

Medical Education and the Bologna Process

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The so-called Bologna process was initiated by the political agreement of ministers of education of different European countries with the objective of creating a common European area of higher education. The content of the agreement was laid down in the so-called "Declaration of Bologna".

The Bologna Process designates ongoing activities whereby the Ministers responsible for Higher Education in Europe attempt to change and harmonize fundamental aspects of all higher education in the many countries involved. This grand scheme is gaining momentum. The number of participating countries is increasing, more aspects of higher education are being included and the number of activities and projects is growing. Introduction of the two-cycle (Bachelor/Master) system represents a sensitive aspect of the implementation of the Bologna process into higher medical education. But so far, medical education has been neglected in the process and awareness of the development at medical schools has been limited.

Despite lacking legal obligations, the implementation of a two-cycle system and the realisation of a general framework for study courses and graduation have gained rapid momentum. Parts of the Declaration of Bologna are without controversy, for example the promotion of mobility by overcoming obstacles to freedom of movement within the European Union. The structuring of university studies in an undergraduate and a graduate cycle (bachelor/master) may make also sense for medical studies and may open a new basis of medical education.

Medicine is going to become more and more molecular and the understanding of molecular aspects of the disease is currently also important for practitioners to treat their patients. Expected research competencies should therefore be identified for each level or academic year within each programme. Based on these competencies, recommendations on how to modify the curriculum into one that would support students' acquisition and development of the skills necessary to be successful in matriculating through an evidence-based practice curriculum have to be developed. Evaluation mechanisms for the achievement of these competencies vary across the academic programmes and will include performance on capstone projects, comprehensive examinations, and programme milestones for medical students. It involves much more than courses in how-to-do research – it involves gaining an understanding of how knowledge is developed and how research contributes to knowledge so that knowledge of basic science is of utmost importance for every physician in the future. The possibility of the dual education system with Bachelor/Master gives a good opportunity to enlarge these basic forms of knowledge in the Bachelor programme.

In daily practice, most physicians involved in direct clinical practice are not in the position to conduct research to answer questions they have about practice. Instead, they need easy access to research findings that are applicable to their practice, and they need the skills to assess research for its value to practice [1, 2]. Therefore, students should be taught to do systematic reviews as part of their undergraduate medical school programme so that they gain an understanding of how a good review should be carried out using standardized criteria. Graduate students should all carry out at least one complete systematic review on some aspect of their clinical practice, whether it is for a thesis or clinical project [3].

The last two decades have heralded many changes that have an impact on health care delivery, including changes in health care financing, the information explosion, the recognition of quality chasms, and the composition of the workforce. Physicians continue to be at the forefront of health care delivery and they must orchestrate care for their patients in an increasingly complex health care system. Our goal is to provide medical educators with strategies to help students blend leadership and management techniques to lead the new generation of knowledge workers [4].

These examples underline the new opportunities that will be opened by the Bologna process that may further improve the basic education of medical practitioners and specialists. Documenting the relationship between medical education and patient outcomes represents one of the biggest challenges and greatest opportunities in medical education research. There is no research infrastructure in place to support such outcome studies. The majority of medical education research that is currently being done is supported by volunteer faculty time and resources. This is not a viable model to sustain a medical education research mission. Examining historical and social trends, including how users adopt current and emerging technologies, allows us to anticipate changes in the practice of medicine. By considering market pressures, global trends and emerging technologies, medical educators may prepare their students for the changes likely to occur in the medical curriculum and in the marketplace.

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