

Editorial

Virtual Special Issue on low back pain

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This editorial introduces *Journal of Physiotherapy's* first Virtual Special Issue. The format of each Virtual Special Issue will be a collection of papers in a specific field of research, published in *Journal of Physiotherapy* within the past decade and curated to achieve several purposes. Virtual Special Issues will facilitate access to recent important findings in that field from high-quality clinical research. Busy clinicians and academics could use the Virtual Special Issues to identify papers that they have missed in their reading of the literature. Trends in the study designs, methodology, populations and interventions addressed by the research will also be highlighted in an editorial for each Virtual Special Issue. Researchers may also find these Virtual Special Issues useful from a scoping perspective—helping to identify current gaps in the evidence and avenues for further exploration.

The focus of this inaugural Virtual Special Issue is low back pain. Most people experience low back pain at some point in their lives.¹ The global point-prevalence of low back pain severe enough to limit activity was recently estimated at 7.3%, which equates to over 500 million people experiencing it at any given time.² The prevalence of low back pain is also increasing, especially in low and middle-income countries.³ This all contributes to its very high global burden.

Although the majority of acute low back pain cases improve considerably in the first 6 weeks, many subacute cases progress to become chronic and rates of recurrence range from 15 to 84% within 12 months.^{4–6} The recurrent and chronic cases incur a substantial socioeconomic cost. The economic impact related to low back pain is comparable to other major non-communicable diseases such as cardiovascular disease, cancer, mental health and autoimmune diseases.⁷ Replacement wages, despite being provided to a relatively small percentage of cases, account for 80 to 90% of total costs.⁸ This highlights the importance of functional outcomes (such as return to work) for patients, employers and society.

The Physiotherapy Evidence Database (PEDro) indexes over 30 clinical practice guidelines for managing low back pain, which have remarkably similar recommendations.⁹ Nevertheless, a substantial gap persists between evidence and clinical practice.¹⁰ Problems include both overuse of low-value care and underuse of high-value care, as highlighted in the recent *Lancet* series on low back pain.¹¹

Most low back pain does not have a reliably identifiable cause that can be defined in terms of purely structural, anatomical or biomechanical aspects; therefore, guidelines now recommend use of a biopsychosocial model of assessment and management.^{9,12} This is reflected in the papers in this Virtual Special Issue, which have changed over the past decade from examining physical interventions^{13,14} to addressing approaches such as cognitive functional training or the identification of psychosocial

dimensions of low back pain.¹⁵ Because many physiotherapists received their initial training around a more physical approach,¹⁶ issues around the transition of physiotherapists to the biopsychosocial model has also been the focus of much of the recent research in this Virtual Special Issue. For example, Synnott et al initially showed that physiotherapists' recognition of psychosocial factors was limited, with a preference for dealing with mechanical aspects of low back pain.¹⁷ Some physiotherapists stigmatised patient behaviours that were suggestive of psychosocial contributors to low back pain.¹⁷ Many physiotherapists in that study thought their skills and training for dealing with psychosocial factors were inadequate.¹⁷ Physiotherapists' beliefs and attitudes were also shown to influence their management of low back pain. Gardner et al¹⁸ did an extensive review of qualitative and quantitative studies on this topic. They found that a biomedical orientation of physiotherapists was associated with worse outcomes (such as return to work and activities of daily living) and fear avoidance among physiotherapists was associated with worse outcomes (such as time to return to work and activity).¹⁸ Subsequently, Synnott and colleagues showed that physiotherapists' understanding of psychosocial dimensions of low back pain improved after cognitive functional training.¹⁵ In particular, physiotherapists showed increased understanding of pain, the therapeutic alliance, and the role of the physiotherapist's beliefs, confidence and skill in managing biopsychosocial aspects of low back pain.¹⁵

Because biopsychosocial factors can contribute to the persistence of low back pain, examining these factors and their influence on prognosis has become a valuable area of low back pain research. Hallegraef et al¹⁹ examined the prognostic value of patients' expectations about recovery for return to work outcome. Negative recovery expectations strongly predicted future work absence (OR 2.52, 95% CI 1.47 to 4.31). Kendell et al²⁰ showed that, in people with chronic low back pain, the predictive ability of the STarT Back Tool was fair for disability, poor for pain and nil for global perceived change. Therefore, despite the useful predictive value of patients' expectations for recovery in the early stage of low back pain, some aspects of prognosis remain a challenge. Even the 'better' prognostic tools like the STarT Back Tool may not yield clinically worthwhile information in all populations, as shown here for chronic low back pain.

The patients' views have also come under consideration because consideration of the full range of what patients perceive they need in order to manage their low back pain may help to better inform biopsychosocial approaches to management. To this end, Chou et al²¹ undertook a systematic review of qualitative and quantitative studies examining perceived needs of non-biomedical services for low back pain. They found that people with low back

pain identified workplace, financial, social and household pressures as areas of need, beyond their direct healthcare requirements. These needs were perceived as affecting their ability to comply with and actively participate in management of their back pain. Identification of such needs may assist physiotherapists to tackle factors that perpetuate disability related to low back pain.²⁰ The broad range of perceived needs identified by Chou and colleagues reinforces the need for a comprehensive biopsychosocial approach to assessment and management that includes health behaviour change. One such behaviour change is undoubtedly increasing the amount of physical activity, given the value of advice to remain active in the management of low back pain.^{9–12} Iles et al²² examined whether additional support in the form of health coaching may be beneficial in this regard, because it increases activity and improves outcomes in several chronic diseases.²² In a small but high-quality randomised trial, they were able to demonstrate that in people with non-chronic non-specific low back pain and low to moderate expectation of recovery, health coaching improves both recovery expectation and activity-related functional status.²²

In summary, this Virtual Special Issue includes a range of important developments in low back pain research. The study designs address prognosis,^{19–20} treatment,^{13,14,22} and the influence of the beliefs of physiotherapists^{15,17,18} and patients^{19,21} on clinical outcomes. The low amount of research involving children²³ (despite our knowledge that they commonly experience low back pain¹²) shows one avenue for further research, and the underwhelming results in relation to prognosis show another. Importantly, each paper has clear implications for clinical physiotherapists, which are identifiable in the paper's 'What this study adds' summary box.

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