

## DEBATE AND EDUCATION

**Evaluation of the education process at the Faculty of Medicine**

Mesko D, Bernadic M

*Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia.* **Dusan.Mesko@jfmed.uniba.sk****Abstract**

The authors deal with the problem of evaluation of undergraduate education at universities and tasks of university teachers and students. The quality of education determines the success of teachers and graduates in their future medical practice. The evaluation of education carried out by teachers, students and graduates in practice can provide a useful informational feedback as to the quality of education. The evaluation of undergraduate medical education has changed significantly — from simple to combined methods of evaluation, from evaluation of knowledge to evaluation of competence, from written tests to performance tests, from normative “passed or failed” to standard evaluation, from examination of knowledge to examination of its reflection in practice. The main mutual task of education at medical faculties should reside in the preparation of a generally educated graduate with an internationally accepted medical diploma. After obtaining the licence, the graduates of all universities should be able to continue the process of their postgraduate specialisation in compliance with traditions of the appropriate institution. The students represent their “Alma Mater” and their knowledges represent the level of tuition. (*Ref. 24.*)

**Key words:** evaluation of study, university, faculty of medicine, feedback, graduate, undergraduate education, postgraduate education, education.

During their studies at the medical faculty, students obtain basic biomedical knowledge which they integrate into a unitary system, and acquire basic practical experience and skills needed in preventive and clinical medicine. The current objective of tuition is based on gradual implementation of a multidimensional approach to education. The future graduates gain new professional dimensions — in addition to the theoretical and clinical knowledge, they are demanded to be able to solve ethical questions, to cope with teamwork, as well as with communication, time management and simultaneous activities. They must be able to organise and make decisions. In order to become good physicians, active students need the functional feedback between them and their teacher. The most appropriate forms of evaluation are the multilateral forms of evaluation of both, tuition and learning process. For the past 10 years, the evaluation of undergraduate medical education has changed significantly from:

- simple to combined methods of evaluation,
- evaluation of knowledge to evaluation of competence,
- written to performance tests,
- normative “passed” or “failed” to standard evaluation,
- knowledge examination to examination of its reflection in practice.

If a caring and detail approach is not required from a student, he/she has the tendency to gain the habit of superficiality in communication, contemplation, examination and therapy, which can be a serious handicap in his/her future (AAMC Commission, 1932). This fact is being discussed at medical faculties for years. The

discussed long-term problems include: (1) a relatively poor horizontal/vertical connection of disciplines; (2) relative informational overloading of students, and atomisation of information overlapping the level of postgraduate education; (3) a relatively weak motivation of students to study individually; (4) relatively weak basic clinical skills of students with an insufficient feedback; (5) the study is focused more on inpatients than on primary clinical care.

On the other hand it can be stated that universities are also losing their social prestige which has been built for many decades. University graduates, including the graduates of medical faculties are not sufficiently prepared for their practice. The term faculty (*facultas* lat.) historically expresses the mission of schools, namely teaching and learning. The law defines universities as the highest scientific, research and pedagogical institutions. It is a current rule, that many universities, including the medical faculties, put greater emphasis on scientific and research activities (clinical work is preferred at clinics) than on the mission of teaching. This fact is proved e.g. by the criteria of evaluation of teachers in coincidence with their habilitations and inaugurations, where the key

---

Jessenius Faculty of Medicine, Comenius University, Martin, Institute of Pathophysiology, Faculty of Medicine, Comenius University, Bratislava  
**Address for correspondence:** D. Mesko, MD, PhD, Jessenius Faculty of Medicine, Comenius University, Kollarova 2, SK-036 59 Martin, Slovakia.  
 Phone: +421.842.281 066, Fax: +421.842.413 6332

criterion is represented by the results in their scientific and research work (number of published articles, number of literature references, scientific school, solved granted tasks, etc.), during the “complex evaluation” of their pedagogical work it is required only a particular number of working years at the appropriate faculty. This situation has a hindering impact on pedagogical science, when compared to the development of medicine and needs of practice.

Within the common structure of curricula at medical faculties, the sequence of basic disciplines is followed by pre-clinical and clinical disciplines. The curricula are structured predominantly on the principle of isolated components. The knowledge gained is separated from skills and approaches. However, after terminating the tuition of one subject, or a whole block of subjects, the students are expected to be able to integrate their gained knowledge and skills. There is no unification of procedures. The success rate of such an approach is derived from the experience, that graduates cope with their assertion in practice (“we hope that most of the roads lead to the Rome”).

Some of the problems occurring during practical tuition from the teacher’s point of view:

1. unclear formulation of the “graduate’s profile” (the credit system of study shifts this problem into the responsibility of the student who has the possibility of partial “individualisation of his/her study and undergraduate pre-specialisation”),
2. university teachers often do not have any basic pedagogical education,
3. there is a lack of checked didactic approaches,
4. the teachers lack personal enthusiasm (lectures, consultations and demonstrations),
5. theoretical seminars are time-consuming, and the time needed for gaining practical skills of students is reduced,
6. the time for students to acquire the sense of “clinical intuition” is too short,
7. there is an absence of objective control, as to whether the student learns exactly, or whether he/she understands the problem and copes well with the required skills (including communication skills).

The advantages of the teacher’s position: the contents of tuition which the teacher is to fulfil, is given by the curriculum — it is the teacher’s responsibility to choose the method of teaching. Since the pedagogue has a certain pool of knowledge, skills and experience, the only challenge for the teacher can reside in improving the communication skills. This results in tuition focused on contents and the pedagogue him/herself. It can happen that the student finds out what he/she should have learned, as well as how he/she should have learned it, as late as at the examination. It is necessary to focus the tuition more on the student. This could be supported by individualisation of tuition in the frame of the credit system of study with continuous availability of consultations with the teacher. The pedagogue should understand that teaching is a measure of how to help the student to cope with the given problem early and effectively. In this way, the tuition is subsequently focused on the student and on teaching outputs.

Perhaps, the teachers would like to know what is meant by the term “tuition”, whether they ought to teach the students how to learn, what is it that they teach the students, whether they teach all the necessary issues which the graduates ought to know, whether they teach in order to convey a certain volume of their knowledge and experience to the student.

From a certain aspect, it can be even stated that the post of teacher is one of the most safe professional positions. Pedagogues teaching a particular grade of students can often think that they are good teachers since they are qualified in the particular field. No specific didactic study is required from them. They have the authority of deciding what and how to teach. They rely on the students that they are able to integrate information that has been conveyed. They are convinced that information conveyed by them is “encapsulated” (condensed, automatic, forming a logical knowledge network). They assume that the students themselves are able to form a similar network of information and to apply it. They assume that the knowledge conveyed by them is “absolute”, “based on facts”, and objective. For teachers it is more simple to use the system of “in vitro” knowledge evaluation, than to evaluate the current quality of student’s knowledge “in vivo” throughout the term. Pedagogy contains neither evaluation and control of quality, nor the systematic conduct, the factors of which are common in science and research.

This kind of approach leads to creation of a student who simply memorises, does not integrate and forgets. The teacher — and via him also his/her student — often get the picture that:

1. “tuition” means “learning”,
2. the more the teacher teaches, the more the student learns,
3. the optimum ratio of 60% of direct teaching, and 40% of individual study is not fulfilled,
4. the curriculum and examinations dictate the learning,
5. the student is able to retain the provided information without its repetition (knowledge which is not used, fades gradually).

The question as to whether the undergraduate is prepared for “making appropriate decisions and to perform medical practice independently”, was responded by 48 Jessenius Faculty of Medicine CU (JFM CU) undergraduates and 68 % of them answered “No”. 75 % of 52 pedagogues of Jessenius Faculty of Medicine CU (JFM CU) have responded negatively to the question as to whether according to their opinion, freshly graduated medical students were able “to make appropriate decisions and to perform the medical practice independently”.

The motivation of pedagogues should be in their effort to contribute to their permanent development — professional development, self-evaluation, regulated study, critical thinking, maintenance of competence. Medicine exists only when its mission of taking care of patients is preserved. The teacher of medicine exists only when there are students to be taught, but in general, the students can learn also without the teacher. The sense of the teachers task is maintained only when there is a target group of specific students.

The teacher should assist the students in what, why and how to learn, in the timing of learning, how they should know that they have already learned the given matter, and how the currently gained knowledge coincides with the subjects of previous and subsequent learning.

The move to a more students-centred view of learning has required a fundamental shift in the role of the teacher. No longer is the teacher seen predominantly as a dispenser of information or walking tape recorder, but rather as a facilitator or manager of the students’ learning.

The elements which should characterise good teachers (facilitators) — easy availability, encouraging the discussions (asking questions, presentations of students’ opinions), motivational stimulation of students in their future practice, acknowledged scien-

tists or successful clinicians presenting their full enthusiasm for their field of specialisation, following the sense of learning (e.g. by work with authentic problems), activation of knowledge gained previously, engaging the student in taught problems, planning the optimum route of knowledge gaining.

The modern trends in university students' education reflect, to full extent, the autonomy of students, their self-assessment and specialisation. Each student should act as an architect of his own system of learning (gained knowledge can be applied successfully only in the same particular way as it has been taught — e.g. naming of alphabetical letters from "A to Z" is easy for everybody, no adverse procedure is possible). The student should stand in the centre of tuition (knowledge gaining is not the same as consumption of information), and he/she should have the ability to "construct" new knowledge on the basis of what he/she has already learned.

The Summit of Medical Tuition (Edinburgh 1993) defined the field of reforms in medical study:

- Relevant educational institutions,
- Curriculum based on national health care needs,
- Emphasis laid on the prevention of diseases and support of health,
- Whole longlife active study,
- Study based on competence,
- Professional teachers,
- Mutual integration of science and clinical practice,
- Selection of study applicants,
- Co-ordination of tuition with the needs of practice,
- Even production of physicians,
- Multi-professional preparation,
- Continuous medical education and ethical dimension of education.

The increasing emphasis on student autonomy in medical education has moved the centre of gravity away from the teacher and closer to the student. There is no need to spoon feed students. The field of professional education of the teachers of medicine in years 1997/98 was carried out in the frame of the project programme Erasmus Med-Net Study, which was attended by 45 medical faculties from 16 European countries (the Slovak Republic was represented by JFM CU). Individual medical faculties use evaluation methods of tuition in the following pattern: the method of "contentment of students" is used by 47 % of attended medical faculties, the method of "contentment of pedagogues" is used by 16.4 % of them, interfaculty and external audit is used by 15.1 % and 8.2 %, self-evaluation is used by 6.8 %, regular evaluation by 6.8 %, and no form of evaluation is used by 17.8 % of attendants. The aspect of professional education of the teachers of medicine is applied in the following pattern: 36 % of medical faculties declared that professional education of teachers is fully absent, 54.5 % of faculties were in the process of its development and only four medical faculties (9.1 %) have already implemented it into their structures. The reasons against professional pedagogical education of teachers include traditions, cultural and financial reasons, emphasis laid on the scientific work, structure of education, resistance toward changes, lack of time, lack of interest among pedagogues.

Renowned medical faculties operate on the basis of accreditation which is a natural part of their system. The tuition per se is under pressure to demonstrate its actual benefit for students, i.e. its facilitation potential. In the USA, once in 7-10 years, all medical faculties are subdued to detail analysis of their state of tuition

by an independent group of experts (teachers). National standards are assessed (placing of graduates into practice, placing and scoring in national standardised tests, placing of graduates in post-graduate residential programmes).

From the aspect of students, the success of their study is defined by successful passing of examinations (the student does everything to pass the examination — the student does nothing for what is not required from him). Examination systems contain series of difficult overdensed information, which can be correctly reproduced providing only, that it has been learned closely before the examination. The study programmes are constructed in a way, that examinations are usually at the end of term and often concurrent. The student is forced to delay his/her learning for one examination to the last moment, and immediately after the examination to "format his/her hard disk" in order to prepare him/herself well for a further examination.

Some methods applied in evaluation of students in the practical part of examination:

1. Practical examination by form of "in vivo" presentation (case-history, physical examination and clinical interpretation, indications and interpretations of tests and examinations, diagnosis and differential diagnosis, therapy and communication skills,
2. Evaluation of minimum clinical skills,
3. Evaluation of standardised/simulated patients,
4. OSCE (Objective Structured Clinical Examination, Harden and Gleeson 1979) — the latter is based on rotation of groups of students in examining a group of standardised patients. In this way they gradually learn and prove their abilities under the supervision of teachers,
5. Seminar works proving clinical knowledge of students,
6. Computer-assisted examination of clinical knowledge,
7. Evaluation of "problem solving" (e.g. case report, responses, decisions, selection of evaluation options, diagnosis, therapy),
8. Role playing,
9. Seminar conducting,
10. Ability to decide.

One of the models of applied methods of students clinical skills evaluation (MF Berlin):

Level I — the student has observed the skills and procedures and he is able to describe the appropriate principles,

Level II — the student has demonstrated a sufficient level of competence in carrying out skills under the supervision in simulated clinical environment,

Level III — the student is able to carry out skills under the supervision within the clinical environment,

Level IV — certified competence to carry out skills without supervision at the end of study.

The George Miller pyramid of competence keeps reminding us that we have adequate assessment tools to evaluate the candidate's knowledge (KNOWS), multiple assessment approaches are available for assessing application of knowledge (KNOWS HOW). The OSCE approach and other performance measures are available to assess candidates in structured simulated environments (SHOWS HOW). However, the medical field is in need of new approaches to assess on-the-job learning (DOES).

In clinical tuition, also the teacher can be evaluated, e.g. on the principle of the characteristics of his/her tuition (tuition based on knowledge, analytical, clear and organised tuition, stimulation, motivation of the student, tuition focused on the provision of fe-

edback, organised tuition with demonstration of clinical skills and procedures. General effectiveness is evaluated in each of its individual items on the scale from excellent, very well, well, average knowledge, very weak knowledge, failed).

Some ways of pedagogical process evaluation (from the part of faculty and student, respectively):

1. Published syllabi versus tuition in reality,
2. Definition of minimum standard knowledge conveyed to student in individual chapters versus tuition in reality,
3. Compliance of conveyed information and the profile of the graduate,
4. Minimum standards of individual practical chapters taught, versus tuition by individual teachers,
5. Validity of examination methods,
6. Does the teacher ask, answer, motivate, facilitate the learning?,
7. Punctual commencement of lessons,
8. Distribution of learning load during the term,
9. Current control of study,
10. Has the student the feeling that he/she is examined through whole subject or single question?
11. Has the student the feeling that current study in the course of the whole term is taken into account at the examination?,
12. Modern teaching methods,
13. The teacher has a clear idea of tuition and there is a feedback from the side of the student,
14. The effort of the teacher to view the "actual state" of gained skills.

All forms and modes of evaluation, either in the direction from the teacher toward the student or from the institution to the faculty must be done systematically. The output of the entire process of evaluation should reflect the particular reality, evaluation must motivate, it cannot degrade or discourage. All parties participating in the process of tuition must be aware of the rules of evaluation in advance and prior to the commencement of the evaluated period. The evaluation should be in compliance with academic criteria, it must be based on a "retrospective view of the prospectively defined rules". In ideal conditions, this idea requires several points to be fulfilled:

1. From the side of central institutions to respect the specific nature of a particular specialisation in the frame of the whole complex,
2. From the side of teachers to know the details of educational options, including evaluation of the coinciding educational process,
3. From the side of students to respect the fact that the pedagogical process is a complex procedure and it is carried out by experienced pedagogues.

All participating sides must have a complex motivation. Especially in the evaluation of teachers by students who cannot base their evaluation on the element of experience, irrelevant results are obtained. It will take several years to appraise the whole process of preparation and application of a systematic evaluation of the quality of the pedagogical process (abroad, it usually takes 3—5 years). The system of evaluation is being prepared by teams of specialists with a permanent feedback from the side of participating parties. A period follows, in which nobody is "penalised", only monitored, but the particular results of such a monitoring are not published. This period of "reflection" usually takes further 3—5 years. Penalisation is considered in cases of non-systematic results (data out of context, data based on individual subjective arguments, various "surveys" performed on non-representative samples, etc.), which potentially slow down, and in number of cases also damage the complex

of daily pedagogical activity of the teacher/teachers (e.g. by publishing the name of the teacher). Ideal environment for the evaluation of the teacher by students is the academic ground, where the teacher has the possibility to act as a "facilitator". However, this requires to introduce a new necessary element — a motivated student who prepares for his professional life continuously. Such an approach to education emphasizes the general aspect of education and a relative equality of disciplines. The best example for our students is served by their fellow-students who have spent a part of their study at a renowned (e.g. US) medical faculty. It would be ideal for each student, at least for a period of one term (4th—6th), to have the possibility of studying at a faculty where students voluntarily come to their classes at 5 o'clock a.m., despite the fact that their lessons begin at 7 o'clock a.m. in order to be prepared perfectly for the first morning medical round. At 7 o'clock the classes begin, which means that they study individually, communicate, evaluate and examine. When they face a problem they ask the teacher for explanation (a very important part of evaluation of tuition by students is the willingness, availability, form and complexity of explanation). Even though the tuition ends at 13:00, only a few of them hurry away, and the rest of them remain "at school" until 17:00 or 18:00. And very often, they learn individually for an even longer time. In many states, the students do not have the relative luxury of an examination period which is common in our country. It is not possible to implement it, and there is any reason for it, since the school year of direct tuition lasts for 52 weeks. In such a system, the evaluation of the pedagogical process brings objective and usable results.

One of the models of tuition evaluation which takes place at the end of each lesson, is the reflection of the student's work during the lesson, interaction with the group and reflection of outputs of other fellow-students. The questions as to whether the time has been spent effectively, whether everybody has had the possibility to express his/her ideas, how the group has understood the taught topic, whether demonstrative tools have been used or how individuals have contributed to the output of the group, are aimed at bringing about the sensitivity from the side of the teacher and maturity from the side of student — the feedback should be formed between the teacher and students.

The students of the 6th grade at JFM CU have answered the question as to what innovations they would preferentially implement in curricula. They responded that they would emphasize acute medicine (95 % of respondents) and stress substantial information and practical skills (86.7 % of respondents). The teachers most frequently presented the necessity of vertical integration of disciplines throughout the study (87.5 %). Should the curriculum be innovated, 45.3 % of students responded "No" to the issue of "practice in institution treating chronically ill patients" and 31.8 % had a negative attitude to the item of "reduction of curriculum by 15—20 %". The same question as to the reduction of curriculum by 15—20 % was given to pedagogues and 50% of them answered "No". 47.5 % of teachers responded "No" to the item of "copying a foreign type of curriculum". From the aspect of pedagogues, critical thinking and communication with the patient are elements mostly lacked by students.

The potential indicators of quality of tuition:

1. Attendance of students at lectures, despite the decreasing attendance, lectures still have their meaning (communication abilities, coping the subject, organisation of the presented material, its selection, exactness of presentation).

2. The taught subject and the teacher can be effectively evaluated by evaluating the level of students' knowledge by use of standardised tests (permanently weak results are a warning signal of poor tuition).
3. Application of knowledge in frame of postgraduate programmes and subsequent career, the facts of which affect the reputation of the faculty.
4. The students' standings achieved in "scientific productivity" (basic methods of research, Students Research Activities, diploma works).

The system of feedback (the possibility of mutual evaluation of students and teachers)

1. General quality of teachers.
2. Organisation of tuition (clearness, gradual procedure).
3. Preparation of teachers for tuition.
4. The level of stimulation to learn brought about by teacher.
5. The level of respecting the student from the side of teacher.
6. The willingness of teacher to help the student.
7. The level of my output's feedback from the side of teacher.
8. Tuition materials provided by teacher.
9. Integration of basic, pre-clinical and clinical disciplines.
10. Evaluation methods used for appraising of my knowledge and skills, the scale: outstanding, more than appropriate, appropriate, less than appropriate (Kroot, 1998).

The student should gain clinical skills and the ability to cope with several hundreds of items (he/she prepares him/herself for practice) — all activities coinciding with case history (dozens of items, such as empathy, efficiency, excluding jargon, self-control of emotions etc., physical examinations, the suggestion as to diagnostic, therapeutic and preventive procedures. He must be able to analyse, synthesise, integrate, etc. It is necessary to be assured that the evaluation of examination objectively reflects the student's knowledge and abilities. It is true that gradually gained basic theoretical, pre-clinical and clinical knowledge, abilities and skills do not form a functional mosaic of medicine — sometimes they are even contradictory. The aim of undergraduate medical study should reside in education of students who will gain knowledge, skills, approaches in the field of "minimum standard" and have them fixed in order to be able to use them and develop them in their postgraduate practice. Students should gain basic knowledge, skills and approaches above the standard, and develop them during their postgraduate practice.

The quality of tuition determines the success of pedagogues and graduates in medical practice. The evaluation of pedagogical activities by teacher, students and physicians in practice can provide a useful feedback on the quality of education. The main mutual task of education at medical faculties should reside in creation of a generally educated graduate with an internationally accepted medical diploma. The graduates should be able to continue in their postgraduate specialisation after gaining the licence according to the traditions and legislation of the appropriate institution. The students represent their Alma Mater, and their level of knowledge represents its tuition. The quality of tuition determines the success of pedagogues and graduates in their medical practice.

## References

**Ambrozy DM, Irby DM, Bowen JL et al:** Role models' perceptions of themselves and their influence on students' speciality choices. *Academ Med*, 72, 1997, 12, p. 1119—1121.

- Anderson JO, Bachor DG:** A Canadian perspective on portfolio use in student assessment. *Asses Education*, 5, 1998, 3, p. 353—380.
- Ashley EA:** Medical education — beyond tomorrow? The new doctor — Asclepiad or Logiatros? *Med Education*, 34, 2000, p. 455—459.
- Bowles LT:** The evaluation of teaching. *Med Teacher*, 22, 2000, 3, p. 221—224.
- Buc M, Štefanovič J:** Vedecko-výskumná činnosť ako predpoklad rozvoja osobnosti vysokoškolského učiteľa. P. 23.-25. In: Kukurová E, Traubner P, Bernadič M (Eds): *Profesionalita, progres, podpora zdravia*. Bratislava, Slovmedica, Slovfarma, Slovreha 2000, 172 p.
- Burns EA:** Education for the 21st century — Moving beyond the flexner model. *Family Med*, 32, 2000, 4, p. 228—229.
- Evans J, Goldacre MJ, Lambert TW:** Views of UK medical graduates about flexible and part-time working in medicine: a qualitative study. *Med Education*, 34, 2000, p. 355—362.
- Ferencová E., Kukurová E.:** ŠVOČ ako jedna z možných foriem pedagogickej spolupráce teoretických a klinických pracovníkov. *Sborník abstrakt*. Praha, Univerzita Karlova 1998, s. 24.
- Ferencová E., Kukurová E., Polášková A.:** Didaktické aspekty pedagogickej činnosti a kreativity učiteľa fyziky. *Zborník prác*. Košice, LF UPJŠ 1999, s. 28.
- Friedman Ben-David M:** The role of assessment in expanding professional horizons. *Med Teacher*, 22, 2000, 5, p. 472—477.
- General Medical Council:** Tomorrow's doctors: Recommendations on undergraduate medical education. London, GMC 1993, 48 p.
- Harden RM, Gleeson FA:** Assessment of medical competence using an objective structured clinical examination (OSCE). *Med Education*, 13, 1979 s. 41—45.
- Harden RM:** Effective multiprofessional education: a three-dimensional perspective. *Med Teacher*, 20, 1998, 5, p. 402—408.
- Harden RM, Crosby J:** The good teacher is more than a lecturer. *Med Teacher*, 22, 2000, 4, p. 334—347.
- Holomáňová A., Javorka V., Kukurová E.:** Kreditný systém vo výučbe všeobecného lekárstva na Lekárskej fakulte UK. 2. celoslovenská konferencia o lekárskom vzdelávaní. Košice 18.- 21. marec 1999. In: *Cesty k výchove moderného lekára*. Košice 1999, nestr.
- Howe A:** Primary care education for the new NHS: a discussion paper. *Med Education*, 34, 2000, p. 385—390.
- Kalužný J:** Manažment štúdia a výučby na univerzitách. Bratislava, Tempus-Phare UM JEP 13003, 1998, 125 p.
- Kukurová E, Bernadič M, Holomáňová A, Javorka V, Ďuriš I:** Professionalism of theoretical and clinical subjects teachers in school of medicine. *Bratisl Lek Listy*, 101, 2000, 7, p. 412—414.
- Kukurová E, Traubner P, Bernadič M (Eds):** *Profesionalita, progres, podpora zdravia*. Bratislava, Slovmedica, Slovfarma, Slovreha 2000, 172 p.
- Kukurová E.:** K filozofii marketingu vo vedecko-výskumnej práci vysokých škôl. *Naša univerzita*, 44, 1998, č. 7, s. 10-11.
- Kukurová E.:** Niektoré úskalia v managemente kontinuálneho vzdelávania lekárov a učiteľov. *Kvalifikačná práca*. Praha, Univerzita Karlova 2000, s. 5.
- Leggat PA:** Learning experiences in medical education. *Med Teacher*, 22, 2000, 3, p. 288—292.
- Matthews Ch:** Role modelling: how does it influence teaching in family medicine? *Med Education*, 34, 2000, p. 443—448.
- Miller GE:** The assessment of clinical skills, competence/performance. *Acad Med*, 1990, 9, p. 565—569.
- Neville AJ:** The problem-based learning tutor: Teacher? Facilitator? Evaluator? *Med Teacher*, 21, 1999, 4, p. 393—401.
- Pangaro LN:** Investing in descriptive evaluation: a vision for the future of assessment. *Med Teacher*, 22, 2000, 5, p. 478—481.
- Plavčan P:** Slovenské vysoké školstvo. Analýzy a koncepcie 1991—1998. Bratislava, Tempus JEP 1999, 163 p.
- Schwartz PL:** Forward to the past? *Med Teacher*, 22, 2000, 1, p. 11—13.
- Traubner P, Kukurová E, Benedeková M, Bernadič M:** Súčasný stav a prognózy rozvoja odborných predmetov na lekárskech fakultách. P. 9—13. In: Kukurová E, Traubner P, Bernadič M (Eds): *Profesionalita, progres, podpora zdravia*. Bratislava, Slovmedica, Slovfarma, Slovreha 2000, 172 p.

Received December 22, 2000.

Accepted May 24, 2001.