activities that increase overload on this joint. Its incidence is higher in women, with high rates of recurrent pain and decreased functionality.
Objectives: To investigate the association between knee extensor torque and performance in the step descent test in women with PFP.
Methods: The project was approved by the Ethics Committee (5.690.291). Initially, anamnesis was performed to obtain personal data. To assess function, the step-down test was performed, in which participants stood on a 20 cm high step with their feet supported and their hands on their pelvic girdle. The participant was asked to touch the ground with the heel of the unaffected leg and return to the starting position. The participant was asked to perform as many repetitions as possible in 30 seconds. To assess knee extensor joint torque, the Biodex® isokinetic dynamometer was used. Initially, there was a 5-minute warm-up on the treadmill and the volunteers were positioned with their hips and knees flexed at 90°. Torque was assessed at an angle of 90 to 30 degrees of flexion, at a speed of 60°/second. The protocol consisted of 3 maximum concentric contractions. For statistical analysis, Pearson's correlation test was used, with a significance level of $p < 0.05$.
Results: Performance in the step descent test is positively associated with maximum concentric knee extension torque ($r = 0.351$, $p = 0.006$) in women with PFP.
Conclusion: The decreased ability to produce knee extensor force negatively affects the functional performance of women with PFP.
Implications: Women with PFP have impaired ability to produce maximum knee extension force and this interferes with their functional performance. Understanding the factors that involve limitations in the functional performance of women with PFP can help in clinical practice, guiding treatment programs and making prognosis more accurate. Functional tests are low-cost and simple to perform, which can be used to monitor the progress of people with PFP and their response to resistance training, especially of the knee extensors.
Keywords: patellofemoral pain, maximum torque, capacity

Conflict of interest: The authors declare no conflict of interest.
Funding: FAPESP.
Ethics committee approval: CAAE: 68544023.0.0000.0003.
Registration: 10.17605/OSF.IO/R7MFC: DOI.

https://doi.org/10.1016/j.bjpt.2025.101488

226

PAIN INTENSITY IS RELATED TO PAIN SELF-EFFICACY AND VERTICAL JUMP PERFORMANCE IN WOMEN WITH PATELLOFEMORAL PAIN SYNDROME

Pablo Henrique Batista Dutra, Bárbara Letícia Costa Monteiro, Luana de Lima Caetano, Julia Maria dos Santos, Lilian Ramiro Felicio
Universidade Federal de Uberlândia (UFU), Uberlândia, MG, Brazil

Background: Patellofemoral Pain Syndrome (PFPS) is characterized by intermittent pain in the anterior region or around the patella, commonly observed in young women. Although biomechanical factors are widely recognized, the importance of understanding the impact of non-physical aspects, such as kinesiophobia, pain catastrophizing, and self-efficacy, on the functionality and performance of individuals with PFPS has become increasingly evident. These psychosocial factors, associated with physical aspects, can affect functional performance, such as during the Vertical Jump.
Objectives: To verify the level of relationship between psychosocial aspects and performance in the Vertical Jump functional test in female individuals with patellofemoral pain syndrome.
Methods: The study included 50 women with PFPS, aged between 18 and 30 years. All participants completed standardized questionnaires, including the Visual Analog Scale (VAS), Positive and Negative Affect Schedule (PANAS), Pain Self-Efficacy Questionnaire (PSEQ-10). Functional Performance was assessed using the Vertical Jump Test. After analyzing the normality of the data (Shapiro-Wilk test), the level of correlation was assessed using the Spearman Correlation test (rs value), with rs values below 0.1 considered weak correlation, values between 0.1 and 0.3 as moderate correlation and rs values above 0.5 as strong correlation. A significance level of 5% was considered.
Results: Only pain intensity showed a moderate negative correlation in relation to pain self-efficacy (PSEQ-10) ($rs = -0.33$; $p < 0.05$) and in relation to performance in the Vertical Jump ($rs = -0.31$; $p < 0.05$), indicating that higher levels of pain are associated with lower pain self-efficacy and worse functional performance. The other emotional variables did not demonstrate a significant relationship with pain intensity or functional performance.
Conclusion: Pain intensity has an inverse relationship with pain self-efficacy and performance in the Vertical Jump test. On the other hand, vertical jump performance did not show a relationship with emotional aspects.
Implications: This study demonstrates that pain level appears to influence the patient's way of managing pain, as well as functional performance. On the other hand, emotional aspects do not have an important relationship with these factors in patients with PFPS.
Keywords: Proms, patellofemoral pain syndrome, functionality

Conflict of interest: The authors declare no conflict of interest.
Funding: Not applicable.
Ethics committee approval: FACISA/UFRN 6.204.652.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101489

227

ASSOCIATION BETWEEN KINESIOPHOBIA AND KINEMATIC ALTERATIONS DURING FUNCTIONAL SIT-TO-STAND MOVEMENT IN WOMEN WITH KNEE OSTEOARTHRITIS

Jamilly Radiuc Cipolli, Leticia Yoko Nakamura de Roide, Isabela Regina Zanin, Marcella Frasseto, Deborah Hebling Spinoso
Universidade Estadual Paulista "Júlio de Mesquita Filho" (UNESP), Bauru, SP, Brazil

Background: Knee osteoarthritis (KOA) is a chronic and degenerative disease, reported as one of the leading causes of disability worldwide. Its incidence is higher in women, especially after menopause. Persistent pain is one of the main symptoms contributing to greater difficulty in performing daily tasks, such as sitting and standing from a chair. Kinesiophobia, defined as an intense fear of experiencing pain during movement, is a factor that may predict functional capacity and influence the movement pattern adopted by this population. Understanding the relationship between kinesiophobia and the kinematics of the sit-to-stand movement may contribute to a better understanding of the factors that contribute to functional limitations in women with KOA.
Objectives: The aim of this study is to investigate the relationship between kinesiophobia and lower limb kinematics during the sit-to-stand test in women with KOA.
Methods: The research project was approved by the Ethics Committee of Unesp/Marília, and all participants signed the informed consent form. A total of thirty-five women ($67{,}00 \pm 8{,}43$), with a medical diagnosis of KOA participated in the study. Initially, an anamnesis was conducted to collect personal and anthropometric

data. To assess kinesiophobia, the Brief Fear of Movement Scale, a reduced version of the Tampa Kinesiophobia Scale, was administered. This scale consists of 6 statements which relate symptom intensity to fear of movement. Subsequently, a kinematic assessment of the lower limb was performed during the sit-to-stand test. The images were processed using Kinovea® software. For statistical analysis, Pearson correlation test was applied, considering a significance level of $p < 0,05$.
Results: Knee flexion ($p = 0,005$, $r = 0,776$) and knee valgus ($p = 0,006$, $r = -0,303$) angles during the sit-to-stand movement are associated with the level of kinesiophobia in women with KOA.
Conclusion: Women with KOA may alter their movement patterns when performing daily tasks as an attempt to avoid pain, due to fear of movement.
Implications: Kinesiophobia is a cognitive-behavioral factor that significantly affects the functionality of women with KOA, leading to kinematic alterations as an attempt to avoid pain. Given the high prevalence of kinesiophobia among older adults with musculoskeletal conditions, understanding the relationship between kinesiophobia and lower limb kinematics during functional movements highlights the importance of biopsychosocial approach in the physiotherapeutic treatment of individuals with KOA. To make treatment more personalized for this population, it is essential to provide education on the factors related to KOA and to progressively introduce individualized functional goals for each individual.
Keywords: Arthrosis, Biomechanical Phenomena, Fear of Movement

Conflict of interest: The authors declare no conflict of interest.
Funding: CNPq.
Ethics committee approval: CAAE: 80269224.2.0000.5188.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101490

228

AGE AND ANXIETY WERE ASSOCIATED WITH INEFFICIENT PAIN MODULATION IN PATIENTS WITH MUSCULOSKELETAL PAIN

Juliana Valentim Bittencourt[a], Jéssica Pinto Martins do Rio[a], Leticia Amaral Corrêa[a,b], Pedro Teixeira Vidinha Rodrigues[a], Felipe José Jandre Reis[c], Leandro Alberto Calazans Nogueira[a,c]
[a] *Rehabilitation Science Postgraduate Program, Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, RJ, Brazil*
[b] *Department of Chiropractic, Faculty of Medicine, Health and Human Sciences, Macquarie University, Sydney, Australia*
[c] *Physiotherapy Department, Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, RJ, Brazil*

Background: Conditioned pain modulation is a crucial physiological mechanism for regulating pain perception. Age, body mass index, and psychosocial status (i.e., symptoms of anxiety, social isolation, perceived stress, catastrophising, kinesiophobia, and symptoms of depression) may influence the efficiency of this mechanism. However, these elements are commonly investigated separately.
Objectives: The current study evaluated the relationship between demographic features and psychosocial status and the efficiency of conditioned pain modulation in participants with and without musculoskeletal pain. We also investigated the same relationship stratifying by health condition (participants with musculoskeletal pain and asymptomatic individuals).
Methods: A cross-sectional study was conducted with 100 patients with musculoskeletal pain and 100 asymptomatic individuals. Participants answered questionnaires about sociodemographic characteristics and psychosocial status (Brief Screening Questions and Brief Psychological Screening Questions). The cold pressor test was the psychophysical method used to assess conditioned pain modulation. The difference between pre-and post-test pressure pain threshold values calculated conditioned pain modulation efficiency. Negative values indicated conditioned pain modulation inefficiency, while null or positive values were considered a typical conditioned pain modulation response. A logistic regression model was fitted to examine the relationship between independent variables (demographic features and psychosocial status) and the conditioned pain modulation efficiency.
Results: The mean age of the sample was 33.17 ($\pm$16.78) years, and the mean body mass index was 25.75 ($\pm$5.46) kg/m^2. The symptomatic group had significantly higher age [symptomatic = 40.53 $\pm$ 19.51, asymptomatic = 25.74 $\pm$ 8.58; $p < 0.001$] and body mass index [symptomatic = 26.56 $\pm$ 5.81, asymptomatic = 24.93 $\pm$ 4.98; $p = 0.035$] than the asymptomatic group. Conditioned pain modulation was inefficient in 43 (21.50%) of the sample. Age (OR = 1.03; 95% CI: 1.01−1.05) was the only variable associated with inefficient pain modulation, considering the total group. Symptoms of anxiety (OR = 3.99; 95% CI: 1.05−15.1) and age (OR = 1.03; 95% CI: 1.00−1.06) were associated with inefficient pain modulation among the symptomatic group.
Conclusion: Increasing age and greater levels of anxiety higher the likelihood of presenting inefficient pain modulation in participants with musculoskeletal pain. The findings suggest that symptoms of anxiety are the strongest psychosocial predictor of pain response.
Implications: Psychosocial status should be incorporated into pain management in clinical practice, allowing for more individualised approaches. In addition, addressing symptoms of anxiety may be crucial for contributing to regulating pain perception.
Keywords: Diffuse Noxious Inhibitory Control, Musculoskeletal Pain, Observational Study

Conflict of interest: The authors declare no conflict of interest.
Funding: This study was financed in part by the FAPERJ [Grant: E-26/211.104/2021; E-26/200.179/2025 e 200.180/2025 (304979)] and CAPES [Finance Code 001; Grant: 88881.708719/2022-01 and grant: 88887.708718/2022-00].
Ethics committee approval: No. 5.690.291.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101491

229

IMPACT OF AURICULOTHERAPY WITH LASER BIOPHOTOMODULATION ON THE GENERAL HEALTH OF PATIENTS WITH TEMPOROMANDIBULAR DYSFUNCTION

Selma Fernandes de Cassia Moreira, Caroline Lima de Farias, Claudilene Pereira, Sandra Aparecida Dias, Natalia Sandi Gonçalves, Ana Gabrielle Marques Reis Bento, Adriana Teresa Silva Silva, Andreia Maria Silva Vilela Terra
Universidade Federal de Alfenas (UNIFAL), Alfenas, MG, Brazil

Background: The auriculotherapy with laser biophotomodulation is a technique used to promote the body's balance and treat several conditions. Individuals with Temporomandibular Disorder (TMD) often have compromised general health. The impact of this therapy on the health of these patients is not yet fully understood.
Objectives: Evaluating the effects of auriculotherapy with LASER biophotomodulation on the general health of individuals with TMD.
Methods: A randomized crossover clinical trial was conducted with 25 participants, divided into a Placebo Group (PG, n = 14) and an Experimental Group (EG, n = 11). The groups were assessed using the Patient Health Questionnaire (PHQ) before and after the intervention. The EG received treatment with LASER (100 mW, 602 nm, 5