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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

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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

relationship between functional status and quality of life when monitoring this population.
Implications: Future studies should investigate strategies for maintaining functional status for as long as possible and whether they are able to improve the quality of life of individuals with ALS.
Keywords: Amyotrophic Lateral Sclerosis, Quality of life, Rehabilitation

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ARE QUALITY OF LIFE, WALKING CAPACITY AND FUCTIONAL STATUS DIFFERENT IN INDIVIDUALS AFTER WAKE-UP STROKE AND NON-WAKE-UP STROKE?

Marcela Ferreira de Andrade Rangel[1], Estefany Horrany Gonçalves[1], Laura Eduarda Batista Silva[1], Luana Faustino Alves[1], Andressa Silva[1], Aline Alvim Scianni[1]
[1] *Postgraduate Program in Rehabilitation Science, Universidade Federal de Minas (UFMG), Belo Horizonte, Minas Gerais, Brazil*

Background: Stroke is defined as a clinical syndrome resulting from reduced blood flow to brain structures, with development of focal and global signs of brain deficit, with no apparent cause other than vascular. Stroke can be classified as ischemic or hemorrhagic, with the first one being more prevalent. Wake-up Stroke is a type of ischemic stroke, in which the first stroke symptoms are noticed right after waking up. Studies indicate that Wake-up Stroke may be related to obstructive sleep apnea, the most prevalent sleep disorder in post-stroke individuals and worse post-stroke outcomes.
Objectives: To investigate differences between post-stroke groups in the chronic stage that had or did not have Wake-up Stroke in relation to quality of life, walking capacity and functional status.
Methods: Exploratory cross-sectional study. Inclusion criteria were individuals aged 20 or over, diagnosis of ischemic stroke, post-stroke time greater or equal to 6 months, ability to walk independently and absence of cognitive alterations. The stroke was classified as a Wake-up Stroke if the first signs of the stroke were noticed shortly after awakening. The dependent variables were quality of life, walking capacity and functional status, measured by EuroQol, Six-Minute Walk Test and Modified Ranking Scale respectively. The independent t test was used to compare the Wake-up Stroke and non-Wake-up Stroke groups, considering a significance level of 5%. Statistical tests were performed using SPSS program (version 19.0).
Results: The study included 52 individuals with a mean age of 61 years and mean duration of 53 months. 13 (25%) individuals had a stroke classified as Wake-up Stroke. Most of the participants were male (55.8%), did not practice regular physical exercise (80.8%), had systemic arterial hypertension (80.8%) and were classified as intermediate or high risk for obstructive sleep apnea (82.7%). The analysis showed that there was no significant difference between groups regarding quality of life ($p<0.576$), walking ability ($p<0.815$) and functional status ($P<0.645$).
Conclusion: There was no difference between the groups that had or did not have Wake-up Stroke in terms of quality of life, walking ability and functional status. However, it is important to consider that 25% of the sample showed the first signs of stroke upon awaking and that more than 80% of the individuals were classified as intermediate or high risk for obstructive sleep apnea. Therefore, further studies are needed for a better understanding of Wake-up Stroke and its relationship with the rehabilitation process and sleep disorders.
Implications: Longitudinal studies with larger samples are still needed to confirm the findings of the present study, as well as to investigate the relationship between Wake-up Stroke and other important post-stroke outcomes.
Keywords: Isquemic Stroke, Wake-up Stroke, Rehabilitation

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ASSESSMENT OF HANDGRIP STRENGTH IN ELDERLY PATIENTS UNDERGOING HEMODIALYSIS: AGREEMENT AMONG DIFFERENT STANDARDS

Sheila Borges[1], Taís Ferreira Martins[1], Ana Clara Gonçalves da Costa[1], Marcela Lopes Alves[1], Graziella França Bernardelli Cipriano[1]
[1] *Laboratory of Clinical Exercise Physiology. University of Brasília (UnB), Brasília, Distrito Federal, Brazil*

Background: The reduction in handgrip strength is a predictor of increased length of hospital stay, functional limitation, reduced quality of life and mortality.
Objectives: to evaluate the agreement between the three reference standards for handgrip strength in elderly patients with chronic kidney disease undergoing hemodialysis.
Methods: Cross-sectional and analytical study, with participants of both gender, over 18 years of age, on hemodialysis for more than three months in the nephrology unit of the Hospital Regional de Taguatinga, between June 2019 and April 2019. Data on dialysis time, presence of diabetes, hypertension and cause of kidney disease were obtained through Trackcare® electronic records. Handgrip strength was measured on the dominant limb or contralateral to the presence of arteriovenous fistula using a Jamar® hydraulic dynamometer. The three reference standards used for the diagnosis of low handgrip strength were: 1) European Working Group on Sarcopenia in Older People (EWGSOP 2019) considering cutoff points for men $<$ 27 kgf and for women $<$ 16 kgf; 2) Reference standard for the american population according to the study by Wang et al. (2018), considering low handgrip strength, percentile values lower than 10, according to gender and age; 3) Reference standard for the Brazilian population according to the study by Schlussel et al. (2008), also considering low handgrip strength values lower than 10, according to gender and age. The statistical program Statistical Package for the Social Sciences (SPSS) version 26.0 used for statistical analyses. The Kolmogorov Smirnov test was used to assess the normality of the variables. For agreement analysis, the kappa coefficient was used. The statistical significance considered was $p<0.05$.
Results: The sample consisted of 112 participants, mean age 68.45 ± 6.52 years old, dialysis time 22.39 ± 46.45 months, 67.00% (n=75) men, 33.00% (n=37) women. The most common cause of kidney disease was diabetic nephropathy in 45.53% (n=51) subjects. The body mass index of all participants ranged from 15.34 to 37.40 kg/m^2. The diagnosis of reduced handgrip strength in the sample, according to EWGSOP (2019), Wang et al. (2018) and Schlussel et al. (2008) was 66.10%, 37.50% e 63.40%, respectively. The reference standard by Wang et al. (2018) and Schlussel et al. (2008) showed