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What the Croatian Doctors Want to be Learning About?

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ABSTRACT

The aim of the study was to examine doctor's attitude about topics in continuing medical education (CME) using anonymous questionnaire that was given to the members of the Croatian Medical Association in Rijeka. The questions concerned doctor's interest of certain medical fields, influence of CME to their everyday practice, and importance of getting credits for re-licensure as a motive to participate in CME. The highest interest was shown for CME in emergency/intensive medicine and the lowest for transplantation medicine. The doctors in primary care showed statistically significantly higher interest for CME in family medicine, pulmonology, rheumatology and rehabilitation medicine than hospital doctors. The influence of CME in everyday practice and the importance of getting credits for re-licensure as a reason to participate in CME, in the most cases, have been graded with medium grade 3. The results indicated the existence of specific needs in CME and stressed the importance of having CME with topics from clinical practice.

Key words: physicians, continuing medical education, attitudes of health professionals, Croatian Medical Association

Introduction

In recent years more and more countries introduce obligatory continuing medical education¹ (CME). While some countries still don't yet fully established CME², the number of states requiring CME for medical licensure has increased to 39³, including Croatia. Since the establishment of Croatia Medical Chamber (CMC) in 1995, it became the legal institution, which organizes CME in collabo-

ration with scientific societies, members of Croatian Medical Association (CMA), Faculties of Medicine, and other institutions. Participants are awarded credits according to the set of rules accepted by CMC¹. The procedure of first re-licensure was done by CMC in December 2002 and our study was undertaken a month later.

European Union of Medicine Specialists (UEMS) proclaimed in 1994 Declara-

tion of CME specialists in the European Union countries¹. According to the Declaration, CME represents ethical duty and individual responsibility of every practicing doctor throughout his/her professional life⁴. The doctors have right and obligation to professional development for the purpose of maintaining and developing their professional quality⁵. Content of CME must be responsive to real needs; therefore it must be determinate by profession itself⁴. Education, in basis, must be voluntary, and national committees have freedom to obligate their members in democratic way to fulfill demands for participation in CME¹.

In the beginning of the eighties Croatian Medical Association – branch office Rijeka (CMA-Ri) started to organize CME which became more intensive with the introduction of obligatory CME⁶. These courses were organized with large number of different interested parties, each of them having its own motive, whereas the doctor's priorities were in most cases not the priority. According to the available information, evaluation of physician's expectations regarding topics of the courses of CME was relatively rare^{7–11}, in Croatia we founded only one⁶. Because of that, our goal was to examine attitudes in general population of doctors, members of CMA, about the topics they want on CME.

Subjects and methods

The questionnaires were sent to home address of all 1234 members of CMA-Ri during January 2003, after the first re-licensure procedure by CMC, which took place in December 2002. Due to the fact that it was filled anonymously, at home, the examined population had enough time for their fulfillment. Questionnaires were collected during next planned course organized by CMA-Ri, two weeks after receiving it. 240 questionnaires were collected but 182 properly filled were included

in further analysis. That represents 14.7% of the total number of physician members of CMA-Ri.

The questionnaire consisted of 3 questions (shown in Appendix).

The first question was about doctor's interest for topics in certain field of medicine including 33 sub-questions regarding fields of medicine (basic and clinical). The medicine fields, originally in Croatian language, were listed in alphabetical order. According to personal interests and needs in our questionnaire the doctors had opportunity to chose medicine fields in which they wanted additional education. They were offered 3 categories of answers to the question whether they wanted courses from certain field »often«, »sometimes« or »rarely«.

Further questions were about influence of received knowledge on everyday practice and about importance of getting certificate of attendance as a motive for attendance in CME. The answers were ranged in three categories (grade 1 and 2, grade 3, grade 4 and 5).

The examined population was from the general population of doctors. We found almost the same numbers of subjects from primary care 64 (35.2%) and hospital care 65 (35.7%), whereas the number of subjects from other categories was somewhat lower 53 (29.1%) (unemployed, interns, medical representatives, retired, etc.)

The greatest number of subjects had more than 20 years of working experience (40,7%), followed by those with 10–20 years (25,8%), 1–5 years (18,1%) and those with 5–10 years (12,1%).

Statistics

We calculated frequencies (expressed as percentage) for answers on question about doctor's interest for specific fields of medicine, about influence of obtained knowledge on everyday practice and about

influence of getting certificate of attendance on decision to participate in CME.

The list of medicine fields was made according to the value of calculated frequencies about doctor's interest for certain medicine field, from the most frequent to the most rare.

We examined the relations between variables by coefficient of correlation. We used one-way ANOVA to exam if there are significant differences in doctor's interest for certain medical field according to field of their work (3 groups: primary care, hospital care, other field of work) and their working experience (4 groups: 1–5, 5–10, 10–20, more than 20 years). When ANOVA was significant we checked the differences between certain groups with post hoc tests.

Results

The examined populations showed greatest interest for courses in the field of emergency/intensive medicine (50.5%) and the least for the field of transplantation medicine (8.2%). The range of first 10 medical fields ranged according to doctor's interest, is shown in Table 1.

We found statistically significant differences between interests for certain fields of medicine and the subject's fields of work. The doctors in primary care showed significantly higher interest for CME in family medicine ($p < 0.001$), pulmology ($p = 0.047$), rheumatology ($p = 0.006$) and physical and rehabilitation medicine ($p = 0.023$) than hospital doctors. The doctors in hospital show higher interest for CME in pediatrics ($p = 0.041$) and lower interest for CME in physical and rehabilitation medicine ($p = 0.023$) than doctors in other fields (unemployed, interns, medical representatives, retired etc.). The doctors in primary care showed significantly higher interest for CME in infectology ($p = 0.036$) and for courses in endocrinology ($p = 0.034$) than doctors in other fields of work.

TABLE 1
LIST OF MEDICAL FIELDS ACCORDING TO DISPLAYED INTEREST

Medical fields	%
	N
Emergency/intensive medicine	50.5 92
Cardiology	28.6 52
Pediatric medicine	27.5 50
Laboratory diagnostic	26.9 49
Clinical pharmacology	25.8 47
Family/primary medicine	25.3 46
Gastroenterology	23.6 43
Psychiatry	22.0 40
Alergology	21.4 39
Infectology	20.3 37

According to working experience and interest for specific topics, statistically higher ($p = 0.038$) interest for courses in emergency/intensive medicine was found in group of doctors who had less than 5 years of working experience than in the group of practitioners with 10–20 years of working experience. Interest for lectures in gastroenterology was the highest in the group of more than 20 years of working experience and statistically higher ($p = 0.015$) than in the group of subjects with 10–20 years of working experience.

The influence of knowledge obtained in CME to everyday practice in most cases was valuated with medium grade 3 (44.0%) (Table 2).

The influence of getting certificate on the decision to attend the CME in the most cases (41.2%) was valuated with grade 3 (Table 2).

TABLE 2
DISTRIBUTION OF ANSWERS TO QUESTION 2* AND 3**. (1=LOW/5=HIGH)

Question	Grade (%)			
	1 and 2	3	4 and 5	missing
* Influence	13.2	44	40.1	2.7
** Prove of attendance	35.1	41.2	21.9	1.6

* How much influence on your everyday practice has the knowledge obtained on courses in continuing medical education?

** How important is it to you to get the proof of attendance for your decision to participate in courses?

Discussion

CME is part of the process of lifelong learning that all doctors undertake from medical school until retirement and has traditionally been viewed by the medical profession in terms of updating their knowledge¹². It represents the final and often most poorly understood stage of physician education¹³. The purpose of CME is to facilitate change in clinical practice¹⁴ but too often, there was little or no actual effect on medical practice^{14–17}.

CME doesn't just mean keeping up to date keep one's own specialty interests. It must include computer literacy, ethics, management, and evidence-based medicine. The CME must promote interpersonal collaboration and teamwork¹⁸. The new ways of learning are present. Importance of the Internet to physician professional development is growing rapidly¹⁹.

CME must become well-planned activity²⁰ and it is recommended that high priority be given to educational research on the methodology of CME and its potential impact on professional competence and the quality of medical care²¹.

Evaluation of physician's expectations regarding topics of the courses of CME in Croatia was relatively rare⁶. Analysis of data from 2001⁶ and 2003 about doctor's interest for courses in specific fields showed that in both examinations emergency/intensive medicine takes leading position,

with more than 50% interested subjects. Since Croatian Society for Emergency Medicine – branch office Rijeka, organizes the courses in this field in Rijeka almost each month, the efficiency of distribution of appropriate information would be worth exploring.

Outstanding fact is that in the first ten field of interest, the fundamental medical fields such as surgery, gynecology, obstetrics and oncology are not present. It would be worth examining whether this is a regional or general occurrence.

The influence of knowledge obtained in CME to everyday practice in most cases was valued with medium grade 3 (44.0%) (Table 2), just as in the year 2001⁶. Although in 2003 there are a larger number of those who valued the influence on their everyday practice with grades 4 and 5, as well as smaller number of those who valued it with grades 1 and 2; the differences are not statistically significant.

The influence of getting certificate on the decision to attend the CME in the most cases (41.2%) was valued with grade 3 (Table 2). When compared to the results from 2001⁶, it was found that the influence of getting certificate is larger, but the difference was not statistically significant. Possible explanation for this raise may be the re-licensure procedure, which has taken place between these two examinations, but to confirm this statement further specific research is necessary.

Detailed examinations of doctor's attitudes regarding desired topics, influence of the knowledge obtained in CME on their everyday practice and type of education appears would be of major importance.

The organization of CME that would first determine and follow the real doctor's needs according to the most desired topics would most likely motivate doctors to participate in CME even more. Also, it is very important to examine the doctor's attitudes about the influence of the knowledge obtained in CME on their everyday practice and collect their suggestions regarding its improvement. The examination of doctor's attitudes about what influences their practice most (choice of topics, lectures, written materials, possibility to exchange experience with colleagues etc.) and which type of education will be the most acceptable (duration, timing, type of workshops, etc.) should have important impact on further organization of CME.

Regionally performed surveys are able to guide the planning of CME about habits, wants and needs of the target group and may increase the attendance as well as the involvement. Motivating as well as critical experiences of the participants

should be regarded more rigorously in the planning¹¹.

Identification of learning needs is the basis for planning of CME. Who defines the needs and how they do it is important²⁰. In Croatia many particular bodies and organizations such as professional societies, Universities, Medical chamber, CMA branches, health institutions and individuals has the role in CME²². They should promote educational research on the methodology of CME and identification of learning needs.

Each country has their specific medical problems that need more attention and the organization of CME in certain country couldn't be just copied from another. Even the teaching programs of European medical schools showing a lot of differences in the number of courses and proportion of each course in the study plan compared with the standard medical curriculum recommended by the European University Association²³. The CME in our country must follow the physician's needs and must be adjustable according to our historical and socioeconomic specificities²⁴ but it must also be compatible with European recommendation.

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O ČEMU ŽELE UČITI LIJEČNICI U HRVATSKOJ?

S A Ž E T A K

Cilj ovog istraživanja bio je ispitati stavove liječnika o sadržaju kontinuirane medicinske edukacije, pomoću anonimnog upitnika koji je podijeljen među članovima Hrvatskog liječničkog zbora, Ogranak Rijeka. Pitanja su obuhvaćala područje interesa za kontinuiranu medicinsku edukaciju, utjecaj kontinuirane medicinske edukacije na svakodnevnu praksu liječnika, te važnost bodova koji su potrebni za re-licenciranje, kao motiva za sudjelovanje u trajnoj medicinskoj edukaciji. Liječnici su najveći interes pokazali za područje hitne/intenzivne medicine, a najmanji za transplantacijsku medicinu. Liječnici u primarnoj zdravstvenoj skrbi imaju najviše interesa za obiteljsku medicinu, pulmologiju, reumatologiju i rehabilitacijsku medicinu. Važnost kontinuirane medicinske edukacije za svakodnevnu praksu, kao i važnost dobijanja bodova za re-licenciranje, ocijenjeni su kao srednje važni razlozi za sudjelovanje u kontinuiranoj medicinskoj edukaciji. Rezultati ukazuju na postojanje posebnih potreba u kontinuiranoj medicinskoj edukaciji, te naglašavaju važnost sadržaja iz područja kliničke prakse.

APPENDIX

For the purpose of advanced and improved quality of courses in continuing medical education organized by Croatian medical association – branch office Rijeka we ask you to answer these questions:

Working experience: 1–5 year 5–10 10–20 more than 20

Field of work: primary care hospital other _____

1. From which field of medicine do you want courses to be: (mark desired answer)

	often	sometimes	rarely
Alergology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Basic medical science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dermatology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Endocrinology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical and rehabilitation medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gastroenterology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genetic/molecular medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gynecology / obstetrics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hematology/transfusiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency/intensive medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infectology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cardiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surgery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical pharmacology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical immunology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical psychology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical pathology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory diagnostic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neurology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nephrology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family/primary medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ophthalmology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oncology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orthopedic medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Otorinolaringology /audiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatric medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychiatry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pulmology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rheumatology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sports medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Transplantation medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
others_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How much influence on your everyday practice has the knowledge obtained on courses in continuing medical education

1	2	3	4	5
low				high

3. How important is it to you to get the prove of attendance for your decision to participate in courses?

1	2	3	4	5
low				high