

LETTERS

Time to change pain paradigms

Drs. Traeger and colleagues¹ identify the continuing increase in societal costs resulting from low-back pain and associated disability. They provide one explanation: that patients are receiving low-value health services from their primary care physicians and that these physicians also underuse treatments known to improve low-back pain outcomes. The emphasis remains on detecting patients with serious physical injuries, despite that perhaps 1% of patients will harbour a serious injury and most pain-related disability is not predicted by injury severity.³ The implication is that many therapies and investigations cause worsened patient outcomes. This implication remains unproven; other explanations are possible.

The present back pain guidelines do not fit with the natural history of low-back pain in primary care: usually, 28%–60% of patients continue to have persistent pain and disability at one year;^{2,3} patients with back pain in primary care report high visual analogue scale levels, which reflect

an extensive activation of a wide neuro-matrix⁴ with high risk for neuroplastic modification; and at least 30% or more of the variation in disability might be explained by patient distress and magnified illness behaviours at first assessment.⁵ Yetn intensive biopsychosocial treatments⁶ and back schools⁷ provide little disability prevention.

Our patients are in severe pain, with high risk for permanent disability and with a brain activation of a wide neuro-matrix of mostly instinctual and emotional centres, and they rightly demand our help. Usually, recommending a hot pack won't cut it.

We may need to accept that the tissue injury model has failed and that a new paradigm is needed but is so far undeveloped. It will need to reflect the experience of primary care and the known natural history of the condition.⁸ One suggestion would be to measure the brain activations of actual patients in primary care — instead of asymptomatic university students — and then adjust interventions to these activations. Perhaps it is time for a paradigm change.

Fred E. Arthur BA MD

Primary Care Physician, Western University, London, Ont.

■ Cite as: *CMAJ* 2018 February 20;190:E200. doi: 10.1503/cmaj.733579

References

1. Traeger A, Buchbinder R, Harris J, et al. Diagnosis and management of low-back pain in primary care. *CMAJ* 2017;189:E1386-95.
2. Henschke N, Maher CG, Refshauge KM, et al. Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study. *BMJ* 2008;337:a171.
3. Rundell SD, Sherman KJ, Heagerty PJ, et al. Predictors of persistent disability and back pain in older adults with a new episode of care for back pain. *Pain Med* 2017;18:1049-62.
4. Legrain V, Iannetti GD, Plaghki L, et al. The pain matrix reloaded: a salience detection system for the body. *Prog Neurobiol* 2011;93:111-24.
5. Waddell G. Chronic low-back pain, psychologic distress, and illness behavior. *Spine* 1984;9:209-13.
6. Marin TJ, Van Eerd D, Irvin E, et al. Multidisciplinary biopsychosocial rehabilitation for subacute low back pain. *Cochrane Database Syst Rev* 2017;6:CD002193.
7. Poquet N, Lin CW, Heymans MW, et al. Back schools for acute and subacute non-specific low-back pain. *Cochrane Database Syst Rev* 2016;4:CD008325.
8. McWhinney IR, Freeman T. *Textbook of family medicine*. 3rd ed. New York: Oxford University Press; 2009.

Competing interests: None declared.