt they did not have enough exposure to prosthodontics. They were not prepared and they did not enjoy laboratory work though not statistically significant.

Table 3: Respondents' perception of laboratory work, preparedness and exposure to prosthetics

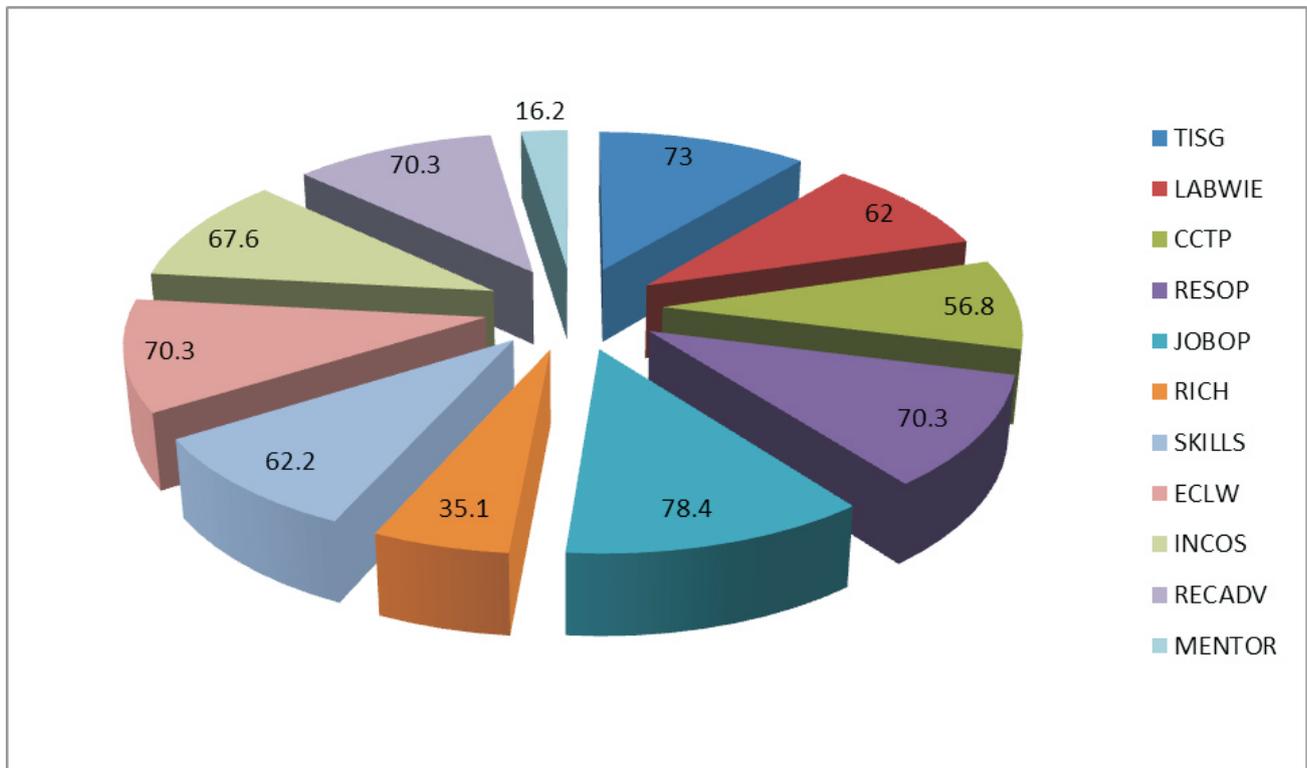
	Penultimate year n (%)	Final year n (%)	Interns n (%)	Total n (%)
Do you enjoy laboratory work				
Yes	17 (65.4)	26 (52.0)	24 (52.2)	67 (100.0)
No	9 (34.6)	24 (48.0)	22 (47.8)	55 (100.0)
Do you think you are well prepared in prosthetics				
Yes	12 (46.2)	17 (34.0)	14 (30.4)	43 (100.0)
No	14 (53.8)	33 (66.0)	32 (69.6)	79 (100.0)
Do you think you have enough exposure to prosthetics				
Yes	8 (30.8)	11 (22.0)	9 (19.6)	28 (100.0)
No	18 (69.2)	39 (78.0)	37 (80.4)	94 (100.0)

Above 2/3rds (69.7%) of the respondents intend to pursue postgraduate training in dentistry with only 30.3% (37) preferring postgraduate training in prosthodontics comprising 21.6% of penultimate students, 43.2% of final year and 35.1% of interns. Different reasons were given for choosing to pursue postgraduate training in prosthodontics with job opportunities reported more frequently (78.4%) and mentor being a prosthodontist being the least (Figure 1).

A few (20.3%) of the respondents did not want to pursue prosthodontics in postgraduate training because of the perceived poor remuneration of prosthodontists while 64.1% felt prosthodontists was boring for them to pursue at postgraduate level.

There was statistically significant relationship between intent to pursue postgraduate training in prosthodontics and self-assessed level of preparedness and exposure to prosthetic dentistry. (Table 4).

Figure 1: Reasons which influenced selection of prosthodontics as postgraduate speciality



*multiple response was given by respondents

Key: TISG--- Teacher is good, LABWIE--- Laboratory work is easy, CCTP--- Complexity and challenge of treatment planning, RESOP--- Research opportunities, JOBOP--- Job opportunities, RICH--- Prosthodontists are rich, SKILLS--- Possession of skills/talent suited for the

speciality, ECLW--- Enjoyment of clinical work, INCOS--- Intellectual content of the speciality, RESADV--- Recent advances in implant, aesthetics and reconstructive dentistry, MENTOR--- My mentor is a Prosthodontist

Table 4: Relationship between level of preparedness and exposure to Prosthodontics and intent to pursue postgraduate training in prosthodontics.

Do you intend to pursue postgraduate training in prosthodontics			
	Yes n (%)	No n (%)	Total n (%)
Do you think you are well prepared in prosthetics			
			p=0.002
Yes	21 (56.8)	16 (43.2)	37 (100.0)
No	17 (26.2)	48 (73.8)	65 (100.0)
Do you think you have enough exposure to prosthetics			
			p=0.02
Yes	13 (59.1)	9 (40.9)	22 (100.0)
No	25 (31.3)	55 (68.8)	80 (100.0)

Discussion

Prosthodontics is the branch of dentistry pertaining to the restoration and maintenance of oral function, comfort, appearance and health of the patient by the restoration of the natural teeth and/or the replacement of missing teeth and contiguous oral and maxillofacial tissues with artificial tissues¹¹. It relies on a great deal of cosmetic dentistry, which is generally down in a low- income economy, therefore making it impossible to predict exactly whether the specialty will be in high or low demand because of several factors such as location and expertise¹².

The response rate in this study was 93.8% which is more than 83% reported among pre-doctoral dental students and advanced standing dental students at the University of Pennsylvania School of Dental Medicine⁽⁴⁾. There was a male preponderance in this study giving credence to the fact that Dentistry in Nigeria is largely a male dominated profession¹³.

A greater need for more prosthodontists and positive outlook of the prospects of prosthodontics in Nigeria was revealed in this study. This is similar to reports of previous studies^{4,8,7,14} and may be attributed to the fact that in Nigeria there are insufficient number of trained prosthodontists and new dental schools are springing up^{15,16}.

Prosthodontists should have a solid understanding of the concepts and procedures of prosthodontics and be familiar with a variety of oral conditions and their related treatment. It has been reported that students tend to enjoy prosthetic laboratory work⁴ and this was observed in this study.

A higher percentage of respondents had intention to pursue postgraduate training in prosthodontics in

this study compared with report from a previous study⁴. This however does not translate ultimately to actual training in prosthodontics.

Despite initial positive introduction and the high perceived future needs of prosthodontics, only a few students seem to be interested in the specialty⁷⁻⁹. Job opportunity was the most frequent reason for those who decided to pursue prosthodontics as a career. This differed from "enjoyment of providing care" reported in other studies^{4,17}. This may be attributed to the fact that there is a high need for prosthodontists in Nigeria as only a few are presently practising.

Munoz et al¹⁸ found that mentoring within a specialty had some impact on the increasing pool of applicants to graduate programs in prosthodontics. In this study, having a prosthodontist as a mentor was the least reported reason for choosing the career. This may be explained by the fact that there is lack of a mentorship program in the training institution where this study was carried out supporting earlier observation that lack of mentorship program caused students to have less interest in the specialty⁷.

In India and South Africa prosthodontists earn average Nigerian studies^{5,19} identified that a career in prosthodontics was not appealing due to the perceived poor remuneration of prosthodontists and this was also revealed in this study. This may be attributed to the way prosthodontics is practiced in Nigeria which makes it seem to be a narrow and monotonous subject^{16,19}.

Preparedness and exposure to a subject has been reported to be an important determinant in program selection¹⁷. It is therefore not surprising to find respondents who felt well prepared and well exposed



choosing to pursue prosthodontics at postgraduate level, while those not prepared did not want to pursue prosthodontics as a career.

Conclusion

Given the high need for prosthodontists in Nigeria, there is a need to improve dental students and interns' exposure and preparedness to prosthodontics. This will contribute to prepare them for possible pursuit of prosthodontics as a future career.

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