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Full Length Research Paper

The establishment of a medical faculty advisory board for the development of curricula, competencies and learning outcomes in Bosnia and Herzegovina

Nurka Pranjić[1], André Govaert[2], Chris Van Keer[2], Geert De Lepeleer[2], Azra Kurtić[1], Farid Ljuca[1], Merisa Imamović- Kuluglić[3]

[1]Faculty of Medicine, University of Tuzla, Tuzla, Bosnia and Herzegovina
[2]Katholieke Hogeschool Sint-Lieven, Gent, Belgium
[3]Ministry of Health Tuzla Canton, Tuzla, Bosnia and Herzegovina

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To establish Advisory Board which has tasks to found the learning outcomes to educate professionally competent physicians for the needs of the public health care system. Methods of achieving this based purely on duration of study are fallible and give little information as to how graduates will perform in the workplace. To establish faculty curricula advisory board we conducted a stakeholder's principles and stakeholder analysis. The stakeholder analysis is a method of determining the most appropriate actions to be taken. During the workshops the structure of advisory board were extensively discussed and debated. Advisory board will consist of a maximum of five persons from a group of internal and five persons from a group of external stakeholders. A Curricula Medical Advisory Board officer will be appointed in university. This Board will be the advisory body for the Faculty's Academic Council, the Dean and the Faculty Commission for education, where applicable. A great deal of work has already been done to define stakeholders, interrelations between stakeholders, Curricula medical advisory board structure and objectives for each B and H medical faculty to develop curriculum-level outcomes/competences for medical education. Following curricula evaluation and stakeholder analysis the advisory board will oversee implementation of changes and monitor progress of the institutions progress towards fulfillment of agreed aims and objectives.

Keywords: Curricula medical advisory board, stakeholder analysis, medical practitioners.

INTRODUCTION

Outcome- competency- based education is neither new concept. The main task of the undergraduate medical education program or curricula is to educate professionally competent physicians for the needs of the public health care system (Simpson et al., 2002). In line with this new education philosophy, the purpose of the Medical Faculty will be to educate medical practitioners, who are knowledgeable and responsible clinicians as well as experts in biomedical and clinical research and administration (Novak et al., 2010). It is proposed that physicians will in future have a competent and holistic view of patient treatment, in which scientific thinking, knowledge of behavioral science and ethics are integrated with clinical knowledge and will also develop reference points at subject area level in terms of learning outcomes and competences (Harden, 1986; Harden, 2002).

The learning outcomes are meant simply to define our "product", but also to assist curriculum planners, teachers, students and those responsible for postgraduate training. They could also be used as a measurable benchmark each medical faculty's own curriculum planners, whether internally The learning outcomes mean statements of what a student and/or physicians (as external stakeholder in our study) was expected to know, to understand and to be able to demonstrate after completion of a learning experience. The last term defines the expression of the level of competence to be obtained by the student. The competences represent a dynamic combination of cog-

*Corresponding Author E-mail: pranicnurka@hotmail.com

nitive and meta- cognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, and ethical values (generic and subject specific competences identified after a Europe-wide consultation process which included employers, students or graduates and academic staff) (Ebstein, 2001; Rotarius et al., 2003).

Process of medical faculty curriculum development asks for systematic approach which should respect several aspects: the needs of patients, of the society, the students and teaching staff. This process should be maximal efficient and effective; it should be built upon previous work (Ebstein, 2001; Šimunović et al., 2006; Bokonjić et al., 2007). Curriculum not only covers the formal teaching/learning but also the other aspects of human development associated with institutional life. It will transform a student into a productive physician/ medical practitioner. Curriculum should force learning process which is as similar as possible to professional activities (Garcia-Barbero, 1995; Maurana and Goldenberger, 1996; Miller et al., 2000; Šimunović et al., 2008).

Curricula are not static, and continuous development is one of their key features. The involvement of key subjects in the process of curriculum development should be from the first stage of the process the first stage involves the creation of the institution mission statement (Novak et al., 2010). The student is the central figure in the process of education and modern education institutions use a “student centered approach” as their main philosophy in the process of curriculum shaping (Goldman, 1995; Wahlstrom et al., 1997; Nair at al., 2009). Students should be involved in the process of design and curriculum development. Representatives of students and their organizations should be involved in the work of committees and bodies in charge for curriculum design (Vujaklija et al., 2010). The fact that students are involved in the shaping of their learning gives a special quality to the education process. All stakeholders of an institution should be included in the process of curriculum development, and they all should give their view of the reasons why the institution exists. The mission statement should include a reference to the type of medical graduate proposed (Keogh et al., 2010).

Medical faculties and health care organizations need to become flexible, adaptable and knowledgeable in order to meet demands to decrease costs and errors and increase efficiency and quality (Duzel et al., 2003; Pranjić, 2009). Health service delivery often involves the cooperation and integration of multiple stakeholders in a complex network or multi-provider system. As medical teachers, it is our professional responsibility to update ourselves on best practices and best evidence in assessment and to make a conscious educated effort in implementing them. But educational institutions are not the only places for the creation and dissemination of knowledge!

There is an obvious need for completing standards for B and medical higher education with rules concerning the needs and expectations of external and internal stakeholders. The reason for aiming for increased interaction of medical education and society/ external (the working field health institutions) and internal stakeholders (students and alumni), is due to the fact, that the Medical faculties long term strategy should rely on commitment to the local community and social responsiveness. Establishing a well defined cooperation with external stakeholders and our own-medical faculties' graduate/alumni relations should become a normal part of each medical faculty.

METHODOLOGY

Methods of achieving this based purely on duration of study are fallible and give little information as to how graduates will perform in the workplace. To establish faculty curricula advisory board we conducted a stakeholder’s principles and stakeholder analysis. The stakeholder analysis is a method of determining the most appropriate actions to be taken. During the workshops the structure of advisory board were extensively discussed and debated.

The first step of examination

Definition of stakeholders and their roles by stakeholder’s analysis methods.

The second step of examination

The short-term friendly assessment of the outcomes of traditional undergraduate curricula in relationship to achieve job competence of physician’s occupation among subjects- participants of teaching process (students and teaching staff) and physicians who are employed in public health sector and determination the factors which are important for curricula improvement (to found the most important competences for medical graduates) were second study step. The questionnaire short-term analyses included n=2571 participants (420 employees in public health institutions: 320 young general practice physicians with <5 years of working experience +121 physicians who were their superior; 620 active participants of teaching process: 610 students of higher years (from III to VI study years) of medical graduate curricula +480 teaching staff; shown in Figure 1); 1003 men and 1568 (61%) women. We used self- created Questionnaire about competencies, which was concluded 25 core competencies for physician’s occupation.

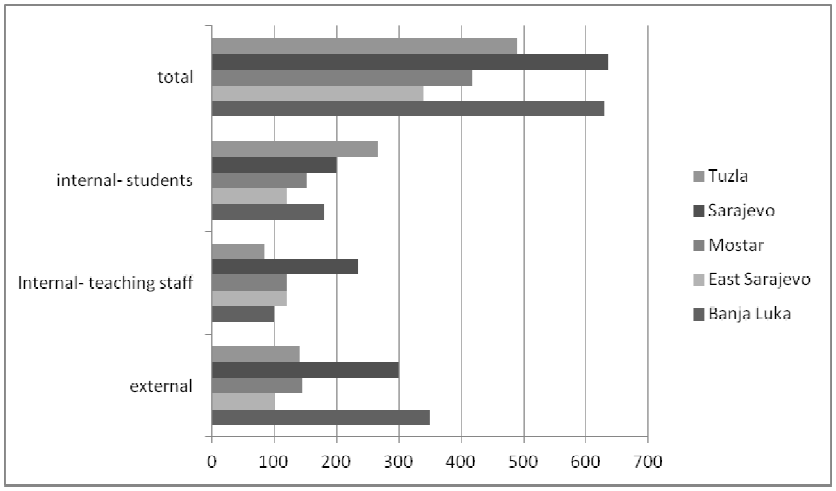

Figure 1. The stakeholder`s structure per B&H medical faculties

Table 1. The structure of permanent members of the Curricula Medical Advisory Boards

The Medical Faculty Advisory Board representatives			
No. of representatives	*Internal stakeholders*	No. of representatives	*External stakeholders*
2	representatives of teaching staff from Medical faculty (two members of teaching staff)	1	Ministry of Health
2	students (from III to VI year)	1	Ministry of Education (representative who has medical Education)
1	administrative person (officer)	2	representatives of physician (working experience < 5 years; alumni)
		1	Medical Chamber (alumni) representative*
		1*	Association of patients*

*Conclusion: It is possible to have about 20% difference between choices of representatives of external stakeholders between each B and H faculty

The third step of examination

Short-term evaluation of curricula presents the final stage inside a cyclic process of improvement and development of curricula.

RESULTS

Based on the conclusions of Tempus "The role of stakeholders in quality assurance procedures at B and H Medical faculties" project meetings in Mostar, the Sarajevo Mini Consortium Meeting, the two retraining sessions in B and H (Sarajevo: 3rd April and 5th June 2009), the annual evaluation of the project (visits from 1st to 5th June 2009), and in open discussions about this topic in Wien (8th to 12th July 2009), the partners agreed on the structure and objectives of Resonance committees in each medical faculty. The name Curricula Medical Faculty Advisory Board was agreed because it is really an advisory body for the Faculty's Academic Council, the Dean and where applicable the Commission for Education of the Faculty. The Curricula Medical Advisory Board will consist of a maximum of 11 representatives of different types of stakeholders, 5 representatives of internal (primary) stakeholders (and 6 representatives of external (secondary) stakeholders (maximum 11 persons) of each medical faculty in B&H (Table 1). About sixty percent are currently female stakeholders. A significant role in the process of reviewing academic quality standards for medical education should also be attributed to partnership between Medical faculties and communities: The permanent members of this board are: staff members and students of the Medical faculty, alumnae/alumni representatives, the broader professional community (Ministry of Health, Ministry of Education), employers (Hospitals or other health care institutions), patients receiving health care (representative of Association of Patients).

Stakeholder category structure in this inventory can be accepted as realistic: almost half of participants are

students (43%; or 741), while the smallest group of respondents is the teaching staff (22%; 387. Almost half of the external stakeholders (data not presented) have less than 5 years experience (49%). They represent a major external stakeholder sub-category for the competence based inventory section as most of their knowledge and skills still comes from the knowledge and practice gained through formal medical education. In accordance with the existing higher education and health sector regulations of post-graduate medical education, one can graduate from a medical faculty only after attending a master degree program (non-compulsory education). Within 5 years, students can finalize professional, compulsory medical practice-based education after graduation - internship (each medical doctor has to finish one year of internship, most commonly done in a clinical hospital) and pass the license exam and they can begin, but not complete residency/specialization.

The selection criteria for appointment of members of the Board are: responsibilities and competence (knowledge, skills, and attitudes). The competence is related to the field of Medicine faculty teaching process or Health care setting except for the Ministry of Education representative. Medical Faculty representatives and a Board officer are appointed by the Council and proposed by the Dean. Representatives of students are appointed by the Council and proposed by the Students Association. Representatives of Ministries are appointed by the Council and proposed by the relevant Ministry. Representatives of patients are appointed by the Council and proposed by the Patients Association. Representatives of physicians and Medical Chamber representatives are appointed by the Council of the Medical Chamber. The Chairman of the Board is selected by the Council and proposed by the Dean. *Note:* The Medical Faculty Advisory Board may occasionally involve other experts and alumni representatives with the aim of improving and developing curricula. Members of this Board who are occasionally involved in the work are selected by the Faculty Council and proposed by the Curricula Medical Advisory Board. In each university a Medical Advisory Board officer will be appointed as administrator and will have the following tasks: to maintain communication and contacts with the Dean, the Faculty's Academic Council, and Commission for Education, stakeholders and related bodies; to coordinate between them; to document and circulate minutes of meetings and action plans; and provide data and reports. A special task of the officer will be the establishment of public awareness about current activities which are aimed at improving curricula. The officer will make contacts with other faculties about dissemination activities/ information in the framework in line with the objectives of the Advisory Board.

The current and future needs of society with respect to the competencies of graduates of medical education will be compared with the outcomes of current curricula. The objective of the Curricula Medical Advisory Board is to provide institutional mechanisms for systematic improvement and coordination of initiatives and development programs with the permanent goal of establishing and improving standards, professional development of teaching staff and future physicians and improvement of curricula. Based on this approach the Medical Faculty Advisory Board will formulate advice for the direction of future curriculum development. The Advisory body will make recommendations on changes to curricula. The Curricula Advisory board may make proposals about starting new departments/ faculties as well as about introduction of new courses. All proposals for curriculum reform should be submitted to the Medical Faculty Advisory Board for their comments before a final decision is made by the institution. The board should advice the Commission for Education (or the Curriculum Committee), the Faculty's Academic Council, and the Dean. It should meet at least twice a year (time proposed for evaluation and assessment of results of student exams) and receive all necessary support required for this work which should take place outside the current structure of the institution.

Each of 25 competencies received strong support (88 to 99% of internal and external stakeholders). But only two competencies were marked completely agree in relation to implementation that in the undergraduate curricula skills. Statistical comparisons of the item responses between practitioners and internal faculty stakeholders were significantly different on 9 of the items. There were related to the assessment the patients mental states; ability to provide immediate care of medical emergencies including first aid; carry out practical procedures; apply the principles of evidence based medicine; promotion of health; ability to work autonomously when necessary, ability to team work, capacity to learn (life- long learning), ability to lead others (competencies which is need include to develop curriculum for medicine practice).

The objectives of the Advisory Boards are to collect initiatives and suggestions for curriculum- reform, results of data analysis of existing curricula and proposals for their improvement. The main task of the Curricula Medical Advisory Board will be to offer advice on how to change curricula and to the faculty and to offer advice for future curriculum improvements. Periodically and at least once a year, it should make a final formal report about its activities to the Dean and Faculty's Council.

The Curricula Medical Advisory Board should function at Faculty level. Members of the Board will interact on a temporary basis. What does this statement mean? The Advisory board will participate in periodic analyses of existing curricula having in mind contemporary trends in the fields covered by study programs, needs of community/ patients, results of the Quality Assurance Commission questionnaires, as well as legal regulations, material available and the human

resources of the faculty. The Advisory board is accountable for its work to the Commission for Education which acts as the advisory body to the Faculty's Academic Council. This Academic Council with the consent of their Faculty (University) members makes the decisions on curricula change twice times per year (time proposed for assessment of results of student exams).

DISCUSSION

Stakeholders are defined "as those key individuals (or groups of individuals) who have an influence over either decision-making or implementation (or both) either directly or indirectly, overtly or covertly". This influence can assist or alter the course of curricula changes (Varvasovszky, 2000; Keogh et al., 2010). During the project workshops the structure of advisory board were extensively discussed and debated.

The Theory of stages of change or stage of reform can explain that awareness involves recognizing that there is a discrepancy or gap between what the organizations, or work unit is currently doing and what it should or could be doing. This awareness may be sparked internally by the expectations of participants or externally by community or regulatory pressures affecting the performance of the organization (Nair at al., 2010). Stakeholder analysis, both internal and external, will uncover the perceptions and concerns of all those with a stake in organizational behavior. Change that is in line with current organizational activities, and perceived as having a relative advantage over the idea, practice or tool it replaces, are more likely to be implemented (Shortnell and Kaluzny, 2000). Because change (change of curricula) is a continual process, continuous assessment of practices and perceptions is warranted. With this proposal each five Bosnia and Herzegovina (B&H) medical faculties want to include all internal and external stakeholders in the educational process of the faculty. It concerns not only staff members and students but also alumni (all past students of Medical Faculties), hospitals, patients, the Ministries of Health and Ministries of Education as major employers of graduates (Table1). The specific objective of the project is the establishment of the Medical Faculty Advisory Board as a resonance committee in each medical faculty. This Medical Faculty Advisory Board is actually an advisory board comprising all stakeholders. Quality management systems include the involvement of all stakeholders in helping to determine standards. Therefore this Tempus proposal was initiated: "The role of stakeholders in quality assurance procedures at B and H Medical faculties".

Stakeholder concepts and approaches originated in the literature of the 1930's and stakeholder analysis has since developed into a systematic tool with clearly defined steps and purposes for examining the organizational milieu (Varvasovszky, 2000; Brugha and Varvasovszky, 2000). Stakeholder analysis is designed to provide an organization with information to evaluate and understand stakeholders in terms of their relevance to a policy or specific activity of the organization. Analysis can produce broad, general understandings which paint the landscape for potential change, or provide a focused lens to highlight concrete steps appropriate to the current situation. Stakeholder analysis is done to assist the evaluation, implementation, planning and management activities within an organization, in our case faculty (Richards, 1996; Shortnell and Kaluzny, 2000; Nair et al., 2009). Stakeholder analysis is an approach or a tool or a set of tools for generating knowledge about actors, individuals and organizations, so as to understand their behavior, intentions, interrelations and interests and for assessing the influence and resources they bring to bear on decision-making or implementation processes" (Harden, 1986; Maurana and Goldenberg, 1996; Brugha and Varvasovszky, 2000; Kaho- Sint- Liven Hogeschool, 2006; Cumming and Ross, 2008). Although, stakeholder analysis is not explicitly one tool but a systematic process that can make use of a range of different methodologies for analyzing stakeholder interests, positions, interrelations, influence, networks and other characteristics relevant to the specific purpose of the inquiry in our examination were very useful.Without an evaluation procedure it would be difficult to imagine monitoring of institution progress toward desired needs. This process is necessary to provide evidence that the institution made a step in the right direction, as well as useful information to stakeholders. It assists in the process of identification of problems inside curricula and an institution, solving of problems and redesigning of certain aspects of curricula. Evaluation can be performed as short-term and long-term evaluation. Short-term evaluation has a role of "friendly" criticism, while the long term evaluation is a crucial one, with much deeper impact. The quality assurance department is usually in charge of conducting such procedures and it is up to them to decide about many aspects of this process. Evaluation of curricula can be made through evaluation of many different aspects such as: psychological and interpersonal skills, continuing learning, professional satisfaction, practice behavior, educational achievement and cognitive development, institutional issues, student pass rates, clinical errors, clinical problem solving, educational efficiency per student, and the efficiency of graduates as practitioners (Blair and Fottler, 1990; Burton and MCDonald, 2001; Rotarius et al., 2003). As part of its renewed teaching culture, the Faculty recognizes the central role of students in the planning and development of curricula, and is therefore strongly committed to student- centered education. A further basic cornerstone in the curriculum design and support of learning and teaching in the faculty is the relevance of the degree to working life. Medical education aims to educate physicians, who are capable of scientific

thinking and linking theoretical scientific medical knowledge to practical skills (Nair et al., 2009). The habitual and judicious use of communication, knowledge, practical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served is important (Keogh et al., 2010). Medical faculties need to develop the professional competencies of students and physicians in clinical practice based on principles of good practice (based on evidence based medicine) (Šimunović et al., 2006). Students also need to be provided with research skills and the ability to participate in continued medical education. This means the habitual and judicious use of communication, knowledge, technical skills, clinical rezoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served (Šimunović et al,, 2008; Pranjić, 2009).

CONCLUSION

Medical teaching aims to develop attitudes and behaviors underlying professional competence of future physicians. Making vocational degree qualifications comparable and easily readable is at the heart of the Bologna Process. The partners in this project recognized the importance of the process of structured curriculum development in cooperation with internal and external stakeholders. The first stage should be to establish a curricula advisory board. It is very important that this new body is inserted into the actual structure of the faculty. This body enables participants in the process to have a more substantial role and partnership in improving the quality of teaching and the knowledge and practical skills of students, and in assuring continued medical education and professional development of future physicians. The functions of the Curricula Medical Advisory Board when it is established and functioning will be challenging. On the other hand establishment of the Board will enable better cooperation between Medical Faculties, the Health Care system and Community. It will assure better cooperation between the five Medical Faculties in B and H. Therefore it is very important that this matter is discussed at the Medical Faculties Deans Conference. It also provides the advantage of a common approach for all five medical faculties. Making vocational degree qualifications comparable and easily readable is at the heart of the Bologna

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REFERENCES

Blair JD, Fottler MD, (1990). Challenges in health care management: strategic perspectives for managing key stakeholders. San Francisco, CA: Jossey-Bass.

Bokonjic D, Mimica M, Pranjic N (2007). Problem based learning. In: Bokonjić D, Steiner T, Sonntag HG (eds) Manual of teaching and learning in medicine.Available at: http:// www.bristol.ac.uk/medine. Accessed.

Brugha R, Varvasovszky Z (2000). Stakeholder analysis: a review. Health Policy and Planning.15 (3): 239-46.

Burton JL, McDonald S (2001). Curriculum or syllabus: which are we reforming? Medical Teacher. 23 (2): 187-91.

Cumming AD, Ross MT (2008). The tuning Project (medicine): learning outcomes competences for undergraduate medical education in Europe. Edinburgh: The University of Edinburgh. Available at: http://www.bristol.ac.uk/medine. Accessed.

Duzel G, Kristo T, Simunovic VJ (2003). Learning through the Community Service. Croatian Med. J. 44:98-101.

Ebstein H (2001). Professional Compétence. JAMA. 287: 226-35.

Garcia-Barbero M (1995). Medical education in the light of the World Organization Health for All Strategy and the European Union. Medical Education. 29 (1): 3-12.

Goldman L (1995). The academic health care system: preserving the missions as the paradigm shifts. JAMA. 273:1549-52.

Harden RM (1986). Ten questions to ask when planning a course or curriculum. Medical Education. 20 (4): 356-65.

Harden RM (2002). Writing learning outcomes or learning objectives. Medical Teacher. 24: 151-5.

Kaho-Sint–Lieven H (2006). Quality management procedure for promoting university enterprise cooperation: Tempus structural and complementary measures project. Project ID: CO24A06.

Keogh JJ, Fourie WJ, Watson S, Gayab H (2010). Involving the stakeholders in the curriculum process: A recipe for success? Nurse Education Today. 30 (1):37-43.

Maurana C, Goldenberg KA (1996). Successful academic community partnership to improve the public's health. Academic Medicine. 71:425-31.

Miller C, Knox V, Gennetian LA (2000). Reforming welfare and rewarding work: final report on the Minnesota family investment program. Forming welfare and rewarding work: final report on the Minnesota family program effects on adults. New York: Manpower Demonstration Research Corporation. Pp. 462- 570.

Nair BR, Coughlan JL, Hensley MJ (2009). Student and patient perspective on bedside teaching. Medical Education. 5: 341-6.

Novak K, Miric D, Jurin A (2010). Awareness and use of evidence-based medicine databases and Cochrane Library among physicians in Croatia. Croatian Med. J. 51 (2): 157-64.

Pranjic N (2009). The education and training in Occupational health in south east Europe countries and in Europe countries. Grazer Konferenz- Qualiet der Lehre: Skills and Attitudes. Available at: http:// www.egms.de./Acessed.

Richards RW (1996). Building Partnerships: educating health professions for the communities they serve. San Francisco: Jossey-Bass. Pp. 151-171.

Rotarius T, Fottler MD, Blair JD (2003). Medical Group Affiliations; inter- organizational relationships and organizational performance. Health Care Manager. 22(1): 27-33.

Shortnell SM, Kaluzny AD (2000). Health Care Management: organization design and behavior. Delmar (Albany): Delmar Thomson Learning. Pp.13.

Simpson JG, Furnace EJ, Crosby AD (2002). The Scottish doctor-learning outcomes for the medical undergraduate in Scotland: a foundation for competent and reflective practitioners. Medical Teacher. 24(2):136-143.

Simunović V, Sonntag HG, Hren D (2006). A comprehensive assessment of medical schools in Bosnia and Herzegovina. Medical Education. 40(12):1162-72.

Simunović VJ, Petkovic M, Miscia S (2008). Short Hystory of Just Mentorship and Support. Croatian Med. J. 49(1): 18-21.
Varvasovszky Z (2000). Stakeholder analyses: a review. Health Policy and Planning. 15(3):239-46.
Vujaklija A, Hren D, Sambunjak D (2010). Can teaching research methodology influence students` attitude toward science? Cohort study and nonrandomized trial in a single medical school. J. Investigative Med. the official publication of the American Federation for Clinical Research. 58(2): 282-6.
Wahlstrom O, Sanden I, Hammar M (1997). Multiprofessional education in the medical curriculum. Medical Education. 31:425–9.