Dental professionals for a new century: transforming dentistry through interprofessional education and collaborative practice

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"Interprofessional education is a necessary step in preparing a collaborative practice-ready health workforce that is better prepared to respond to local health needs."

WHO, 2010

Over the last decade or so, there has been a major global shift towards strengthening interprofessional education and collaborative practice in health. The 59th World Health Assembly (Resolution: 59.23) recognised the health worker crisis and a global shortage of almost 4.3 million health professionals, calling for various strategies to meet the unmet needs of the population [1]. "Innovative approaches to teaching" in both industrialised and developing countries was promulgated by the WHO as one such strategy [1]. In 2010, the WHO released its "framework for action" report providing policy makers, health leaders and professional bodies with a set of ideas/designs on how to implement interprofessional education and collaborative practice within their local contexts The FDI World Dental Federation, in its lead up to Vision 2020, has also stressed the importance of interprofessional education and collaborative practice for maintaining optimal oral health and the necessity for a dentist to have a leadership role in all aspects of oral health [2]. Figure 1 illustrates the key considerations for interprofessional education and collaborative practice, which is further explained below.

Interprofessional education occurs when two or more health professions (such as medical, dental, nursing, pharmacy, or allied health professions) learn about, from, and with each other to foster effective collaboration [3]. The mechanisms to achieve interprofessional education require both educator and curricular efforts. Educators (i.e. all staff involved in developing, teaching and managing interprofessional education) require a shared vision and good understanding of the benefits of interprofessional education [3]. Local champions will need to emerge, who possess the capacity to undertake cross-disciplinary collaboration

activities, identifying barriers to progress and ability to effectively steer the institutional direction towards interprofessional education [3]. One key aspect is to ensure the early experiences of both staff and students (towards interprofessional education) remain positive, which in turn will encourage future interest and development in this area [3]. While logistical challenges towards a shared curriculum remains a major issue, it is argued that developing flexible scheduling and making attendance compulsory are necessary as curricular efforts towards interprofessional education [3]. Well-constructed learning outcomes based on the emerging health needs and local contexts, aided by principles of adult learning (such as problem-based learning) and real-world experiences are mandatory to support interprofessional education [3].

The primary goal of interprofessional education is to prepare a workforce that can in the 'real-world' work more effectively to meet the needs of the population through collaborative practice. In order to achieve collaborative practice, adequate institutional support structures, as well as a change in the working culture and environment is vital. Governance models across the institution (educational facilities, hospitals, clinics and care centres) will need to accommodate collaborative practice as central to the service provision and develop structured protocols and shared operating procedures so participating staff across different health professions are both aware and well-informed [3]. Furthermore, a major shift in workplace culture is essential with shared mechanism for communication, decision-making and conflict resolution [3]. A few environmental mechanisms such as changes in the building architecture (such as activity-based workspaces) and new facilities for bringing various health professionals working together (such as simulation clinics or virtual spaces) is likely to support collaborative practice [3].

Several models for interprofessional education and collaborative practice exist, and there is no one size fit all model that is applicable to dentistry. To date, there exist oral health models that begin by improving collaboration among various members of the dental team (such

as dentists, dental hygienists, dental therapists, dental technicians and dental assistants) or extend to include a range of health professions (such as medical, nursing, pharmacy and allied health). In the United Kingdom, combined efforts of Kings College London Dental Institute and new University of Portsmouth Dental Academy brings final year dental students, second/third year dental hygiene/therapy students and dental nursing students working more closely together in care provision [4,5]. Broader initiatives that run across health professions involving issue-specific interprofessional learning – such as pain education has received considerable academic support [6]. An example is the Kings College London "interprofessional pain education" brings various Year 2 health students to device comprehensive pain management plan for 'virtual patient', thereby helping students gain valuable insights into each others' knowledge and skills [7]. More generalized examples also exist, for example in the University of Michigan, health students rotate across dentistry, medicine, nursing, pharmacy and social work working together to solve patient care cases [8]. The University of Sydney has strong governance structures in place to achieve interdisciplinary collaboration in health, and a recent wave of infrastructure revamp is being undertaken with the provision of collaborative activity-based workplaces to create a change in workplace culture [9]. Broad health system changes can also contribute towards innovations in education and practice, for example, the introduction of universal health coverage in Thailand in 2001 has brought health professionals working more closely together to meet the needs of the rural and disadvantaged communities [3].

Health leaders and policy makers should be conscious that interprofessional education and collaborative practice are not a goal in themselves, but a means to improve access to care and health outcomes of the population. Therefore, the context for change should be locally driven and population-centric. Furthermore, patterns of dental care must change to address the needs of lower income groups and disadvantaged communities. There is evidence to argue a gradual shift in the provision of care from restorative/surgical to involve more diagnostic and

preventive services [10]. While this situation may vary in developing countries, it can be argued that this shift towards minimum intervention dentistry will also drive innovative approaches in interprofessional education and collaborative practice.

On reflection: Implications for dentistry in India

With over 300 dental institutions and over 25,000 new dental graduates each year, the Indian dental education system is the largest in the world. India also has a good medical education system actively producing a large number of physicians, nurses, pharmacists and allied health professionals. Yet educational silos are visible that in turn lead to practice silos, when graduating health professionals enter the real world. Several health system inefficiencies (including inadequate public service provision of care, a largely privatized health care and differences in payment mechanisms) and geographic maldistribution of providers make health care (including oral health) to a large proportion of rural and disadvantaged communities inaccessible and inadequate. Innovations in dental education that would both expand a range of oral health providers (towards prevention and health promotion) as well as brings dentistry closer in line with general health care is vital. There is a necessity for dental schools to work along with other health schools and build synergies for interprofessional education and collaborative practice. As there is no one universally accepted model, there is potential to experiment with various models in India in accordance to institutional interests and local needs of the population. However, as the WHO framework for action noted, a key objective is to ensure a positive early experience for staff and students involved in interprofessional education and collaborative practice. Health planners, policy makers and educational leaders should facilitate an effective culture for change, steer favourable governance mechanisms and support dedicated staff and local champions - to set the pace for a more integrated health workforce that is people-centric and in line with the needs of the population in India.

In recent years, the La Cascada Declaration (also published as a guest editorial in this journal) proposed radical changes towards the reformation of dentistry in order for the dental profession to be more in line with the needs of the population [11,12]. Among the various changes proposed, an overhaul of the dental education system was also suggested. We highlight the importance of progressive strategies and encouraging new models of interprofessional education and collaborative practice across dental, medical and health to support contemporary healthcare in India.

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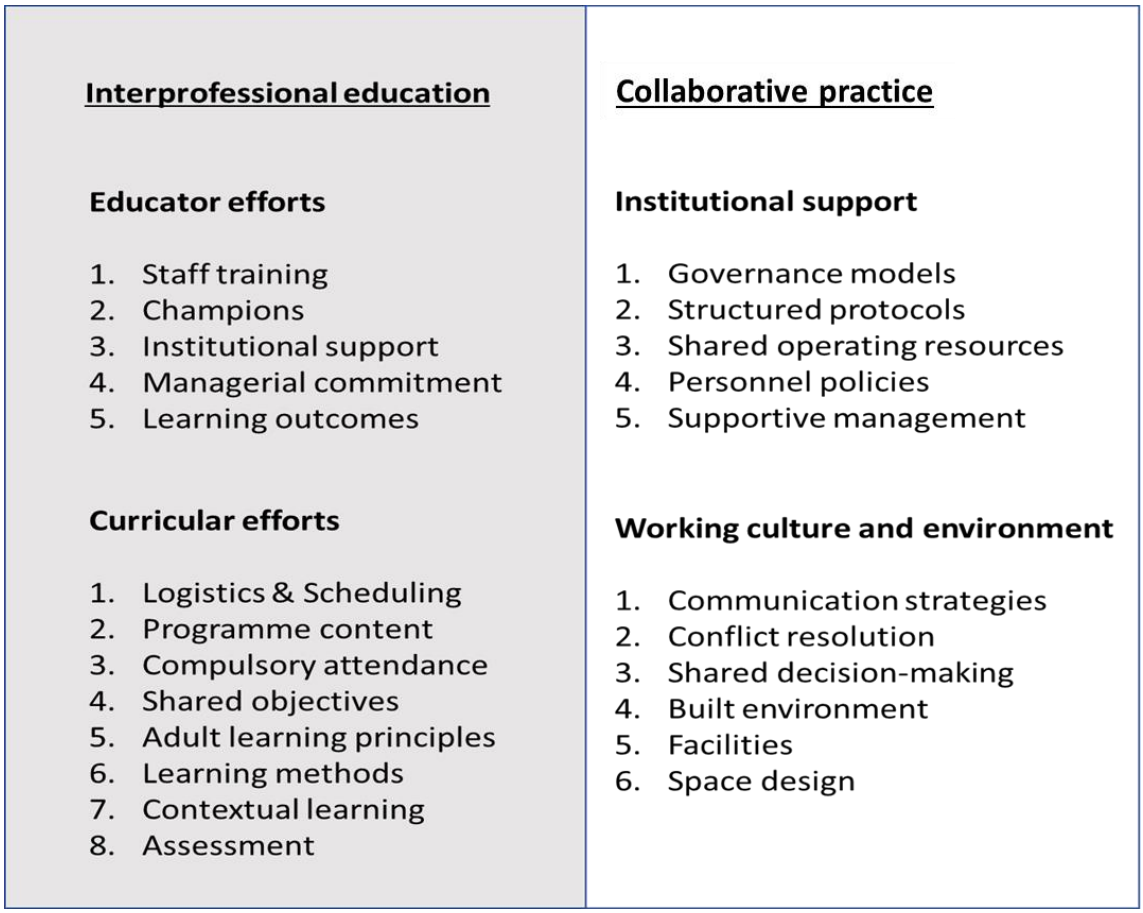
Figure 1: Key considerations for interprofessional education and collaborative practice



Adapted from the WHO Framework for Action on Interprofessional Education and Collaborative Practice