

intervention needs to be studied and evaluated with appropriate evidence-based rigor or dismissed.

Nonetheless, as we pointed out, academic physiatrists remain keenly interested in learning about new treatment modalities that complement existing ones. Indeed, if the enthusiasm and interest are there, as suggested by our survey, we would conclude that our specialty is uniquely trained to explore further the possibilities of complementary and alternative medicine (CAM). This includes informing residents as well as other specialists about the possible benefits of other treatment forms. We are reminded that "heat" and "cold" modalities were also initially dismissed by other specialties until physiatrists studied them in detail (eg, the work of Kottke,² Lehmann³) and taught them to our residents.

Our article was intended to stir enthusiasm to study and teach CAM in physiatry as a means of advancing the specialty. CAM's importance was recognized by the Canadian Association of Physical Medicine and Rehabilitation, which hosted a workshop on the subject at its June 2000 annual meeting. A full 767-page review of CAM was also recently published in August 1999 in *Physical Medicine and Rehabilitation Clinics of North America*.⁴ Rigorous evidence-based reviews of acupuncture (headache, lateral elbow pain, low back pain, osteoarthritis), mind-body therapies, and manual therapies are some of the CAM modalities accessible through the Cochrane Database of Systematic Reviews.⁵ Further research is necessary, and some of this may come from high-quality residency projects and university-based trials.

Physiatry is a branch of medicine that has the unique skills to study and evaluate the usefulness of CAM.

**Gordon Ko, MD, FRCPC
David Berbrayer, MD, FRCPC
Sunnybrook and Women's College Health Sciences Centre
University of Toronto
Toronto, Ont**

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Interexaminer Reliability and Myofascial Trigger Points

Hsieh et al¹ reported poor interexaminer reliability in the identification by palpation of myofascial trigger point (TrP) features (taut band, local twitch response, referred pain). They compared the abilities of 4 examiners (2 physiatrists, 2 chiropractors) to identify these physical features of the TrP after 6 hours of training with the abilities of 4 like examiners who had no training, but who were given diagrams showing the locations of TrPs in the target muscles. The results of all 8 examiners were then compared with the findings of an expert, whose results were considered the "gold standard." The statistical analysis involved kappa coefficients to assess the significance

of agreement, an appropriate measure but not without its limitations.

The kappa coefficients that indicated degree of agreement were uniformly low when the trained or untrained examiners were compared with the expert and when both groups were compared internally. Agreement approached acceptable levels only for a few features, eg, all examiner agreement with the expert for referred pain from quadratus lumborum muscle TrPs, and all examiner agreement for referred pain from gluteus medius muscle TrPs. There were only a few instances of such agreement noted in the study, leaving the impression that neither trained nor untrained inexperienced examiners can reliably identify the physical features of the myofascial TrP. A close look at the data shows that this is not necessarily true.

The expert found that 90% of all assessments in patients with low back pain (LBP) and 62% of the healthy controls had taut bands, compared with the trained examiners findings of 73% and 62%, respectively. The kappa values were very low, signifying poor agreement. One reason that a kappa value may be low lies in its nature. To have a kappa value that approaches 1.0 (the highest degree of agreement), the target feature must be represented 50% of the time (50% positive, 50% negative).² When the split between presence and absence of a feature is far from 50:50, as it was in each of the 3 features reported in this study, the kappa value will be low, regardless of the degree of agreement among the examiners. In fact, the expert found the taut band to be present in most of the subjects with LBP, and found that few of the subjects and controls had either local twitch responses or referred pain. Thus, the low kappa values themselves should not be construed to mean that training is ineffective, but rather that there was not an equal representation of subjects with and without these features.

Nevertheless, the implications of the study are important. Finding the taut band associated with the trigger point is the most important aspect of the physical examination, in our experience, because the taut band distinguishes the myofascial TrP from other causes of muscle pain, such as fibromyalgia and drug-induced myalgia (eg, from the "statin" drugs used for lowering cholesterol). In our study³ of interrater reliability, the local twitch response was the most difficult sign with which to achieve interrater reliability. It is not required, in our opinion, to identify a TrP, and it is highly dependent on the muscle examined as well as the examiner's skill. Referred pain, which requires the examiner to press the TrP zone, wait 2 to 5 seconds, and ask the person if pain is felt elsewhere, requires less skill. It is dependent on the palpation pressure, patience to wait a moment, and a response from the subject. It showed little difference between trained, untrained, and expert examiners in the Hsieh study.¹ Although characteristic of the TrP, it, too, is not an essential identifying feature of the TrP.

However, there was a beneficial effect of training to identify the most important feature of the TrP, the taut band. Without the taut band, the TrP cannot be reliably located. Thus, at least 1 aspect of the training was effective.

We share Hsieh's concern about the need to develop effective training methods and to evaluate them, as they have attempted to do in this study. This the first study that we know of in which training methods to identify the features of myofascial pain syndrome physical findings have been assessed. As such, it is a model for the general problem of evaluating the effectiveness of continuing medical education (CME) programs for physicians who take short courses to learn new methods and skills. This study points out both the difficulties of properly teaching a

subject and the problems of assessing knowledge when evaluating teaching effectiveness. There is no independent means of identifying the TrP features to be examined other than by palpation, so interrater comparisons and comparison with 1 or more experts seem to be the only means of assessment. However, there are difficulties with such a comparison as an outcome assessment. For example, subjects reported the expert's palpation to be more forceful than the trainee's palpation. One could question the attempt to use standardized forces of palpation, something notoriously difficult to accomplish in practice, and not yet shown to be useful in the physical examination of the TrP. In fact, use of a standardized force of palpation was considered and expressly rejected in the only study that showed satisfactory interrater reliability in the examination of TrP features,² because of the variations in the hardness and depth of the muscles being examined.

Involved as we are in the education of doctors in musculoskeletal pain management, and in myofascial pain in particular, both at the resident training level and through CME programs, we also recognize the need to develop a standardized curriculum

that can be shown to be effective, and are working to create such a program.

Robert Gerwin, MD
Johns Hopkins University School of Medicine
Baltimore, MD
Steven Shannon, MD
Walter Reed Army Medical Center
Washington, DC

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