

Perceptions and future aspirations of Orthodontic residents

Amnah Munir^a, Afeef Umar Zia^b, Haroon Shahid Qazi^c

Abstract

Introduction: The post graduation programs in any of the available fields in dentistry are the highest level of education available in the medical system of Pakistan. Investigating the resident's choice of program, level of satisfaction with the program and their future aspirations can provide fundamental information that can be used to improve and modify training curriculum and help ensure a higher level of satisfaction with the available residency programs.

Material and Methods: One hundred self administered questionnaires were distributed to several Orthodontic training programs across Pakistan. The questionnaire comprised of demographics, reasons for choosing orthodontics, level of satisfaction with the program, expectations after orthodontic training, cost of training (finances and time) and future aspirations.

Results: Majority of the residents were enrolled in the FCPS program, receiving salary. Majority of residents received salary; however, additional funding was required by almost all the residents. Eighty percent of the residents reported Orthodontics as their first choice of training program. The reputation of the supervisor and program were chosen as the prime reason for choosing a specific training program. The most popular reasons stated for choosing orthodontics as the first choice for training was no on-call duty. A clear majority of sixty-four percent wanted to pursue a teaching position after graduation.

Conclusions: The training programs must be developed to the highest of standards, at par with international standards and congruent with the expectations of residents.

Key words: Training programs; satisfaction; demographics

Introduction

Orthodontics is considered one of the most popular specialties in dentistry. In Pakistan, Orthodontics has been offered as a post-graduate training programme since 1990's. The Pakistan Medical and Dental Council has approved 4 year duration FCPS (Fellowship of the College of Physicians and Surgeons), 4 years MDS (Master of Dental Surgery), 2 year MCPS (Membership of the College of Physicians and Surgeons) and 2 year M-Sc (Master of Science) in Orthodontics programmes. Each program admits two to four residents annually following the BDS

qualification and a one year house job certification. This is usually followed by a competitive entrance/ bench examination. During their training, the residents are required to make considerable dedication in terms of time, commitment, hard work, finance and lifestyle.

Currently there are approximately twenty post-graduate programs in Pakistan with more than two hundred residents registered under FCPS, MCPS, MDS and MSc programs, with the majority being enrolled under the FCPS training.

The supervision and maintenance of standards regarding the clinical aspect of the training is overseen by the respective program supervisor. However, there is a lack of published information concerning the resident's perspective regarding their training. A number of surveys have been carried out in the United Kingdom, Canada and United States^{2,3,5-8} providing viable information regarding the resident's demographics, experiences, opinions and

^a Corresponding Author: BDS, Resident, Department Of Orthodontics, Islamabad Medical and Dental College, Bahria University, Islamabad, Pakistan. Email: amnah.munir@iideas.edu.pk

^b BDS, FCPS, M Orth RCS Ed. Assistant Professor, Department Of Orthodontics, Islamabad Medical and Dental College, Bahria University, Islamabad, Pakistan.

^c BDS, MS, Professor and Head, Department of Orthodontics, Islamabad Medical and Dental College, Bahria University, Islamabad, Pakistan .

selecting criteria for orthodontics as their preferred specialty.

This study is the first of its kind in Pakistan, providing us with valuable insight pertaining to the general perception among residents about orthodontics as a specialty. Furthermore, investigating the resident's choice of program, level of satisfaction with the program and their future aspirations and practice plans. This information can then be used to improve and modify the training curriculum and help ensure a higher level of satisfaction with the residency program.

Material and Methods

One hundred self administered questionnaires were distributed in March 2011 to several Orthodontic training programs across Pakistan, thereby surveying residents under training from year 2008 to 2011. The final sample composed of sixty five questionnaires. The questionnaire was adopted from a study conducted in the U.K in 1994 with minor modifications. The survey was completely anonymous with no trace of responses to neither the resident nor the program and the results are reported only as group data.

The questionnaire comprised of demographics, reasons for choosing orthodontics, level of satisfaction with the program, expectations after orthodontic training, cost of training (finances and time), future directions and aspirations.

Data analysis was carried out using Statistical Package for Social Sciences Version 22 (SPSS Inc). The frequency analysis and descriptive statistics were performed for all variables and the results were tabulated.

Results

Out of the one hundred questionnaires sent, sixty-five completed forms were returned. The highest percentage of residents, fifty-one percent fell into the age group of 25-30 years; however, the age range was very wide i.e. 20-

40years and above. Female to male ratio was sixty and forty percent respectively. Fifty-eight percent were married, of which forty-four percent with children. Forty one percent residents were unmarried.

FCPS catered to the highest number of residents i.e. sixty-eight percent of the total sample followed by, MDS, MCPS and MSc totaling to thirteen percent. Majority of residents received a salary (Table I). However, additional funding was required by almost all the residents (Table II).

Table I: Distribution of salary

		Program				Total
		MDS	FCPS	MCPS	MSc	
Salary	Yes	9	43	5	4	61
	No	0	1	1	2	4
Total		9	44	6	6	65

Table II: Sources of additional funding

Sources of additional income	Percentage
Financing by family support	61%
Financing by savings	18.5%
Financing by bank loans	0%
Financing by private practice	12.3%
Others	4.6%

Eighty percent of the residents reported Orthodontics as their first choice of training program, the second priority was operative dentistry followed by oral surgery and prosthodontics. The reputation of the supervisor and program were chosen as the prime reason for choosing a specific training program (Table III).

Table III: Reason for choosing a specific training program

Reasons for choosing program	% of Total N
Slot availability	32%
Program reputation	41%
Research	32%
Reputation of supervisor	57%
Clinical content	35%
Teaching	40%
Salary	17%
Geographic location	26%

Most residents applied to between one and seven training programs with the highest number applying for only one position. Only two percent of the respondents stated

acceptance to a maximum of three positions while most were only offered one. Sixty percent of the residents reported being accepted into their program of choice in the first year of application, with the highest percentage being accepted to FCPS program (Table IV). Less than fifty percent of the residents reported satisfaction with their respective programs (Table V).

Table IV: Time between application and acceptance

		Acceptance percentage		
		Yes	No	Percentage of Yes
Programme	MDS	4	3	44.4%
	FCPS	30	11	68.2%
	MCPS	4	1	66.7%
	MSc	1	1	66.7%
Total		39	16	60%

Table V: Satisfaction with the programs

		Satisfaction with Program		
		Yes	No	Percentage of Yes
Programme	MDS	0	7	0%
	FCPS	29	12	65%
	MCPS	2	4	33.4%
	MSc	0	4	0%
Total		31	27	47%

More than fifty-eight percent of the residents were employed in hospitals and only thirteen percent had private practice experience prior to their training.

The most popular reasons stated for choosing orthodontics as the first choice for training was no on-call duty, or because they could not secure a position in the preferred field of dentistry. Many residents also showed preference to orthodontics due to the quality of lifestyle and better job opportunities. Only thirteen percent of the respondents showed dissatisfaction with general dentistry (Table VI)

Table VI: Reasons for choosing orthodontics as specialty

Reasons for choosing orthodontics	% of Total N
Quality of lifestyle	21.5%
Better job opportunities	27.6%
Dissatisfaction with general dentistry	13.8%
Financial reasons	10.7%
Dentist in the family	4.6%
Orthodontist in the family	6.1%

No on-call duties	33.8%
Failed to secure a position in field of choice	30.7%
Other	4.6%

A clear majority of sixty-four percent wanted to pursue a teaching position after graduation. Fourteen percent only wanted to engage in private practice while six percent showed an inclination towards practicing in private and public hospitals. Surprisingly only two residents wanted a career in military practice (Table VII).

Table VII: Job expectation after graduation

After graduation	% of Total N
Practice in private hospital	6.5%
Practice in public hospital	6.5%
Practice in private set up only	21.5%
Teaching position	64.6%
Practice in military	3%

Ninety percent of the residents showed interest in practicing overseas with the most popular reason being a better lifestyle and brighter financial opportunities. When asked about the long term plans, most residents answered to have achieved their aims of becoming a consultant and having financial security.

Discussion

Orthodontics is a major specialty in the field of dentistry and favorite amongst prospective residents. The quality and standard of training is to be maintained and supervised by the respective supervisor, university/CPSP and PMDC but there is little published information concerning the demographics of trainees, their experiences, hardships and opinions about their training.

Most of the training programs in Pakistan provide their residents with a basic salary, however, the amount may not be sufficient enough to support the residents completely and many revert to additional sources for income and support. According to this study, a substantial portion of residents rely on their families or private savings for financial support, a few are engaged in private practice

or part time jobs. This may be an added stress to the residents in addition to the high pressure and demanding environment of many programs. About half the respondents in our survey were married with children making it even more difficult for them to manage their finances. Many residents might delay starting a family until after their completion of training due such financial issues. In a survey of women in the dental profession, Matthews and Scully suggested that women in U.K delay starting a family until their careers are more established.¹

Residents were allowed to choose between reasons for choosing orthodontics as their preferred field of training. The most frequently chosen reasons reported were absence of on call duties, better lifestyle, job opportunities and failure to attain a position in their first choice of subject. Keith et al² also reported good career structure in orthodontics and the absence of an on-call commitment as the main reason for residents choosing orthodontics in U.K. There was also some preference to the professional lifestyle of an orthodontist over an oral surgeon, with 18 per cent stating that their choice of orthodontics had been an alternative to oral surgery.² In another study⁴ it was stated that a quarter of residents chose to specialize in orthodontics for monetary benefits and the remaining 66.7% selected this specialty because they felt it was intellectually challenging. Noble et al^{3,5-8} reported that about 48% of residents in Canada and 66% of residents in USA chose orthodontic specialty for monetary benefits. Only about ten percent of residents in Pakistan chose financial reason for choosing orthodontics.

The reputation of a program and its supervisor was the most influential factor in determining the choice for joining a training program. Keith et al² reported that clinical content and teaching were indicated by none of the postgraduates as being reasons they had considered, contrary to which, forty percent of Pakistani orthodontic residents considered them to be important reasons. Geographic location was only a consideration

in about seventeen percent of the respondents indicating that residents in Pakistan maybe willing to train and potentially practice in farflung areas provided they get the right incentives and opportunities.

Several AAO sponsored studies found that the research aspect of orthodontic programs has been steadily decreasing while the clinical component has been increasing^{9,10,12,13}. Time dedicated to research has diminished as well as the number of residents publishing papers.¹³ A drawback result of this approach to graduate orthodontic education is the lack of graduates of residency programs interested in pursuing academic and research careers. Surprisingly a strong thirty percent of the residents showed interest in research, a slowly evolving aspect of orthodontics in Pakistan.

Unfortunately, only about forty percent of the respondents stated that they were satisfied with their respective programs, the rest felt their training didn't live up to their expectations. A fifth of the residents in the U.K felt their training programs did not meet their expectations.² The dissatisfaction percentage in Pakistan is almost three times that of residents in the U.K. Seventy-six percent in the United States were satisfied with their program. This suggests that U.S. orthodontic graduate programs are meeting the subjective needs of their residents.^{3,5} The resident's perspective in Pakistan as such had gone unnoticed prior to a survey like ours. Regular feedback received directly from residents can make their experience more exciting and stimulating.

It seems that most people entering a specialty are not well informed or counseled about it beforehand. A consultative body established at undergraduate level, might help candidates attain a better understanding of the requirements and curriculums of the field they are interested in. This will give the candidates a better chance of securing a position in their preferred field of specialty and possibly increase the amount of future satisfaction with a program.

Most people in training in United Kingdom hoped to stay in hospital service after graduation.^{2,11} In Saudi Arabia, orthodontic treatment is provided free of cost by the government, which may explain the reason for orthodontist's preference to work in the Government sector.⁴ However, a teaching position after post graduation was opted by almost sixty-five percent of the residents in Pakistan. This may be due to the inflation of medical and dental institutions in the private sector, providing an increased number of faculty positions. Private practice was the second popular choice of employment. Only about ten percent selected practicing in public hospitals or in a military setup.

More than ninety percent of the residents stated that they might consider working overseas for better lifestyle and financial opportunities. According to the Bureau of Emigration & Overseas Employment in the year 2014 alone, around 2074 doctors travelled overseas. A vast majority of Pakistani population therefore remains devoid of specialist orthodontic care. Proper job opportunities and incentives should be provided to specialists, so that a lot more orthodontists are attracted to public establishments. This will also prevent the outflow of specialist opting to emigrate overseas in pursuit of a better livelihood.

Sixty five out of one hundred residents; who were sent the forms completed the entire survey. The smaller sample size was a limitation of this study. Due to incomplete response, it may be unwise to draw generalizations from the results of this investigation. Although a small sample size was obtained, it nonetheless is a representation of orthodontic residents from thirty-seven programs distributed throughout Pakistan and general conclusions can be drawn.

Conclusions

Higher education is the need of the hour and most specialty training programs are exit/highest level of education available in

Pakistan. These must be structured and developed to the highest of standards, at par with international standards and congruent with the expectations of residents willing to undertake two to four years of training. The regulatory bodies must play a role in the development and implementation of by laws for standardization amongst all available training programs in Pakistan and create opportunities to stop the brain drain of specialists.

References

1. Matthews R.M and Scully C. Working patterns of male and female dentists in the UK. *Br Dent J* 176; 463-66.
2. Keith O, Stephens CD, Proffit WR, O'Brien KD. A survey of the opinions of orthodontic specialist trainees in the U.K. *Br J Orthod*. 1997;24:163-7.
3. Noble J, Hechter FJ, Karaiskos N, Wiltshire WA. Motivational factors and future life plans of orthodontic residents in the United States. *Am J Orthod Dentofacial Orthop* 2010;137(5):623-30.
4. Hamlan N, Moatazbellah M, Al-Ruwaihi, Shraim NA and Metwaaly AE. Motivations and future practice plans of orthodontic residents in Saudi Arabia *J Orthod Sci*. 2013 Apr-Jun; 2(2): 67-72.
5. Noble J, Hechter FJ, Karaiskos N, Wiltshire WA. Resident Evaluation of Orthodontic Programs in the United States. *Journal of Dental Education*. 2009 Nov;73(11):1286-92.
6. Noble J, Hechter FJ, Karaiskos NE, Lekic N, Wiltshire WA. Future practice plans of orthodontic residents in the United States. *Am J Orthod Dentofacial Orthop*. 2009;135:357-60.
7. Noble J, Hechter FJ, Karaiskos NE, Wiltshire WA. Resident evaluation of orthodontic programs in Canada. *J Dent Educ*. 2009;73:192-8.
8. Noble J, Karaiskos N, Wiltshire WA. Motivations and future plans of Canadian orthodontic residents. *Am J Orthod Dentofacial Orthop*. 2009;136:644-50
9. Sinclair PM, Rudolph DJ. Orthodontic graduate education survey. *Am J Orthod Dentofacial Orthop* 1991; 100:465-71.
10. Sinclair PM, Alexander RG. Orthodontic graduate education survey. *Am J Orthod* 1984;85(2):175-81.
11. Keith O, Proffit WR. Orthodontic training: The residents' perspective. *Am J Orthod Dentofacial Orthop*.1994;106:649-53.
12. Keim RG, Sinclair PM. Orthodontic graduate education survey, 1983-2000. *Am J Orthod Dentofacial Orthop* 2002; 121:2-8.
13. Rudolph DJ, Sinclair PM. Orthodontic graduate education survey. *Am J Orthod Dentofacial Orthop* 1997;112:418-24.