A study of traditional Chinese medicine education in Hungary based on the comparison of curricula

Doctoral theses

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Introduction

Traditional Chinese medicine has a unique conceptual system and characteristic therapeutic methods. In addition, not only does it have a system of education with an institutional past of over a millennia but also a clearly defined set of educational standards and subject-structure in the modern university education system.

Objectives

The main objective of this research was to appraise the degree to which „traditional Chinese medicine" (TCM) education in Hungary conforms to international standards of TCM education. A further objective was to determine if there are significant differences between TCM programs in Hungary, and if there are, to evaluate the impact their respective differences may have on the theoretical knowledge and practical skills of their graduates. The final objective of this study was to offer suggestions regarding the future perspectives of TCM education and regulation.

A short introduction of the examined education programs

Currently (in the year 2017) there are two training programs in Hungary where the endpoint qualification is "tradtitional Chinese doctor". These are: the five year program of Heilongjiang University of Chinese Medicine at Semmelweis University Faculty of Health Sciences and the two year program of the University of Pécs at the Yamamoto Institue in Budapest. The basic parameters of the two programs are presented in Table I.

Table I. Basic parameters of the examined programs

	„Traditional Chinese medicine (acupuncture-manual therapy)"	**„Traditional Chinese medicine and related techniques"**
Type of program	undergraduate program (B.Sc.)	post-graduate course for M.D.s
Entry criteria	high school diploma	degree in medicine or dentistry
Prior TCM studies	not required	
Duration	5 years	2 years
Attendance	full time	part time (2 days per month)
Obtainable qualification	"traditional Chinese doctor"	
Institution issuing the diploma	Heilongjiang University of Chinese Medicine	University of Pécs
Place of training	Semmelweis University Faculty of Health Sciences	Yamamoto Institute

Methods

Study 1.

Comparison of the two programs based on contact hours devoted to the subjects of traditional Chinese medicine. Using standards established by the Ministry of Education of the P.R.C. and the World

Federation of Chinese Medicine Societies we evaluated the number of contact hours devoted to the core TCM subjects in both programs.

Study 2.

Comparison of the two programs based on contact hours devoted to individual core TCM subjects. We examined which subjects and topics of the TCM core curriculum were covered in the two programs and how many contact hours were devoted to each subject respectively.

Study 3.

Comparison of the number of non-TCM core subjects and the contact hours devoted to these subjects in both programs. We examined what subjects of modern medicine the graduates of both programs had studied and the number of contact hours devoted to these subjects.

Standards used

Basic standard for the traditional Chinese medicine theoretical knowledge and technical skills of undergraduate level traditional Chinese medicine majors published by the Ministry of Education of the P.R.C. and *World Standard of Chinese Medicine undergraduate (Pre-CMD) Education* published by the World Federation of Chinese Medicine Societies (WFCMS).

Results

Results of study 1.

The comparison of the total number of contact hours devoted to TCM core subjects is detailed in table II.

Table II. Total number of contact hours for TCM subjects

	„Traditional Chinese medicine (acupuncture-manual therapy)"	**„Traditional Chinese medicine and related techniques"**
Required TCM subjects	1242	320
Elective TCM subjects	0-504	0-24
TCM clinical practice	2720	120
Total TCM contact hours	3962-4466	440-464
Ratio	9,3:1	

The number of contact hours devoted to core TCM subjects in the curriculum of the „Traditional Chinese medicine and related techniques" program is less than the minimum set by the WFCMS undergraduate standard (1500 TCM classroom hours and 1500 TCM clinical practice). The number of contact hours devoted to core TCM subjects in the „Traditional Chinese medicine (acupuncture-manual therapy)" program meets the standard requirements.

Results of study 2.

Table III. shows the comparison of the individual core TCM subjects in the two programs.

Table III.: Contact hours for individual core TCM subjects

Name of core TCM subject	**„Traditional Chinese medicine (acupuncture-manual therapy)"**	**„Traditional Chinese medicine and related techniques"**
Core TCM subjects present in both programs		
Introduction to Chinese medicine	18	8
Theoretical foundations of TCM	90	84
TCM diagnostics	90	84
Channels and acupoints	72	48
Needling and moxa technique	36	24
Acupuncture therapy	54	48
Manual therapy techniques	54	8
Clinical manual therapy	72	
TCM materia medica	108	8
TCM Formulas	90	
Total	684	312

Core TCM subjects not present in both programs		
Clinical TCM subjects		
TCM internal medicine	126	0
TCM gynaecology	72	0
TCM paediatrics	36	0
TCM traumatology	36	0
Total	270	0
Subjects of TCM classic texts		
Selected acupuncture classics	72	0
Classical medical literature	72	0
Chinese medical history	36	0
On cold damage	54	0
Prescriptions of the golden coffer	54	0
Total	288	0

Some basic core TCM subjects are taught in similar contact hours in both programs. Nine core subjects are absent and a further four subjects have only a symbolic number of contact hours (4) in the „Traditional Chinese medicine and related techniques" program. The missing core subjects are clinical subjects and subjects of TCM classical texts. Due to these deficiencies the „Traditional Chinese

medicine and related techniques" program fails to meet the WFCMS standards, while the number of subjects and contact hours of the „Traditional Chinese medicine (acupuncture-manual therapy)" program is adequate according to the standards used.

Results of study 3.

Comparison of non-TCM core subjects (subjects of modern medicine) studied by graduates of the two programs was carried out by adding the curriculum of Semmelweis University Faculty of Medicine to the curriculum of the "Traditional Chinese medicine and related techniques" program. The reason for this being that a degree in medicine or dentistry is the entry requisite for this program. Thus a comparison between modern medicine subjects studied by graduates of both programs examined in this study could be carried out, as shown in Table IV.

Table IV. Non-TCM core subjects learned by the graduates of the two examined programs

„Traditional Chinese medicine (acupuncture-manual therapy)" curriculum		***Faculty of Medicine*** curriculum	
Name of subject	Contact hours	Contact hours	Name of corresponding subject(s)
REQUIRED SUBJECTS IN BOTH CURRICULA			

Anatomy	108	324	Anatomy, histology and embryology I.-IV.
Histology and embryology	36		
Neuroanatomy	36		
Medical cellular biology	54	36	Medical biology
Physiology	90	240	Medical physiology I.-II.
Biochemistry	54	156	Medical biochemistry I.-III.
Pathology	72	168	Pathology I.-II.
Microbiology and immunology	72	120	Medical microbiology I.-II., Immunology
Medical Latin	18	48	Latin I.-II.
Pharmacology	54	120	Pharmacology and pharmacotherapy I.-II.
Diagnostics	126	252	Pathophysiology and clinical laboratory diagnostics I.-II., Laboratory medicine, Medical imaging techniques, Introduction to

			internal medicine, Radiology
Medical ethics	36	24	Bioethics – medical ethics
Medical genetics	36	48	Genetics and genomics
Internal medicine	126	312	Internal medicine I.-V., Pulmonology, Urology
Gynaecology and obstetrics	54	72	Gynaecology and obstetrics I.-II.
Surgery	54	132	Experimental and operative surgery, Surgery I.-III.
Neurological locational diagnostics	54	84	Neurology I.-II.
Neurology	54		
Rehabilitative medicine	36	24	Rehabilitation
TOTAL	1170	2200	
SUBJECTS REQUIRED IN ONE CURRICULUM, BUT ELECTIVE IN THE OTHER			

Medical informatics systems (elective)	18	36	Biostatistics and the basics of informatics (required)
Applied computer technology in medical devices (elective)	36		
-	0	72	Medical chemistry (required)
-	0	72	Medical biophysics I.-II. (required)
Medical sociology (elective)	18	24	Medical sociology (required)
-	0	14	First aid (required)
-			
Basics of medical molecular biology (elective)	36	72	Molecular cellular biology (required)
The art of communication (elective)	18	60	Behavioral science I.-II. (medical communication and medical psychology) (required)
Applied psychology (elective)	36		
-	0	8	Medical basics of catastrophe management I.-IV. (required)

Preventive medicine (elective)	36	96	Epidemiology and preventive medicine I.-II. (required)
TCM otolaryngology (elective)	36	36	Otolaryngology (required)
-	0	48	Dermatology (required)
Stomatology (elective)	18	24	Oral surgery and dentistry (required)
TCM orthopaedics (elective)	36	36	Orthopaedics (required)
	0	24	Psychotherapy in medical practice (required)
TCM paediatrics (elective)	36	120	Paediatrics I.-II. (required)
-	0	84	Psychiatry I.-II. (required)
Medical law (elective)	18	24	Medical law, insurance and economics (required)
Inrtoduction to medical economics (elective)	36		
Medical insurance services (elective)	18		

-	0	12	Oxyology – emergency medicine (required)
General medicine (elective)	36	12	Family medicine (required)
-	0	24	Intensive care and aenesthesiology (required)
-	0	36	Traumatology (required)
-	0	36	Forensic medicine (required)
Opthalmology (elective)	36	48	Opthalmology (required)
TOTAL	432	1018	
CLINICAL PRACTICE			
Clinical practice in a teaching semester (6th semester) (9 weeks)	480	24	Clinical introduction (2 hrs/week)
		160	Nursing summer practice (4 weeks)
		160	Internal medicine summer practice (4 weeks)
		160	Surgery summer

			practice (4 weeks)
Final year clinical practice (42 weeks)	2240	2240	6th year clinical practice (42 weeks)
Total contact hours without clinical practice	1674	3622	
Total contact hours for non-TCM core subjects	4394	6366	
RATIO	1:1,45		

The number of contact hours devoted to non-TCM core subjects (modern medicine subjects) in the „Traditional Chinese medicine (acupuncture-manual therapy)" program meets the criteria set by the WFCMS standard. However this number is well below the number of contact hours devoted to these subjects in the curricumum of the Faculty of Medicine. Furthermore in comparison some basic core subjects are missing and certain clinical core subjects are only elective in the curriculum of the „Traditional Chinese medicine (acupuncture-manual therapy)" program.

Conclusions

Traditional Chinese medicine education, and the profession itself, may be said to be in its infancy in Hungary. Even the current laws and regulations tend to use rather vague terminology. Currently, in order to practice the profession designated as “traditional Chinese medicine” graduation from the program “Traditional Chinese medicine and related techniques” is necessary, but this program fails to meet the requirements of a standard TCM core curriculum, only teaching a fraction of TCM knowledge and techniques. The first education program that meets international TCM education standards, the five year “traditional Chinese medicine (acupuncture-manualtherapy” undergraduate program has been operating in Hungary for over 7 years now, but graduates cannot practice “traditional Chinese medicine”, only the professions designated as “acupuncture”, “acupressure” and “oriental movement and massage therapy”. In these three areas permits are given, but by law there is no actual recognition of qualifications and no admission to the directory of health care professionals. This legal situation is already a significant improvement, since as of 2013 is has become possible to practice acupuncture with a 5 year undergraduate TCM degree in Hungary. However if we consider current regulations in light of the findings put forth by this research, it may not seem to overly bold to suggest that further corrections of this legal framework may be in order.

It would be more accurate to change the name of the “Traditional Chinese medicine and related techniques” program to “Acupuncture and related techniques” or perhaps to “Medical acupuncture and related techniques”. It would likewise be reasonable to change the

obtainable qualification to “medical acupuncturist” or “acupuncture doctor/physician” instead of using the term “traditional Chinese doctor”. Following this logic, the profession currently labelled “traditional Chinese medicine” should rather be called “medical acupuncture.”

Graduates of the five year TCM undergraduate curriculum should be able to practice “traditional Chinese medicine”, including all of its therapeutic modalities (especially acupuncture, Chinese manual therapy and Chinese herbal medicine). In accordance with the current situation in western countries, their scope of practice should be limited to traditional Chinese medicine only, but at the same time better integration of TCM professionals into the Hungarian health care system is needed. TCM professionals should be included in the national healthcare register, they should participate in obligatory continuous education and the exact legal boundaries of their profession should be in realistic alignment with their training.

When establishing local TCM training programs international standards regarding content and duration should be observed, but they should also be tailored to characteristics of the local health care system – especially regarding the subjects of modern medicine. The question of how to name the TCM profession in Hungary is also one to be solved in the future. The current legislation calls TCM professionals “persons holding diplomas in the field of traditional Chinese healing.” If we acknowledge that there is a field of knowledge called “traditional Chinese medicine”, then might it not be considered more fitting to call those professionals who have graduated from a training program which conforms to the standards

of TCM undergraduate education “traditional Chinese doctors” and their profession “traditional Chinese medicine”?

The question of what education programs are the most adequate for training professionals who are to carry out traditional Chinese medicine treatments is one that goes beyond the realms of education and legislation: it may also be of great importance in clinical research. It may be reasonable to suppose, that graduates of a training program that fails to meet international TCM education standards will not be able to adequately reproduce the therapeutic methods of Chinese medicine in a clinical study. It is possible, that a training program of a couple hundred contact hours and of several thousand contact hours in TCM will result in graduates with greatly differing clinical skills, thus significantly altering the results of clinical trials. As an example one of the largest scope acupuncture trials (GERAC) may be cited, where the educational requirement for acupuncturists performing treatments was a course of less than 200 contact hours! The question arises: are the results of such trials also relevant to treatments carried out by TCM professional graduating from standard education programs? The relation between different types of TCM education programs and the results of clinical trials remains yet to be explored.

List of publications

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