Conflict of interest: The authors declare no conflict of interest.
Acknowledgment: CAPES and FAPESP (2020/16183-0) for financial support for this research.
Ethics committee approval: UFSCar Research Ethics Committee (number 4.166231).

https://doi.org/10.1016/j.bjpt.2024.100886

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VALENCE AND HARM-BELIEF OF MOVEMENTS IMAGES IN PEOPLE WITH SHOULDER PAIN

Marcela Camargo Tozzo[1], Felipe José Jandre dos Reis[2], Walter Ansanello[1], Ann Meulders[3], Johan Vlaeyen[3], Anamaria Siriani de Oliveira[1]
[1] *University of São Paulo (USP), Riberão Preto, São Paulo, Brazil*
[2] *Federal Institute of Rio de Janeiro, Rio de Janeiro, Brazil*
[3] *Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium*

Background: The neuronal circuits responsible for processing pain and emotion are functionally shared. Emotional patterns can be understood by the defensive motivational state, characterized by low valence (unpleasant), and by the appetitive state characterized by high valence (pleasant). Furthermore, people with shoulder pain understand their own pain from the biomechanical perspective, in which they believe that movement can cause tissue damage.
Objectives: We aimed verify if there is an association between hedonic valence, harm-belief of shoulder movement and shoulder pain and disability index.
Methods: This is a cross-sectional observational study. We included people with different shoulder musculoskeletal disorders, shoulder pain for at least three months, average intensity of at least 3 on the Numerical Pain Scale (NPS) and over eighteen years old. We excluded people with difficulties in understanding the questionnaires, the presence of a tumor and visual. The Shoulder Pain and Disability Index (SPADI) was applied to assess the shoulder pain and disability index. Participants viewed 58 movements images involving the shoulder complex. They judged valence using the Self-Assessment Manikin (SAM) scale for each image. The scale is composed of drawings of mannequins with expressions ranging from sad/unhappy (1) to pleasant/happy (9). The participants made an "x" on the manikin that represented their emotion right after viewing the image. The following question was asked for each image to assess the harm-belief "How much do you believe that this activity could harm your shoulder?". The answers were made with an "x" on a numerical scale. A score of 0 represents not at all harmful and 10 represents very harmful. Multiple Linear Regression was performed using the hierarchical method to verify the association between harm-belief and SPADI (independent variables) and valence (dependent variable). The necessary assumptions for this analysis were evaluated and we considered 20 participants for each independent variable.
Results: Participated 42 people with chronic shoulder pain. The mean and standard deviation (SD) of age were 45.7(13). The SPADI mean and SD were 57.1(24.1). Multiple linear regression analysis resulted in a significant model [$F(2.39)=12.971; p<0.001; R^2=0.369$]. The harm-belief was negatively associated with valence (β=-0.832; t=-4.670;$p<0.001$). The pain and disability index was not associated with valence (β=0.344;t=1.934;p=0.06).
Conclusion: There is an association between valence and harm-belief of movements images. People with shoulder pain who find movements images unpleasant may believe that movement can harm shoulder pain. Harm-belief associated with a negative emotional state can lead to exacerbated fear of movement and, consequently, avoidance behavior.
Implications: We present the association of emotional aspects and harm-belief of movement in people with shoulder pain. It is crucial for the clinician to understand these aspects in order to improve patient treatment. In this way, providing improvement in pain, function and breaking the fear-avoidance cycle of movement.
Keywords: Shoulder pain, Emotion, fear-avoidance

Conflict of interest: The authors declare no conflict of interest.
Acknowledgment: The authors are grateful to all participants in the research and Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES).
Ethics committee approval: School Health Center Joel Domingos Machado of the University of São Paulo, Ribeirão Preto, Brazil (CAAE:25600919.2.0000.5414).

https://doi.org/10.1016/j.bjpt.2024.100887

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IS FUNCTIONAL STATUS CORRELATED WITH QUALITY OF LIFE IN INDIVIDUALS WITH AMYOTROPHIC LATERAL SCLEROSIS?

Marcela Ferreira de Andrade Rangel[1], Mayra Luiza Resende Ferreira[1], Paula Cristina Ferreira Gomes[1], Hiane Aparecida Silva[1], Leonardo Cruz de Souza[1], Mariana Asmar Alencar[1]
[1] *Postgraduate Program in Rehabilitation Science, Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, Minas Gerais, Brazil*

Background: Amyotrophic Lateral Sclerosis (ALS) is a rare, rapidly progressive, and fatal neurodegenerative disease. As the disease progresses, there is a decline in functional status, increased dependence, and limitation, which can have a considerable impact on the quality of life of these individuals.
Objectives: To investigate the correlation between functional status and quality of life in individuals with ALS.
Methods: Exploratory cross-sectional study. The study included individuals diagnosed with ALS, following the Awaji criteria, aged 18 years or older, followed by a Neuromuscular Disease Center. Individuals diagnosed with other neurological disorder or who showed signs and symptoms of cognitive alterations could not participate. Functional status and quality of life were measured by Functional Rating Scale-Revised (ALSFRS-R) and ALS Assessment Questionnaire (ALSAQ-40), respectively. To investigate the correlation between the two variables, Pearson's correlation and linear regression were used, considering a significance level of 5%. Statistical tests were performed using SPSS program.
Results: Eighty-four individuals participated in the study with mean age of 56.6 (SD 11.4) years and a median of 1.0 year of diagnosis. Most participants had ALS of appendicular onset (82.1%) and had both appendicular and bulbar involvement (91.7%). The mean ALSAQ-40 score was 265.2 (SD 111.9) and the mean ALSFRS-R score was 30.1 (SD 10.5). There was a strong correlation between functional status and quality of life (r= -0.826; p=0.000). When evaluating the correlation between the domains of ALSFRS-R and quality of life, a strong correlation was found with bulbar domain (r=-0.756; p=0.000), moderate with motor (r=-0.677; p=0.000) and weak with respiratory function (r=-0.214; p=0.050). The ALSFRS-R score explained 82.6% of the variation in the scores of ALSAQ-40 (R^2=0,826; p=0,000).
Conclusion: Functional status is correlated with quality of life in individuals with ALS. Therefore, it is essential to considerer the