Beliefs, Behavior, and Back Pain:
Insights into Psychologically Informed Management

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Recently, biopsychosocial models have been advocated as a way to effectively manage low back pain, especially as an alternative to prescription of opioids. Biopsychosocial models account for the complex, multifactorial nature of chronic pain, and thereby provide the structure necessary to guide assessment and treatment strategies. Increased uptake in biopsychosocial models by health care providers has spurred interest in psychologically informed pain management.

Psychologically informed pain management differs from traditional medical management by de-emphasizing the importance of identifying a pathological source of pain [1]. This approach is particularly justified for patients with low back pain, as the link between pathology and pain severity is often weak. Instead of focusing solely on patho-anatomical parameters, a psychologically-informed approach considers the cognitive, emotional, and behavioral aspects of low back pain [1]. In turn, pain management shifts to the individual's response to low back pain rather than the cause of low back pain. In psychological informed management, this response is defined broadly by incorporating beliefs and behaviors that shape the overall impact low back pain has on an individual's quality of life.

Over the past 3–4 decades, psychologically informed pain management for low back pain has progressed considerably. There has been clarity in assessment by identifying specific beliefs and behaviors that act as prognostic factors. Treatment approaches targeting beliefs and behaviors have also been refined, with some showing strong promise for improving clinical outcomes. The purpose of this Sidebar is to highlight several key assessment and treatment issues that serve as potential drivers in the evolution of psychologically informed management for low back pain.

Measurement Matters

Historically, there was an interest in identifying dominant psychological constructs associated with poor low back pain outcomes. This pursuit led to the development and investigation of both general (eg, depressive symptoms or anxiety) and pain-specific (eg, fear-avoidance or catastrophizing) questionnaires. However, clear construct dominance has not been established; instead, there appears to be predictive value in assessing multiple constructs. Subsequently, routine psychological assessment for low back pain now involves questionnaires that capture multiple domains in a concise manner (eg, the Orebro Musculoskeletal Pain Questionnaire [2], the Start Back Screening Tool [3], and the Optimal Screening for Referral and Prediction of Outcome Yellow Flag tool [4]). Each of these questionnaires has shown some value in determining the level of pain associated psychological distress and predicting clinical outcomes. Currently, researchers are trying to determine how such questionnaires can be used to streamline clinical care by developing clinical treatment pathways that directly target maladaptive beliefs and behaviors thought to be precursors of chronic low back pain.

Measurement Matters, Part Two

In clinical studies of low back pain, physical function is commonly measured through belief (ie, self-report) rather than behavior (ie, performance). This is an important issue to address because there is a known discrepancy between outcomes derived from self-report versus performance for many patient populations. The evolution for outcome assessment in psychologically informed approaches is to validate methods for "real time" data capture from wearable technologies. Wearable technology will usher in a new era of performance-based outcome assessment by providing a platform to move assessment paradigms away from relying solely on capturing ratings that occurred long after painful events and towards a platform capturing ratings that occur during painful events. This approach provides a more rigorous way to determine when beliefs and behaviors converge and, just as importantly, to deter-

mine when beliefs and behaviors diverge. The added rigor comes from the ability to directly link between the event and pain experienced in "real time," as opposed to having to rely on a retrospective account of what happened. Such an outcome perspective will provide a better indication of the overall effectiveness of psychologically informed approaches for low back pain.

The Only Thing We Have is Fear-Avoidance

The fear-avoidance model of musculoskeletal pain has been a dominant paradigm in guiding psychologically informed treatment approaches [5]. However, there are other relevant psychological models that guide identification of beliefs and behaviors and, subsequently, serve as treatment targets for facilitating better low back pain outcomes. Examples of such models include acceptance and commitment, misdirected problem solving, and self-efficacy [6]. The impetus for the field is to develop treatment approaches following these conceptual models that can be delivered by non-psychologist providers.

Treatment Monitoring

There is inherent value in assessing psychological risk of a poor clinical outcome at baseline and adjusting treatment approaches to mitigate that risk [7]. For example, in a stratified care approach for low back pain, individuals with high risk for continued disability are matched with psychologically informed physical therapy [8-10]. Accuracy of risk assessment at baseline may be improved by monitoring early changes in psychosocial risk in response to traditional management approaches. In a cohort of patients receiving physical therapy for low back pain, the poorest 6 month clinical outcomes were for individuals with high risk scores at baseline and 4 weeks later [11]. The evolution for risk determination is to develop systematic means to assess pain- related beliefs repeatedly after the initial assessment to allow better outcome determination and more efficient use of behavioral treatments.

Conclusion

Psychologically informed pain management is a patient-centered approach that considers beliefs and behaviors while managing low back pain. Instead of focusing only on pathology, the individual's expectations, emotional concerns, and behavioral responses are all considered to inform the design of treatment strategies. The emerging assessment and treatment issues that were discussed will shape future delivery of psychologically informed practice and spur continued advancement in this important area. NCMJ

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