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CORR Insights

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CORR Insights®: Does a Brief Mindfulness Exercise Improve Outcomes in Upper Extremity Patients? A Randomized Controlled Trial

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Where Are We Now?

The clever single-blinded randomized control trial by Westenberg and colleagues demonstrated that a mere 60-second interactive web-based mindfulness video yielded appreciably decreased levels of pain, anxiety, depression, and anger levels in patients with orthopaedic upper extremity symptoms. Individuals in the control group, who read a pamphlet on pain and stress, demonstrated measurably less improvement in all parameters. In addition, the intervention proved feasible and patients clearly accepted the mindfulness-based approach.

This paper may prove to be a true landmark event in the crusade for pain reduction in orthopaedic surgery patients. Despite the data to support mindfulness-based interventions in mitigating pain [2, 4, 7], this approach is rarely used in routine orthopaedic practice presumably due to the rather lengthy duration of traditional treatment [3, 6], the need for formal supervision, and its cost.

Pain perception is complex and powerfully influenced by one's emotional state [10]. Further, pain is perhaps the single largest determinant of a patient's perception of health [5]. Sadly, the mind-body connection and the biopsychosocial model of illness are not well-accepted parts of mainstream orthopaedic thinking [12]. Although other investigators have proven the merits of addressing the emotional state of patients in an effort to mitigate symptoms [13], we still have a long way to go before most of us consider treating the psychological aspects of disease in advance of entertaining the notion of surgery.

Where Do We Need To Go?

Practitioners might consider these two reasonable goals: (1) Becoming more aware of emotional contributors to pain such as anxiety and depression and (2) recognizing that stress reduction techniques such as mindfulness, meditation, or yoga may potentially decrease the disease burden of afflictions that generate chronic pain such as degenerative joint disease and neuropathic-related pathology. The principle of "treating the whole patient" must penetrate the consciousness of everyone who wields a surgical blade [11]. Not only will the well-being of patients increase, but surgeons will have a more-accurate appreciation of what conditions truly warrant surgical intervention.

As we see more evidence of mindfulness-based programs demonstrating real improvements in pain for patients with chronic disease [8], perhaps we should only surgically treat those who, after completing similar programs, are still left with considerable dysfunction. When forthcoming studies similar to the

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current study confirm the utility of abbreviated and user-friendly mindfulness-based (or similarly effective) stress reduction interventions, such techniques should become a routine part of the treatment for chronic upper-extremity pain. Ultimately, the consideration of our patients' emotional states should be included in the clinical practice guidelines, and championed by the American Academy of Orthopaedic Surgeons and other governing agencies.

How Do We Get There?

Future research should modify the current study for two fundamental reasons: (1) Determining the durability of this intervention and (2) to apply this and similar interventions to other orthopaedic disciplines. Stress abounds in our society [1], but once stress-reduction practices become a larger part of the routine, I believe that patient satisfaction will increase, and surgeons will have the peace of mind knowing that all nonoperative means were exhausted before incisions are made.

When the data on mindfulness based treatments has incorporated into mainstream thinking, insurers will recognize the benefit to patient satisfaction—the single most important metric in assessing outcomes [9]. I suspect that the low cost and convenience of mindfulness-based techniques, like the ones used in the current study, should not increase costs of immediate care and seem unlikely to impede patient throughput. When payers become enlightened and recognize that happier patients consume fewer resources and ultimately generate less expense, the move to implement mindfulness-based stress-reduction programs will ensue.

Recognition and treatment of emotional imbalance in the musculoskeletal patient must also be included in medical school curriculums as well as residency programs. In addition, mindfulness-based stress reduction techniques should be incorporated into evidence-based medicine recommendations for chronic painful afflictions. As a result, those more likely to benefit from operative intervention will undergo surgery. As a bonus, healthcare providers may recognize the benefits of a mindfulness-based practice on their own lives, which can help them to protect their most precious resource—their own well-being.

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