Should we consider changing traditional physiotherapy treatment of patellofemoral pain based on recent insights from the literature?

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The 2016 international patellofemoral pain (PFP) consensus statement1 suggested exercise therapy targeting the hip and knee, combined interventions and prefabricated foot orthoses can be used to improve pain and function in people with PFP. These recommendations are based on strong foundations including synthesis of multiple high-quality systematic reviews combined with voting from the International Patellofemoral Research Network group.

BUT, IS THIS CURRENT FOCUS ON TRADITIONAL PHYSIOTHERAPY OPTIMAL?

A recent prognostic paper indicated that nearly 50% of people with PFP are likely to benefit from traditional physiotherapy in the longer term.2 However, 57% report unfavourable outcomes 5–8 years after being enrolled in a traditional physiotherapy clinical trial, indicating a need for alternative approaches in these individuals.3

Importantly, patient outcomes may be improved by providing interventions tailored to their needs. Efforts are under way to optimise subgrouping of patients in order to target traditional physiotherapy interventions. The purpose of this Editorial is a ‘call to action’ for researchers and clinicians (see box 1) to also consider exploring, incorporating and tailoring non-traditional physiotherapy interventions to optimise patient outcomes. Based on recent insights contained within two systematic reviews and one randomised clinical trial published in the British Journal of Sports Medicine, this may include weight management, addressing psychological factors and improving the provision of patient education.

Weight management

Hart et al’s5 systematic review highlighted greater body mass index (BMI) in adults with PFP compared with asymptomatic people. There is certainly more research needed to elucidate the nature of the association of BMI with pain in PFP, and to determine whether weight loss reduces pain, or to what extent it alters potential mechanisms for pain such as patellofemoral joint loads. Regardless, as physiotherapists, we should be offering weight management education as part of our treatment. This could enable secondary prevention of BMI-related issues such as knee osteoarthritis, cardiovascular disease, diabetes and other physical and psychological impairments.4

Psychological factors

Limited evidence synthesised in Maclachlan et al’s6 systematic review highlights a number of psychological features which may be elevated in people with PFP, including anxiety, depression, catastrophising and fear of movement.7 Importantly, these psychological features may influence the development of widespread pain, healthcare usage and adherence to traditional physiotherapy treatments such as exercise therapy.8 Therefore, research and clinical practice is encouraged to consider psychological characteristics during assessment, along with the potential value of interventions to address them. We support the recommendations to use the short form Orebro Musculoskeletal Pain Questionnaire suggested by Maclachlan et al7 as a starting point for physiotherapists to implement early in consultation to identify those who may require more detailed assessment and management of psychological factors.

Load management education

Despite a paucity of supporting evidence, international experts propose patient education as a vital component in the treatment of PFP.9 Esculier et al10 recently reported large reductions in running-related pain (2.5–2.9/10) following patient education focused on load management. There were limited additional improvements when this education was combined with 8 weeks of exercise therapy targeting the hip and knee musculature, or running retraining primarily focused on increasing cadence. These findings highlight that a critical treatment component in runners with PFP may be load management education and something not to be missed by physiotherapists.

Moving forward, education of other factors beyond load management may benefit people with PFP. Based on previous suggestions by international experts6 and recent insights from the published literature, other education targets could

Box 1 Call to action

Patellofemoral pain researchers
► Explore the potential benefits of weight management to improve symptoms, function, quality of life and general health of people with patellofemoral pain (PFP).
► Evaluate the influence of psychological factors on patient presentation including symptoms, function and quality of life.
► Evaluate the potential benefits of interventions targeting psychological factors in people with PFP.
► Develop high-quality education resources for patients including an online multimedia platform.

Considerations for clinicians treating patients with patellofemoral pain
► Consider the potential influence of a patient’s weight on rehabilitation outcomes and other general health.
► Discuss the potential influence of PFP on weight and refer for assistance in managing where appropriate.
► Consider early implementation of questionnaires such as the short form Orebro Musculoskeletal Pain Questionnaire to identify those who may require more detailed assessment and management of psychological factors.
► Consider the potential importance of, and place a greater emphasis on patient education, particularly related to load management.
include weight management when appropriate, improving patient understanding and self-management of both physical and non-physical influences on pain, the importance of adherence to exercise therapy and strategies to address fear of movement. 

If education is key, are we doing a good job as educators? How do we empower meaningful behaviour change in our patients? Patient feedback following the use of a published education leaflet indicated that a dedicated multimedia educational website; further guidance on beneficial exercises (ideally in video format); and more detailed information on diagnosis, causation, management and prognosis could assist in self-management of PFP. As a research community, it is time we made this happen.

CONCLUSION
Traditional physiotherapy can be recommended for PFP based on strong high-quality evidence, and includes exercise therapy, combined interventions and foot orthoses. However, more than 50% of patients report unfavourable long-term outcomes. Thus, traditional physiotherapy may not be enough. Our ‘call to action’ is to provide traditional physiotherapy treatment tailored to patient needs, and consider non-traditional physiotherapy interventions. Limited evidence from recently published literature provides insights that these considerations could include weight management and addressing psychological features where indicated, along with optimising and placing a greater emphasis on patient education.

Further associated multimedia resources to optimise learning opportunities from this editorial and ‘call to action’ for researchers and clinicians can be found here (https://ipfrn.org/virtual-edition-2018/).

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