

UNIVERSITY DOCTORAL (Ph.D.) THESIS

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**INTEGRATION OF COMPLEMENTARY AND ALTERNATIVE MEDICINE  
INTO MODERN MEDICINE WITH SPECIAL EMPHASIS ON MEDICAL  
EDUCATION AND LEGAL REGULATION IN HUNGARY**

**Dr. Varga Orsolya Edit**

**Supervisor: Prof. Dr. Molnár Péter**

UNIVERSITY OF DEBRECEN  
MEDICAL AND HEALTH SCIENCE CENTER  
FACULTY OF PUBLIC HEALTH  
DEPARTMENT OF BEHAVIORAL SCIENCE  
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## INTRODUCTION

Complementary and alternative medicine (CAM) is having its renaissance in industrialized countries. There is no exact information on how many people use CAM methods and products in Hungary. According to the last representative country-wide survey in 1999, 23.1% of the adult population consulted a CAM practitioner at least once.

CAM became increasingly popular in the 80s. In 1990 already 1200 licensed practitioners have been registered. Legalization took place in 1997 when two decrees of regulation have been phrased based upon the 104th § of the Public Health Bill: the 40/1997 (III.5) Governmental decree on holistic medicine activity and the 11/1997 (V. 28.) decree of the Ministry of Social Welfare on the practice of holistic medicine. The decree of the Ministry of Social Welfare divided holistic medicine ("non-conventional" in the decree) methods into two groups: methods only allowed to be practiced by doctors and those allowed to be practiced by others (not qualified as doctors). This division is based on the assumption that certain CAM methods can be dangerous thus only doctors can use them safely. Doctors can only be trained in university level health education institutes (medical universities). Taking this together the two above mentioned decrees dedicated the teaching of non-conventional methods to medical universities. Despite the regulation medical universities offered neither non-conventional method training nor qualification exams. At present accredited homeopathy-, manualtherapy- and acupuncture courses are only offered during the course of compulsory further training organized for practitioners.

In line with the international practice medical faculties in Hungary are also teaching about CAM during the gradual training. More and more universities join this practice in the industrialized countries. Such integration of CAM into regular teaching is urged by two facts. Patients frequently use CAM methods and products and undergraduate students along with resident doctors are interested in the topic. According to several studies around the world most medical students consider the integration of CAM education into their curricula important. The general knowledge of medical students and practitioners about CAM is poor, thus the question is not whether it should be integrated into the education, but how it should be done most effectively.

The question of integration of CAM into regular medical curricula gained increasing publicity in international conferences and discussions on educational policy. Integration is urged by numerous professional and educational-policy statements. In the USA and Canada the government is trying to speed up the process by financial aid. In Hungary there were no official educational policy statements apart from one statement from the Hungarian Accrediting Committee which advised a more organized way of integration. After Hungary's admission into the European Union (EU) in 2004, harmonization of law must also be considered when discussing health education changes.

## **Aims**

Medical universities in Hungary teach certain CAM information both in the gradual and post gradual level, thus the thesis discusses them both. The thesis investigates the relation of CAM training and medical universities through 4 aims.

1. The thesis aims to investigate and systematize EU law regulation standards of CAM, legal regulation of CAM in the different EU member states with an emphasis on regulation of education in order to see how Hungarian decrees regulating CAM fit into EU legal practice and educational schemes. My hypothesis is that Hungarian regulation makes the utilization of EU legal standards difficult, and that it is stricter.

2. To shed light on the background of the present legal regulation of CAM in Hungary the thesis aims to overview and analyze the history of CAM from 1989 to date. Important questions concerning the decrees are: what goals guided the regulating bodies and how consistent the regulation is in enforcing those goals. It is also important to know what interests and lobbies formed the regulation during its creation and modification. My hypothesis is that although the 1997 decrees were declared to be phrased for the protection of patients, in their present form they are not capable of effectively prevent the risk. In my opinion these decrees are not consistent with this need and they are shaped mainly by the compromises of groups interested in the legislation of CAM.

3. Another aim of the thesis is to present the different types of integration of CAM into medical curricula through international examples and to investigate CAM education in the gradual courses of medical universities in EU member states.

Through a questionnaire-survey I aimed to find out what the percentage of universities offering CAM training is in the different countries, whether this percentage has changed in the last 5 years and what social factors determine this percentage. The hypothesis here was that the percentage of universities offering CAM education between EU universities was increasing in accordance with the growing social need and interest among students for CAM. This hypothesis was phrased despite the lack of intention to teach, popularize, standardize or unite CAM education.

4. The last aim of the thesis was to conduct an empirical survey (using indicators similar to those used in international studies) among Hungarian medical students studying at the medical faculty of the University of Debrecen concerning their attitude towards CAM. Questions focused on the personal attitude of the students towards CAM, attitude of medical profession towards CAM, attitude of students towards the education of CAM in the university. The hypothesis was that the attitude of students is more accepting and open than that of the medical professionals. I expected that this attitude is even more positive among female students and students from upper years.

## MATERIALS AND METHODS

A document research-study along with two empirical studies have been conducted to analyze the problems concerning the education of CAM in Hungarian medical faculties. During the document research-study I have studied and analyzed laws and decrees regulating CAM in Hungary and the EU and looked through records and mail archived during the preparation of the 1997 laws and decrees to review the history of CAM regulation in Hungary. The two empirical studies dealing with the CAM education in gradual medical training were conducted 1. in EU medical faculties, 2. between medical students of the University of Debrecen.

*Questionnaire:* I have used a self-developed self-filling questionnaire in both studies. In the first study 7 questions were raised and they could be answered in English, German or French. In the second questionnaire 11 questions were asked.

*Sample:* (1) In the representative study medical faculties in EU member countries (in 2004), Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Greece, The Netherlands, Ireland, Poland, Latvia, Lithuania, Hungary, Malta, Great Britain, Germany, Italy, Portugal, Slovakia, Slovenia, Spain, Sweden along with Switzerland and Norway were involved. Medical faculties listed in the World Directory of Medical Schools (2003) were contacted. According to this database Cyprus and Luxemburg did not have medical faculties at that time. I have tried to contact 265 universities or medical faculties. The survey took 3 months from September 2004 till December 2004.

(2) The second study dealing with the attitude of students was not representative. It took place locally at the University of Debrecen, Medical and Health Science Center among medical students from years II. - V. in the second semester of the 2003/2004 university year. The questionnaire was filled by 198 medical students.

*Sampling method:* (1) I The 265 medical universities/faculties have been contacted twice in e-mail asking them to visit a website and fill the questionnaire online. Whenever the electronic address of a faculty was missing from the WHO World Directory of Medical Schools the e-mail address of the dean (or any other contact person) shown on the website of the faculty was used. Faculties that failed to respond were then contacted via regular mail by sending a printed form of the questionnaire along with an answer-envelope with the appropriate stamps. Postal addresses were listed in all cases in the WHO database.

(2) Two groups of student from academic years I, II, IV and V along with 3 groups of students from academic year III have been randomly selected for the study. Students from the selected groups who showed up on seminars of the Department of Behavioral Sciences were asked to fill the questionnaire. The students then were grouped into three subgroups for the analysis. One group consisted of students from academic years I and II, another one from 3rd year students while the oldest group contained the rest of the students. This division was based on the fact that students in the first two academic years did not have any clinical subjects, third year is mixed in this sense while in the upper (IV-V) years clinical subjects dominate the curriculum.

*Data analysis:* (1) Answers were analyzed using SPSS For Windows 11. Simple distribution and cross-correlation tables were used. When investigating the connection between the presence of numerous CAM educational possibilities and social demand we used three indicators: a.) the percentage of the population using CAM methods or products at least once in their lives; b.) the share of over the counter (OTC) drugs in the overall drug-market; c.) the share of vitamins and minerals in the overall drug market. This investigation was only possible in those countries where previously a population based survey was conducted to check the social demand in the population. These figures are available in an WHO report. For the data concerning the share of OTC drugs, minerals and vitamins the country-reports of the Association of the European Self-Medication Industry have been used which gives contains OTC share and the total expense of the European Self-Medication Industry. Correlation was checked in each Country between the percentage of medical faculties teaching any form of CAM and a.) percentage of people in the population using CAM methods/products at least once in their lives; b.) share of OTC drugs in the whole drug market; c.) share of vitamins and minerals in the whole drug market. Correlation coefficients were calculated using the appropriate functions of MS Excel software package.

(2) Data were processed with SPSS For Windows 11. Simple distributions and cross-correlation tables were used (significance check,  $\chi$  square). Distribution of individual answers for the given question was investigated along with distribution of the answers between academic years and gender. Differences between the investigated groups were considered significant with  $p < 0,05$  levels.

## **RESULTS**

### **Legal regulation of CAM in the European Union**

Hungary is a member of the European Union and thus is entitled to harmonize its law with EU law. Although there is no "common" health or CAM law in the EU, through the existing common regulation of education, research and mobility it strongly influences the organization and regulation of CAM. One of the major principles of the EU is the free mobility of people in the union member states. According to this principle member states should accept degrees received in other member states as equivalent with theirs. CAM practitioners however can not make use of this practice since only a very small percentage of CAM training is embedded into the bachelor/master training system. Integration of CAM training into higher level education is still partial.

There are major differences among the regulation of CAM in the different member states. According to the CAM-Cancer study 16 members have some sort of (quite diverse) regulation while in 13 member states there is no regulation at all. In those countries where there is a regulation it is of two major types: complete regulation and half-regulated. In the half-regulated system anyone can practice CAM. Systems with complete regulation can be further divided. If there is no specific regulation of CAM than practice of CAM is reserved for health care professionals, mainly doctors. In case of specifically regulated CAM branches those are embedded in regular health care, thus practitioners of these CAM branches can be those with the appropriate degree and permissions. Hungary has complete regulation of CAM with specific CAM decrees.

### **The history and present state of CAM regulation in Hungary**

The minister of social welfare declared in 1989 that a limited number of Chinese doctors can practice acupuncture for one year in Hungary with special permission of the minister. This permission could be lengthened but it was only valid for Chinese medicine methods. In 1997 legal boundaries were set for CAM with the two decrees regulating CAM. The original decrees distinguished 12 different CAM branches connected to a degree in medicine, which later (during the ongoing

negotiations) decreased to 8. The declared aim of the decree was the protection of patients from the hidden dangers of irresponsible use of CAM methods. Several administrative bodies and committees contributed to the phrasing of the decree. The first CAM organizations were formed in the middle of the 80s. The first professional organization (Chamber of Hungarian CAM practitioners) was formed in 1992. Although it took part in the professional advisory process of phrasing the decrees it did not have real influence on the end-product. The Hungarian CAM Committee started its work in 1989 with the help of the National Health Protection Institute (NEVI) and later the Ministry of Social Welfare. The aim of NEVI was the shaping of the national level regulation of CAM training, including plans for university and higher education level training. NEVI formed the CAM Professional Council (TSZK) which served as advisory committee for the ministry, and had a big impact on the final form of the decrees. The advisory committee formed by TSZK had split and reformed several times. Initially the committee had 25 members, today it has 9. Its new name is Complementary Medicine Advisory Board, members include one CAM practitioner with a medical degree one without it, while the rest of the members are from different health care committees. The Health Scientific Council (ETT) which published a statement concerning acceptance of CAM already in 1991 also had a big contribution to the formation of the decrees. The decrees had been finally accepted in 1997, however against the conscience of the interested bodies.

### **Questionnaire survey of CAM training in medical faculties of the EU**

According to the study of Owen and Lewith in 2004 most universities in the USA, Canada and Australia offer some sort of CAM training. However the last survey concerning the state of CAM education in the universities of EU member states was conducted in 1999 by Barberis. Since the last years brought changes in the education and acceptance of CAM worldwide I wanted to see if there is any change in the EU states. 105 of the 265 medical faculties have completed and sent back the form. 90 of these were from former EU member countries while 15 were coming from recently (2004) joined members. The percentage of responding faculties were similar: 43% of former states and 42% of recently joined members answered the 7 questions in the questionnaire. 3 questions from the questionnaire was focusing on the depth of structural integration, other 3 concerned the types of offered courses while the last one



was about the relation of CAM to the general medical practice.

*Integration:* 425 of former state faculties, while 20% of recently joined state faculties offered some form of training and the same percentages in the two types of state faculties had it as a separate CAM course. 10% of the former EU state faculties offered this training in independent CAM departments while in the recently joined state faculties this was 7%

*Types of CAM courses:* In 13% of the former member state faculties compulsory CAM courses were present in the curriculum, while there were no compulsory CAM courses in any of the recently joined member state faculties. CAM courses were closed with a compulsory exam in 31% of the former member state faculties. This was again absent in case of recently joined member state faculties. All courses everywhere gave a general description of CAM branches and techniques. Special courses were offered everywhere in acupuncture, homeopathy, fitotherapy and massage.

*Relation to the general medical practice:* 10% of the former while 20% of the recently joined member state faculties require additional training from the practitioner in order to practice CAM. This means that all recently joined countries require additional training for the utilization of CAM methods.

During the analysis of the answers it became clear that while certain countries offer several CAM method trainings others offer none. Thus I have investigated whether this correlates with the social need for CAM in the given country. Social need was measured by three indicators, since unfortunately there is no clear individual indicator which would be describing the social need properly and would be available from all countries. The three parameters were: utilization of CAM (%), share of OTC drugs in the overall drug market (Euro/year/individual), share of minerals and vitamins in the overall drug market (Euro/year/individual). Data concerning the first indicator was available from Austria, Belgium, Denmark, Finland, Germany, Hungary, The Netherlands, Sweden, Switzerland and Great Britain thus these countries were involved in the cross-correlation measurements. The correlation coefficient was 0,4.

Data concerning the second and third indicator was available in Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland and Great Britain. The correlation coefficient for the OTC drugs was -

0,125 while it was 0,2 for the minerals and vitamins.

### **Investigation of the attitude of Hungarian medical student towards CAM**

The survey concerning the attitude of medical students of the University of Debrecen towards CAM and the possible education of CAM in the university was conducted before the courses entitled "Fields of Complementary and Alternative Medicine I-II" were started. 198 students filled the questionnaire of which only 4 had to be discarded. From the answering students 120 were females and 74 were males. Students were grouped into 3 panels. The first panel contained 82 first and second year students, the second panel contained 54 third year students and the third panel contained 58 fourth and fifth year students. We checked the gender ration of the answers in case of all questions, but a difference could only be observed in case of the question concerning personal experience with CAM products/methods. 43% of female while only 28% of male students have at least once tried CAM in their lives. The 11 questions of the questionnaire can be divided into 2 groups.

The first 5 (introspective) questions concerned the attitude of medical students towards CAM and their experience with CAM methods and products. 4% of the students described their *attitude* as refusing, 47% as indifferent and 49% as being interested. The percentage of interested (53%) and refusing (6,1%) students were highest among first and second year students. Most of the third year students were indifferent (55,6%), while half of the fourth and fifth year students considered themselves as being interested (50%). 38% of the students *had personal experience* thus used CAM methods or been to a CAM practitioner. This percentage is higher than that established in representative national studies. In the first and third panel the percentage of personal experience was 43%, while 24% in the second. 60% of those students who had personal experience with CAM *were satisfied* with the CAM product or service. Due to the low number of students I did not make any further divisions. Efficiency of CAM was considered to be depending on the particular CAM branch by 82%, a result of placebo effect by 9%, generally effective by 8% and to be completely useless by 1% of the students. All third year students considered CAM as effective or effective in certain fields. 16 % of the students in the first panel thought that CAM is not effective or that the effect is based on the placebo effect. As for the *competence* of CAM practitioners: 33% of the students asked said that CAM

practitioners are well trained professionals while 66% of the students thought that they do not have enough knowledge in health care and that they may be dangerous for the patients.. 43% of the students in the first panel considered CAM practitioners to have less than enough knowledge and 1% of this panel simply called CAM practitioners charlatans. 75% of the students in the other two panels had the feeling that CAM practitioners may not have enough health care information.

The second (extrospective) group of questions dealt with the position of CAM in health care. 45% of the students thought that the attitude of doctors towards CAM is refusing, 30% thought that doctors are rather indifferent towards CAM while 25% of the students said that doctors accept CAM as a possible alternative. While students in all years voted most for the reusing attitude the highest percentage of this answer came from the third year students (53%). Also this was the panel (IV-V year students) where the lowest percent of students (17%) believed that doctors may accept CAM as a real alternative. According to 70% of the students doctors only consider *competency of CAM practitioners* in hopeless cases and that is the only time when they actually offer this alternative to their patients. 19% of the students think that doctors never offer CAM methods to their patients, while 12% of them think that doctors often do so. This later belief is shared by 16% in the first, 13% in the second and 5% of the third panel. The *utilization of CAM methods by patients* is thought to be less than 20% by 16% of the students, 43% thinks that it is between 21-40%, 32% believes that it is between 41-60% while according to 8% of the questioned students this number is between 61-80%. The distribution of the answers between the three panels were similar, the 21-40% range was thought to be the most common. 79% of the students think that patients are not discussing their questions concerning CAM with their general practitioners and doctors. This topic is *not part of the doctor-patient communication*. The highest percent of students (25%) who thought that patients can discuss this topic with their doctors were in the second panel. 90% of the students think that doctors need knowledge about CAM methods above the average level and 76% of them think that CAM methods should be integrated into the university curriculum. This belief was shared by 70% in the first and 80% of the second and third panel students.

## **DISCUSSION**

### **Hungarian regulation of CAM in the light of EU legal regulation**

CAM training in are different from the types of trainings available in Europe and not in line with the system of the European Higher Education Area. At present there are no bachelor or master degrees from CAM in Hungary, and the valid legal regulation makes it difficult to start them. This separation from the higher education system will probably be more problematic than problems in courses connected to medical degrees in the future.

Legal regulation of CAM in Hungary differs from that of the EU in two major points. First, it is too detailed and second, the number of CAM branches reserved exclusively for practitioners with medical degree only is bigger than in most EU member states. In the EU such branches (allowed to be practiced by doctors only) only exist in case of lack of direct regulation, since in these cases the main regulation (health care practice can only be done by doctors) is valid. This is the case in Spain or in Slovakia. If such exclusivity for doctors exist it is usually valid for only a few CAM branches (e.g. acupuncture in Slovakia or homeopathy and acupuncture in Slovenia). Thus Hungarian regulation *differs in the quantity and not the quality* of restrictions. This would not be a problem provided that evidence would support that this is the good practice (patients would be safer, the number of charlatans decreasing, etc). Unfortunately to date we do not have any detailed study (retrospective or follow-up) that would support the advantage of the existing regulation.

Because of these problems in education of CAM practitioners with medical degrees a change in the regulation is being prepared. It is wise to determine basic rules and principles and be consistent with these during the formation and accepting of the new regulation.

### **Motives of the regulation and interested groups**

Regulation of CAM is going on with extreme speed in the EU member countries. There are several aims to fulfill by the regulation. These aims should be investigated from the aspect of all four major groups involved and interested in the legislation. The four groups are: patients (users), doctors, CAM practitioners and

politicians. The patients' interest is to have a maximal freedom in choosing therapy and consumer protection. The doctors' and professionals' interest is to keep up the present official health care system. "Modern medicine" usually protects its' interests by marginalization and incorporation. Marginalization means the forbidding of certain branches while incorporation means the use and integration of CAM techniques which makes their individual existence questionable. The strong tendency called eCAM (evidence based CAM) recently is nothing else than a special form of incorporation. Regulation could also serve the CAM practitioners. The "distributing nature" of medicine makes it important to clearly mark the borders of health care which would serve the purpose of protection of CAM practitioners' interests. Medicine incorporates all that can even be remotely connected to health care and does it through its own logic. To avoid such complete incorporation the borders have to be marked clearly. When politicians stand up for CAM they do it partly for popularity since CAM is very popular. However at the same time it would also be a duty of the politicians to stand up for consumer protection.

Instead of the regular four interested groups in CAM legislation Hungary has 5. Two strong , two weak and one hesitating group. One of the strong lobby groups is the group of CAM practitioners with a medical degree, represented by the "Complementary Medicine Ministerial Advisor Board" (KMTT), and medical professionals, represented mainly by ETT. KMTT as an advisory board forms recommendations and proposals, however its composition does not necessarily serves the balanced representation of the profession. ETT" viewpoint is the "medicine above all" as it's statement in 1991 already proves: "It is a reasonable demand to have scientific evidence for the therapeutic results, and that only useful therapies could be used. The future CAM practitioner is someone who is specially trained professional working together with the doctor." The two weak lobby groups are the patients and the non-doctor CAM practitioners. The weakness of patients (consumers) is a big problem as they should be "propelling" regulation and should phrase consumer demands for the legislation. This absence of the patient side resulted in the obscure state of Hungarian regulation that two "ministerial advisory boards" are fighting over the legislation off a question what would require wide social publicity. Non-doctor CAM practitioners got peripheral since they were not able to form a quality control of CAM education and practice. The hesitating group in Hungary is formed by health-politicians. There is no clear health-care policy for CAM. This is best shown by the

facts that even the gathering of the advisory board took very long time with long breaks and gaps, and that it is still not clear whether the field should be supported and regulated or regulated only. the 1997 decree has no clear winner. The promised (and much awaited) high quality consumer protection is still missing. Doctors and health care professional groups have ambivalent feelings towards the 1997 decrees. Although they gained a large "alternative" field reserved for doctors, but at the same time these fields are in contradiction with the paradigms of "modern medicine". CAM practitioners as a civil authority got expelled from the legislation, as they lost most of the CAM branches (=market). Legislation did not bring professional respect for them, and they had not succeeded in becoming an alternative or accessory for "modern" medicine. Training of CAM practitioners had not been solved up to date, although at the beginning of the legislation process they seemed to be the ones profiting from it most. There were several cases between 2000 and 2005 when doctors taking alternative medicine courses could not complete their training because of the lack of possibility to do the final examination, thus gaining the license. Neither gained health-care politics advantage from the occasional support of CAM de to the lack of publicity.

### **Questionnaire survey of CAM education at EU medical faculties**

According to the survey conducted by Barberis et al. in 1999 40% (43 out of 107) of the responding medial faculties offered some sort of CAM training. Our survey conducted 5 years later in 2004 had almost the same result (41 out of the 105 responding faculties). Our results show that alternative medicine is mostly taught in the form of individual courses (either optional or compulsory). The 1999 survey reported 2 faculties teaching CAM during other courses. CAM courses were only obligatory in 11% of the responses. 27% of the faculties closed the courses with exams. Apart from general CAM information, the usually branches are: homeopathy, acupuncture, fitotherapy and massage. Only one university reported to be doing education of "dark-side" branches of CAM such as hand-healing and shamanism As for the difference between newly joined and former EU member countries: on average twice as many faculties teach CAM in former member countries than in newly joined ones (40%-20%). There are more individual CAM departments in former EU faculties than in newly joined ones. Provided that their is education it takes place as an

individual course in all EU member countries. In the newly joined countries CAM courses are optional and close without an exam. Thus we can conclude that in the newly joined EU member countries CAM education is less and they do it with less emphasis.

The answer to the question whether social demand has influence on the educational profile of a university the answer is clearly no. Social demand was measured by public survey and share of OTC drugs and minerals/vitamins in the overall drug market as indicators. Correlation coefficients were close to 0 therefore there seems to be no connection between these factors. We had to look for indicators which are available in most of the EU member countries. That also explained the need for more than one indicator, since data was not always available. Best indicators would be the use of CAM methods and the visits to CAM practitioners in the population. Unfortunately such surveys are not standardized, we do not have this type of survey from all member countries and they have not been done in the same time. The use of the share of OTC drugs is also far from perfect. OTC drugs are slightly different in different countries and only 1/4 of OTC drugs are CAM products. The extensive use of vitamins and minerals is typical, let alone the so-called "mega dose vitamin" therapy. Still this is only a narrow segment of CAM it is difficult to use it on its own. The share of herbal remedies in the total drug market would be also good but this figure is only present from a few EU member countries. The lack of data concerning the attitude of medical students towards CAM (another possible social demand measuring factor) rendered it useless in this study as indicator.

### **Survey of the attitude of medical students towards CAM**

Medical students in Debrecen have a very similar opinion about CAM that that of foreign students in "modern" medical universities according to all international studies. Students are interested in CAM and feel that it is necessary to integrate it into the regular medical curriculum (Leach, 2004; Reston, 2003; Pittler, 2003; Wetzel et al., 2003). There was a significant difference between genders concerning their personal experience with CAM (P=0.05). More female students tried CAM methods or visited CAM practitioners. This is in line with the observation of others (Sharma, 1992). There was no significant difference between students from different university years in case any of the questions.

The first five questions of the questionnaire dealt with the attitude of the students. The number of students refusing CAM was highest in the first two years while lowest in the fourth and fifth years. Similarly, high number of students in the first two years felt that CAM had no real effect. One possible explanation for this can be the structure of the medical education in universities. The first 2-3 years are mainly dealing with "scientific" subjects dealing with basic biological and medical facts. Later on as practical and clinical subjects are starting their view of health-care becomes more and more graded. Those who used CAM or have been to CAM practitioners were also more in the fourth and fifth years (43%). This ratio is slightly higher than that observed in the general Hungarian population but it is not outstanding in international relation (Lie és Boker, 2004).

Four and fifth year students were more realistic when forming opinion about the position and presence of CAM in the general practice. They have guessed the ratio of usage right and also known about the fact that usually patients do not talk about their CAM related problems with their GPs. They also knew that CAM is not frequently offered to the patients by their doctors.

It must be noted that while medical students claimed that their attitude towards CAM is positive (they were interested and thought that it should be integrated) they had the opinion that doctors have the opposite attitude (neglecting CAM, and refusing to use or propagate it). Two clear conclusions can be drawn from this. First this discrepancy between the attitudes of medical students and practitioners is one obvious source of frustration during a health-care professionals' career. Second, the university years are better for the education and acceptance of CAM since students are more receptive at that point. Thus CAM education would not only supply the students with correct and wide information about alternative methods, but at the same time may prove useful in preventing or reducing the frustration throughout the medical profession. This is a strong argument for integration of CAM into the regular medical curriculum.



## **Conclusion**

According to the 104th § of the Public Health Bill the legal status and regulation of CAM is defined by the 40/1997 (III.5) Governmental decree on holistic medicine activity and the 11/1997 (V. 28.) decree of the Ministry of Social Welfare on the practice of holistic medicine. The declared aim of these decrees was the protection of patients, and to reduce the risk in practicing CAM, therefore branches considered dangerous have been connected to medical degrees. The analysis of the decree proved however, that CAM branches were not divided based upon real risk-analysis therefore it is not fulfilling its purpose. CAM regulation is separated from regular higher education which discloses practitioners from EU law provided benefits and is against the free movement in the EU. Therefore the regulation needs major revision and complete re-phrasing.

The education of CAM is increasing in developed countries. My survey (dealing with EU countries, Switzerland and Norway) proved however that the number of faculties teaching CAM had not increased in spite the social demand. Thus social demand in itself is not enough to form medical curriculum. International integrated training programs offered by medical university associations may speed up the process.

The survey conducted among medical students in Debrecen showed that they are interested in CAM feel the need to integrate the education of CAM into medical curriculum and think that general practitioners should have knowledge of CAM which is above the average level. Students felt that their attitude is more accepting than that of the doctors. This is a strong argument in favor of educating CAM in the gradual courses rather than in the post-graduate training of doctors. Based on the above results, in 2004 I have organized a course dealing with the different CAM branches at the Medical Faculty of the University of Debrecen.

## SUMMARY

The thesis investigates the connection between education and regulation of complementary and alternative medicine (CAM). The 1997 decrees made it obligatory to have a medical degree in order to practice several branches of CAM. According to my results the present regulation along with the complexity of the different CAM branches can not ensure the protection of the patients and it is not common in the EU countries.

I have conducted a survey to check the practice of CAM education in EU member state medical faculties. In spite of the increasing number of political and professional statements the number of medical faculties offering CAM education has not increased in the last 5 years. Since there are major differences between the educational practice of EU countries I have checked the relation of the presence of CAM education and social demand for CAM. Social demand was measured using the following indicators: frequency of CAM usage in the population, share of OTC drugs and minerals/vitamins in the overall drug market. I found no relation between the presence or absence of CAM education and the above mentioned indicators. Thus one can conclude that social demand on its own is not enough to shape the medical curriculum.

Hungary has four medical faculties and all of them offer or offered some form of CAM training in the gradual course. My investigation of the attitude of medical students towards CAM clearly shows that most medical students are interested in CAM techniques and that they feel it important to have the teaching of these methods integrated into their curriculum. CAM is more popular among female medical students and students from upper years. This finding is in line with international data.

Up to date there is no common and uniform idea in the EU and in Hungary of how to integrate CAM training in the future. The integration process is slow and confused. However, no matter how slow the integration process is, it is evident that the teaching of certain CAM branches will have to be part of the medical curriculum.

