



Review article

Education and training for dental leadership – A case study of the Senior Dental Leadership programme

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ABSTRACT

Leadership training in dentistry is equally as important as gaining clinical skills. The dental profession must urgently develop young dental leaders, so the profession is able to transform poor oral health. The Senior Dental Leadership programme demonstrates how leadership, mentorship and networking can produce strong dental leaders who have significantly improved oral health in low-income countries.

1. Introduction

As discussed by Verma et al. leadership is hard to define and challenging to measure [1]. Leadership is both a science and an art, encompassing anyone who inspires and influences people to accomplish specific goals [2].

By any analysis, the dental profession is lagging behind in formal leadership training. Dental leadership is not about the most extrovert characters within the profession honing their skills; rather, it is about every dental professional developing their communication and advocacy skills to get the most effective oral health messages across to patients and the general population. Since leadership is taught as a core skill in many other professions, there is an urgent need for the dental profession to catch up and realise its untapped potential

It is crucial to appreciate that leadership is not a capability that only a select few people possess, but rather a set of inherent characteristics that can be nurtured and developed. Successful leaders are able to communicate their vision, align and empower other individuals towards the vision and then nurture trust as change occurs. They must also be motivated to ideas and shape decisions toward more positive outcomes yet also effectively manage obstacles and challenges. These traits will be valuable amid the emerging changes in dentistry during the next decade.

This article will explore how leadership training must be implemented at all levels of dentistry, with a focus on how the Senior Dental Leaders programme has produced strong leaders who have achieved outstanding success in improving global oral health

2. Need for dental leadership

Effective leadership is becoming essential in overcoming global health issues. Modern challenges in the public health arena include globalisation, shifting power and financial strain upon already stressed systems, and tackling these requires the ability to collaborate and manage change. Health care leaders of the future must be able to engage in whole systems thinking, strategic and tactical assessment, and be capable of facilitating and negotiating within a competitive political environment [3].

Dentistry is currently undergoing vast changes in structure and policy worldwide and there is a stark need for the profession to be effectively led through these changes. Other health professionals such as doctors and nurses have long since engaged with clinical leadership, with well-defined management structures prevailing in most clinical organisations. Leadership development in dentistry is highly neglected compared with other non-health sectors such as higher education, global enterprise and even football [4]. A decade ago it was declared that dentists 'can no longer rely on chance for developing effective managers and leaders' [5]; however, little has been done since in mainstream dentistry to remedy this.

The question remains as to when is best in a dentist's career to develop leadership. Arguably, more time should be spent developing leadership during undergraduate dental training so that these new-found skills can burgeon in tandem with clinical skills. Some clinical skills can overlap seamlessly with leadership, such as communication, empathy for others and problem solving. Despite all of this, research and development surrounding leadership outcomes in the dental

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profession are limited. The authors propose that dentistry must therefore adopt a common framework for imparting the right skills and competencies to assume leadership roles. Appropriate training must be undertaken by all dentists and adopted across both undergraduate and postgraduate levels. Leadership must now be seen as a core role that all dentists must adopt, not only those working in management or organizations.

Dentistry can take inspiration from its medical colleagues in the UK. The Academy of Medical Royal Colleges and NHS Institute for Innovation and Improvement have developed a medical leadership competency framework and a medical leadership curriculum, as part of the NHS Leadership Academy. MBA programmes are tailored for NHS staff across the UK and there are plans for over 1000 graduates to become clinical leaders, with a growing discussion around establishing a new specialty in healthcare leadership [6]. Dentistry must also take such steps to close the growing gap in leadership skills between the two professions.

3. Crisis in Early Childhood Caries

There are many pressing reasons for needing leadership in dentistry, but a chief concern for dental professionals in every country is the escalating problem of Early Childhood Caries (ECC). ECC is a persisting global health challenge causing immediate pain and distress for young children, coupled with a range of long-term consequences impacting upon their later development [7]. In England, a quarter of 5-year-olds have tooth decay in their primary teeth [8] with the number one reason for hospital admission for children being to extract decayed teeth [9]. Meanwhile in the United States the Medicaid program alone pays up to \$400 million each year to treat ECC in children [10].

There is a continuing and worrying perception that ECC is not a pressing health issue because deciduous teeth will be replaced. However, aside from the acute pain and developmental effects ECC causes, children who experience caries as young infants are more likely to have caries in their permanent dentitions [11]. This further highlights the pressing need for decisive leadership in dentistry to eliminate this lifelong spiral of disease. Dentistry needs fresh approaches to reduce the global prevalence of ECC, requiring the attention of strong leaders with clear vision, influence and new ideas. Dental leaders must also unite with leaders across the rest of healthcare to re-integrate oral health with general health.

4. The Senior Dental Leaders programme: a case study in dental leadership

The Global Child Dental Fund (GCDFund) is a UK-based charity working to improve the oral health of disadvantaged children around the world. The charity builds upon the success of the Global Child Dental Health Taskforce, established by the U.K. government and Professor Raman Bedi in 2006 in response to the landmark Declaration on Child Oral Health signed by 40 senior dental advisors, international Chief Dental Officers and World Health Organisation representatives [12]. GCDFund focusses on collaborating with local partners to improve oral health capacity and ultimately the dental health of underserved communities.

GCDFund recognised the need for dental leadership in the early 2000s as a means to reduce ECC in under-5s in low-income countries. Its successful Senior Dental Leaders Programme (SDL) uses the principles of collaborative leadership as the cornerstone in establishing a dental leadership network to combat poor child oral health worldwide. SDL is held annually, hosted jointly between King's College London Dental Institute and the Harvard School of Dental Medicine, with sponsorship from Colgate-Palmolive and Henry Schein.

To date, the SDL programme has been attended by over 200 of the most senior dental policy makers, NGO figures and dental health academic faculties from 47 countries (Fig. 1). It celebrated its thirteenth

successful year in 2019. The 5-day conference aims to further delegates' understanding of strategic change, dental health policy and dental economics. Discussions centre around oral health capacity building through collaborative approaches, with delegates strengthening their ability to deal with regional crisis and anticipate and plan for future demands of their country. By the end of the week, delegates have forged strong networks with each other as individuals and organizations and gone on to execute successful projects in their own countries.

5. Legacy of SDL

5.1. SEAL Cambodia

SEAL Cambodia is a legacy project of the SDL programme. In 2012, delegates from Cambodia attended the SDL programme in Boston to discuss local challenges. Chiefly, Cambodia's children had one of the worst rates of ECC in the world with 9 carious teeth per child [13]. Another area of concern was that most children were presenting with a low "filled" component of the dmft measure, illustrating the lack of curative services available in the country [14]. It was evident how prevention would play a pivotal role in relieving dental pain in the country.

The collaborative environment of SDL successfully encouraged ideas, inspiration and interdependency among the group. Following the leadership programme, the delegates returned to Cambodia and established SEAL Cambodia – a partnership between 10 organisations including dental corporates, NGOs, universities and the Ministry of Health. Between 2013 and 2017, 66,000 disadvantaged children in Phnom Penh and surrounding rural areas received fissure sealants on their first permanent molars. Fissure sealing teeth on such a large scale requires significant planning, supplies and logistics that only a collaborative leadership approach could ensure. Cambodia has benefitted through this multi-sectoral international approach, and as an additional bonus, social awareness for prevention is spreading throughout the country. SEAL Cambodia won a Fédération Dentaire Internationale (FDI) award for Sustainability in 2016.

5.2. Zambia

Between 2011 and 2012 the Chief Dental Officer, the Dean of the Dental Therapist School in Lusaka and the clinical dental director of one of the largest dental NGOs in Zambia attended SDL. With the other experienced delegates supporting these individuals in a collaborative space, the three returned to Zambia with a plan to work together to provide a model of how dental therapists can be trained to undertake preventative dental services to the most disadvantaged children in Zambia, namely those from low-income families and those with special needs.

In Zambia, at the time, there were approximately 250 professionals working within dentistry, with 40 of these being dentists and the remaining number being dental therapists [15]. Within a total population of around 14 million people, the dentist/population ratio in Zambia was 1: 46,000. Dental services were accessed through government-run hospitals or clinics, but the workforce capacity was low.

SDL brought about a partnership between the Zambian Ministry of Health, the Zambian Dental Training School and local and international NGOs. The partnership aimed to provide promotive, preventive and curative dental treatment to children, in association with local government health institutions. It further strived to train and build the oral health workforce capacity so that sufficient services could be offered to children and adolescents both regionally and nationally.

This international collaboration combining funds, expertise and local logistical capacity has set Zambia on the way to building a locally owned and financially sustainable programme that will help build oral health capacity in rural areas of the country.

In three years, 112 dental therapy students delivered examinations



Fig. 1. Map of Senior Dental Leaders alumni.

and oral health education to over 11,500 children from 20 government and community run primary schools. Of this number, 2386 were given preventative fissure sealants, 2302 were given restorations and just 202 experienced extraction. This relatively low number of extractions is hoped to continue as children's teeth are being restored, or even prevented entirely from oral disease.

5.3. Kenya

The Africa Network was conceived in 2012 during the SDL meeting in London. The main goal was to create a platform for dentists in the region to share experiences, expertise and resources to improve child oral health care and to enhance leadership development in Africa. The network is based in Kenya.

Dental caries is the most common oral disease affecting many children in Kenya, a country where 50% of the population are children below the age of 15. In addition, the oral health workforce in Kenya is insufficient to meet the rising needs of these children. The WHO recommends a dentist/population ratio of 1:7500 [16], however in Kenya this ratio is 1: 60,000, where 20% of dental professionals are in rural areas and 80% urban [17]. It is thus unsurprising that most children are unable to access dental services.

Kenya has around 500 Community Oral Health Officers (COHOs), a cadre of healthcare workers who are trained to provide basic dental care to the population. Their scope of their work involves delivering oral health education, oral hygiene and basic dental treatment in the form of simple extractions and atraumatic restorative technique (ART) restorations. COHOs typically work alone without assistants, seeing over 40 children in pain per day. Equipment and essential materials are lacking [18].

Identifying a clear need for leadership in this field, SDL enabled the establishment of the Kenyan Association of Paediatric Dentistry (KAPD). With the support of SDL alumni and GCDFund, KAPD went on to host an annual national symposium in Nairobi for COHOs from 47 counties across Kenya, sponsored by Colgate Palmolive. Lectures are delivered by paediatric dental specialists on the provision of oral health education to children and caregivers, diet counselling, the use of fluoride supplements and fissure sealants in the prevention of dental caries and carious management techniques including ART.

These meetings provide a constructive platform for knowledge-sharing and discussion of paediatric oral health challenges in the East

Africa region. Such a collaborative leadership approach addressing available resources in the region can assist in the beginnings of building oral health capacity in East Africa, particularly for children.

A further success in this case example was that dentists attending this symposium, coming not only from within Kenya but also Uganda, Tanzania, Rwanda and Ethiopia agreed to collaborate to form the East African Paediatric Dental Association (EAPDA). The association now hosts regular forums for continuing dental education and frequently evaluates and addresses key oral healthcare challenges in the region.

In 2018, KAPD and EAPDA collaborated to eliminate Infant Oral Mutilation (IOM). IOM is a widespread and dangerous traditional practice executed upon young children suffering from diarrhoea and fever in East Africa, affecting 25 million children at any time. Data is still not widespread, but studies have shown the removal of incipient canine teeth in babies is practiced in many parts of Africa with prevalence rates documented at 22% in Sudan, 17.2% in Uganda, 37.4% in Tanzania and 30% in Ethiopia [19]. Fellow SDL alumni from all over the world will continue to help these East African dental leaders reach their goal in eliminating IOM.

5.4. Leadership for young dental professionals

The SDL network continues to expand, and the substantial knowledge and experience of the network is constantly being harnessed to combat poor child oral health. Critically speaking, however, it is all well and good to develop leadership in senior professionals, but is it too late? Integrating leadership and dentistry is an endeavour which should arguably be implemented towards the beginning of a promising career in dentistry in order to yield longer term outputs for the individual and profession.

The changing face of modern dentistry requires younger, fresher leadership, with the emergent generation of dentists having a meaningful role to play in ensuring the public is receiving high quality dentistry and engaging oral health messages. The younger generation of dentists are highly skilled, communicative and capable of driving forward new initiatives to improve global oral health, but what they need are the skills to lead.

In 2016, GCDFund and the World Federation of Public Health Associations (WFPHA) accredited an online comprehensive course in Advanced Dental Leadership. The aim was to equip dental professionals to become first class leaders and advocates for oral health, driving oral

health literacy levels up around the world. Since its inception, nearly 4000 dental professionals in 21 countries have enrolled in the programme.

The appetite for this programme demonstrates the need for senior leaders in the dental profession to establish further leadership programmes so that younger promising leaders in dentistry can be mentored and supported earlier in their career.

6. Conclusion

Leadership training in dentistry is equally as important as gaining clinical skills. If poor oral health in society is to be eradicated, the dental profession must urgently develop young dental leaders as a core part of their clinical training. The SDL programme has shown that if appropriately supported and developed, dental leaders worldwide can significantly transform poor oral health.

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