Dental education in India and its future prospects

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The practice of dentistry in India is no less than ancient, with references to dental hygiene in the Sushrutha Samhita dating back to the 6th Century BC; Dental education was integral to the universities of Nalanda (~500 AD to 1200 AD) and Taxila (several centuries BC). While this public awareness and academic emphasis perhaps waned to an extent for large parts of the second millennium AD, there was a resurgence following advent of British rule in the 18th Century. Professional dental education commenced only in 1854 with the advent of the Lahore Medical and Institute of Dentistry of undivided India; the oldest dental institute that remained in partitioned India was the Dr. R. Ahmed Dental College and Hospital of Kolkata, founded in 1924. The enactment of Dentist Act in 1948 and consequent formation of Dental Council of India in 1949 paved the way for professional dental education in India. Since then the curriculum has been revised few times more as an academic activity focussed on carving out emerging specialities from the existing ones without touching the basic concept with which it emerged. However, the approach to dental education in the country has become obsolete and there is a failure to incorporate current methods of evidence-based education. The current trends used can, at best, be considered archaic and is far left behind by most countries—even smaller neighbours such as Nepal—where teaching and evaluative methods have evolved with an emphasis on competency testing. The focus has shifted away from conventional lecturing and practical training to problem-/case-based learning, small group discussion, assignments, mentoring, comprehensive oral health care and general dentistry; evaluation, too, has included objective structured practical/clinical examination (OSPE/OSCE), competency assessment and the like. Also lacking is an integration of the preclinical and clinical components of dentistry, and of dentistry and the medical subjects, thereby denying students the opportunity of proper vertical integration of the course. This potentially undermines a thorough appreciation and understanding of clinical application of the basic sciences and the medical undercurrents in dentistry. These, coupled with a lack of exposure to other emerging areas such as special health care needs, geriatric dentistry, infection control and asepsis, basic life support, and soft skills such as communication skills, critical thinking, and practice management, is a reflection of the catching up India needs to do with the rest of the world.

Another interesting and yet unfathomed trend is the pursuit of dentistry today by women—the male–female ratio of dental students is already skewed towards the latter, owing to a variety of social factors, women dentists may not choose to open independent practices and instead prefer to join corporate clinics, which are largely present in urban locales; graduates—both males and females—may also prefer an urban rather than a rural setting for their practices. All of this may amplify the lack of available skilled dentists to cater to vast swathes of our population.

These raise several questions on the current dental curriculum and the new graduates:

- Is the dental curriculum providing the required knowledge & skills to become a competent general practitioner?
- Is the basic medical training adequate to deal with any untoward medical emergencies in practice?
- Are the graduates competent to provide dental care for geriatric population which is on the rise?
- Can our graduates handle confidently people with special health care needs?
- Do the new graduates understand comprehensive care with the fragmented or piece meal care training?
- Are they getting any formal training in communication skills, practice management and critical thinking?
- Do they really feel confident to go in to practice? If so why so much frustration among graduates looking for options other than dentistry?
- Is the need for dental and oral healthcare of rural areas being addressed?
- If not, what incentives may be provided to plug the void currently in existence?

The purpose of education is to educate students to serve their patients and communities well and prepare students to continue to grow in skill and knowledge over their lifetime in practice. The following solutions may be essential to ensure this and infuse confidence into the prospects of the future of our profession:

1. Vertical integration of dental education and close linkages to medicine and the health care system on all levels, including research and patient care. This is because many of the basic science discoveries that will be most influential in shaping future oral health and practice may occur outside dental colleges—in universities, medical institutes, and in government, industrial, and other research laboratories.
2. Dental faculty and educators will need to teach, incorporate and display appropriate models of clinical practice to prepare students and colleges for transformational change.
3. To prepare for the future, the dental community—educators, practitioners, regulators, and policymakers—will benefit from continued testing of alternative models of education, practice, and performance assessment for both dentists and allied dental professionals.

Major reforms are the need of the hour in our dental educational system and incentives for practice of dentistry is necessary in general, and particularly in rural settings. If this is not achieved, then we will simply not be keeping pace with, or be responsive enough, to changing patient demographics, patient desires and expectations, budding interdisciplinary expertise and practice needs, new scientific discoveries, breakthroughs and information, focus on quality improvement, and integration of emerging technologies. And dentistry will be left behind as the profession that missed the bus.