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Letter to the Editor

The Lancet Low Back pain series: A call to action for osteopathy?



The recent release of The Lancet Low Back Pain series recommends a call to action for the urgent global problem of low back pain (LBP). LBP is identified as the leading cause of disability worldwide, which occurs across all income levels, all age groups, and is highest in working age groups. These papers call for thoughtful consideration of the inclusivity of the biopsychosocial framework when managing LBP to provide effective, multidimensional patient centred care. Healthcare providers should carefully consider management strategies and ‘think horses and not zebras’, as rare conditions are called ‘rare’ for a reason. We invite the osteopathic profession to consider these papers as a call to action to review first and second line management strategies for LBP, particularly as it is reportedly the most common presenting complaint in osteopathic practice in Australia [10] [2]; and the United Kingdom [4].

Research has highlighted that there is a gap between the evidence for best management of persistent low back pain and its application in clinical practice. This gap exists for various reasons but the prevalence of disability due to LBP suggests that the needs of those with LBP are not fully addressed by current healthcare approaches. Research has shown that an understanding of LBP and implementing a biopsychosocial management plan are required to enable healthcare providers to implement effective, individualized care [5].

The focus of the first paper in The Lancet series [6] defines LBP and why we need to pay attention. LBP is identified as being a symptom rather than a disease. Identification of a primary nociceptive source (e.g. facet, disc) in the clinical practice setting is not supported by evidence, and red flag conditions causing back pain are rare. Most adults will experience LBP at some point in their lives, and LBP is more common in women than men, with a peak prevalence in midlife.

LBP is a significant public health challenge that can be well managed in osteopathic practice by developing and implementing strategies to identify and address modifiable risk factors [1]. The typical LBP patient that an osteopath is likely to encounter in practice will present with multifactorial contributors to their symptoms rather than a series of isolated, unrelated LBP presentations. Osteopaths should recognize that unique interactions can occur between patient comorbidities, pain processing mechanisms, psychological, social and biophysical factors that lead to varying disability for the patient [6]. By way of an example, there is evidence to suggest that those who catastrophize frequently, are depressed, have intense pain, or hold high fear-avoidance beliefs are more likely to develop persistent pain problems [9]. If these factors are not considered and included in the management plan where appropriate, the management will be deficient and unlikely to result in optimum outcomes for patients.

The second paper in the series focuses on prevention and

treatment of LBP, with a review of current evidence, challenges and future directions. Prevention research provides minimal evidence for strategies such as back belts, insoles and ergonomic workplace interventions. Moderate quality evidence for exercise alone or exercise in combination with education is described as being effective for preventing disabling persistent LBP [12]. Persistent LBP management guidelines from the UK, United States and Denmark recommend advice to remain active, patient pain education, exercise therapy and cognitive behavioural therapy as first line treatments. Spinal manipulation and massage, among other non-pharmacological therapies such as acupuncture, yoga and some medications (NSAIDs, SNRIs) are recommended as second line treatment options. Second line treatment can be defined as treatments that are given when first line treatments stop working or fail to work. There is insufficient evidence to recommend superficial heat, muscle relaxants and paracetamol for LBP [5]. There is preliminary evidence to suggest that osteopaths do engage in the first three of the four listed first line treatments in their practice in conjunction with appropriate multidisciplinary referral and treatment for other contributors to the patients individual pain picture [11], but more research is needed, and osteopaths may need to further enhance their skills and reliance on these first line aspects of care.

It is the responsibility of every practising osteopath to have the knowledge and confidence to provide evidence-based pain and movement education for their patients. Osteopathic professional societies and associations can take the lead by implementing pain education via mandatory approved continuing professional development (CPD) courses. First line treatments - evidence-based pain education, graded exercise therapy and advice - can be followed by manual therapy (massage, spinal manipulation) if first line treatments do not reduce disability associated with LBP. Needless to say, we need to continue to research possible mechanisms of manual therapy to inform future LBP guidelines and strengthen the evidence base for manual therapy interventions.

The final paper, “A call for action”, highlights building patients’ sense of control and positive health via adaptability and building resilience during social, physical and emotional challenges [1]. This can be addressed by educating osteopaths about the causes, risk factors, prognosis and efficacy of treatments for low back pain. Osteopaths are able to participate as primary care professionals in our patients’ multidisciplinary care, if we choose to embrace the challenges of upskilling our understanding of mechanisms and contributors to both acute and chronic pain.

Guidelines for risk assessment in early musculoskeletal pain endorse a combination of interviews, impressions formed during examination, and brief, validated questionnaires [7]. Using validated questionnaires to assess the impact or presence of these

potentially modifiable risk factors may assist osteopaths to incorporate routine screening in all LBP patients. A recent study endorses the use of the following outcome measures, namely the 24 item Roland-Morris Disability Questionnaire (RMDQ-24) to assess physical functioning and the 10-item PROMIS Global Health (PROMIS-GH-10) to assess health related quality of life, which includes items for life satisfaction and mental, physical and social health [3]. Both questionnaires are readily available and free to use.

The three papers presented in The Lancet LBP series provide a framework for the profession to implement evidence-based practice in the management of those with disabling LBP. The evidence presented in these papers is readily implemented in practice. To be truly holistic, osteopaths need to identify and appropriately manage the social, physical and emotional aspects of persistent LBP. This management approach ensures that we continue to work in a multidisciplinary environment for the benefit of the patient and, in turn, make a contribution to decreasing the burden of persistent LBP on society.

Conflicts of interest

Brett Vaughan is an editorial board member for IJOM, but has had no role in review of this submission for publication.

Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.ijosm.2018.04.003>.

References

- [1] Buchbinder R, van Tulder M, Öberg B, Costa LM, Woolf A, Schoene M, Lancet Low Back Pain Series Working Group. Low back pain: a call for action. *Lancet* 2018. [https://doi.org/10.1016/S0140-6736\(18\)30488-4](https://doi.org/10.1016/S0140-6736(18)30488-4).
- [2] Burke SR, Myers R, Zhang AL. A profile of osteopathic practice in Australia 2010–2011: a cross sectional survey. *BMC Musculoskel Disord* 2013;14(1): 227. <https://doi.org/10.1186/1471-2474-14-227>.
- [3] Chiarotto A, Boers M, Deyo RA, Buchbinder R, Corbin TP, Costa LO, Lin CWC. Core outcome measurement instruments for clinical trials in nonspecific low back pain. *Pain* 2018;159(3):481. <https://doi.org/10.1097/j.pain.0000000000001117>.
- [4] Fawkes CA, Leach CMJ, Mathias S, Moore AP. A profile of osteopathic care in private practices in the United Kingdom: a national pilot using standardised data collection. *Man Ther* 2014;19(2):125–30. <https://doi.org/10.1016/j.math.2013.09.001>.
- [5] Foster NE, Anema JR, Cherkin D, Chou R, Cohen SP, Gross DP, Turner JA. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet* 2018. [https://doi.org/10.1016/S0140-6736\(18\)30489-6](https://doi.org/10.1016/S0140-6736(18)30489-6).
- [6] Hartvigsen J, Hancock MJ, Kongsted A, Louw Q, Ferreira ML, Genevay S, Smeets RJ. What low back pain is and why we need to pay attention. *Lancet* 2018. [https://doi.org/10.1016/S0140-6736\(18\)30480-X](https://doi.org/10.1016/S0140-6736(18)30480-X).
- [7] Kendall NA, Burton AK, Main CJ, Watson P. *Tackling musculoskeletal problems: a guide for clinic and workplace-identifying obstacles using the psychosocial flags framework*. London: The Stationery Office; 2009.
- [9] Nicholas MK, Linton SJ, Watson PJ, Main CJ, Decade of the Flags Working Group. Early identification and management of psychological risk factors (“yellow flags”) in patients with low back pain: a reappraisal. *Phys Ther* 2011;91(5):737–53. <https://doi.org/10.2522/ptj.20100224>.
- [10] Orrock PJ. Profile of members of the Australian osteopathic association: part 2—the patients. *Int J Osteopath Med* 2009;12(4):128–39. <https://doi.org/10.1016/j.ijosm.2009.06.001>.
- [11] Orrock PJ. The patient experience of osteopathic healthcare. *Man Ther* 2016;22:131–7. <https://doi.org/10.1016/j.math.2015.11.003>.
- [12] Steffens D, Maher CG, Pereira LS, Stevens ML, Oliveira VC, Chapple M, Hancock MJ. Prevention of low back pain: a systematic review and meta-analysis. *JAMA internal medicine* 2016;176(2):199–208. <https://doi.org/10.1001/jamainternmed.2015.7431>.

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