

## Changing the paradigm—Teaching Western Style Acupuncture in Portugal



A. Encarnação<sup>a,b,c,\*</sup>, H. Pinto<sup>a,b,c</sup>, H. Pinto Ferreira<sup>a,c,d</sup>

<sup>a</sup> Competence in Medical Acupuncture

<sup>b</sup> Organizing Commission of the University of Minho Scholl of Health Sciences Post-graduation Course on Medical Acupuncture

<sup>c</sup> Organizing Commission of the Nova University of Lisbon School of Medical Sciences Post-graduation Course on Medical Acupuncture

<sup>d</sup> Health Centre of Alcântara

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### ABSTRACT

In the past, the teaching of acupuncture to medical doctors in Portugal was mostly linked to Traditional Chinese Medicine (TCM) concepts. The presentation of the complex TCM diagnostic methods and treatment strategies to medical doctors touches the frontier of “suspension of disbelief” in order to be able to understand and, in particular, apply those concepts to the treatment. Most of the TCM concepts are almost impossible to translate to western medical terms, making the communication among health professionals difficult, thus preventing acupuncture from integrating into current health care.

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Since 2010, there have been Western Style Acupuncture (WSA) courses running in two leading medical schools in Portugal. So far, almost 100 medical doctors have been trained in WSA. The demand for this technique among the medical doctors is increasing, after the success in the integration of this practice on their medical teams by the former students.

The authors revise the history of acupuncture teaching for medical doctors in Portugal and the experience of teaching WSA since 2010.

WSA is a straight-forward approach to acupuncture for most medical doctors. The author's experience on the teaching demonstrates its benefits, allowing more patients to have a safer access to this therapeutic technique, within the scope of public health care.

### 1. Background

The practice of acupuncture among Portuguese physicians has a long history, and today there are still doctors who have been practicing acupuncture for more than 30 years. Most of them learned the technique in different schools, mostly French, in the late 1970s and early 1980s.

In the mid-1980 the first course on Acupuncture exclusively for medical doctors, taught by Portuguese teachers ran for a couple of years.

In 2001 the Portuguese Medical Acupuncture Society (S.P.M.A.) was created intending to foster the development of the technique in

the medical profession. In May 2002, the Portuguese Medical Council established a Competency in Medical Acupuncture, to regulate the scope of practice and define the skills that a medical doctor should have in order to be allowed to practice acupuncture. At that time, about 70 doctors with proven practice of medical acupuncture were certified.

Next year, at the Instituto de Ciências Biomédicas de Abel Salazar (ICBAS) of the University of Porto held the first Medical Certified Course of Acupuncture and since then, three more courses running in different medical schools followed, making 240 the total number of medical doctors that have been trained in acupuncture in Portugal, until now. By the late years 2000s, considering the basic and clinical research results on acupuncture, it was felt that a more practical, less TCM based acupuncture teaching program was required. Inspired by that perceived need, in 2010, the first edition of the Medical Acupuncture Course at the Medical School of the Universidade Nova de Lisboa took place, followed in 2012 by the School of Health Sciences of the University of Minho, in the north of Portugal. At the moment, about 100 medical doctors finished this program and were able to integrate acupuncture as a therapeutic technique in their common practice, in their hospitals and health centers and private practices.

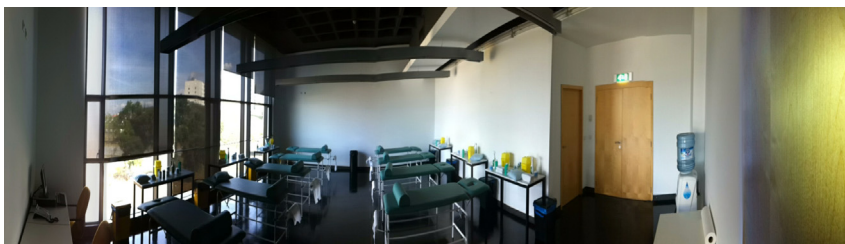
In 2014, at both Universities following editions are scheduled.

### 2. Developing the course program

When developing the course program, our previous experiences in learning and teaching acupuncture were taken into account, and the course was built keeping in mind two defining ideas to teach safe and efficacious acupuncture treatments. The first was the perception that most of the teaching time had to be

\* Corresponding author at: Organizing Commission of the University of Minho Scholl of Health Sciences Post-graduation Course on Medical Acupuncture.

E-mail address: [antoniopauloencarnacao@yahoo.co.uk](mailto:antoniopauloencarnacao@yahoo.co.uk) (A. Encarnação).



**Fig. 1.** Practical classroom University of Minho Medical Faculty.



**Fig. 2.** Theoretical and practical classroom University Nova of Lisbon Medical Faculty.

devoted to physiology and “re-learning” anatomy. The other was the need of needling practice as a significant part of the contact time.

With these ideas present, the course program was set as a 300 h program, 150 h of those being contact hours, the total needling practice time accounting for about 50% of the contact time. The remaining 150 h were dedicated to homework assignments,

constituted by reading and answering questions about relevant scientific papers that complement the previous contact unit (mostly on acupuncture and physiology), reviewing the subjects of the previous unit and studying anatomy.

The 150 h of contact time were divided into 6 periods of 25 h units, running from Friday through Sunday, with 3–4 weeks interval.



**Fig. 3.** 1st Post Graduation Course at the University Nova of Lisbon anatomical theatre with the cadavers.





**Fig. 4.** The theoretical classroom at the University of Minho Health Sciences School.

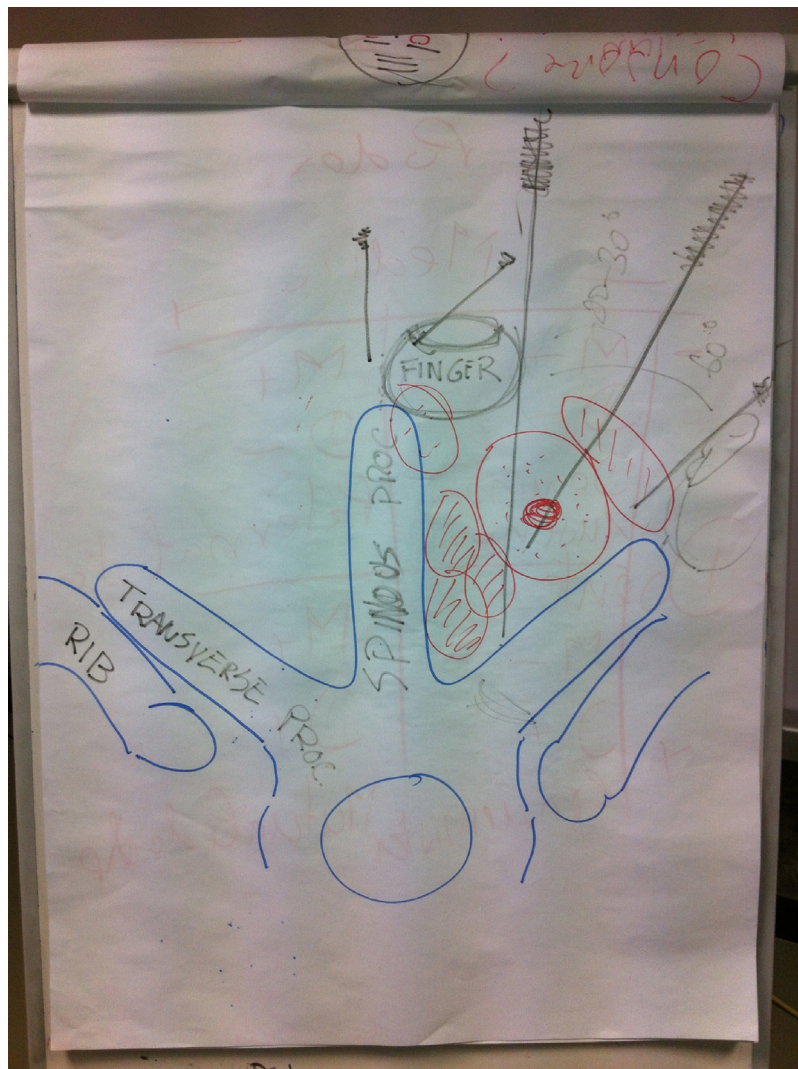
Practical classes were always a mainstay of the course, and great attention was given to teach correct needling techniques. In order to meet this goal, the student/instructor ratio was never higher than 8/1. In the practical classes, students were divided in pairs not fixed, allowing that at the end, all students would have needled and had been needled by all other students. In order to have a better learning experience, the practical class room is equipped with one treatment table for each pair of students (Figs. 1 and 2).

Throughout the Units, anatomy and physiology study remained a focal point. In the first Edition of the Lisboa Course, real anatomical specimens were prepared for “live” teaching of the insertion locations, being an interesting experience, enabling the students to review the relation of the insertion with the neuro-vascular

structures, and get acquainted with gross and already forgotten anatomy. Unfortunately, and even if we believe it would be helpful for medical doctors to have contact with anatomical specimens, the costs were impossible to keep, and those classes were not available in the next Editions. Since then, anatomy is learned on specific anatomical software, and greater attention has been given to surface and functional anatomy (Fig. 3).

### 3. The course program today

Since the first Edition of the Course, in 2010, the program has evolved, in response both to difficulties reported by the students, as well to the instructor’s perception of the more troublesome issues,



**Fig. 5.** Drawing of the muscles being needled at a practical workshop on the 2nd weekend of the Lisbon Post Graduation Course.

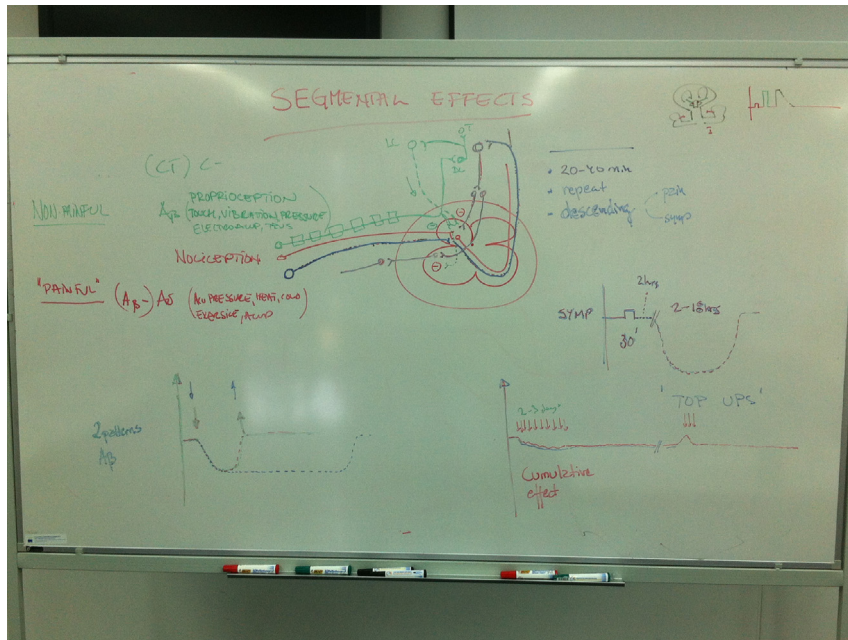


Fig. 6. Physiological aspects of pain and electroacupuncture on the 2nd weekend of the University of Minho.

improving the resources that were identified to be insufficient. Specifically, more time has been devoted to practical examination skills and to the design and performance of the treatment protocols. Instead of teaching “recipes”, attention has always been focused on developing learning skills to evaluate a specific problem, enabling the students to use the knowledge acquired to define their own treatment protocol. The exchange of ideas between the medical students and teachers promotes a continuous learning experience for both, based on the best scientific practice (Fig. 4).

In the first unit, the covered subjects are the East and West acupuncture history, regulation of acupuncture practice and the legal requirements of practice in Portugal. A purely historic perspective of the basic principles of Chinese Medicine is presented to the students. Evidence-based acupuncture practice, indications,

contra-indications and adverse effects of acupuncture are also subjects covered in this unit. Needling practice is started in the first unit (usually in the first day), with manual and electrical acupuncture practical workshops, alongside with the study of anatomy, specifically of the first insertion locals (“acupoints”).

The second unit is devoted to the physiological bases of acupuncture, and the dry needling techniques for the treatment of the myofascial syndromes. Theoretical classes and practical physical and needling workshops are entwined during the entire unit. Since last year, generally between the first and second units, a satellite conference on the Physiology of Pain has been included, making the integration of the concepts presented in unit 2 easier (Figs. 5–8).

On unit three the focus is on the segmental, extra-segmental and central effects of acupuncture. The effects of acupuncture on the

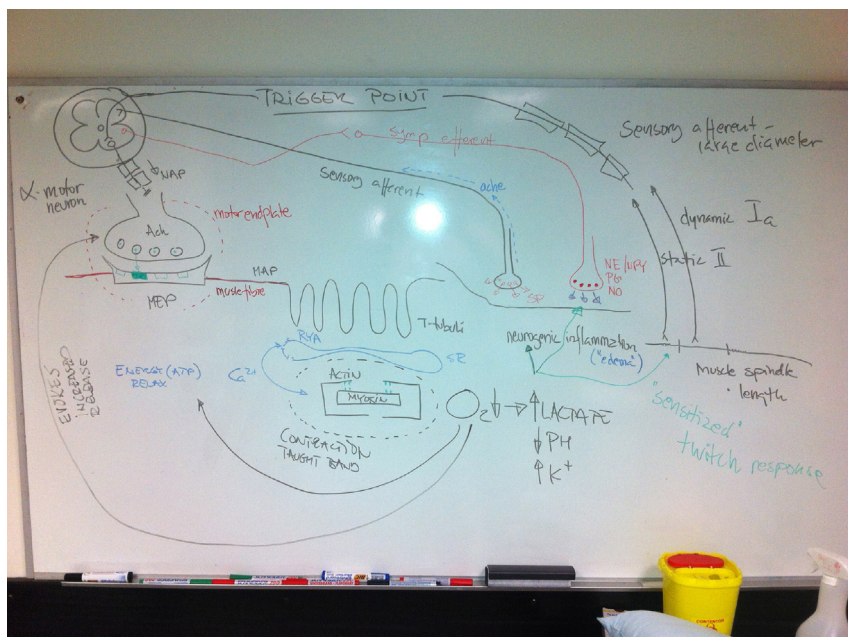


Fig. 7. Physiological aspects of a trigger point being taught at the University Nova of Lisbon.





**Fig. 8.** practical workshop introducing needle stimulation with electrical handheld device for assessment, diagnostic and treatment.

function of the autonomic nervous system, and how those effects can be used to influence the different organ systems and their functions, are the main subjects learned by the students. Needling workshops are directed to safe needling of the para-spinal muscles, abdominal wall and distal insertions of the limbs. By the end of this unit the students are able to elaborate protocols for the treatment of functional internal organ problems (Fig. 9).

The fourth and fifth units are directed to the treatment of muscle-skeletal problems of the upper and lower extremities. Following the previous Units program on local, segmental and central effects of acupuncture, the students learn how to use different insertion techniques, combining dry needling of trigger points with segmental and extra-segmental electro-acupuncture. Also, diagnostic evaluation tests of the locomotor apparatus are reviewed, so that proper treatment protocols may be designed. Once more, attention is dedicated to problem-solving, rather than teaching “cook book” protocols.

Unit six is dedicated to the treatment of axial musculo-skeletal problems, as neck and head pain, low back pain, complex pain situations, when acupuncture may be used as a complementary treatment technique. The last day is dedicated to the preparation of the final examinations.

#### 4. Evaluation process

Five theoretical tests are taken during the Course, from unit 2 to 6. Finally, all students go under two practical tests, one on anatomy and basic needling technique, and a final test in which they have to design and execute a treatment protocol for a randomly chosen problem.



**Fig. 9.** Needling workshop with review of anatomical references on each other.



**Fig. 10.** The muscle-skeletal assessment, one of the major assets of the Post Graduation Courses.

## 5. Assessment

During the 4 years of WSA courses running in Portugal, almost 100 medical doctors have been trained in this technique. The student reviews have been very rewarding, and even a few students that had previous training in TCM, found WSA much easier to learn and closer to their daily practice (Fig. 10).

In the 5 editions that were held, most of the doctors seeking training in acupuncture were specialists of anesthesiology, most of them worked in Pain Units, being very interested in treating chronic pain, Physical Medicine and Rehabilitation doctors, whose main interest was muscle-skeletal problems, and general practitioners, who wanted to learn acupuncture to help their patients with pain, depression, anxiety, sleep and eating disorders, fertility disorders, among other problems. There has also been a steady flux of Rheumatology and Sports Medicine specialists, and fewer numbers of other specialists.

Coming from different backgrounds, all of them brought their knowledge to the course and the contact with those different experiences has been very interesting for all of the participants, students and instructors alike. At the end of the courses all spoke the same language, WSA being their common ground.

## 6. Conclusion

When the idea of developing a WSA program in Portugal arose in 2009, we could not predict that after less than four years, 5 editions would have been conducted and two more are on the way. We were far to think that in 4 years, almost 100 doctors will have trained in this technique, and that the acceptance from the Portuguese medical community would be so enthusiastic.

Our experience and the success of the courses has made us more assured that teaching acupuncture to medical doctors is best achieved by teaching WSA, focusing on the needling technique and basing the treatment plans in sound knowledge of anatomy and physiology, which are the basis of good medicine practice. At the end of the teaching program, students have learned the basic skills needed to safely and effectively practice acupuncture and feel motivated to introduce acupuncture into their practice.

We have found that the integration of western style acupuncture into mainstream orthodox medicine is easier, becoming another therapeutic technique included in the course of usual medical care.