

Review Article

Globalization of Medical Education Curriculum

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Abstract:

Globalization is the process of international interaction and integration through exchanges of views, products, ideas and various aspects of culture.

It is a fact that many skill and competencies of physicians are universal, as well as the required patient management skills are similar throughout the world. However, medical curriculum differs greatly worldwide in their content, thus, levels of professional competences acquired by graduates of medical schools varies across the globe. Consequently, it becomes difficult to get uniform global physician. Therefore, the concept of "global physician" to become a reality, it is necessary to determine a set of core competencies that define what a physician is, regardless of where he or she has been educated.

Globalization in medical education is a dynamic process. If any medical graduate does not want to remain confined within his or her own locality he or she has to customize him or herself according to the necessity of the globe. Thus, introduction of globally standardized uniform medical education curriculum is essential for everybody.

Key words: Medical education curriculum, Uniform, Globalized.

Introduction:

Globalization can be defined as the process of international interaction and integration through exchanges of views, products, ideas and various aspects of culture¹. The most important factor for promoting globalization is the efficient communication process. The globalization process exerts significant influence on the environment, culture, political systems, economic development and prosperity, education and health care system around the world. It has created the need for global citizens. Rapid advancements in technology have made for profound paradigm shifts in almost every arena so much so that keeping the competitive advantage in a globalized economy now requires going beyond traditional modes of education that create a well informed, trained and motivated workforce.

Progressively, this attitude is being implemented to designate health care delivery in a global setting. The ideas as medical tourism, the outsourcing or off shoring of care from one to another country and the use of telemedicine to provide medical services across

borders are the examples of global health care delivery. Though the discourse of globalization is a common concept in health care system but medical educators have taken up these ideas and languages very recently. The current trend of intellectualizing economic and social development in global terms is infusing the term global medical education with increasing frequency.

Many countries with a shortage of physicians import medical doctors. For instance, Canada imports doctors, often from developing countries as immigrants. About 23 to 25% of doctors practicing in Canada are foreign-graduated². Some countries outsourcing the training of doctors to other countries and on the contrary, some countries like Eastern Europe and the Caribbean have developed medical schools with business models that are specifically aimed at meeting a global demand for medical education. From Canada and USA a good number of citizens go for studying in medical schools in those countries. Sullivan wrote that in 2007 there were at least 1500 Canadians enrolled in medical schools abroad, of which 67% plan to work in Canada³. This idea of exporting students

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who can then be re-imported as trained physicians raises many concerns. For instance, resemblance of patient care between the two involved countries must be brought into question.

At the same time, a practical approach must be made to deal with the dual challenges of global mobility of medical graduates and the need for international standards. Though there are so many problems that medical graduates are facing to integrate themselves in a new country like communication, cultural variations, differences in ethics but main problem is the knowledge gap.

the difficulties related with cultural differences, ethical issues and communication cannot be solved beforehand; it goes off automatically when the person physically present in the new environment and find the ways to solve those, but, gap in knowledge and competencies could be predicted and solved by standardization of teaching and evaluating system of education curriculum worldwide.

How uniform international educational curriculum for medical graduate can be formed:

Many skill and competencies of physicians are universal, and the requirement of those skills for the management of the patients to some extent is similar throughout the world. However, medical curriculum differs greatly worldwide in their content, thus, levels of professional competences acquired by graduates of medical schools varies across the globe. Consequently, it becomes difficult to get uniform global physician. Therefore, the concept of "global physician" to become a reality, it is necessary to determine a set of core competencies that define what a physician is, regardless of where he or she has been educated. Currently, there are about six millions physicians attending over six billion people worldwide. They obtain their instruction and training from more than 1800 medical schools across the world⁴. Although, it seems medical curricula is comparable, but their content varies greatly.

However, a number of near-successful efforts have been taken to evaluate the course of the MD or equivalent degrees, nonetheless, there has never been an endeavor to define the core or minimal competencies that all physicians should acquire at the end of their medical graduation and before they enter their postgraduate training. To define this required core competence the Institute for International Medical

Education (IIME) was established on 9 June 1999⁵ in New York. The task of defining the 'global minimum essential requirements' is given to the Core Committee, comprised of international medical education experts from different parts of the world⁵.

The Core Committee grouped the 'essentials' under following seven, broad educational outcome-competence domains⁵:

1. Professional Values, Attitudes, Behavior and Ethics
2. Scientific Foundation of Medicine
3. Communication skills
4. Clinical Skills
5. Population Health and Health Systems
6. Management of Information
7. Critical thinking and research

In defining the essential competencies that all physicians must have, an extra importance needs to be placed on professionalism, social sciences, health economics and the management of information and the health care system. This must be done in the context of social and cultural characteristics of the different regions of the world. The precise methods and design for teaching may vary from school to school but the competencies required must be the same. Thus, the global essential requirements are not a threat to the fundamental principle that medical education has to identify and address the specific needs in social and cultural context where the physician is educated and will practice. Conclusively, in pursuing the 'global minimum essential requirements', medical schools will adopt their own particular curriculum design, but they must ensure that their graduates possess the core competencies proposed in the minimum essentials. They must in short 'think globally and act locally'⁵.

The World Federation for Medical Education (WFME), from its inception, has been involved in the improvement of medical education. Recently, it has begun the effort of developing globally accepted international standards to be used for the assessment of medical schools⁶. In 2003, it published its Global Standards for Medical Education, to ensure minimum training standards in medical education⁷.

Several organizations including American Academy of Family Physicians and Joint US/ Canadian

Committee on Global Health Core Competencies have provided the fundamental elements of a core global health curriculum and associated competencies.

All of the above mentioned events and activities indicate a growing awareness of the process of globalization of medical education and hopefully in near future they will be able to design an acceptable medical curriculum for all.

Assessment of Clinical Competence:

Competence is defined in terms of what the student or doctor should be able to do at an expected level of achievement, such as at graduation or when commencing an internship⁴. Thus, competence is the combination of all qualities necessary to do the duty for which one is being trained⁸, and clinical competence may be regarded as the mastery of appropriate knowledge and gaining of a range of relevant skills, which would include interpersonal, clinical and technical components. The defining of 'Essentials' alone could not change graduates' competencies unless they are linked to evaluation. Assessment will ensure that graduates, wherever they are trained in the world, have similar core competencies at the start of further graduate medical education or when they begin to practice medicine under the appropriate, nationally determined supervision.

The aim of assessment is not simply to see whether the student is able to perform a specific task in front of educator, but how a patient assesses him or her is also very important. It is why; the clinical examination is generally regarded as key assessment tool in the assessment of a student's competence to practice medicine and the cornerstone of qualifying examinations. In the clinical examination, there are three variables: the student, the examiner and the patient. The aim should be to standardize the examiner and the patient so that the student's performance can be seen as a measure of his or her clinical competence⁵.

In some parts of the world, assessment is done by multiple-choice written tests and in other parts by the traditional clinical examination, consisting of long and short cases based on patients. The former approach suffers from a low level of validity, and the latter from a very low level of reliability⁴. To improve the quality of assessment procedures, it is necessary to be precise in defining what aim to assess and should ensure that the assessment methods are both valid

and reliable. As no single method is adequate to appropriately measure all aspects of clinical knowledge, skills and problem solving techniques, the multi-format assessment conducted in examination settings is essential⁵.

In the IIME a Task Force was assembled, made up of experts in medical education evaluation and assigned them with the task of recommending the tools that would be used in the evaluation of the GMER in multiple schools in a developing country simultaneously⁹. Thus, the Task Force on Assessment established a matrix of the recommended assessment tools for each component of the global minimal essential requirement (GMER). As there are some domains for which there is no single best assessment tool, it is likely that the triangulation of assessment methods may be necessary⁹.

The three assessment tools are selected for this project⁹:

- 1) Multiple-Choice written examination (MCQ)
- 2) Objective Structured Clinical Examination (OSCE) using standardized patient and post-interaction exercises, and
- 3) Performance rating by observers (faculty, peer, nurse, or patient) and Logbook of students' learning experiences.

To maintain and improvement of competencies acquired in medical school, graduates must be conscious of their own limitations, the need for regular self-assessment, acceptance of peer evaluation and continuous undertaking of self-directed study. These personal development activities permit the continued acquisition and use of new knowledge and technologies throughout their professional careers.

Setting International Standards for medical education:

The purpose of any standard is spreading of the understanding from those who have the knowledge to those who need and can practice that information. In the educational system, standards tell students what is expected from them to achieve at the end of the school and the assessment tells whether they truly possess the required knowledge and skills to start work or study further¹⁰.

The first international standard in the field of education was developed in mathematics. However, medical education lags behind in this regard⁶. Observing the meanings of 'standard', the following three types of

interrelated medical educational standards might be predicted⁶:

- The content standards; describe skills, knowledge, attitudes and values that teachers are supposed to 'teach' and students are expected to learn.
- The assessment standards; define degrees of attainment of content standards and level of competencies in compliance with the professional requirements.
- The process or opportunity-to-learn standards define the availability of staff and other resources necessary for medical school students to meet the content and performance standards.

Medical Standards in use:

In the United States, the National Board of Medical Examiners (NBME) was established in 1915. That examination is a prerequisite for licensure in the fifty states and also for foreign medical graduates. The Educational Commission recognizes graduates from medical schools outside of the United States for Foreign Medical Graduates (ECFMG), and its certificate allows foreign graduates to work as members of the U.S. medical profession. Since 1993, the Federation of State Medical Boards and the National Board of Medical Examiners have established a new single, three-step examination for medical licensure^{11,12}.

In Europe, medical education has been confronted by political changes brought about by the formation of the European Union (UE) free labor market agreements. This ensued increased migration of doctors between the member states. This diplomatic resolution was based on the postulation of comparability of standards of medical education in the member countries¹³.

In Australia, the Accreditation Committee of the Australian Medical Council (AMC) established in 1985, has been entrusted with developing criteria for accreditation and all matters related to assessment and accreditation of the medical schools. Since 1991, Australian Health Ministry wants that all medical practitioners in Australia and in any state or territory of the Commonwealth receive unconditional registration, if they graduated from an Australian or New Zealand medical school, or hold certificate of the Australian Medical Council¹⁴.

Although medical schools have the responsibility to teach and train their healthcare professionals to serve

local communities, while, internationalization of health care system makes it difficult to remain the service local. It is therefore necessary to produce practitioners who can practice medicine in an ever-changing and unpredictable world. For this purpose uniform standard medical education curriculum is mandatory.

Challenges and impediments:

The main, and most understandable, concern with developing an international curriculum is that any large-scale consensus agreement will certainly be a human design. Many people may develop a curriculum: but each has conferred benefits, specific principles and usefulness, which the educator brings to bear when considering whether such a curriculum has global applicability. The Western medical curriculum, seen as an international text, is immersed in a precise set of cultural attitudes that are rarely questioned. Thus it is difficult to be sure that the current global initiatives in medical education are not just another type of supremacy by the superior country over the unindustrialized nation^{15,16} It might be irresistible but advantageous new wave of imperialism¹⁷.

Western post-Enlightenment thinking lays prodigious highlighting on the term essential or core values, assumes that things have an indispensable quality that makes them different from other things¹⁸. The precise question "What kinds of core educational experiences and essentials are required for global physicians?" is based in Western essentialist thinking, thereby illuminating a neo-imperialist bias¹⁹.

The linguistic of the international curriculum is controversial with itself. Whereas, supporters of global standards admit the need to respect local differences and praise diversity, they are at the same time encouraging Western values, expressed in the term of "core competencies" and the protection of equity through standardization. Effort is focused towards founding common consequences within competency frameworks as global standards for certification²⁰⁻²⁵. At its intense, this highlighting on standardization risks resounding the regulating process of Western-inspired acquaintance.

The frame of knowledge in comparative medical education is limited, but it raises critical issues. A decade ago Krishnan²⁶ described the Indian medical education system as thoroughly immersed in a colonial inheritance tending to 'support the metropolitan privileged, where students cannot interconnect with

patients in local languages and textbooks often postulate medical instances which are not related to India”.

However, some issues are equal for everywhere and everybody and can be immediately identified as common ground. Understandably, the scientific basis of disease processes, the human genome, the molecular basis of disease, population (public) health, principles for practice of medicine, professional behavior and ethics or the development of habits using knowledge to produce more knowledge are truly universal. Other global issues have to be formulated after screening out curricula of medical schools around the world to evaluate the outcomes by the quality of medical care delivered. Hence, we can no longer ignore the urgent need for the development of international essential requirements and standards in education. If educators in the cosmopolitan developed world simply look outwards at the rest of the world instead of turning their observation back upon themselves as potential colonizers, then there is risk of continuing the process of colonization despite their good intentions. However, learning is a continuous process, educators and scholars should know that the best way of learning is an equal and respectful sharing with others. If they do not proceed with a productive attitude, organizational approaches may begin to govern with probable conflicts and inadequacies in meeting educational and shifting societal requirements. The encouraging news is that many top medical educationalists are ready to contribute to this interchange, trusting that the outcomes could be most worthwhile.

Conclusions:

Globalization in medical education is a dynamic process. It is not just the work of a person or an individual. Whole world need to realize it and prompt to change the education system in such a way that at the end of graduation, medical graduates should be eligible to work globally. Here comes the necessity of universalization of curriculum in the medical schools worldwide. Introduction of globally standardized curriculum does not mean that it will not include the local needs and cultural components. Along with the minimal essential curricula, which are needed to comply with the global standard, every country will include additional material in the syllabus according to their own needs. Thus, the new graduate will be able to work both locally and globally. At the same

time, patients of the own country will also become confident on their local doctors as they find them equally or some times more efficient than the foreign doctors and they will be less interested in going abroad for their management. Furthermore, the nation can earn foreign currency by exporting professionals and expertise if it has surplus medical graduates or resources. It is obvious that, initially, the implementation of the project of universal medical curriculum will face lots of cultural, political and sociological difficulties. I hope the upcoming problems will stimulate discussion that will allow the scholars to broaden the discourses, the research, and the perspectives on globalization for the benefit of students, educators, patients and the future of medical education itself.

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