Designing a dynamic contextual curriculum

A curriculum for the health professionals needs to be in a constant state of flux to keep pace with changing paradigms in medicine and developing newer needs of the community as well. A curriculum that is static and ossified gradually declines and dies.[1] To appropriately administer change in a curriculum, one must understand and appreciate its complexity, both overt and hidden, in toto. It goes deeper than what is written in words as the formal visible curriculum and encompasses the subtle, the informal aspect of curriculum that carries equal importance.

A successful curriculum requires effective management of change, innovation, and networking. It must adopt modifications and acquisition in the knowledge base. It should continuously involve faculty in the development of dynamics of curriculum to effectively implement curricular change. It must also be responsive to institutional and societal values and needs. It has to be supported with academic scholarship for the veracity of the curriculum.

The present article describes the need for the development of a dynamic contextual curriculum and its linking with health needs of community, especially in India.

INNOVATIONS AND CURRICULAR CHANGE IN HEALTH PROFESSIONS EDUCATION

Educators and administrators of health profession have come up with suitable technical applications to allow students to learn how to treat patients in best possible way in varied spectrum of clinical settings from primary care to tertiary hospitals. The innovative applications can be grouped as follows: simulation models and audio guiding talks; strengthening connection between didactic teaching and actual clinical application; and evolving teaching methods utilizing available technology in classroom teachings[2] whereby students enhance their knowledge and find it easy to go through examination systems to earn the degrees.

Introducing advanced simulation models for learning skills aided by audio talks is the most recent trend. Minimally invasive techniques are learned better on computerized simulations. Listening to narrations of patients can make one understand patients’ illness better and empathize with.

There is a change in method of learning by medical students because of technological innovations. They read electronic books and collect information through search engines. A classroom teaching is aided by videos to create virtual life-like scenario. The social media have generated a better connectivity among students. Technological innovations are also changing the way, in which the medical students learn today. However, the novelty of tools should not be equated with innovation.[3] Experts point out that using latest tool does not translate into advance in medical teaching quality. Innovation has to be in terms of their effectiveness in better comprehension at the students’ level. Yet introducing the technology does bring about change in the classroom teaching. Petty in his review has stated that introduction of technology-based tools in classroom or self-study not only makes it interactive and interesting but also engages learners more actively. He emphasized that knowledge acquisition in most cases enhances learner satisfaction.[3]

Every institute should select a curriculum team (consisting of faculty, support staff as well as learners) that contributes to overseeing of curricular dynamic change. Sustaining of curriculum needs team orientation toward goal, communication among themselves, involvement in the activity, development of suitably trained and competent faculty, and team activities, its recognition and acceptance. The committee has to understand at what level curricular change needs to be done. A curriculum coordinator can make minor operational changes while more complicated changes would call for in depth analysis and thoughtful planning and focused task force for curricular evaluation.

Robinson[4] said “School systems should base their curriculum not on the idea of separate subjects, but on the much more fertile idea of disciplines... which makes possible a fluid and dynamic curriculum that is interdisciplinary.” Our final aim in developing a curriculum should be “to develop a modern, world-class dynamic, and contextual (as per health needs of community) curriculum that will inspire and challenge all learners and prepare them for the future.”[5,6]

LINKING HEALTH PROFESSIONS EDUCATION WITH HEALTH (BUILDING THE CONTEXTUAL CURRICULUM)

India is a country with rich heritage and diversity. The current population is above 1200 million over 29 states
and 7 union territories. There are 325 languages and more than 6000 dialects spoken. A majority of population being poor and rural based do not have access to proper health services. This is due to a lack of material resources and trained workforce. The qualified professionals and trained health workers such as nurses and midwives are concentrated in urban areas.

Health is an entity by itself being an integral part of total human and social development. Emerging global health challenges are epidemiological and demographic transitions, population demands, technological innovations, and professional differentiation. In India, health challenges include communicable diseases (tuberculosis and dengue), noncommunicable diseases (diabetes, hypertension, and ischemic heart disease), nutritional issues (severe acute malnutrition and moderate acute malnutrition), environmental issues (safe water and sanitation), increasing population, and deficient medical care. Other issues are mainly inequity in health and distribution of health-care infrastructure, workforce, and finance as well as urban-rural divide.

India ranks high in the world having a large number of medical colleges. At present, the total number is 462. In fact, a significant number of medical graduates qualify every year, and quite many of them migrate to the developed nations. How many schools in a given state are decided at each state level. In the past few decades, a number of new medical schools, especially private ones have sprung up. The number has tripled since 1988. The increase in number of private medical schools seems to be because of the provision of payment seats giving high revenue, and students are ready to pay because of the opportunity of emigration after qualifying for greener pastures. Although latest Supreme Court decision to implement nationwide NEET may curb capitation fees.

For more than three decades, need has been voiced for curriculum reform based on the community requirements as currently most graduates aim at being specialist and super-specialist physicians. There is persistent and growing concern about quality and competence in terms of knowledge, clinical and surgical skills, and attitudes of graduates qualified from various institutions and their capability to serve as primary health-care physicians.

Over time, medical education has become increasingly disconnected from the needs of public health. Undergraduate medical education is typically offered in the setting of tertiary care hospitals. This makes the students lose connection with common health problems and needs. Some corrective measures have been taken. One such step is setting up of the Departments of Preventive and Social Medicine, introduction of community health programs, and clinical epidemiology. These measures have not borne fruit in making future doctors to take lead in public health improvement.

With deteriorating public health care, medical education requires to play an important role in reforming health-care policies and systems. Medical education should train the doctors to provide effective medical care with minimum cost. Clinical medical practice needs to be strengthened, and judicious use of technical help is to be cultivated. All clinicians must take cognition of the national situation and deploy most effective clinical and economical technical skill. All clinical teachers must emphasize this during their practice as well as while training students to provide best possible treatment within available means. They should espouse the concept of cost-effective good quality community health systems than the large hospital-based system. The Aam Aadmi Mohalla clinics set by Department of Health, Delhi is very good model to provide rational and affordable services to all citizens, particularly in the underserved and underprivileged areas of Delhi. This would also reduce referral to tertiary centers. This will enable tertiary centers to focus on and further their core competencies in complex health problems.

Unlike the medical specialists working in large hospitals systems, doctors practicing in community settings, have a total perspective of system and better managerial skills. They have better grasp of policy implications and technical aspects of practice. They are more experienced to assume leadership roles. The medical students will be better trained at the community hospitals. The medical schools should incorporate the community hospitals as their base for training medical students. That will empower the students to assume new health leadership roles at community hospitals. They will have better opportunity to learn and practice clinical skills and appreciate comprehensive care. They will have more opportunity to carry out health-care research. They will develop managerial skills and understand policy issues better because of direct training.

Once the medical schools and community hospitals work in tandem, it will result in the much-desired reorientation of medical education toward wider health perspectives. That will enable the students to learn to play an integral role in health research and decision-making in health-related issues. Indian medical education needs a paradigm shift in thinking from economic viability to improving community health. It is time that awareness is developed for public health, and a lead is taken by health policy makers and educationalists to direct nation toward achieving this goal. Medical educationalists should rise to this challenge and make the health-care system more effective and economical. For this, Indian
medical education system needs a contextual curriculum that would link to the health needs of our country. It is time to change!

Avinash Supe

Department of Medical Education, Seth Gordhandas Sunderdas Medical College and KEM Hospital, Mumbai, Maharashtra, India

**Address for correspondence:** Prof. Avinash Supe, Professor of GI Surgery and Professor of Medical Education, Seth Gordhandas Sunderdas Medical College and KEM Hospital, Mumbai, Maharashtra, India. Director, GSMC FAIMER Regional Institute. President, Academy of Health Professions Education. E-mail: avisupe@gmail.com

**REFERENCES**

1. Kern DE, Thomas PA, Hughes MT. Curriculum Development for Medical Education: A Six-Step Approach. 2nd ed. Baltimore, USA: The John Hopkins University Press; 2009.
2. Guraya SY. The usage of social networking sites by medical students for educational purposes: A meta-analysis and systematic review. N Am J Med Sci 2016;8:268-78.
3. Petty J. Interactive, technology-enhanced self-regulated learning tools in healthcare education: A literature review. Nurse Educ Today 2013;33:53-9.
4. Robinson K. Available from: http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity. [Last retrieved on 2016 Oct 10].
5. Gonzalo JD, Dekhtyar M, Starr SR, Borkan J, Brunett P, Fancher T, et al. Health systems science curricula in undergraduate medical education: Identifying and defining a potential curricular framework. Acad Med 2016. [Epub ahead of print]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/27049541. [Last accessed on 2016 Nov 14].
6. Supe AN. Challenges of Linking Health Professions Education with Health in India. Available from: http://www.mgmuhs.com/pdfs/MGM%20Newslet%20December%202014.pdf. [Last accessed on 2016 Oct 17].
7. Available from: https://www.en.wikipedia.org/wiki/States_and_union_territories_of_India. [Last accessed on 2016 Oct 11].
8. Lim SS, Allen K, Bhutta ZA, Dandona L, Forouzanfar MH, Fullman N, et al. GBD 2015 SDG Collaborators. Measuring the health-related sustainable development Goals in 188 countries: A baseline analysis from the global burden of disease study 2015. Lancet 2016. pii: S0140-6736 (16) 31467-2.
9. Younger DS. Health care in India. Neurol Clin 2016;34:1103-14.
10. MCI Official website of Medical Council of India. 2016. Available from: http://www.mciindia.org/InformationDesk/ForStudents/ListofCollegesTeachingMBBS.aspx. [Last accessed on 2016 Nov 14].
11. Mullan F. Doctors for the world: Indian physician emigration. Health Aff (Millwood) 2006;25:380-93.
12. Supe A. NEET: India’s single exam for admission to medical school promises transparency and quality. BMJ 2016;354:i4051.
13. Nongkynrih B, Anand K, Kusuma YS, Rai SK, Misra P, Goswami K. Linking undergraduate medical education to primary health care. Indian J Public Health 2008;52:28-32.
14. Available from: http://www.dshm.delhi.gov.in/pdf/AamAadmiMohallaClinics.pdf. [Last accessed on 2016 Oct 12].
15. Supe A, Burdick WP. Challenges and issues in medical education in India. Acad Med 2006;81:1076-80.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**Access this article online**

**Quick Response Code:**

**Website:**

www.ijamhrjournal.org

**DOI:**

10.4103/2349-4220.195946

**How to cite this article:** Supe A. Designing a dynamic contextual curriculum. Int J Adv Med Health Res 2016;3:55-7.