DOI: 10.5455/msm.2016.28.316-319
Received: 13 June 2016; Accepted: 15 July 2016

DILEMMAS Mater Sociomed. 2016 Aug; 28(4): 316-319

BOLOGNA MODEL OF MEDICAL EDUCATION–UTOPIA OR REALITY

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ABSTRACT
Higher education in Europe and in the Balkan's countries is undergoing major reforms. The Bologna Process was a major reform created with the claimed goal of providing responses to issues such as the public responsibility for higher education and research, higher education governance, the social dimension of higher education and research, and the values and roles of higher education and research in modern, globalized, and increasingly complex societies with the most demanding qualification needs. Changes in the curricula, modernization of facilities and their alignment with the programs of other European universities, employment of a larger number of assistants, especially in the clinical courses at our universities are necessary. Also, it is necessary to continue to conduct further detailed analysis and evaluation of teaching content and outcomes in the future. In this review authors expressed their views and experience of using Bologna model of education in the Balkan's countries with emphasis on Bosnia and Herzegovina and the Republic of Macedonia.
Key words: Bologna System of education, utopia, reality.

1. INTRODUCTION

Higher education in Europe and in the Balkan's countries is undergoing major reforms (1-3). Goals of the higher education transformation in Europe was determined by the Bologna Declaration (signed in 1999 by ministries of 29 countries in Europe) and Sorbonne Declaration signed on May 25, 1998 on "Harmonizing the architecture of the European higher education system" (1, 4-7). Both declarations, together with the documents adopted through a process of reform of higher education in Europe represent the legislative base of the Bologna process. The Bologna Process was a major reform created with the claimed goal of providing responses to issues such as the public responsibility for higher education and research, higher education governance, the social dimension of higher education and research, and the values and roles of higher education and research in modern, globalized, and increasingly complex societies with the most demanding qualification needs (8). Bologna Process aims to create a unified European system of university education and research while recognizing and preserving diversity of national specificities (culture, language, traditions, etc.). In this manner it aims to create a more flexible and efficient system of education in Europe, more competitive at the global market of knowledge. Continually changes of Bologna declaration have been applied and influenced the medical schools curricula, especially medical informatics programs.

The quality of teaching at the universities in different countries in Europe depends on many factors, among which are: adequate space for teaching, teaching staff, equipment and technical aids to assist in the teaching process. Fulfilling these standards and norms is essential in order to successfully follow the curricula at biomedical faculties by the Bologna process (9-11). Without improving the quality of medical education the progress of health care is impossible to assess the quality of the teaching process very important is opinion of students and teaching staffs (11).

Launched in 1999 by the Ministers of Education and university leaders of 29 countries, the Bologna Process aims to create a European Higher Education Area (EHEA) by 2010; it has further developed into a major reform encompassing 46 countries. Taking part in the Bologna Process is a voluntary decision made by each country and its higher education community to endorse the principles underlined in the European Higher Education Area (10-12). The **Bologna Declaration** aimed to create a coherent and cohesive European Higher Education Area (EHEA) by 2010. The main objectives outlined in this statement were as follows: a) To adopt a system of easily readable and comparable degrees adopt a system with two main cycles (undergraduate/gradu-

ate); b) To establish a system of credits (ECTS); c) To promote mobility by overcoming legal recognition and administrative obstacles; d) To promote European co-operation in quality assurance; e) To promote a European dimension in higher education (4).

The Bologna Process does not aim to harmonize national educational systems but rather to provide tools to connect them. The reforms are based on ten simple objectives which governments and institutions are currently implementing (13-15). Most importantly, all participating countries have agreed on a comparable three cycle degree system for undergraduates (Bachelor degrees) and graduates (Master and PhD degrees). The main actors in the Bologna Process are: a) Education Ministers of countries that signed the Bologna Declaration; b) Representatives of European universities (EUA), professional higher education institutions (EURASHE), students (ESU), quality assurance agencies (ENQA), the UN Educational, Scientific and Cultural Organization–European Centre for Higher Education (UNESCO-CEPES), Education International (EI) and Business Europe. The Process is also supported by the European Commission and the Council of Europe All actors are involved in the Bologna Follow Up Group (BFUG) which meets regularly to further elaborate on the 10 action lines and supports the implementation of the Bologna Declaration. A ministerial meeting is held every two years to take stock of the latest implementation stage and review its course. Decisions are reached by consensus. In 1998 France, Italy, the UK and Germany signed the Sorbonne Declaration on the "harmonization of the architecture of the European Higher Education System" (5). Since the adoption of the Bologna Declaration in 1999, Education Ministers of the European countries have met every two years to further discuss and build upon the initial objectives. It is at this time that the Ministers produce a communiqué: the Prague (2001), Berlin (2003), Bergen (2005) and London (2007) communiqués each outline the progress made thus far as well as future short and long term priorities. EUA welcomes the fact that the Communiqué takes up many of the key points stressed in its recent **Prague Declaration** to Ministers. In particular, the Communiqué underlines the importance of increasing the quality and quantity of mobility in Europe, together with many of the other key issues underlined in the EUA Declaration including taking forward lifelong learning and improving researcher careers. In Prague, it was agreed to add three more action lines: a) Inclusion of lifelong learning strategies; b) Involvement of higher education institutions and students as essential partners in the Process; c) Promotion of the attractiveness of the European Higher Education Area (16). In Berlin, they agreed to speed up the process by setting an intermediate deadline of 2005 for progress on: a) Quality assurance; b) Adoption of a system of degree structures based on two main cycles; c) Recognition of degrees. Moreover, they decided to add the additional Action Line "Doctoral studies and promotion of young researchers", including specific mention of doctoral programs as the third cycle in the Bologna Process (17). On March 11-12, 2010, the Budapest and Vienna Ministerial Conferences and the 2nd Bologna Policy Forum took place. With the **Budapest-Vienna Declaration,** the European Higher Education Area (EHEA) has been officially launched. EUA has reflected on the achievements of the Bologna Process so far, and on the new steps to be taken in the first decade of the EHEA (18). Data from the literature and the media speak about increasing discrepancies in the implementation of previously set goals and actions. For example, German experts described state of education as dramatic. Insufficient are the qualifications of teachers, financial resources and teaching staff which is lacking everywhere, professors are getting old, and more and more students quit schooling. One of the reasons for dissatisfaction with the Bologna process is the introduction of high costs of studying, which caused a reduction in the number of foreign students at German universities by 20 percent. The situation is similar in Austria and other European countries. Southeast European countries are even more in unfavorable position.

2. EXPERIENCES IN BOSNIA AND HERZEGOVINA AND SOME OTHER BALKAN COUNTRIES

Masic I and Begic E. from Bosnia and Herzegovina presented the experiences in the implementation of the Bologna Declaration at Bosnia and Herzegovina universities (1, 6, 7). According to available data, the quality of medical education at the universities at such level that none of biomedical faculties in Bosnia are internationally accredited (19-21). This is a consequence of the war and postwar conditions in the country, unregulated socio-political system, poor legislation in higher education, small investments in infrastructure, facilities, personnel, equipment, especially in the ICT resources used in education. Both models of education are still used: the old Austro-Hungarian model and the new Bologna model (22-24). Measuring of education quality according to both models is performed for several years, so on this occasion will be presented the results and experiences with recommendations for the future. His opinion is that for potential students it is important to be aware of the quality of educational programs in Medical Informatics in which someone is interested. It is important to know how an educational program compares with international programs. For educational programs it is worthwhile to show to students, but probably also to their university that their educational program compares well with other international programs. Accreditation by an international scientific or professional organizations is a possible solution. For example, International Medical Informatics Association (IMIA), European Federation for Medical Informatics (EFMI), European Public Health Association (EUPHA), etc., tried to give the input of how these scientific associations can improve Bologna model education followed the changes of Bologna declaration (25). Bologna Declaration started in Balcan countries (Croatia, in 2001), about 15 years ago, but the process is in constant change and refinement. The new programs are not sufficiently aligned with those in Europe, the credit system has increased the graduation success rate, but not the quality, the number of teachers has remained almost the same, while the obtained degrees are not aligned with the needs of the economy.

The Bologna Declaration is ratified by more than 40 European countries. The declaration was signed by most of the

Balkan countries, starting with Bulgaria, Greece, Hungary, Romania and Slovenia in 1999, then Croatia in 2001, Albania, Bosnia and Herzegovina, Serbia and Macedonia in 2003, and Montenegro in 2007 (8).

In 2013, a discussion was initiated in Serbia on whether the state should give up the process, after research conducted by the University in Belgrade showed that two thirds of the students were not satisfied with the way it was implemented, and there was certain degree of dissatisfaction as well with the professors. On a scale from one to five, the Serbian students graded this process with the total note of 2. 51. A debate also took place in Croatia, after the professors warned that the problem with Bologna is the fact that students take longer time to complete their studies, while the professors are "suffocating" in bureaucratic procedures because of the ECTS points, whereas the mobility has not increased significantly (26).

The Republic of Macedonia became a member of the Bologna Process in 2003 but the basic principles of that system were only partially implemented. In 2005, the Ministry of Education and Science prepared and passed updates of the Law on Higher Education. Priority areas for legal intervention are: the degree structure, enhancement of the university-faculty relations promoting an integrated university of which faculties are constituent parts. With regard to the question of restrucuring curricula, Higher Education institutions have continued to restructure existing and develp new study programs compatible with similar ones in the developed countries. Most of the faculties in Macedonia have decided to implement CTS in 2005 according to the ECTS as a standard. According to the official reports a number of positive changes have been made in all areas of activities of the universities. But, there are a number of weaknesses in terms of learning outcomes, competences, and the appropriate qualification framework due to an objective economic situation in R. Macedonia or to a subjective understanding of "Bologna philosophy" (9, 27).

In general, this is an expensive process, operation or system which, realistically speaking, requires more resources, and secondly, the capacity of the larger number of higher education institutions were not prepared enough to accept that process in order to be able to implement it fully. Officials from the Ministry of Education and Science consider that it couldn't fully revoke the Bologna Process, but it leaves space for modification. Most probably, the changes will consist of oral exam besides the existing written one, and exploration of the possibilities regarding the three-year study process. Some experts recognized that one of the catastrophic consequences of the Bologna Process is that by wanting to grade students' knowledge with points, the process itself has become dehumanized and mechanic causing degrading the higher education. Professors barely have direct in-person contact with the students because students are the majority. The shortage of appropriate teaching staff, even without teaching assistants, create the situations for a professor to work with more than 200 students at the same time (9, 26, 27).

3. CONCLUSION

Education even in the most developed countries of Europe is not spared from the problems, especially in the field of biomedicine. The Bologna Process is a series of ministerial meetings and agreements between European countries designed to ensure comparability in the standards and quality of higher education qualifications. The Bologna process has created the European Higher Education Area, in particular under the Lisbon Recognition Convention and Bologna Declaration. Corrections that are constantly being introduced in order to eliminate identified deficiencies does not provide adequate results, so that in some areas there are considerations about leaving the Bologna model of education, especially in medicine, because of its specificity. Changes in the curricula, modernization of facilities and their alignment with the programs of other European universities, employment of a larger number of assistants, especially in the clinical courses at our universities are necessary. Moreover, it is necessary to continue to conduct further detailed analysis and evaluation of teaching content and outcomes in the future. If the main goal is high quality higher education, it is necessary all participants in the Bologna process to take seriously recommendation for improvement and to try to avoid the catch of distorted Bologna.

• Conflict of interest: none declared

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