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Masterclass

Thinking beyond muscles and joints: Therapists' and patients' attitudes and beliefs regarding chronic musculoskeletal pain are key to applying effective treatment

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ABSTRACT

It is well established that the biomedical model falls short in explaining chronic musculoskeletal pain. Although many musculoskeletal therapists have moved on in their thinking and apply a broad bio-psychosocial view with regard to chronic pain disorders, the majority of clinicians have received a biomedical-focused training/education. Such a biomedical training is likely to influence the therapists' attitudes and core beliefs toward chronic musculoskeletal pain. Therapists should be aware of the impact of their own attitudes and beliefs on the patient's attitudes and beliefs. As patient's attitudes and beliefs influence treatment adherence, musculoskeletal therapists should be aware that focusing on the biomedical model for chronic musculoskeletal pain is likely to result in poor compliance with evidence based treatment guidelines, less treatment adherence and a poorer treatment outcome. Here, we provide clinicians with a 5-step approach toward effective and evidence-based care for patients with chronic musculoskeletal pain. The starting point entails self-reflection: musculoskeletal therapists can easily self-assess their attitudes and beliefs regarding chronic musculoskeletal pain. Once the therapist holds evidence-based attitudes and beliefs regarding chronic musculoskeletal pain, assessing patients' attitudes and beliefs will be the natural next step. Such information can be integrated in the clinical reasoning process, which in turn results in individually-tailored treatment programs that specifically address the patients' attitudes and beliefs in order to improve treatment adherence and outcome.

1. Introduction

Chronic musculoskeletal pain is a complex and challenging medical problem. Therefore, it is a challenging issue for researchers and clinicians, including manual therapists. Over the past decades, scientific understanding of chronic musculoskeletal pain has increased substantially. It is now well established that the biomedical model falls short in explaining and treating chronic musculoskeletal pain: in the majority of patients with chronic musculoskeletal pain, musculoskeletal dysfunctions are unable to fully explain the complex clinical picture of pain complaints, disability and distress (Yunus, 2007; Sterling and Kenardy, 2008). Hence, a biopsychosocial approach to the clinical assessment and treatment is required. More specifically, evidence from published randomized controlled trials addressing rehabilitation of chronic musculoskeletal pain has revealed that self-efficacy, depression, pain catastrophizing and physical activity should be the primary treatment targets for patients with chronic musculoskeletal pain (Miles et al., 2011).

In contrast to the increasing evidence for the biopsychosocial model for chronic musculoskeletal pain (e.g. Guzmán et al., 2001;

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Hoffman et al., 2007; Foster et al., 2010; Pool et al., 2010), the majority of clinicians have received a biomedical-focused training/education. The biomedical focus applies in part to the manual therapy profession as well, with a long history of biomechanical-focused treatments. Such a biomedical training is likely to shape the therapists' attitudes and core beliefs toward chronic musculoskeletal pain, as evidenced by a randomized trial comparing biomedical versus biopsychosocial training about low back pain in physiotherapy students (Domenech et al., 2011).

On the other hand, many musculoskeletal therapists have moved on in their thinking and apply a broad biopsychosocial view with regard to chronic pain disorders. Likewise, an increasing number of musculoskeletal physiotherapy/manual therapy curricula emphasize the biopsychosocial model, and teach behavioral treatments in addition to hands-on treatment. Manual therapy journal has contributed substantially to this development: a large number of published studies and review articles advocate a broader view to musculoskeletal pain (e.g. Ostelo et al., 2003; Sterling and Kenardy, 2008; Nijs et al., 2011a; Mutsaers et al., 2012).

In case the therapist holds strong biomedical beliefs regarding chronic musculoskeletal pain (e.g. chronic low back pain is solely due to instability of the lumbar spine, improper lifting of heavy objects or poor posture; manual therapy for chronic whiplash associated disorders patients should comprise of hands-on muscle and cervical joint treatment solely), the patient will adopt these beliefs accordingly. Indeed, there is ample evidence that the therapists' attitudes and beliefs regarding musculoskeletal pain are associated with the beliefs of their patients and the clinical management (i.e. the nature of the treatment provided) (Darlow et al., 2012). Therapists with a biomedical orientation are more likely to advise patients to limit physical activities and work, implying that they 'teach' their patients to become fear-avoidant (Houben et al., 2005a; Holden et al., 2009; Darlow et al., 2012). Such therapists will unlikely adhere to evidence-based guidelines for the treatment of chronic musculoskeletal pain (Darlow et al., 2012). Likewise, the attitudes and beliefs of general practitioners toward chronic knee pain and knee osteoarthritis are related to the underuse of exercise in the management of these patients, including the low physiotherapy referral (Cottrell et al., 2010).

Taken together, musculoskeletal therapists should be aware of the impact of their own attitudes and beliefs on patient's attitudes and beliefs. It should be noted that many patients hold strong biomedical views on chronic musculoskeletal pain even before their first visit to their physician or therapist. As patient's attitudes and beliefs influence treatment adherence (Nicklas et al., 2010), musculoskeletal therapists should become aware that focusing on the biomedical model for chronic musculoskeletal pain is likely to result in poor compliance with evidence based treatment guidelines, less treatment adherence, and poorer treatment outcome (especially in terms of functional recovery). For instance, research has taught us that treatment expectancy and credibility are of prognostic value to rehabilitation outcome in patients with chronic low back pain (Smeets et al., 2008). The therapists' beliefs and attitudes account for the communication between the therapist and patient, including patient education, which in turn modulates treatment expectancy and credibility. The expectancy and credibility beliefs can be positively influenced by the therapist, but focusing on the biomedical model will result in inadequate illness perceptions in patients, which in turn leads to more negative initial responses to patients (van Wilgen et al., 2012).

So how can musculoskeletal therapists improve their care provided to patients with chronic musculoskeletal pain? How can musculoskeletal therapists improve their compliance with international guidelines for the treatment of chronic musculoskeletal pain? Here, we provide clinicians with a 5-step approach toward effective and evidence-based care for patients with chronic musculoskeletal pain (Fig. 1). In what follows it is important to realise that the biopsychosocial model implies integrated clinical reasoning with respect to biological as well as psychological and social factors. The biopsychosocial model should not be used to ignore biomedical factors.

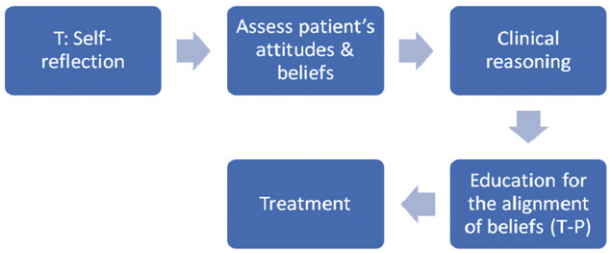

Fig. 1. 5-Step approach toward accounting for the therapist's (T) and patient's (P) beliefs and attitudes regarding chronic musculoskeletal pain in clinical practice.

1.1. Self-reflection as a starting point for clinicians treating patients with chronic musculoskeletal pain

Self-reflection is required for the musculoskeletal health care professionals, even for those who have moved on in their thinking. Indeed, it has been demonstrated that previous (biomedical oriented) treatment by physiotherapists is a risk factor for long-term sick leave in patients with low back pain (Reme et al., 2009). This is remarkable and requires self-reflection from all musculoskeletal therapists treating low back pain patients. It is crucial to analyze the convictions of the therapists that shape their behavior toward the chronic musculoskeletal pain patient and the information provided to patients (Laekeman and Basler, 2008), especially because physiotherapists' attitudes toward musculoskeletal pain has been shown to be predictive of their treatment recommendations (Houben et al., 2005b).

Self-reflection is the first and crucial aspect of the 5-step approach. Broadening the illness beliefs of the therapist from a pure biomedical toward a biopsychosocial perspective is likely to contribute to further improvement of therapeutic strategies and to an improved outcome (Laekeman and Basler, 2008), especially for the treatment of chronic pain. In fact, even manual therapists who learned about the biopsychosocial model might not totally agree with this perspective and might continue preferring treatments based on the biomedical model (Laekeman and Basler, 2008). Hence, it is advocated that all clinicians take this first step. Within this scope it is important to understand that the biopsychosocial model broadens our understanding of musculoskeletal pain, rather than replacing the biomedical model. Biological issues are included in the *bio*psychosocial model as well; the biopsychosocial model does not imply ignoring biological factors.

Musculoskeletal therapists can easily self-assess their own attitudes and beliefs regarding chronic musculoskeletal pain by filling out self-reported measures themselves. Ruminating about pain and hypervigilance to somatic signs can be easily assessed with short self-reported measures with excellent psychometric properties (e.g. the Pain Catastrophizing Scale,[1] Pain Vigilance and Awareness Questionnaire,[2] etc.) (Sullivan et al., 1995; Van Damme et al., 2002; Kraaimaat and Evers, 2003). These questionnaires, validated on patients, should be filled out by the therapist

[1] http://synergytherapiesofkc.com/forms/PCS-Pain%20Catastrophizing%20Scale.pdf.

[2] The questionnaire can be obtained in the original publications of the measure.