Orthodontics Around the World

Orthodontics in Nigeria: journey so far and the challenges ahead

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Abstract. *The practice of orthodontics in Nigeria has witnessed a gradual, but steady development since its introduction about three decades ago. The undergraduate orthodontic training that was fashioned after the British model has evolved from a concentrated course of lectures to a more clinical/practical orientated programme. The local postgraduate training, however, needs to be restructured and strengthened in order to face the challenges ahead. The importance of constant upgrading of knowledge and skills in all areas of orthodontics is also emphasized.*

Index words: Epidemiology of Malocclusion, Orthodontics in Nigeria, Orthodontic Services, Postgraduate Programme, Undergraduate Education.

One who is contented with what he has done will never be famous for what he will do.

(Christian Bovee)

Introduction

Nigeria is a relatively young country, having gained independence from Britain in 1960. It is the most populous black country in the world and demographically, one in four Africans is a Nigerian. Presently, the country has a population of about 120 million people with a total land area of 923,768 km^2. Its greatest length from east to west is about 1123 km and from north to south is 1040 km. Nigeria's immediate neighbours are the Republic of Benin to the west, Republics of Niger and Chad to the north, the Republic of Cameroun, and the Gulf of Guinea are to the east and south, respectively.

Recent information on the demographic characteristics of Nigeria shows that the situation is similar to that of other countries in the developing countries. Almost one-half of the population is under 15 years of age, with only a small percentage of the total population being 65 years and above. There is a preponderance of young persons in the population and the burden of childhood dependency is consequently high. There are about 300 different tribal and linguistic groups within the border of Nigeria. Of these, only about 10 principal national groups constitute more than 80 per cent of the entire nation. The majority of the people are agarians and over 70 per cent of the population live in rural communities.

Historical Background

Unlike her nationhood, dentistry in Nigeria has a much longer history. Modern dental practice started about 65 years ago with only two dentists working in the then British colony. Pearson and Cunningham were the earliest qualified dentists that practised in Nigeria between 1935 and 1937 with a total caseload of 1858 patients of whom 55 per cent were expatriates, while the remaining 45 per cent were Nigerians. At the moment, there are less than 2500 registered dentists in the country with only 12 qualified orthodontists in either private practice or academic appointments.

Dental Schools

The dental school of the College of Medicine, University of Lagos is the oldest dental school in Nigeria and indeed the first dental school to be established in black Africa. The school was established in September 1966 as a single department under the chairmanship of a British National, Professor J. W. Fox-Taylor, and graduated the first batch of eight students in June 1971. It was later re-organized into three departments: Oral Surgery and Oral Pathology, Restorative Dentistry and Preventive Dentistry. The number of dental schools rose from one to four (all in south-western Nigeria) in 1977 with an annual graduate intake of about 100 dentists. In the whole of sub-Sahara Africa, there are 16 dental schools as against seven for the entire continent about 28 years ago (Jeboda, 1997)

The prevailing philosophy at Nigerian dental schools is undoubtedly strongly influenced by the former colonial link with Britain. Local needs and demands have also influenced the curricula in the dental schools. Lately, there is a growing pressure to revolutionize dental education in Nigeria along the oral disease patterns, available resources, manpower, and infrastructures (Jeboda, 1997).

Undergraduate Orthodontic Training

The orthodontic teaching curricula in the four dental schools have been fashioned after the British model and

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0301-228X/01/010000+00$02.00

are, therefore, very similar with slightly different contact-time allocation.

In the early and late 1970s, undergraduate orthodontic training in Nigeria involved a concentrated course of lectures for a period of one month with little or no practical demonstration for the final year students (Isiekwe, 1987). These instructions were given by a number of visiting British and American orthodontists including Professor Andrew Richardson of Queen's University, Belfast; Dr Wayne Logan, an American Baptist Missionary orthodontist; Mr James Gardiner, formerly of the University of Sheffield; and Mr Allen Bradbury of the University of Leeds Dental School.

In 1979, the first Nigerian trained orthodontist, Dr Michael Isiekwe (now a Professor at Lagos Dental School) returned from Belfast to assume the responsibility of teaching orthodontics to the dental students in the four dental schools. The dearth of specialist orthodontists continued until early 1980s when other foreign trained orthodontists returned to the country. Again, in the late 1980s and early 1990s, during the Structural Adjustment Programme (SAP), when there was a downturn in the economy, the country also witnessed a mass exodus of experienced and well-trained specialists in dentistry (including orthodontists) to other countries for economic reasons. At present, instruction in orthodontics in various dental schools are given by resident orthodontists on academic appointments, with the exception of Ibadan dental school, where undergraduate orthodontics is taught by an Associate Lecturer. In these schools, orthodontic training is given in the last 2 years of the 5-year dental programme. Clinical work is concentrated on the recognition, assessment, and treatment of simple orthodontic cases using removable appliances. Students are also taught the basic principles of simple fixed and functional appliances.

Postgraduate Education

In 1969, Decree 44 empowered the Nigerian Medical College to conduct postgraduate examinations in specialized branches of medicine and dentistry. This College, which was then known as the National Postgraduate Medical College (NPMC), and conducted its first examination in dental surgery in May 1979. This national postgraduate dental programme, the Fellowship of the Medical College in Dental Surgery was initiated in response to the society's growing demand for Nigerian Dental Practitioners who are not only experts in the different specialties of dentistry, but are also able to perform well within the social, cultural, and economic context of Nigeria. Also the West African Postgraduate Medical College (WAPMC), a specialized agency of the West Africa Health Community, initiated their first training programme in dental surgery in October 1979. The two examination bodies offer parallel but similar programmes. The training programme runs through three levels namely: (1) the primary stage involving the basic medical and dental sciences; (2) junior residency (Part I) designed to equip residents with relevant competence for routine management of all common oral and dental conditions at a level of proficiency higher than that of the undergraduate; and (3) senior residency (Part II) which seeks to produce a specialist dental surgeon with definite expertise in one of the various disciplines of dentistry including orthodontics. Only the Fellowship of the West African College of Surgeons (FWACS) examinations are being moderated in parts by specialists from the Royal Colleges of Surgeons in Britain. The training programme covers a minimum period of 4 years after passing the primary examination (2 years for each part of the examinations). At present, only eight candidates have so far completed the training programme in the orthodontic specialty since its inception. Whilst the NPMC and WAPMC are responsible for accrediting postgraduate courses in all the teaching hospitals, the Nigeria University Commission (NUC) is charged with the responsibility of accrediting undergraduate programmes. The FMCDS and FWACS are registerable with the Medical and Dental Council of Nigeria as additional postgraduate degrees in orthodontics.

Continuing Education in Orthodontics

The importance of constant upgrading of knowledge and skills is obvious, and no one can hope to provide the best orthodontic service while remaining stagnant. Today, a committee of the Nigerian Dental Association (NDA) is charged with the responsibility of organizing courses and conferences in orthodontics. Short courses are being organized for the general dental practitioners particularly in the application of removable appliances. Similarly, each of the two examination bodies (NPMC and WAPMC) conducts revision courses and updates twice a year in all disciplines of dental Surgery including orthodontics.

Epidemiology of Malocclusion

Reports on demand and the need for orthodontic treatment in Nigeria are still scanty. There are no comprehensive national data on orthodontic needs and services in Nigeria. According to the recently published data on12–18-year-old Nigerians using the British IOTN (DHC), about 12·6 per cent are in 'definite need for orthodontic treatment' (Grades 4 and 5). Whilst 25·0 and 61·6 per cent are in 'moderate/borderline need for treatment' (Grade 3) and 'no need for treatment' (Grades 1 and 2), respectively. The aesthetic component showed that whilst the majority of the subjects (66·5%) had an appearance where the treatment required was either 'slight or not indicated', 26·6 per cent had a 'moderate or borderline need' for treatment. Only 7 per cent were considered to be in 'definite need of orthodontic treatment'. Using Nigeria as an example, one can say that the dental aesthetic perceptions of Africans are similar to the rest of the world.

Orthodontic Services

Naturally, one would expect that those in need of orthodontic treatment should have orthodontic care. Unfortunately, not many have access to such care. This is due partly to the fact that orthodontic concern is still given low priority in oral health care in Nigeria. At present, orthodontic care is, by and large, provided on the basis of 'fee for

service' by a few trained specialist orthodontists in private and government hospitals. This makes it rather expensive and unaffordable. Only four of the 19 teaching hospitals provide orthodontic services. The general hospitals only provide treatment at the general dental level.

However, the Medical and Dental Council of Nigeria (MDCN) is responsible for enforcing standards of practice by members across the country.

Recently, a National Health Insurance Scheme (NHIS) was established under Decree no. 35 of 1999 by the Federal government of Nigeria to improve the health care of all Nigerians at a cost the government and the citizens can afford. This scheme was informed by the general poor state of the nation's health care services, excessive dependence, and pressure on government-provided health facilities, inadequate participation of private health services, and inappropriate distribution of health facilities in the country. The NHIS was billed to commence in January 1 2000, but is yet to take off due to a number of logistical problems. It is hoped that when the scheme finally starts, that more patients would have access to orthodontic care as the burden of cost of treatment would be shared by employees and employers. Also the specialist orthodontists would be better remunerated.

Conclusion

Even though the practice of orthodontics is relatively young, it is the national aspiration to make Nigeria a centre of excellence for orthodontic care, providing orthodontic services, that are readily available and affordable to everyone. For the country to make a definite impact in this area, the Federal and State governments' budgetary allocation needs to be increased substantially. The Postgraduate training in orthodontics also needs to be restructured and strengthened in order to face the enormous challenges ahead.

Orthodontic research, the practitioners' silent partner has been neglected and is virtually non-existent. For planning and development, this area also needs to be given a reasonable priority.

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