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LETTER TO THE EDITOR

EXPLORING A LONG-TERM GLOBAL APPROACH FOR MUSCULOSKELETAL ULTRASOUND TRAINING: WORLD-MUSCULUS

The role of musculoskeletal ultrasound (MUS) in Physical and Rehabilitation Medicine (PRM) is becoming increasingly consolidated (1–5). There is consensus that the ultrasound is, or should be, the "stethoscope" of musculoskeletal physicians (4, 6, 7). While ultrasound is a relatively inexpensive, portable and reliable diagnostic tool in sports medicine and rheumatic diseases (3), only a minority of PRM physicians are able to use MUS in clinical practice due to lack of access to equipment and lack of appropriate training (3).

There has been a recent increase in MUS education alternatives worldwide (8); however, due to the nature of this education (i.e. a lengthy process necessitating close mentorship) and lack of long-term training initiatives, many colleagues fail to continue training after attending several short-term courses. Thus, there is an inadequate level of knowledge about this technique (9). In this context, after having organized the first World Musculoskeletal Ultrasound Study Group) (WORLD-MUSCULUS) course in São Paulo, Brazil in August 2012, we took into consideration that participants' skills need to be maintained or further improved under the supervision of experts in the field. Thus, in the light of our previous experiences with EURO-MUSCULUS (8), we are now developing a long-term course using a learning platform called WORLD-MUSCULUS, which will be similar to the collaborative platform used by a large international course on clinical research methodology run by Harvard University and the University of São Paulo (10, 11). We hypothesize that a similar collaboration using state-of-the-art tele-medicine tools could be used to accomplish the need for long-term training in MUS of professionals across different regions. This initiative would indeed be a paramount attempt to overcome the obstacles of improving postgraduate training in the field of PRM.

We plan to use a novel global training programme based on a collaborative learning method using the tools of Web 2.0. The platform allows delivery of up-to-date and state-of-the-art distance-learning courses, combining traditional and novel learning approaches that can be broadcasted to several participating centres around the world. Two main features of this approach are interaction and collaboration, which are critical aspects in promoting learning in the context of distance-learning courses. Some of these features include discussion forums, blogs, weekly polls, podcasting and case-discussion group-projects, whereby students work on a challenging case related to the module using the Wiki platform. In addition, interactions with faculty and staff are made via chat and a 2-way video-conference system. In summary, 3 methods of learning using techniques of computer-supported collaborative learning are combined in the programme: web-based learning, collaborative learning, and problem-based learning. Web-based learning consists of using the internet as a support platform to the course. Collaborative learning comprises stimulation of experience and knowledge sharing among participants. The idea is that participants work together toward common goals and each can contribute to fill in gaps in knowledge, therefore using the concept of learning through teaching. In problem-based learning, students are placed in an active problem-solving environment and trained to identify what they need to learn to solve the problems presented, thus filling their previous knowledge gaps.

In this sense, what we seek to organize with our pre-existing infrastructure is first to enrol colleagues who have previously attended our MUS courses and need to continue their long-term training. Secondly, we plan to enrol new participants from other areas, especially those with a lack of MUS training courses. Therefore, the format of the courses will be adjusted for both beginner and intermediate sonographers. Finally, we plan to hold a hands-on live workshop in order to complete training during our annual international conferences, so as to provide the appropriate certification. A theoretical and practical examination will be held at the end of the training period.

In summary, while addressing the current challenges, we believe that WORLD-MUSCULUS will initiate widespread long-term internet-based training for MUS imaging. Please be aware that WORLD-MUSCULUS has already "taken off" from Brazil and, with tele-medicine, you do not have to wait for it to land in your country.

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