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RELATIONSHIP BETWEEN PSYCHOLOGICAL FACTORS AND PHYSICAL PERFORMANCE IN INDIVIDUALS WITH KNEE OSTEOARTHRITIS

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Background: In recent years, with the increased understanding of chronic disease processes such as knee osteoarthritis (KOA), the biopsychosocial approach has received emphasis as a form of treatment for these diseases. In this approach, many factors can influence the individual's physical performance, such as demographic, anthropometric, and psychological factors. However, the significant association of psychological factors with physical performance is still uncertain, as psychological factors are significantly associated both with self-reported and objective physical performance and with pain, the latter being also a determinant of low self-reported and objective physical performance.

Objectives: To examine whether psychological aspects predict low self-reported and objective physical performance in individuals with KOA, considering the effect of age, body mass index and pain.

Methods: Ninety-eight individuals (mean $\pm$ SD = 63.2 $\pm$ 8.4 years, 72 women) with KOA participated in the study. Eligibility criteria for participation in the study were age over 50 years, knee pain for more than six months, and diagnosis of KOA according to the American College of Rheumatology criteria. The diagnosis should be accompanied by radiological evidence, affecting one or more compartments of the knee, at a mild, moderate or severe level, being unilateral or bilateral according to the Kellgren and Lawrence criteria. In addition, they should also present a level ≥ 3 of pain. The main assessment measures were Numerical Pain Scale, Pressure Pain Threshold, Beck Depression Inventory (BDI), Pain Catastrophizing Scale (PCS), Western Ontario and McMaster Universities Osteoarthritis Questionnaire (WOMAC) and Gait Speed.

Results: The different regression models revealed that the pain dimension of the WOMAC was the most significant measure of pain intensity to predict poor physical performance. Furthermore, it has been demonstrated that pain catastrophizing (PCS) is the most significant psychological measure to predict low self-reported physical performance and depressive symptoms (BDI) to predict low objective physical performance.

Conclusion: There is an association between psychological factors, pain, and physical performance in individuals with KOA, with pain catastrophizing being the psychological measure best predicting low self-reported physical performance, whereas depressive symptoms predict low objective physical performance.

Implications: Bearing in mind that psychological factors have a significant influence on the symptomatology of individuals with KOA, mainly regarding pain and physical performance, this study reveals the need for a psychosocial approach in the clinical management of the disease.

Keywords: Knee osteoarthritis, Psychological factors, Physical performance

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ASSOCIATED FACTORS TO KINESIOPHOBIA AFTER UPPER LIMB MUSCULOSKELETAL TRAUMA

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Background: Psychosocial factors have been associated with the magnitude of long-term upper limb disability in individuals with upper limb injuries, however, the association between these factors in acute trauma, especially in the upper limb, has been poorly investigated.

Objectives: To analyze the association between kinesiophobia and sleep quality, pain catastrophizing, shoulder movement avoidance and hospital anxiety and depression in patients who suffered musculoskeletal trauma to the upper limb.

Methods: This cross-sectional study included a sample of 35 patients of both sexes, aged over 18 years who were admitted to the Orthopedics and Traumatology ward of the Hospital de Clínicas of the Federal University of Triângulo Mineiro (UFTM) due to acute musculoskeletal trauma in the upper limb. The following variables were used in the study: Tampa Kinesiophobia Scale, Visual Numerical Pain Scale, Catastrophic Thoughts About Pain Scale, Avoidance Daily Activities Photo Scale (ADAP Shoulder Scale), The Pittsburgh Sleep Quality Index (PSQI), Hospital Anxiety and Depression Scale (HADS). Pearson's correlation analysis was used to verify the association between TAMPA kinesiophobia questionnaire scores and the variables pain intensity, pain catastrophizing, shoulder movement avoidance behavior, sleep quality, and anxiety and depression.

Results: The 35 patients involved had a mean age of 48 years, the majority being male (68.6%), with right dominance (97.1%) and in 42% of cases, the affected side was the dominant side. The main causes of musculoskeletal trauma were: traffic accident (40%), work accident (25.7%), domestic accident (25.7%), sports accident (n=2.9%) and violence (n= 5.7%). Kinesiophobia assessed by the TAMPA questionnaire showed a significant correlation with hospital anxiety and depression (r= 0.71; p < 0.001); with pain catastrophizing (r = 0.58; p < 0.001) and with sleep quality according to the questionnaire (r = 0.55; p = 0.001). On the other hand, kinesiophobia according to TAMPA did not correlate with pain intensity (r = - 0.04; p = 0.838), as well as it did not correlate with the avoidance behavior of shoulder movements (r = 0.64; p = 0.724).

Conclusion: Kinesiophobia in patients with musculoskeletal trauma to the upper limb was associated with anxiety and depression, pain catastrophizing and sleep quality, but not with pain intensity and movement avoidance behavior.

Implications: This work suggests that health professionals who deal with musculoskeletal trauma patients in the hospital environment are aware of these variables and their associations, as well as use these tools in order to better understand and act in the face of fear and avoidance behaviors in the upper limb.

Keywords: Kinesiophobia, Pain catastrophizing, Trauma, Upper limb