

## **An Historical Overview of Dentistry in Trinidad and Tobago**

Rahul Naidu, Visha Ramroop and Reisha Rafeek

### **Introduction**

To some extent the development of dentistry in the Caribbean parallels that of European societies. Both have their beginnings largely in folk and lay practitioners providing dental care, before the arrival of qualified dentists and, ultimately, the establishment of an organized and self-regulating profession. This paper discusses dentistry in Trinidad and Tobago during British rule, the setting up of the government dental service and its development in the early post-colonial period, in particular the training and deployment of dental nurses. The introduction of dental legislation relating to self-regulation of the profession, ensuring standards of care and outlawing unlicensed dental practitioners is also explored, along with issues relating to the development of the region's first dental school and the graduation of locally trained dentists.

### **Medical and Dental Care in the Colonial Period**

During the early colonial period, the emphasis of healthcare was on maintaining a functional labour force for the plantations which was organized through the estate owners. However, after emancipation this was no longer seen as their remit and healthcare became the duty of the British Government.<sup>1</sup> Poverty, poor housing and malnutrition resulted in epidemics of infectious disease being common. There was high mortality from cholera and typhoid, despite vaccines being in existence.<sup>2</sup> An 1885 newspaper editorial in Port of Spain highlighted the problems as follows:

“hordes of destitute and suffering creatures, more or less ill-fed, their diseases unattended to and their abodes the scene of squalor and every unwholesomeness.”<sup>2</sup>

Medical care would have been largely provided by white colonial doctors. However, there were instances of freed slaves attaining medical training. These African descended doctors ran into conflict with the colonial establishment which sought to restrict their medical practice. One such case was Francis Williams, born a slave, but sent to London to be trained as a doctor at the Royal College of Surgeons. On his return to Trinidad, he was refused a license to practice by the Medical Board on the grounds that he was coloured and his mother was still a slave.<sup>3</sup> This important case was eventually resolved with Williams' name appearing on the list of registered medical practitioners in 1830.

Very little is known about dental care in the West Indies during the early colonial period. In 1821, the schedule of treatment by medical practitioners, authorized by the Governor and Commander-in- Chief of the island, Sir Ralph Woodford, included “Extracting a tooth - 16 shillings”, “Ditto on a slave - 9 shillings.”<sup>4</sup> It can be assumed that dentistry was rudimentary and crude extraction work under poor septic conditions were the norm for plantation workers, be they slaves or later the indentured Indian

workers. Folk healers were probably common as enslaved West Africans brought many religious and folk traditions with them. These continued to form part of their belief systems even after conversion to Christianity. It was reported that in Tobago “doctors hardly ever entered these villages, people either died or sought the healing medicine of the obeahman.”<sup>5</sup>

It is thought that early Indian jewelry makers and goldsmiths may have provided some ‘dental care’ as ‘gold teeth’ were popular in the Indian community as a sign of prosperity. Thus, VS Naipaul describes in his story ‘My Aunt Gold Teeth,’<sup>6</sup>

“She had sixteen of them, had married early and married well and shortly after her marriage she exchanged her perfectly sound teeth for gold ones to announce that her husband was a man of substance.”

Shortly after the second World War, the first wave of foreign-trained dentists, mainly from the United States (Howard and Northwestern University), began setting up practices in the two main cities, Port-of-Spain and San Fernando. However, for many years there remained a critical shortage of trained dentists and organized dental care was severely lacking. The practice of ‘quack’ dentistry, commonplace throughout Trinidad and Tobago’s colonial history, was popular among the rural poor who had very limited access to healthcare. Medical doctors provided some emergency care as dental extraction techniques formed part of their internship training at the University of the West Indies during the 1950s. During that decade, the practice of dentistry fell under the purview of the Medical Board of Trinidad and Tobago with whom trained dentists could register.

The government dental service was established in 1945 with Dr Harold Mclean as its first Senior Dental Surgeon. The 1946 Report of the Director of Medical Services<sup>7</sup> states that there were three full-time and four part-time dental surgeons in the government service. Further, that there were nine dental clinics in operation throughout the country, and access to dental care at these clinics was given to primary schoolchildren. The report also stated that talks on the care of the teeth were being provided by the Health Education Officer at several centres. According to the report, significant attention was paid to preventive dentistry:

“The six-year permanent teeth were given due attention and conservative treatment was provided for deep pits and fissures. In addition, steps were taken to prolong the usefulness and retention of the temporary teeth which have a direct bearing on nutrition and the development of the jaws.”

In 1961, the Interdepartmental Committee on Nutrition for National Defence conducted a survey among a number of West Indian colonies. As part of the survey, dental examinations were conducted by two trained dental professionals. Two thousand people were examined. The survey reported that in Trinidad, tooth decay was common and that poor oral hygiene and gum disease were prevalent among the rural communities.<sup>8</sup>

### **Dentistry after Independence**

The shortage of dentists in Trinidad and Tobago, and consequent lack of access to care, constituted a problem inherited by the first national government in 1962. It

reflected a regional dilemma, well-documented, though significantly ignored. One commentator stated:

“The ratio of dentists to population in the Caribbean islands is lower than the physician to population ratio ... dental defects may cause pain and distress, yet as they are seldom fatal the public and the government is not inclined to consider them of primary importance.”<sup>9</sup>

In 1957, there were 85 dentists in Trinidad and by 1962 there were 93.<sup>10</sup> By 1968 there were 62 dentists.<sup>11</sup> However, by 1972 there were only 55 dentists in Trinidad and Tobago. Of these, only 16 worked in the government service, giving rise to a dentist to population ratio of 1 to 18,200 persons, and a government dentist to population ratio of 1 to 62,500.<sup>12</sup> The decline in numbers was probably due mainly to the death or retirement of older dentists. Additionally, however, some of the younger dentists who returned home following overseas training might have subsequently left the country.

The Dental Division was headed by a senior dental surgeon who reported to the Chief Medical Officer in the Ministry of Health. Government dentists (dental officers) worked in clinics throughout the country. The Dental Division of the Ministry of Health provided free services for children and emergency care for adults at health centers. Specialist dental surgeons at the Port of Spain and San Fernando General hospitals provided oral and maxillofacial surgery. There were also dental clinics at the Mental Hospital, Tuberculosis Sanatorium, The Leprosarium, penal institutions, and schools for physically and mentally retarded children.<sup>13</sup>

### **Dental Nurse Training**

During the 1970s, the government expressed an interest in developing a more organized dental service for children through the use of dental auxiliaries. This was occurring in parts of the developing world such as New Zealand and Britain. A 1971 committee chaired by the Chief Medical Officer, Dr Elizabeth Quamina, examined the feasibility of setting up such a programme in Trinidad and Tobago.

The idea was developed further by a government dentist, Dr Ruby Atwell-Ferguson BDS (Edin.), a cousin of the internationally acclaimed Trinidad and Tobago pianist Winifred Atwell. Under the auspices of the New Zealand government, Dr Atwell-Ferguson visited their Dental Nurse training school to observe and learn from their experiences. She also visited similar schools in the Far East and the Dental Therapist School at New Cross Hospital in south London. Dr. Atwell-Ferguson went on to acquire a diploma in Dental Public Health from the University of Toronto. Her thesis incorporated a proposal for the establishment of a dental nurse training school in Trinidad and Tobago. She also outlined a comprehensive two-year curriculum for a certificate in Dental Nursing.

Atwell- Ferguson’s vision for the betterment of local dental services, and for the entry of more women into the profession, was clear when she posited that:

”The training and utilization of dental nurses will not only increase the dental personnel but also provide another form of employment for the young women of Trinidad and Tobago.”<sup>13</sup>

Dr. Atwell-Ferguson became the first principal of the school when it opened its doors on 6th April 1976 at 19 Richmond Street, Port of Spain. The development was highlighted in the Report of the Principal Medical Officer<sup>14</sup> which also stated that twelve additional posts of 'Dentist 1' were created, making a total of 30 such posts available. The report also mentioned that 8 dental clinic-mobiles were in operation at this time. Some had been donated by the German Government for use in rural communities.

By 1977 eight of the new posts were filled by dentists who had returned home after being trained overseas. They were posted throughout Trinidad and Tobago. The World Bank and Inter-American Development Bank donated funds for the establishment of seven new clinics in 1978, the same year that the first dental nurses graduated from the training school (Figures 1 and 2). Ten of them came from other Caribbean countries. That same year Trinidad and Tobago also became a signatory to the Alma Ata Declaration on primary health care. The Chief Medical Officer, Dr Quamina, noted that

"A reorientation of the health system to one in which primary health care is the focus will necessitate a review of the traditional role of health professionals". In reference to dental nurses she assured that the impact of this new service in dental health of schoolchildren will be carefully evaluated."<sup>15</sup>

Although similar to New Zealand in its exclusive focus on children, the Trinidad programme differed in that dental nurses were able to work under the indirect supervision of a dentist. This, together with the fact that a new class of dental care provider was now part of the dental profession in Trinidad and Tobago, required new legislation to enable dental nurses to legally undertake the treatment of dental patients. However, the passage of this legislation was slow to come and caused much frustration among the nurses and the public. An editorial in a popular newspaper of the day alluded to the issue as follows:

"The government has spent a considerable some of money training two corps of these valuable persons...but the way is not yet clear legally for them to practice although the country suffers from desperate need for their services ... indeed the whole dental profession here is strained to the limit...and the resulting pain and inconvenience and the calamitous effects on the health of citizens are hardly to be imagined."<sup>16</sup>

Interestingly, the article went on to point out that:

"It may be we shall have to expand the facilities for training here to include the preparation of dentist because of the economics of foreign education and the extent of our growing need for dental practitioners."<sup>16</sup>



Figure 1: Dr. Atwell-Ferguson (left) shows Minister of Health, Kamaluddin Mohammed (centre), the dental nurse training facilities.



Figure 2: The Minister of Health talks with the trainee dental nurses.

### **The Dental Professions Act**

The Dental Act was passed by Parliament on 10 April 1980. The Chief Medical Officer (from whose authority dentistry was effectively being removed) advised that the Act “gives greater control of the Profession to a Dental Council set up to administer the affairs of the dental profession and monitor standards.”<sup>17</sup>

The Dental Nurses training school was relocated to new premises in Arima (eastern Trinidad) during the 1980s. Through funding provided by the Pan American Health Organization, three dental nursing tutors (former dental nurses) were trained

by a team of foreign dentists. They graduated in 1987. Dr. Atwell-Ferguson later received a Public Service Gold Medal, for services to healthcare.

A review of the first ten years of the service concluded that dental nurses had made a substantial improvement to dental manpower in Trinidad and Tobago and played an important part in dental health education. But they were still too few and unevenly distributed, both geographically and in relation to the child population, and were in need of continuing dental education.<sup>18</sup>

The school was reactivated in 1995 with a revised curriculum by a PAHO funded consultant, Dr. D. Y. D. Samarwickarama, from the London Hospital Dental School. Two more batches of dental nurses and three batches of dental surgery assistants were trained, with the last batch graduating in November 2000. Subsequently, the school was used for refresher courses and continuing dental education.

### **The Dental Council and Self-Regulation**

The Dental Professions Act of 1980 allowed for professional self-regulation of dentistry in Trinidad and Tobago by the establishment of a Dental Council as well as an Advisory Committee on Dental Auxiliaries.<sup>19</sup> According to this Act, the practice of dentistry was considered to be:

“The performance of any operation and the treatment of any diseases, deficiencies or lesions on or of human teeth or jaws including the giving of anaesthetic in connection with dental treatment, preparing the mouth for and the fitting of dentures or crowns, giving dental advice or the prescribing of drugs.”<sup>19</sup>

Importantly, in section 31 of the Act, specific reference is made to the illegal practice of dentistry:

“A person not being a dentist or dental auxiliary whether for reward or not is guilty of an offence and liable on summary conviction to a fine of five thousand dollars or to imprisonment for one year or to both.”<sup>19</sup>

Not surprisingly, the main functions of the Council were to keep a register of dentists, a roll of dental auxiliaries, regulate the training of dentists and dental auxiliaries, maintain proper standards of professional conduct, hold inquiries into allegations of misconduct and discipline those found guilty of violating the dental regulations.

The Council recognized degrees and diplomas from universities in the USA, United Kingdom and Canada. The first President of the Dental Council was Dr. Claude Harper (BDS Edinburgh, 1954), a practicing orthodontist, who held the post for 15 years. Persons who were practicing immediately prior to the enactment of the legislation, and were registered under Part II of the 1960 Medical Board Ordinance, were entitled to be registered to practice dentistry.

Members of the Dental Registration Committee established under this Ordinance continued to hold office and register dentists and auxiliaries until the election of the first Council. The 1982 Dental Regulations<sup>20</sup> described the duties of each officer of the Council and the protocol for the Council's meetings and functions.

## **The ‘Quacks’ Problem**

As mentioned earlier, unqualified practitioners had long been established in the country due to the low dentist to population ratio, especially in relation to the rural and urban poor. Even as government services took shape after independence, unqualified practitioners (known locally as ‘quacks’) continued to provide treatment. The introduction of dental nurses, and the passage of the 1980 Dental Act, seemed to fuel the fire of public and professional opinion and gave rise to a national debate on the problem of quacks practicing dentistry, largely through the media but also in government circles. This issue became particularly contentious in 1987, when at the 20<sup>th</sup> meeting of the Dental Association of Trinidad and Tobago the then Minister of Health in his opening address remarked:

“Having represented a rural constituency for many years in which not one single qualified dentist ever found it expedient to work, it is politically unpalatable to now suggest the application of the harsh hand of the law.”<sup>21</sup>

This statement caused a storm of protest from registered dentists who put pen to paper. Wrote one irate commentator,

“The Minister should consult with the profession and learn of the pain, mismanagement and surgical atrocities inflicted on the public by unqualified persons.”<sup>22</sup>

With reference to the poor infection control practices of quacks, another commented:

“With consideration to health and prevention it is nonsense to have a potential transmitter of disease loose in our society.”<sup>23</sup>

Despite legal and political measures, unqualified practitioners continued to have some support within local and national government to the extent that so very few were ever prosecuted for illegal practice. Up to 200 or so continue to practice; a mixed bag of untrained folk practitioners, dental technicians, people with some element of dental clinical training but without any qualifications, and those with dental qualifications unrecognized by the Dental Council. They still appear to be popular with many people from lower socioeconomic groups who view them as the ‘poor man’s dentist.’<sup>24</sup>

## **The UWI School of Dentistry**

The need for increasing dental manpower beyond dental auxiliaries led to The University of the West Indies’ inclusion of a Dental School in the Eric Williams Medical Sciences Complex (EWMSC) at Mount Hope. The establishment of the school was a challenge to all those involved in its development.<sup>25</sup> Despite some opposition from the local dental establishment and some infrastructural problems, it opened its doors to the first intake of students in 1989 as the only dental school in the English-speaking Caribbean, with Dr. A. K. Adatia as its first director. By the time clinical training started he was replaced by Professor. J. A. Hargreaves. The first 18

U.W.I. trained dentists graduated with their Doctor of Dental Surgery (DDS) degrees in 1994. All were Caribbean nationals: 16 from Trinidad and Tobago, and 2 from Jamaica and St Vincent and the Grenadines respectively. In its early years, the school was staffed by a handful of foreign academics from Britain, India and other Commonwealth countries. In the main, it followed a British-based curriculum, with a view to ultimately achieving UK-General Dental Council recognition, similar to the General Medical Council recognition of U.W.I.'s MBBS medical degree. In fact, the DDS from the school was initially not recognised by the Dental Council of Trinidad and Tobago as it was not one of the approved degrees listed in the 1980 Dental Act. Thus, following their internship year, all graduates of the institution were required to pass a registration examination run by the Dental Council in order to practise locally. This situation was considered unsatisfactory by both the University and the Government particularly with respect to the school having been mandated to provide dental manpower for the country and the region. Under the directorship of the late Professor. E. R. E. Thomson, and following much lobbying and parliamentary debate, the Act was amended in 1998 to formally recognize the U.W.I. degree and enable automatic registration of graduates upon completion of one year's vocational training.<sup>26</sup> Under this amendment, the composition of the Council also changed to allow the inclusion of two representatives from the University of the West Indies's Faculty of Medical Sciences.

In 2002, a visiting team of dental clinical academics from the United States, Britain and the Caribbean reviewed the curriculum as part of a teaching quality assurance audit. A team member commented,

“Overall we were satisfied that the students would graduate with the skills for diagnosis, treatment planning and operative treatment comparable to similar international undergraduate dental schools.”<sup>27</sup>

To date, the school has graduated 300 dentists (the majority being from Trinidad and Tobago). Through the efforts of Professor. S. R. Prabhu (former Director and Professor of Oral Medicine UWI), the school has become a regional examination site for the membership examinations of Faculty of Dental Surgery, Royal College of Surgeons of Edinburgh UK. It presently offers first year training for the Advanced Education in General Dentistry programme approved by the American Dental Association.

## **Conclusion**

From somewhat crude beginnings in its colonial past, dentistry has become an established and well-recognized profession in Trinidad and Tobago, being self-regulated and governed by an Act of Parliament. Together with their foreign trained colleagues, many locally trained and qualified dentists now provide services to the public through private practices and government clinics. In the government service, dental auxiliaries throughout the country provide dental health education and dental care for children and a dental hospital/school enables referral for patients who need specialist care. This 21<sup>st</sup> century situation is in stark contrast to that of the 1800's, where a 'bad tooth' might often become serious, as medial facilities were not available to most of the population.<sup>2</sup>



Important landmarks, such as the setting up the government dental service, the training of dental nurses and the 1980 Dental Professions Act, the establishment of the Eric Williams Medical Sciences Complex and UWI School of Dentistry and the 1998 amendments to the Dental Act, have changed the dental landscape of this twin-island nation over a relatively short period of time. Further developments are expected as some sections of the population still have serious problems with accessing dental care.<sup>24</sup> Also, in-line with global trends, the changing nature of oral and dental diseases and health needs of the population may require a different dental skill-mix with greater focus on oral health promotion, to facilitate the delivery of equitable and effective oral healthcare in Trinidad and Tobago.

#### **Acknowledgements**

The authors are grateful to the staff of the UWI Medical Sciences Library and Main Library for their assistance and the following persons for providing further insight and information: Dr. Michael Toussaint (UWI Department of History), Mrs. Indira Gobin (Senior Nurse Tutor, Dental Services, Trinidad and Tobago Ministry of Health) Dr. Clifford Ramcharan (general dental practitioner and former president of the Dental Association of Trinidad and Tobago), Dr. Ian Prevatt (Former Senior Dental Surgeon, Dental Services, Trinidad and Tobago Ministry of Health), Dr Elizabeth Prayman (Manager Dental Services, Trinidad and Tobago Ministry of Health), Professor Stanley Gelbier (The Welcome Trust Centre for the History of Medicine), and the late Dr. Feroze Rafeek (general medical practitioner).

This article, being an overview, will inevitably have resulted in the omission of several people and events that played a role the development of dentistry in Trinidad and Tobago. It is the hope of the authors that other researchers will seek to explore this area of Trinidad's healthcare history in more detail and shed further light on events.

This article was adapted, by the kind permission of the Editor, from Naidu R. S; V., Ramroop and R. N. Rafeek: "The Development of Dentistry in Trinidad and Tobago". *Dental Historian* (2007), 45 pp. 99-116.

#### **References Cited**

1. Bissessar, A.M. and E. Haqq "The historical development of the health system in Trinidad and Tobago". Healthcare reform: policy, content and process in the Caribbean, London School of Hygiene and Tropical Medicine, 2001.
2. Brereton, B. *Social life in the Caribbean*. Essex: Heinemann, 1985.
3. Campbell, C. C. *Capitulants and Cedulants*. Port of Spain: Paria Publishing Company, 1992.
4. Phillipe, J. B. *Free Mulatto* (with introduction by Selwyn Cudjoe), Massachusetts: Calaloux Publications, 1996.
5. Brereton, B. *A Brief History of Modern Trinidad*, Oxford: Heinemann, 1989.
6. Johnson, K. "1845 The Indians and Indentureship", Trinicenter.com (Accessed December 2006).
7. *Medical and Sanitary Report of the Director of Medical Services, Trinidad and Tobago*, Director of Medical Services, 1946. Port of Spain: Government Printery.
8. Wertheimer, F. W. Brewster R. H, White C. L. "Periodontal Disease and Nutrition in Trinidad," *Journal of Periodontology* (1967):100-104.

9. Brown, H. W. "Government and Medicine in the Caribbean", in *The Caribbean: its Health Problems*, (ed.) A. C. Wilgus (Gainesville: University of Florida Press, 1968), 191-223.
10. Striffler, D. F and G. M. Gillespie "Dental Manpower in the Americas and its Implications for Community Programmes of Dental Public Health". Paper presented at the Hemispheric Conference, Better Oral Health for the Americas, Puerto Rico, 1966).
11. Health Conditions in the Americas 1965-1968", Washington: PAHO, 1970.
12. Ashraph, A. and I. Gobin. "Oral Health Survey of 6, 9, 12, 15 Year-old Children of Trinidad and Tobago (preliminary report)", Port of Spain: Trinidad and Tobago Ministry of Health, 1989.
13. Atwell R. "A Plan to Develop the Dental Services of Trinidad and Tobago". Thesis submitted for the Diploma in Dental Public Health, Faculty of Dentistry, University of Toronto, 1972.
14. Annual Report of the Minister of Health for the Years 1975-1977, Port of Spain: Trinidad and Tobago Ministry of Health, 1977.
15. Annual Report of the Minister of Health for the Years 1978-1979. Port of Spain: Trinidad and Tobago Ministry of Health, 1979.
16. Editorial, "Welcome for Dental Nurses", *Trinidad Guardian* October 6 1979,
17. Annual Report of the Minister of Health for the Year 1980, Port of Spain: Trinidad and Tobago Ministry of Health, 1980.
18. Steele, L. P. "Dental Nurses in Trinidad and Tobago", *PAHO Bulletin* (1988); 364-372.
19. *Dental Profession Act 1980*, Republic of Trinidad and Tobago (1980). Port of Spain: Government Printery
20. *Dental Regulations 1982*, Republic of Trinidad and Tobago (1982). Port of Spain: Government Printery.
21. "Dr. Hosein Tells Dentists Quacks Serve the Poor" *Trinidad Guardian*, 23 February 1987.
22. "The Problem of Quackery" *Trinidad Guardian*, 21 March 1987.
23. "Dental Quacks are Law Breakers" *Trinidad Guardian*, 23 March 1987.
24. Naidu, R. S. Gobin, I., Newton, J. T. "Public perception and use of dental quacks (uqualified dental practitioners) and self rated oral health in Trinidad," *International Dental Journal* (2003): 447-454.
25. Adatia A. K. "Implications of a School of Dentistry in the University of the West Indies", *West Indian Medical Journal* (1986): 8-11.
26. Dental Profession Amendment Act 1998, Republic of Trinidad and Tobago.
27. Hunt, J. M. G. "Quality Assurance at the University of the West Indies School of Dentistry" *CDA Bulletin* (The Newsletter of the Commonwealth Dental Association), 2003.