Psychologically informed approaches to chronic low back pain: Exploring musculoskeletal physiotherapists' attitudes and beliefs

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1 | INTRODUCTION

In the UK, low back pain (LBP) is the leading cause of disability and accounts for 14% of all primary care consultations (Sowden et al., 2011). The National Institute for Health and Clinical Excellence (2016) guidance for the assessment and management of LBP recommends combined physical and psychological therapies (CPPP) as part of a treatment package. Psychologically informed practice is defined as all treatments in which physiotherapy is delivered within a psychological framework (Wilson, Chaloner, Osborn, & Gauntlett-Gilbert, 2017) and may encompass a plethora of psychologically orientated approaches, such as cognitive behavioural therapy, compassion-focused therapy or mindfulness-based therapies. It is based on identifying psychological and behavioural processes that affect pain perception; the response to the pain experience; and elements which may be modified (Keefe, Main, & George, 2018; Main & George, 2011). Encompassing a biopsychosocial management approach to LBP may be used in combination with other treatment techniques often used by musculoskeletal physiotherapists, such as exercise or manual therapy (Foster et al., 2018; Foster & Delitto, 2011; National Institute for Health and Clinical Excellence, 2016; Sowden et al., 2011). There is growing interest in the use of psychological approaches within the physiotherapy management of LBP in musculoskeletal settings (Artus, van der Windt, Jordan, & Hay, 2010; Foster et al., 2018; Foster & Delitto, 2011; Kamper et al., 2015; National Institute for Health and Clinical Excellence, 2016).

There is a robust evidence base supporting the use of psychological interventions, primarily cognitive behavioural approaches, in LBP and their superiority to minimal or no treatment (Artus et al., 2010; Keefe et al., 2018; Keller, Hayden, Bombardier, & van Tulder, 2007; National Institute for Health and Clinical Excellence, 2016; Oliveira et al., 2012; Wilson et al., 2017). Although attempts have been made to classify and refine interventions, it is unclear exactly which psychological techniques, or combinations, in which clinical setting are most effective (Artus et al., 2010; Keefe et al., 2018; Keller et al., 2007; National Institute for Health and Clinical Excellence, 2016; Oliveira et al., 2012; Wilson et al., 2017). A wealth of research recommends using an assessment tool, such as the Subgroups for targeted treatment (STarT) Back, to stratify patients into subgroups; this supports the delivery of specific, targeted treatments and the identification of patients likely to benefit from CPPP (Hansen, Daykin, & Lamb, 2010; Hartvigsen et al., 2018; Hill et al., 2011; National Institute for Health and Clinical Excellence, 2016; Sowden et al., 2011; Whitehurst et al., 2015; Wilson et al., 2017).

Alexanders and Douglas (2016) and Richmond et al. (2018) highlighted that there have been challenges in the uptake, implementation and delivery of psychological approaches within musculoskeletal physiotherapy practice. There is a lack of clarity as to the reasons behind this, although training, competence, workplace culture and the beliefs of the physiotherapist have been suggested (Alexanders & Douglas, 2016; Houben, Gijsen, Peterson, De Jong, & Vlaeyen, 2005; Richmond et al., 2018; Sowden et al., 2011). Physiotherapists

with elevated fear-avoidance beliefs themselves may be more likely to advise patients to limit work and physical activities, and may be less likely to adhere to best practice guidelines (Darlow et al., 2012). This highlights the potential association between clinicians' attitudes and beliefs, and their management of patients with LBP.

There were several aims to the present study. The first aim was to establish whether musculoskeletal physiotherapists have a more biomedical or biopsychosocial orientation in their approach to LBP management. The second objective was to explore the attitudes and beliefs of those musculoskeletal physiotherapists, their understanding of psychologically informed approaches, and their confidence to use them in clinical practice. The third objective was to determine the LBP management techniques used by these physiotherapists. Finally, we aimed to establish the potential barriers of integrating psychological approaches into a musculoskeletal physiotherapy setting.

2 | METHODS

2.1 | Ethical approval

Completion of the National Health Service (NHS) Health Research Authority decision-making questionnaire indicated that ethical approval was not required. This was confirmed with local peer review of the study protocol by the National Institute of Healthcare Research (NIHR) Collaboration for Leadership in Applied Health Research Team and Care for Greater Manchester (CLAHRC GM) and the University of Manchester.

2.2 | Study design

The anonymous electronic survey was emailed to all 34 physiotherapists employed in musculoskeletal practice at a large NHS Trust in the UK. Participants were asked to consider patients 16 years or over, who had LBP for a duration of 12 weeks or over, with or without sciatica and were without red flags or signs of serious pathology. Any physiotherapists who had not treated a patient with LBP in the last 6 months, and incomplete surveys were excluded.

The survey consisted of three parts: firstly, general information about each physiotherapist; secondly, a Likert scale to assess the physiotherapist's thoughts and opinions surrounding psychologically informed approaches and other treatment techniques; and, thirdly, the 19-item modified Pain Attitudes and Belief Scale, (PABS) to categorize physiotherapists as having a biomedical or biopsychosocial treatment orientation (Houben et al., 2005). The PABS has a six-point scale, from which a respondent indicates the extent to which they agree or disagree with each of the 19 items ("Totally disagree" = 1 or "Totally agree" = 6). The subscale scores are calculated by a summation of the responses to the subscale items: the higher the score on a subscale, the stronger the treatment orientation (Darlow et al., 2012; Houben et al., 2005).

2.3 | Data analysis

IBM SPSS Statistics Version 23 was used for analyses. As data were not normally distributed, descriptive statistics were reported as median and interquartile ranges (IQRs). A Wilcoxon matched-pairs signed-ranks test was used to test for differences between paired variables. Spearman's rho correlation was used to measure the association between variables.

3 | RESULTS

There was a 100% response rate within 3 weeks. One responder was excluded for not having treated a patient with LBP within the last 6 months, and one questionnaire was incomplete. Therefore, 32 surveys were used in the analysis.

The sample comprised similar numbers of men and women (15 men, 17 women) but there was a variation in age (range 21–64 years) and number of years of working (range 1–35 years). Physiotherapists were mainly based in musculoskeletal NHS practice only. Some of the musculoskeletal physiotherapists also worked in home-based physiotherapy, orthopaedics, rheumatology outpatients and in emergency departments.

3.1 | Biomedical or biopsychosocial orientation

Cumulative scores from the PABS were higher for biopsychosocial (median = 36.0, IQR = 4.75) than for biomedical (median = 25.0, IQR =9.75) orientation. Twenty-nine respondents scored higher on biopsychosocial orientation (Wilcoxon Matched Pairs Signed Ranks (WMPSR) $Z = 4.52$, $p < 0.001$). There was a significant negative relationship between self-perceptions of practice as biopsychosocial or biomedical (Spearman's rho = −0.49, $p = 0.004$).

3.2 | Importance of psychologically informed approaches, understanding and confidence

The importance placed on the use of psychologically informed approaches, understanding and confidence to deliver it was measured using five-point Likert scales. All respondents recognized that psychological approaches were important, 18 regarding them as extremely, and 11 as very important (Table 1). A more biopsychosocial orientation correlated with attributing a higher level of importance to using psychologically informed approaches (rho = 0.36, $p = 0.046$). Overall, respondents felt they understood psychologically informed physiotherapy, with only a small number (4/32) of physiotherapists rating their understanding as poor (Table 2). Over two-thirds (23/32) reported that they were somewhat, slightly or not at all confident to use psychological techniques within physiotherapy (Table 3).

3.3 | Treatment techniques used

The treatment techniques used by the respondents are shown in Table 4. The predominant treatments were manual therapy, advice and education, and exercise. The psychologically informed techniques

TABLE 1 How would you rate the importance of psychologically informed approaches to physiotherapy within the management of low back pain?

Extremely important	18
Very important	11
Moderately important	3
Slightly important	0
Not important at all	0

TABLE 2 How would you rate your understanding of psychologically informed physiotherapy?

Excellent	1
Very good	4
Good	16
Fair	7
Poor	4

TABLE 3 How would you rate your confidence to deliver psychologically informed physiotherapy?

Extremely confident	0
Quite confident	9
Somewhat confident	10
Slightly confident	8
Not confident at all	5

TABLE 4 Treatment techniques used in the management of lower back pain

Treatment	Number of physiotherapists using treatment
Manual therapy	19
Acupuncture	9
Exercise	23
TENS	1
Psychological techniques	6
Electrotherapy	0
Injection therapy	4
Advice and education	27
Combined physical and psychological programmes	13

TENS: transcutaneous electrical nerve stimulation.

used were stated as pain education, relaxation, mindfulness, neuroscience education, cognitive functional therapy and cognitive behavioural therapy.

3.4 | Barriers

Physiotherapists reported that reduced knowledge, skills and confidence were barriers to integrating psychological approaches. This was due a lack of funding for training, and availability of a local specialist pain services. Environmental barriers included treatment time constraints, with short follow-up appointments. Practitioners highlighted that the outpatient environment was too busy and lacked privacy for more complex consultations with patients.

4 | DISCUSSION

The perceptions presented by the present sample of physiotherapists may not relate to what actually occurs in clinical practice. Our results showed that the musculoskeletal physiotherapists in our sample had a more biopsychosocial orientation in their approach to LBP management. All respondents recognized that psychological approaches are important in the management of this condition. They felt that they understood the concept, but often lacked the confidence to deliver it. This may be due, to variations in training, which were not explored in this questionnaire, but were highlighted as a barrier to delivery.

Some biopsychosocially orientated physiotherapists who self-reported a good understanding of this approach stated that they did not use psychological techniques, but then, by contrast, went on to describe what could be considered as psychological techniques under the "other" treatments section. This may have been due, in part, to physiotherapists overestimating their understanding. Alternatively, it may have been the result of the lack of an "absolute" definition of psychologically informed approaches in physiotherapy or limited implementation guidelines supporting physiotherapists to assimilate these approaches into musculoskeletal practice.

The physiotherapists in this sample used a variety of treatment techniques with LBP patients, including acupuncture, which is no longer recommended in current best practice guidance (National Institute for Health and Clinical Excellence, 2016). The majority of physiotherapists used exercise as a treatment, but significantly fewer used CPPP. Our findings showed that reported use of CPPP was much higher than that of psychologically informed techniques alone, which may present further evidence of a lack of consensus and understanding. Psychologically informed physiotherapy may be an umbrella term for many psychological techniques, which are therefore open to personal interpretation by individual physiotherapists. This was supported by the wide variety of educational, "other" and "psychological techniques" described by physiotherapists. These included pain education, cognitive functional therapy, motivational interviewing, neuroscience education, cognitive behavioural therapy and mindfulness.

The physiotherapists in this sample reported barriers to delivery which included a lack of confidence, insufficient training, a lack of funding and the unsuitability of the clinical environment. They highlighted that busy musculoskeletal outpatient departments lack the privacy to have the more personal conversations which physiotherapists felt would be required. In order for physiotherapists to support patients to self-manage their LBP, they themselves require the appropriate support, resources, skills and a suitable environment. Our findings were in keeping with the limited amount of available research in this field, particularly in relation to the challenges surrounding delivering psychologically informed approaches within a musculoskeletal setting, and highlighted the need for further learning opportunities for physiotherapists (Darlow et al., 2012; Foster & Delitto, 2011; Main &

George, 2011; Richmond et al., 2018). By identifying specific learning needs, appropriate training opportunities can be supported. This may involve a workplace cultural change or improved knowledge and skills, resulting in a shift in the attitudes, beliefs and management approach of physiotherapists. Training needs may be different for those who have a biomedical orientation than for those with a biopsychosocial orientation. Therefore, training could be specifically tailored to individual learning needs and treatment orientation.

If psychological techniques are to become well established within musculoskeletal physiotherapy, further research into the evidence-to-practice gap, and to define and refine psychological interventions, would be of benefit. This would encompass a clear definition of psychologically informed approaches for physiotherapists, their feasibility and detailed guidance on how to incorporate them into a musculoskeletal setting. To refine the types of psychological techniques, intensity and combinations that are more effective in each clinical setting would support the implementation of current best practice.

5 | CONCLUSION

The physiotherapists surveyed had a more biopsychosocial orientation in their approach to LBP management. They recognized the importance of psychologically informed approaches, but the majority of physiotherapists lacked the confidence to deliver it. The most common treatments used were manual therapy, advice, education and exercise. Some physiotherapists were using treatments no longer recommended in best practice guidelines.

Barriers to delivering psychological interventions included a lack of confidence and training, and an unsuitable clinical environment. Challenging these barriers may result in a workplace where appropriate use of psychologically informed approaches is commonplace. Delivering personalized learning packages, tailored to physiotherapists' individual needs and treatment orientation, may improve confidence, standardize understanding and facilitate the delivery of an effective biopsychosocial model of care.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

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