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## Dental education in Nigeria The journey so far and the way Forward

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### Introduction

I bring special retirement greetings from the School of Dental Sciences of the College of Medicine of the University of Lagos and also from the Faculty of Dental Surgery of the National Postgraduate Medical College of Nigeria to our very distinguished and highly respected senior colleague in the person of Professor Henry Ajagbe Ajagbe. When I learnt of the retirement of Prof. Ajagbe, what quickly came to my mind was that Dentistry in Nigeria and indeed in Africa will be mission the services of another giant pillar in the profession. I then consolved myself by settling down and appreciating what Professor Ajagbe and a few others have contributed to the growth and development of Dentistry in Nigeria, especially in the last few years and especially during the period of massive movement of dental personnel to the greener pastures, and I then concluded that this a man who can stand high and chest out that he has contributed to the development of dental profession in Nigeria.

I have interacted with Professor Ajagbe in so many ways. Apart from he being my teacher, I have served on many panels with him and have also co-examined with him. All these date as far back to 1965 till date. All along I have learnt a lot from him he is a teacher, an uncle and a leader worthy of emulation. When Dr. Lawoyin, the Ag. Dean of the Faculty of Dentistry at the University of Ibadan, requested me to give a lecture in honour of Professor Ajagbe's retirement, I regarded this as a honour and a chance to show appreciation to the retiring Professor for his contribution to Dentistry in Nigeria.

### The Lecture

The title of this retirement lecture is "Dental Educaion in Nigeria – The journey so far and the way forward".

I have chosen this title because there is need for us to know when and where we started the journey, how far we have gone with the journey and then to find a way forward.

The first and most important thing perhaps is for us to ask ourselves "What is Dental Education". I reckon

that this is important because most people, even among the dental school teachers, tend to thinks that dental education is all about the training of the dental surgeon. Dental education involves the training of both the dental surgeon and the paradental staff, that is the operating and non-operating dental auxiliaries such as the dental hygenists, the dental therapists, the dental surgery assistants, the dental nurses and the dental technologists. The education and training of the paradental staff are therefore of interest to us when we are considering the issue of dental education in Nigeria.

We are all very familiar with the history of dental education in Nigeria and I will therefore not want to bore my audience with the chronological history of the establishment of dental schools in Nigeria. Suffice it to say that the journey started in Lagos in 1965 when the first dental school in Nigeria and indeed in Black Africa was established at the College of Medicine of the University of Lagos. Subsequent to this, the dental training institutions in Ile-Ife, Ibadan and Benin were established in that order. It is pertinent to mention that of these four dental training institutions, it is only the one in Benin that started off as a full-fledged Faculty. The Lagos dental school started off as a Division of Dentistry and later developed into a School of Dental Sciences and it is so till today. The dental training institution at Ile-Ife started as a School and has metamorphosised into a full-fledged Faculty. The story of the training institution in Ibadan is the same as that of Ile-Ife and I am very happy to note that the Ibadan training school was recently granted full-fledged Faculty status. While I congratulate all the Ibadan Faculty members of staff, both academic and non-academic, for this achievement, I wish to thank the College of Medicine of the University of Ibadan and more importantly the University of Ibadan for the tremendous support given to the achievement of this goal. The dental profession in Nigeria has noticed this with a lot of admiration.

### Dental Education

Dental education involves the training of dentists and dental auxiliaries with the ultimate aim of producing an

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oral health team which will work together harmoniously in the provision of oral health care to the communities it is intended to serve. The dental profession in Nigeria, like in most of the African countries, has tended to think only of the training of the dentist when considering the subject of dental education and the profession has failed to appreciate that the training of the paradental staff, especially the dental auxiliaries, forms an important core of dental education.

The purpose of the relevance of the education of the dental auxiliary is obvious. The dentist, when finally produced from the dental school, cannot successfully practise without the auxiliary staff, especially the dental nurses. We are now in the era of four-handed dentistry and the benefit of four-handed dentistry cannot be overemphasized especially as regards the training of the dentist.

The dental profession in most African countries with a few exceptions, has also wrongly assumed that only dentists can effectively provide oral health care for the community and the profession has therefore over concentrated on the education of the dentist. The successful training, employment and utilisation of dental auxiliaries in the provision of oral health care has been well documented [1-5].

Not only has the dental profession in Africa wrongly over concentrated on the training of the dentist, but we have also done so in serious defiance of the oral health status of the communities for which we are meant to provide oral health care. It is in recognition of this misconception that there is a need to seriously and very objectively review our dental undergraduate training curricula in Africa so as to assess their relevance to the oral health needs of the African communities. There also a need to look at our postgraduate dental training and to justify its relevance to our environment. The training of dental auxiliaries, both the operating and non-operating types, should also be objectively assessed in order to determine their relevance to oral health needs of the society.

There are currently 16 dental schools in the whole of Sub-Sahara Africa as against seven for the whole of the continent about 26 years ago [6]. Of these 16 dental Schools, four of them, that is 25%, are in Nigeria. These are the dental schools in Lagos, Ibadan, Ile-Ife and Benin. The teaching curricular in the four dental schools have been fashioned after the British pattern and they are therefore very similar with slightly different contact-time allocation for the various subjects in the curricular. I have a strong feeling that there should be a revisitiation of these curricular so as to justify the oral health needs of our ever-growing population.

Dental education, be it at the undergraduate level, postgraduate level or at the dental auxiliary level, must conform with the oral health status of the society. We therefore must ensure that we train oral health personnel whose skills will be relevant to the needs of the society. Here in Nigeria, like in most other African countries, we have adopted the Western-oriented types of dental undergraduate training programme and experience has shown that we have ended up producing dentists for other regions of the world. Even in some of the African countries where dental auxiliaries are trained, policy makers tend to pattern their job descriptions, designations and training programmes after those of industrialized countries [7]. This often tends to cause confusion and misunderstanding in the entire dental profession. Dental education in African needs to go through a drastic revolutionary stage in which severe deviation from the Western-oriented training programmes should be adopted. Apart from the our training programmes being fashioned after oral disease patterns, available resources in terms of finance, manpower and infrastructures should be taken into consideration. There must be proper prioritisation of interests and the stage of societal development must be taken into consideration. The relevance of post-graduate training in the different specialities to the needs of the society should also be properly addressed as this would avoid possible frustrations arising from lack of job facilities on completion of post-graduate training.

A review of our dental undergraduate programmes in the African region, Nigeria inclusive, reveals that far too much emphasis has been placed on the teaching of restorative procedures and its associated subjects thus leaving fewer hours for other dental clinical subjects and the teaching of medicine, surgery and other associated clinical subjects.

In Nigeria, the larger proportions of the communities, more than 80%, reside in the rural areas and the most prevalent disease among them is periodontal disease. Even among the city elites, periodontal disease still exists in large amounts. It is pertinent to realize that the natural history of the disease suggests that it develops in a linear progression throughout an individual's life time and the severity or otherwise of the disease will depend on the oral hygiene of the individual. While periodontal disease is the most prevalent oral disease among Nigerian rural populations, many studies have shown that dental caries is the most common oral disease in the Nigerian urban populations and that it is steadily increasing particularly among children from affluent socio-economic homes [9]. The important conclusion to draw from all these is that

preventive dentistry should be the bedrock of the dental undergraduate training programme for the future African dentist and hence the need for the prominence of Community Dentistry in the dental undergraduate training programme. This approach will be more cost-beneficial and more cost-effective for the developing countries with lean budgetary allocations for oral health care more so as the cost of maintaining curative oral health services has been found to outstrip the financial resources of even the most prosperous countries of the world [10]. The cost-effective utilisation of both operating and non-operating dental auxiliaries in the prevention and treatment of these two major diseases has been emphasized [2,3,5].

The dental undergraduate curricula in most African countries have fashioned after those in the developed countries despite the fact that these curricula have been found to be too technically restorative-oriented and there is ample evidence to prove their failure even in the developed countries [2,7,11-20]. The significantly observable lack of sufficient preventive care in dental practice has also been reported [20,21-25] and it has been advised that programmes for oral health care must recognise the paramount importance of prevention if they are to be effective and economical [26].

Since the typical Nigerian dentist is also confronted with all sorts of medical ailments, especially when practising in the rural areas, there is need for him to have a good knowledge of general medicine and general surgery [8]. The contact hours provided for medicine and surgery in Nigerian dental schools are too small to achieve this objective. A similar observation has also been made in the case of South African dental schools [6]. With the current HIV/AIDS pandemic in some African countries, the importance of teaching Dental Medicine to dental undergraduates cannot be over emphasized. It is suggested that African dental schools should embark on well-structured Dental Medicine undergraduate training programme. It is also proposed that more time be devoted to medicine and surgery and other related subjects in the dental undergraduate training programme. This helps to make the products of the dental schools very alert wherever they may Practice.

For a good education of the Nigerian dental undergraduate, it is being proposed that close contact should exist between the dental and medical undergraduates during their training for purposes of sharing knowledge. The advantage in training these cadres together is very tremendous [27]. It is also proposed that the dental undergraduate undergoes a compulsory rural area posting during his training so as to make him familiar with the community he would eventually serve. His training should

also bring him in contact with primary health care workers so as to achieve a proper integration of oral health care into primary health care [27]. In addition and more importantly, his training should be alongside the training of dental auxiliaries.

### **The Training of Dental Auxiliaries**

The discussion on dental education in Nigeria cannot be completed without reference to the training of dental auxiliary staff in different parts of the country. In Nigeria, the training of dental technologists and dental hygienists (now called dental therapists) started before the emergency of dental schools. Formal training for Dental Surgery Assistants (DSAs) however started with the inception of the Lagos Dental School in 1969. The Dental Surgery Assistant training was patterned after that of the British and the products though very few, were of high quality who served creditable in various parts of Nigeria. Unfortunately and also for unknown reasons, the Lagos Dental Surgery Assistant training terminated in 1978.

In 1979 the Oyo State Ministry of Health embarked on an experimental training programme at its School of Health Technology in Ilesha. Even though this three-year programme was aimed at producing the New Zealand type of dental nurse, there was a lot of controversy on it right from inception. The dental profession in Nigeria could not support this programme more especially since there was no proof that there would not be malpractice on completion of training and that the products would restrict themselves to treatment of children alone. The Ilesha School was therefore compelled to fold up after four years of its existence [28].

Another school for dental auxiliary took off in 1985 at the Ondo State School of Technology in Akure. The intention was to train Dental Surgery Assistant since the Lagos School has stopped training this cadre. Unlike the training programme in Ilesha, the Akure School has enjoyed the active support and collaboration of virtually all the dental schools to date. Through rotational postings to existing dental schools, their trainee Dental Surgery Assistants have been exposed to the superior organization and facilities of the Dental Teaching Hospitals in the country.

### **The way forward**

Caution needs to be exercised in starting new dental schools in Nigeria and indeed in any part of the African region. New dental schools should not be established for geographical reasons. There must be a very strong evidence of need before embarking on establishing new dental schools. In establishing these schools, certain question need

to be addressed [7] and the questions are as follow:

- \* Are the number of dentists being trained in the African region necessarily needed for the oral health needs of the various African countries?
- \* Can the countries afford to employ all the dentists on completion of their training?
- \* Is there a serious need in the continent for the sophisticated procedures on which a major part of dental undergraduate training is concentrated?
- \* What percentage of the society can afford the cost?
- \* What percentage of the cost can the Government take care of?
- \* What in general are the oral disease patterns in the populations we are caring for?
- \* Should we now not start thinking of more concentration of the training of dental auxiliaries?

This is not to say that we are not going on with the training of the dentists but that we have to train a few that will be fully and effectively utilized and also effectively assisted by properly trained dental auxiliaries.

### Conclusion

There is need to ensure that the nature and type of dental education provided in Nigeria, and indeed in developing countries, is related to oral health needs of these countries. The cost of such training must not be so high as to embarrass the financial pursue of dental education. The present dental undergraduate training in most developing countries, and more especially in Africa, is too Western-oriented and needs to be reviewed. Emphasis should be seriously focused on the improvement of the training and utilisation of dental auxiliaries in the African region.

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