

A third wave in medical education

During the years preceding 1910, the education and training of physicians (doctors)-to-be was based mainly on a master-apprentice model; the primary focus then was on the teaching and development of clinical skills.

In 1910, however, Flexner submitted a highly influential report to the American medical authorities: in it he recommended that all medical schools should be university-based and that, importantly, medical practice should have a scientific basis strongly underpinned by the basic medical sciences such as anatomy, biochemistry and physiology. Flexner's¹ recommendation was readily accepted, not only in the USA, but also globally- including Asia.

The recommendation of Flexner¹ provided the impetus for the design of medical education that begins with a pre-clinical phase in which student learning will focus mainly on the acquisition of content knowledge derived from the basic medical sciences to provide the strong scientific foundation for the clinical phase that follows. During the clinical phase, student learning will focus primarily on the clinical sciences relating to the diagnosis, treatment and management of patient care.

Thus, two key 'pillars' (the basic sciences and the clinical sciences) of medical education were established; this two pillar model of medical education persisted for many decades thereafter and remained so till today. The two pillar model of medical education, as strongly advocated in the recommendation of Flexner¹, has served medical practice well as "...the reforms equipped health professionals with the knowledge that contributed to the doubling of life span during the 20th century." ² and all seemed well.

However, in order to optimise patient care today, health care delivery must be viewed as an 'eco-system', i.e. within an entire health system in which the patient is linked to as the central figure. Such a 'health system' has been clearly recognised by the Education Consortium of the American Medical Association (AMA) which recently published the textbook 'Health Systems Science' (2017). In the 'Preface' of the textbook, it has been firmly expressed that "Even if basic and clinical sciences are expertly learned and executed, without health systems science, physicians cannot realize their full potential on patients' health or on the population." ³

In the 'Foreword' James L. Madara, executive vice president and CEO of the AMA, has also expressed that: "The emergence of health systems science will be a key component of the medical school of the future, bridging the study of basic and clinical sciences and giving new physicians a broad view of the societal influences and administrative challenges that sometimes complicate patient care. Health systems science is that window into the lives of our patients and our communities that makes us more effective, compassionate, and knowledgeable doctors."

The Education Consortium of the AMA has therefore proposed 'Health Systems Science' as a "third pillar" in medical education, thus leading the charge for a new wave in 21st century medical education.

January edition features several important areas in Health Professions Education such as ways to promote excellence in medical education, team work and interprofessional learning. The student led, faculty supported Tri-Generational Homecare project highlight the importance of encouraging students outside their curriculum to develop innovative community centric projects.

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¹ Flexner A. (1910). *Medical Education in the United States and Canada: A Report To the Carnegie Foundation For the Advancement of Teaching* (Bulletin Number Four). New York, USA: The Carnegie Foundation for the Advancement of Teaching.

² Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., Crisp, N., Evans, T., ... Zurayk H. (2010). Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet*, 376 (9756), 1923-1958.

³ Susan E. S., Richard, H., Luan, L., Stephanie, S., Jeffrey, B. & Jed, G. (2016). *Health Systems Science*. American Medical Association Education Consortium: Elsevier Canada.