Relationship Between Education and Family Medicine Practice. What Did we Learn in Covid–19 Pandemic?

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Background: Family medicine is implemented as an independent, academic and scientific discipline with specific educational and research content. Objective: The aim of this paper is to analyze the implementation of family medicine in Bosnia and Herzegovina according to EURACT educational agenda. Methods: This article is a review of the entire teaching system in undergraduate, postgraduate and continuing education in the Department of Family Medicine at Faculty of Medicine, University of Tuzla, Bosnia and Herzegovina was evaluated through the department reports and published information, as well as professional papers and publications. Results: For the successful application of “patient-oriented clinical practice” in their practical work, Family medicine teams met the criteria for full accreditation. In the last 6 years, delays and obstacles in practical work have been registered, and the main factors of obstruction are at the level of politics, law and economy. The COVID–19 pandemic led to almost complete collapse of family medicine practice mostly because telemedicine principles were not applied. Conclusion: During the pandemic, the teaching process was significantly changed due to the difficulty of applying all the practical skills described in the definition of Family medicine. Telemedicine educational modules have not been introduced. A pandemic significantly changes the content and methods of learning.

Keywords: medical education, family medicine praxis, COVID–19 pandemic.


1. BACKGROUND

“The doctor who knows the principles of medical science, but is incompetent in his art due to insufficient knowledge of the practice, as well as an experienced doctor in his art and with insufficient knowledge of Ayurveda, is like a bird with one wing that has no ability to fly sky high”

– Shushruta Samhita 300-400 BC

Education, practice and research are extremely connected (1). A successful health care system depends on closed relationship between good practice, research and education. Unknown problems in practice need theoretical answer from research process which finally interplays with education. Education, medical, practice and research should be implemented together in academic department of family medicine (2, 3). Figure 1 shows relationship between education, medical, practice and research.

Opinion of students plays an important role in measuring the quality of education (4, 5). Masic et al realized investigation about quality assessment of two models of medical education - to compare the results of measuring the quality of the teaching process students who study according to the Bologna system and students who are studying according to the old system. They used a questionnaire containing variables relevant to test the success of the teaching process at the Faculty of Medicine of Sarajevo University. The study included 132 students of the sixth year of the Medical faculty Sarajevo, of which 84 students who are studying according to the Bologna system and 53 students who are studying according the old system. The results showed that the students of both groups assessed similarly basic elements of the teaching process. A statistically significant difference is in the evaluation of the relationship of teachers, assistants and the number of students, as well as the evaluation of space for teaching, practice and studying. It is necessary to carry out many of the changes in our universities through the Bologna process.

The quality of teaching at the universities in Bosnia and Herzegovina as well as abroad 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 curriculum of sixth year by the Bologna process (1–3).

Without improving the quality of medical education the progress of health care is impossible (6). To
assess the quality of the teaching process very important is opinion of students (4, 5).

At the end of the last century Alma-Ata Declaration recommended strengthening primary health care. With the “health for all” statement, general practice and family medicine came into the focus. At the beginning of the 21st century, the reform of the health care system began with the reinforcement of general practice/family medicine.

WONCA Europe definition sets educational criteria and standards in practice. The WHO and WONCA Association made recommendations for the development of academic departments in family medicine. Family medicine is implemented as an independent, academic and scientific discipline with specific educational and research content. Figure 2 shows the consensus statement which defines family medicine as academic discipline and the professional tasks of family doctor (required the core competencies).

2. OBJECTIVE

The aim of this paper is to analyze the implementation of Family medicine in Bosnia and Herzegovina according to European definition of Family medicine and EURACT educational agenda. The second goal is to assess how the acquired knowledge, skills and learned competencies are applied in practice in reformed healthcare centers, particularly during the COVID-19 pandemic.

3. METHODS

The entire teaching system in undergraduate, postgraduate and continuing education in the Department of Family Medicine at Faculty of Medicine of University in Tuzla was evaluated through the department reports and published information, as well as professional papers and publications. Published papers in European journals during the 2020 and 2021 COVID-19 pandemic and the process of education and the family medicine practice were analysed.

4. RESULTS AND DISCUSSION

In Bosnia and Herzegovina, family medicine has been successfully implemented as a basic, academic and scientific discipline in the reformed system of primary health care. According to the principles of the EURACT educational agenda academic and educational activities have been implemented. New educational methods and modules for acquiring skills of 6 key competencies have been introduced.

Academic Family medicine department was formed in academic year 1997/1998 with support from the Canadian government and Queen’s University Kingston Canada. On Figure 3 has shown Canadian family doctors in front of Academic Department of Family medicine in Tuzla city.

Educational process in the academic Department of Family Medicine was adapted to specific characteristics of Family medicine. Goal, methodology, implementation and assessment was adapted for undergraduate education (Figure 4).

The teaching of knowledge, skills, values and attitudes of practice-based learning in academic de-
partment of Family medicine to medical students and residents is important way for improving health care.

Family physicians generally have the knowledge to provide quality care to their patients, but best practice must include new recommendations from clinical studies and clinical guidelines.

Periodic evaluation of daily clinical practice is crucial to assess the level of quality. For evaluation and assessment of knowledge and practical skills in Family medicine department implemented new educational tools as OSCE and simulated patient.

OSCE - Objective Structured Clinical Examination in which each student is given a short scenario and asked to perform a particular task – examine a real or simulated patient was very useful for getting practical clinical and problem-solving skills (Figure 5).

For the successful application of “Patient-oriented Clinical Practice” in their practical work, family medicine teams met the criteria for full accreditation. In the last 6 years, delays and obstacles in practical work have been registered, and the main factors of obstruction are at the level of politics, law and economy. Obstacles at the level of politics, law and economics make it impossible to reconstruct the health system according to the educational goals of F/G medicine. Delays in redefining health centers, fragmentation of the health system in B&H and insufficient funding are key obstacles to improving primary health care. Secondary and tertiary levels continue to be given priority throughout the health system.

Medical education and practice is a major challenge during the pandemic, but it also opens up new perspectives. Unfortunately the COVID-19 pandemic led to almost complete collapse of family medicine practice mostly because telemedicine principles were not applied.

In the scientific literature ‘tele-health’ is a more universal term for the current broad array of applications in the field (11–14). The pandemic is causing the rapid and successful implementation of telemedicine instead of the old model of clinical practice. WONCA Europe is making great efforts to preserve the integrity of F/G medicine as an academic discipline. Virtual education during a pandemic can affect the quality of the teaching process, due to the difficulty of mastering all the practical skills described in the definition of F/G medicine. Teachers may have difficulty conducting distance learning.

The pandemic significantly changes the content and methods of learning, and equality in the use of the healthcare system is significantly jeopardized, especially for vulnerable groups. While "tele-medicine" or "tele-healthcare" has been more commonly used in the past? A lot of reasons exist for it: One of the most important is: COVID-19 pandemic globally changed needs and requests for healthcare protection at all levels of the organization healthcare system, including also Primary Health Care and within it Family medicine concept of healthcare protection. This concept of treatment patients was collapsed during corona time and family medicine teams, instead of treating usual patients requests (the most frequent diseases, especially in old people with existing of chronic diseases, mental illness, children, malignant diseases, risk population, etc.) family medicine professionals were occupied with solving of COVID-19 pandemic patients and their postcovid treatment. Mental problems caused by stress became one of dominant health care problems and a great challenge for the problem-solving process in the family medicine service.

The paper written by Novo A. et al. (11) described the process of the reform of the mental services in
the Healthcare system in the Federation of Bosnia and Herzegovina. Authors stated that mental health services are provided through a network of 45 community centers for mental health. Patients in mental health institutions together with healthcare and social workers in institutions for mental health are more vulnerable to this kind of psychological distress (11) as well as persons who need psychosocial support outside the mental health institutions. It also includes elderly homes, child orphans, homeless people or anyone who experiences a sense of being ignored or separated from society as a whole. Although a rise in symptoms of anxiety and coping responses to stress are expected during these extraordinary circumstances, there is a risk that the prevalence of a clinically relevant number of people with anxiety, depression, and engaging in harmful behaviors (such as suicide and self-harm) will increase (11).

Also to conduct: Implementation of programs of measures for preventive and curative purposes during pregnancy and childbirth, labor, of the total children population, women, especially in the early detection of cancer and other diseases and in particular measures of family planning; Implementation of protection, detection and treatment of diseases in the elderly with timely prevention of chronic disease; Implementation of measures for early detection of malignant diseases; Timely implementation of necessary measures in prevention, education about and treatment of infectious diseases; Implementation of home treatment, care and rehabilitation; Conducting health education and training, as well as health promotion using individual and group methods;

Other obligations of family doctor includes: Continuing education and updating their knowledge using professional literature, acquiring new skills and knowledge that are necessary for their daily work; Ethical relationships with patients, users of health care, towards associates and colleagues; Respect legislation that regulate primarily the work of family medicine in general and health care in general. Implementing necessary measures and procedures in the terminal stages of the diseases must be a priority for family medicine professionals changing and adopting new and modern ways of under and postgraduate students and physicians who specialized in Family medicine or already work in family medicine departments.

The Model and concepts of education of Family medicine in South Eastern Europe and large are few different (6).

One of the most important findings is the lack of technological resources. Mental health care professionals, as well as social workers from the centers for social work, do not have enough equipment like computers, laptops, not even smartphones for official use neither quick access to the mental health service and Internet. A similar opinion had patients as well (11). Broadband internet telecommunications during the current global COVID-19 crisis, now more than ever, is underscoring the importance of leveraging digital approaches to optimize (5-33-25).

Those in need of mental health care must have reasonable, timely access to these services and a shared care model using a broadband internet telecommunications link between a rural clinic and mental health service providers in an urban area. Monitoring and virtual care tools aligned with the patient’s electronic health record are very important for adapting telemedicine delivery even post-COVID-19 (16-33).

Rapid implementation of these recommended actions will be essential to ensure people and societies are better protected from all diseases, especially massive chronic diseases, including the mental health impact of COVID-19. Also, both private and especially public health care institutions must be better equipped with information communication equipment and other means and as well as with better broadband Internet connection. Monitoring and virtual care tools aligned with the patient’s electronic health record are very important for adapting telemedicine delivery even post-COVID-19 (11). Health and social workers need more training on the use of ICT equipment and continuous user support in order to assist their patients and clients in providing optimal care. Formal training needs to be followed with certification of medical workers for providing online services, examinations or counseling and regulated by national legislation on e-health (11). Because of that medical education including curricula and topics of Family medicine must be improved as soon as possible.

5. CONCLUSION

According to the recommendations of WHO, WONCA and EURACT, Family medicine has been implemented in Bosnia and Herzegovina as a major academic and scientific discipline in the reformed Primary Health Care system (PHC). New educational methods and models for acquiring skills of 6 key competencies had been introduced. In the last 6 years, there has been a stagnation in the further implementation of practical work. The main factors of obstruction are at the level of politics, law and economics. During the pandemic, the teaching process was significantly changed due to the difficulty of applying all the practical skills described in the definition of Family medicine.

Telemedicine educational modules have not been introduced.

A pandemic significantly changes the content and methods of learning. By conducting a program of specialized training achieves the objective that physicians on the basis of internationally recog-
nized principles are involved in all aspects of PHC. By specialist education the family medicine doctor is qualified to: Organize and taking part in equipping the Family medicine offices and the rational use of equipment, personnel and financial resources.

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