

Revitalization of Academic Medicine in Macedonia – An Urgent Need

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This paper presents the current status of the academic medicine of the Skopje University Faculty of Medicine and the necessity of the medical education reform, initiated in 2001 by the decision of the Ss. Cyril and Methodius University Rectorate Administration to introduce the credit system in the university education in the Republic of Macedonia. This essay describes and reviews the actual conditions and priority problems and needs; proposes activities that should be undertaken to solve and overcome the existing problems and provide further development of teaching and research at the Faculty. Structural reorganization and overall mobilization of the human resources of the Faculty towards achieving the desired goals is needed.

Key words: *academic medical centers; clinical clerkship; curriculum; education, medical; faculty, medical; Macedonia; teaching*

The Faculty of Medicine is a high level medical, educational, scientific and health care institution within the Ss. Cyril and Methodius University in Skopje, which performs health work through higher education, clinical care, scientific research, and university-level specialist training in the field of medical sciences and related fundamental fields. The Faculty was founded in 1947 and has passed through many developmental stages, facing all social turbulences and challenges over the past decades (1,2).

The teaching process is aimed at achieving knowledge and skills necessary in general medical practice, establishing an intellectual basis for further education, and corresponding to the specific medical needs of the population and the health system in the Republic of Macedonia.

In addition to undergraduate studies, organized into 12 semesters, postgraduate studies, specializations, sub-specializations and continuing education have had an important place in the educational program of the Faculty since 1992.

Macedonia officially became a part of the Bologna process for redesigning curricula and study programs for higher education in September 2003, when the Macedonian Minister of Education and Science signed the Declaration (3). The activities within the Ss. Cyril and Methodius University in Skopje to modernize the study programs and educational process started in November 2001, when the Rectorate Administration adopted basic documents for introducing credit transfer system in the university education. All University units and faculties were expected to modernize their study programs and introduce credit transfer system by the beginning of the academic year

2004/2005. Fourteen faculties have already fulfilled the task, and 9 faculties, including the Faculty of Medicine, are in the final stage of the process (4).

In this essay, I will present the problems and priorities of academic medicine at the Faculty of Medicine and put forward some of my ideas about revitalization of academic medicine in Macedonia. I hope they will be a useful contribution to the international campaign and the debate on revitalization of academic medicine worldwide (5).

Organizational and Status Issues

Current Conditions and Issues to Be Solved

The status and the mission of the Faculty of Medicine was regulated by a special Law, passed by the Assembly of the Socialist Republic of Macedonia in 1971. According to it, the Faculty became an institution performing three main activities: education, scientific research, and health care; whereas the Institutes and Clinics became basic organizations of associated labor within the Faculty (1). In 1996, the Parliament of the Republic of Macedonia made a decision to transform the Clinics from Basic Organization of Associated Labor within the Faculty of Medicine into an independent public health organization named Clinical Center Skopje, and renamed into University Clinical Center in 2004 (6). The status of the Clinical Center, and its obligations and responsibilities to the current Faculty, which consists of the Dean's Secretariat and Basic Organization of Associated Labor Institutes have not yet been clearly regulated.

The new Constitution of the Faculty of Medicine, adopted by the Educational and Scientific Council,

was verified by the University Senate in July 2003, but has not yet been approved by the Government or the Parliament of the Republic of Macedonia. As a result, the implementation of the Constitution has been prolonged and is still uncertain. The main managerial body (Faculty Executive Board) has not yet been constituted, and the pre-registration of the Faculty of Medicine with the Court Register has not been performed. The accreditation of the Faculty of Medicine, in spite of the successfully performed self- and external evaluation in 2003, has remained unaccomplished. After repealing the Law on the Mission and Activities of the Faculty of Medicine in the mid-1990s, the legislation on the status and role of the Faculty of Medicine in the system of the higher education, and in the society of the Republic of Macedonia, has remained insufficiently defined.

Directives for Action

It is necessary to implement the legislation either by re-passing the special Law on the Mission and Activities of the Faculty of Medicine or by incorporating the adequate regulations for the activities and the status of the Faculty into the forthcoming Law on Public Institutions. In addition, regulations for the reorganization of the Faculty should be passed, in accordance with the University regulations and law regulation. A new Constitution of the Faculty should be prepared and adopted as soon as possible, with changes only in some articles to overcome the obstacles regarding its future implementation, re-integration, and re-registration. In order to accelerate the process of accreditation, the Faculty should strengthen the association and collaboration with institutions of the society and local community for more complete and efficient fulfillment of the population needs (7,8).

Development of Teaching Staff

Current Conditions and Issues to Be Solved

At the time of its foundation in 1947 the Faculty of Medicine had 5 full professors, 5 associate professors, 8 assistant professors and a few scientific fellows (1,2). The number of teachers was steadily increased to the present day (Table 1). The total number of lecturers has increased from 163 in 1998 to 244 in 2004 (49.7% increase). Although the majority of lecturers, particularly in the clinical fields, are part-time university employees, the student/teacher ratio is 4.18, which compares with 2.72 in the Royal Free Hospital Medical School in London, 6.76 in Zagreb, and 1.90 in Split (9). Such a favorable relationship emphasizes the need and possibility to implement a tutorial system and design a reformed curriculum based on the credit system. The impressive growth in the number

of the teaching staff shows intellectual, educational and scientific potential of the Faculty. The election process of the teaching staff into higher academic degrees is regulated by the Law on Higher Education, Law on Science and Health Protection Law, but the election procedure is not always sufficiently consistent. The system for self-evaluation of the lecturers has not yet been established. The majority of the lecturers are not familiar enough with the credit transfer system and do not contribute sufficiently to the preparation phase of the application of the credit system in the undergraduate medical education.

Directives for Action

A strategy for continuous professional development of the teaching staff should be prepared, and standards and criteria for the election and re-election need to be adjusted to the European standards and strictly carried out in practice. Also, a system for evaluation and self-evaluation of lecturers has to be introduced. The proportion of educational activities for the teachers involved in health care services delivery needs to be estimated and appropriately valued.

Teaching Capacities and Equipment

Current Conditions and Issues to Be Solved

For theoretical and practical teaching and scientific research work, the Faculty has 25 clinics, 14 institutes, 11 educational bases, 8 amphitheatres (4 of which have satisfactory equipment), 7 lecture halls, 8 work rooms, 28 laboratories for experimental work, 2 laboratories for audiovisual teaching, 8 demonstration laboratories, 11 laboratories for scientific work, other laboratories and cabinets, Internet center with 19 computers, and Central Library (2,10). The number of lecture halls for theoretical teaching and specialized rooms for practice training and other models of pre-clinical practices and specific clinical procedures and skills is insufficient, and the rooms are insufficiently supplied with modern teaching equipment (video-beam, overheads, and phantoms). There is not enough adequate basic space for different organizational units within the Clinical Center and the Joint Institutes (Institute of Immunology, Institute of Social Medicine, Institute of Epidemiology, and others).

Directives for Action

Improving the equipment in the amphitheatres, lecture halls, and practice rooms is of highest priority. Urgent finalizing of the interior of the Dean's building will widen the teaching space with the new amphitheater and more lecture halls for small group work.

Table 1. An overview of the Skopje Faculty of Medicine teaching staff

Academic year	Professors	Associate professors	Assistant professors	Instructors	Others (Ph degree)	Total academic staff	Total nonacademic staff
1998	61	59	43	425	29	617	189
1999	68	61	51	445	25	650	184
2000	60	83	26	403	32	604	181
2001	74	76	59	440	21	670	179
2002	107	44	61	419	32	663	178
2003	125	54	60	420	23	682	177
2004	124	60	60	418	23	685	177

Students and Enrolment Policy

Current Conditions and Issues to Be Solved

The first generation at the Faculty comprised 153 students. Later on, the number of students enrolled in the first year varied considerably. At one time, 400 students were enrolled in the first year, whereas later this number stabilized at about 150 (1,2). Until 2004, 14973 students were enrolled at the Faculty of Medicine, out of which 8877 graduated.

The number of students at the beginning of the academic year 2003/2004 is presented in Table 2. Although the number of unemployed doctors is high and with an increasing trend because of continuous surplus of graduates, the interest for studying medicine in Macedonia is still very high. The most prominent secondary school matriculates apply, in strong competition, to fulfill the quotas of the Faculty (Table 3). Most of the students (79.8%) are Macedonians (Table 4), although the quotas by nationality favor enrollment of minorities. There are only 13.5% students of Albanian nationality although Albanians constitute 25% of Macedonian population, according to the 2002 Census (11). Beside language barrier and lower scores achieved at the admission exams, the additional reason for lower share of the students with Albanian nationality might be their practice to study medicine at the universities in Tirana (Albania) and Priština (Kosovo), as well as at the illegal Faculty of Medicine in Tetovo (Mala Rechica).

Students at the Faculty of Medicine-Skopje are not sufficiently active in the evaluation and reforming of the educational process.

Directives for Action

Students should become more involved in the creation and reorganization of the teaching-learning process. Students, as members of the academic family, need not only to be taught, but also to be respected as future physicians who will have to face the challenges of the 21st century (8,9). The European Credit Transfer and Accumulation System (ECTS) is a

student-centered system based on the students' workload required to achieve the objectives of the study program specified in terms of learning outcomes (12), but also the desired objectives and attributes of the physicians of the 21st century.

Education

Undergraduate Education – Current Conditions and Issues to Be Solved

The Faculty of Medicine in Skopje performs its educational work, scientific research and highly specialist/sub-specialist health care delivery. Undergraduate teaching is organized in 12 semesters, with 42 teaching subjects and a total number of 4,555 teaching hours in the first eleven semesters, three curriculum parts: natural (8 courses), fundamental pre-clinical medical sciences (9 courses), and clinical teaching (25 courses). The last, 12th semester, consists only of practical work (students' clerkship) related to the urgent conditions in the main clinical fields of medicine and practice in the primary health care and the main preventive disciplines in the field of public health. Theoretical lectures account for 46.2% and practical skills teaching for 53.9% of total teaching hours (2,10). Educational activities at the Faculty of Medicine are mainly performed in the traditional manner, based on lectures. The main characteristics of the educational process of the Faculty are unsatisfactory students' attendance to the theoretical lectures (phenomenon known as "empty amphitheatres") and inconsistent carrying-out of the practical training, especially in some clinical disciplines. The proportion of the theoretical teaching is larger than of the practical training. The use of the information technology in the teaching process is insufficient, and there is a shortage of teaching equipment and visual facilities. The assessment of students is predominantly summative (barrier examinations at the end of a course), and rarely formative (ie

Table 2. Number of students at the Skopje University Faculty of Medicine (2003/2004 academic year)

Study year	Women	Men	Total
First	120	80	200
Second	140	87	227
Third	108	49	157
Fourth	108	62	170
Fifth	110	39	149
Sixth	81	36	117
Absolvent	118	53	171
Total	785	406	1,191

Table 4. Structure of the total number of students (citizens of the Republic of Macedonia) by nationality and ethnic affiliation at the Skopje University Faculty of Medicine (2003/2004 academic year)

Students by nationality and ethnicity	Regular	Part-time	Total (%)
Macedonians	903	123	1,026 (79.8)
Albanians	117	56	173 (13.5)
Turks	21	11	32 (2.5)
Serbs	14	5	19 (1.5)
Vlahs	7	4	11 (0.9)
Roma	4	2	6 (0.5)
Others	10	19	29 (2.3)
Total	1,056	230	1,286 (100.0)

Table 3. Structure of the applicants and newly admitted students (citizens of the Republic of Macedonia) by nationality and ethnicity at the Skopje University Faculty of Medicine (2003/2004 academic year)

Nationality/ethnicity	Applicants	Admitted within the state quota	Admitted over of the nationality quota	Admitted by co-financing	Total number of admitted
Macedonians	187	62	–	76	138
Albanians	42	4	8	11	23
Turks	8	2	2	3	7
Serbs	7	1	2	2	5
Vlahs	9	–	–	4	4
Roma	1	–	–	–	–
Others	4	–	–	1	1
Total	258	69	12	97	178

continuous and informal evaluation of students' achievements, strengths, and weaknesses).

Directives for Action

It is necessary to create a Faculty body for the promotion, auto-regulation, and building cohesion/consistency of the educational process. Current activities are directed towards the implementation of the new curriculum for undergraduate studies in accordance with the European Union's standards and recommendations for the medical faculties (12,13). There is an intention to implement a block-system of study and interactive, theoretical and practical teaching and training in groups of no more than 25 students, with possibilities for introduction of optional courses in various fields in addition to the compulsory regular courses. Knowledge confirmation should be done by midterm exams and tests regarding different parts of the course, introducing criteria and methods for the objectivity of the evaluation (multiple choice questions for theoretical knowledge, objective structured clinical examination – OSCE for practical clinical skills, and objective structured long clinical record – OSLER for monitoring activities and the acquired practical clinical knowledge and skills) (14). I believe that the introduction of the medical studies in English is a necessary step in improving the quality of teaching at the Faculty. Medical studies in English should include all competent domestic lecturers, as well as honorary lecturers from abroad.

The teaching process at the Faculty of Medicine should adopt the system of attitudes (doctor-patient relationship, empathy, clinical dilemmas) in accordance with the Declaration of Edinburgh (15). In line with the University of Skopje regulations from 2001 (3), Faculty of Medicine is obliged to define and implement European credit transfer system (ECTS) (12, 13), using the positive experiences of European institutions (Socrates ERASMUS programs) (16,17), as a prerequisite for the recognition of the diplomas acquired at the Faculty of Medicine-Skopje in the European Union.

Postgraduate Studies – Current Conditions and Issues to Be Solved

Postgraduate scientific studies (Masters) at the Faculty of Medicine are organized in 4 semesters. Approximately 50 candidates are enrolled annually in the Masters programs in all specialties of medical sciences. Postgraduate clinical studies (for acquiring specialization, 6-10 semesters, and sub-specialization, 3-4 semesters) are based on specialized programs. These studies have been organized and continuously carried out at the Faculty of Medicine since 1975, with a major revision in 1992. On average, 350 candidates specialize each year in more than 30 specialties prescribed by the Law (10). All these forms of postgraduate studies are offered to foreign students, but programs for specialization in some of the university-level specialist disciplines are insufficient and old-fashioned.

Directives for Action

Further modernization of postgraduate scientific and specialized studies programs in accordance with

international standards and scientific accomplishments, by defining and implementing credits and other activities for the introduction of ECTS. The newly formed Department for Primary Health Care (PHC) and Continuous Medical Education (CME) should be supported. Activities for the participation of the Faculty, in collaboration with the Physicians' Chamber and the Macedonian Medical Association, in the process of licensing, accreditation, and re-accreditation should be undertaken. It is necessary to introduce a mentor/tutor system for specialization and sub-specialization, and organize theoretical teaching with duration of minimum 6 months. Candidates should be exposed to continuous practical engagement, practices, and consultations. Their progress should be monitored by continuous evaluation of knowledge and practical skills through seminar papers and midterm exams for separate thematic entities before the final specialist exam. Postgraduate studies, specializations and sub-specializations should be improved by preparing standards with catalogues of knowledge, continuous monitoring and promotion of the education quality, evaluation by the students, and self-evaluation by the teachers.

Postgraduate Studies in Public Health – Current Conditions and Issues to Be Solved

The implementation of the postgraduate studies for the degree of Master of Public Health (MPH) started in December 2003, coordinated by the newly formed Center for Public Health. In the preparation phase and initial process, from November 2000 to December 2003, ideological and expert support of the Stability Pact for South East Europe Project for advancement of the academic programs and research in the field of public health (www.snz.hr/ph-see) and Brown School of Public Health, Jerusalem, Israel were invaluable for MPH curriculum development and for establishing the School of Public Health at the Faculty. Financial support by the Open Society Institute (OSI) Skopje Office has been essential for equipping the Center for Public Health, as well as for education of the teaching staff and inclusion of guest experts and invited lecturers from Israel, USA, Lithuania, Croatia and World Health Organization.

Directives for Action

Further implementation of the MPH curriculum, as the first step in the process of establishing the School of Public Health at the Faculty of Medicine, should be accompanied by introducing additional elective courses, broadening the activities in the undergraduate medical education and by initiating the procedure for its international recognition and the inclusion in the Association of Schools of Public Health in the European Region (ASPHER). Besides activities for introducing credit transfer system in public health education (European Master of Public Health), the introduction of additional specific programs for postgraduate and continuous education of health professionals is expected.

Health Care Delivery

Current Conditions and Issues to be Solved

The Faculty of Medicine performs its clinical health care activity at the level of the highest (tertiary) health care, partly in the secondary, and in some separate segments in primary. The Faculty is a center for high quality health care, practiced at 25 clinics, 14 institutes, and a number of laboratories with more than 600 doctors and over 3,000 other health and administrative employees (2,10). The Faculty possesses modern medical equipment and performs highly differential diagnostics and treatment. The continuous improvement in diagnostic and treatment procedures has been taking place and medical innovations have been incorporated into the educational process (2). Inadequate assessment of the work related to the clinical care services delivery, inappropriate rewarding of the teachers, and reduced pension base, are factors which affect the material status and standard of the teachers at the Faculty, leading to dissatisfaction, demotivation, and sometimes to corruption and profiteering.

Directives for Action

Continuous improvement of the clinical care services should be supported by the introduction of new techniques and technologies for modernization in the prevention, early detection, treatment and rehabilitation of the diseases and pathological conditions (removing the causes and risk factors, screening, molecular biology, transplantation, immunology, and heart surgery). Additional incentives for the teachers would be more appropriate reward for clinical care services delivery and inclusion of the reimbursement for educational activities into the teachers' pension.

Research

Current Conditions and Issues to Be Solved

Scientific research activity at the Faculty is performed by organizing research work and by including the teaching and scientific staff into domestic and international projects in all fields of medicine, as well as by researches for obtaining MSc and PhD degrees. There is neither a strategy nor a program for organized and coordinated scientific research, so that scientific research activity is based mainly on individual and group initiatives. The number of research projects financed by the Ministry of Science and Education of Macedonia is relatively small and has decreased from 25 in 1998 to 7 in 2003. Total funds allocated to the Faculty in the same period also decreased four-fold (Table 5). The preparation and inclusion of students in the scientific research is insufficient, and there are no PhD studies at the Faculty. There is no regular monitoring and evaluation of the research activities of the scientific and teaching staff or results published in scientific journals. Such activity was initiated during the process of self-evaluation at the Faculty of Medicine in 2002. The average number of publications by the faculty members from the University Clinics and Joint Institutes, published in the journals indexed in the Medline from 1995 to 2003 is 38 (Table 6). Over this 9-year period, only 1.7 paper has been published per

Table 5. Research projects of the Skopje Faculty of Medicine financed by the Ministry of Science of Macedonia

Year	No. of projects	Total funds	
		Macedonian denar	US\$
1998	25	3.689,895.00	61,500.00
1999	–	–	–
2000	21	3.150,000.00	52,500.00
2001	16	2.850,000.00	47,500.00
2002	–	–	–
2003	7	700,000.00	14,000.00

Table 6. Number of publications published by the faculty members in the journals indexed in the Medline

Year	Total	University clinics	Joint Institutes
1995	22	21	1
1996	42	38	4
1997	33	31	2
1998	32	31	1
1999	17	14	3
2000	61	58	3
2001	49	40	9
2002	37	24	13
2003	45	38	7

teacher, which shows very low academic productivity and weak scientific output. Avoiding the establishment of the published research results in biomedical journals as a criterion for academic advancement of the teaching staff, as well as for approval and reviewing of master papers and doctoral theses is a dangerous move towards perpetrating poor scientific research at the Faculty.

Directives for Action

It is necessary to prepare and adopt a program for scientific research activity with priorities and organized application for domestic and international projects. "Principles of Scientific Research in Medicine" needs to be instituted as an obligatory course (18) in the new undergraduate curriculum. Young scientific staff should consist of exceptional and talented students and young doctors. Consistent implementation of the criteria for submitting proposals and presentation of the master papers and doctoral dissertations in accordance with the experiences and standards of the EU is necessary. Research activities need to be stimulated by establishing a Fund for research work. It is indispensable that the Macedonian Journal of Medicine (former *Godišen Zbornik na Medicinskiot fakultet-Skopje*) is regularly published and that it is included (re-included) into Medline. PhD studies have to be implemented in accordance with the European standards and recommendations (19). The Faculty of Medicine should improve the cooperation with Macedonian Academy of Sciences and Arts, educational, scientific and other institutions, Republic Institute for Health Protection and other institutes for health protection, in order to develop cooperative scientific projects coordinated by the institutions/chairs of the Faculty, especially projects related to the public health strategy and reforms of the health care system that organize broad public presentations of their concepts and results.

Central Medical Library and Publishing

Current Conditions and Issues to Be Solved

The Central Medical Library was founded at the same time as the Faculty, in 1947. In addition to insufficient space there is a deficiency in textbooks and practice books in Macedonian language for the students, master's and specialization candidates. There is a shortage in funds for providing foreign contemporary literature and biomedical journals.

Directives for Action

It is necessary to stimulate and provide strong moral and material support to the lecturers for publishing or translating textbooks and practice books in Macedonian or English. Stimulating the teaching staff to publish scientific research papers in the international referent journals is also very important for the promotion of Macedonian medical science abroad. Renovating and supplementing the library with the recent textbooks and monographs, and regular subscription to international journals is necessary. Additional computer equipment in the Central Library should be provided to improve the accessibility of the biomedical information to students and teachers.

Manpower Policy, Management, and Logistics

Current Conditions and Issues to Be Solved

There are weaknesses in the criteria for the employment and evaluation of the managerial staff of the Faculty institutions (political party or informal groups belonging, nepotism). The administrative services of the Dean's office are not efficient enough. The information system is underdeveloped, and communication and information flow is limited and insufficient.

Directives for Action

Decisions on appointing qualified staff for managing the institutions of the Faculty should be made, in accordance with objective structural, organizational, and ethical criteria to employ the most capable and appropriate persons. It is necessary to strengthen, promote and increase the efficiency of the specialized services of the Dean's offices, by respecting and applying the regulations of the Faculty and the law regulations. The information system of the Faculty should be improved and a web site should be created, maintained and up-dated on a regular basis.

International Collaboration

Current Conditions and Issues to Be Solved

Traditionally, the collaboration between the Faculty and many faculties and higher educational institutions throughout Europe and the world (more than 30 countries) has been quite well developed. It is based on signed agreements for collaboration realized by joint projects implementation, promotion, and exchange of teaching and scientific staff and students. However, the international collaboration is insufficiently organized and coordinated since fund support and intensified cooperation, interest and utilization of the new knowledge gained are missing. There is not enough information and transparency about the collaboration.

Directives for Action

Further development of the collaboration with medical faculties and international higher education and scientific institutions is necessary. The election of visiting professors to the Faculty from the faculties in the European Union and the world should be continued and strengthened. They should be invited to give lectures at the Faculty. Student exchanges and professional visits of the teaching staff should be supported, followed by a report on their stay to the Dean's Office. It is also necessary to support the organization of scientific meetings with international collaboration and participation. In order to strengthen this kind of cooperation, a board for International Collaboration should be formed, consisting of teachers with international experience. A special fund for the support of the international collaboration and communication should be established.

Financing

Current Conditions and Issues to be Solved

The Faculty receives basic resources for undergraduate studies by the Ministry of Education and Science. Additional resources come from co-financing and self-financing in the undergraduate and postgraduate education, acquiring PhD, specializations, and sub-specializations, university-level specialist's exams for licensing of young doctors and other. The Faculty receives resources for highly specialized and sub-specialized health care from the Health Insurance Fund in accordance with the contracts signed with the Institutions within the Faculty of Medicine, and for financing the scientific projects. The Ministry of Health provides resources for the Faculty for the realization of specific programs for health care. The Faculty also receives resources from other faculties for providing teaching services, and from some other sources. The Faculty has no special funds, but it is in a position to form some by separating a certain percent of the basic funds. Inadequate validation of educational and clinical care activity and insufficient financing of the Faculty contributes to humiliatingly low salaries of the teaching staff in comparison, first of all, with the teaching staff of other faculties at the Ss. Cyril and Methodius University in Skopje. The financial autonomy of the Faculty of Medicine is limited because of the implementation of the vault system of financial work.

Directives for Action

It is necessary to achieve more adequate regular inflow of financial resources from the Ministry of Education and Science in accordance with the demands of the curriculum reform. Adequate additional incomes should be provided from the Faculty of Dentistry, Faculty of Pharmacy, Faculty of Physical Culture and some other institutions, where lecturers from the Faculty of Medicine officially give lectures. Basic principles of the market economy should be realistically established by co-financing and self-financing in the undergraduate and postgraduate education, and in future PhD studies. It is also necessary to provide more adequate rewarding and motivation, strengthen the responsibility and professional attitude of the lec-

turers for the promotion of the quality and volume of the expert and teaching activity, by conveying into practice the clause for the allocation of the personal income to the lecturers stated in the Collective Agreement for Health. Rewarding should be done, according to the realized teaching and other activities and validation of every new activity for affirmation and development of the Faculty. The Accounting service within the Dean's office should increase transparency and should inform each teacher about the monthly incomes from teaching and other activities (participation in commissions for reviews and presentation of master's, doctoral and specialist's papers, expert exams for licensing).

Strategy for the Reform

Directives for action for solving the priority problems, and for improvement and overcoming of the unfavorable conditions, give a wide platform for further elaboration and operationalization with the prime responsibility, leadership and coordination of the dean and the vice deans, and support of the specialized services within the Deaconate Offices. It is necessary to induce mobilization, cohesion and build a team work among the teaching staff, primarily on the department level, with obligatory preparation of annual programs of activities for improving the teaching, objectivity of exams and publishing of textbooks and practice books. Annual evaluation of the activities and accomplished goals, as well as self-evaluation of the teaching staff and continuity in the professional development should be prepared by the chairs and submitted to the Educational Board of the Faculty. An overall goal of the reform and revitalization of the academic medicine in the Republic of Macedonia should be the improvement and promotion of the organization of the Faculty and its activity for further development and affirmation, as well as its inclusion in the family of the medical faculties within the European Union.

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