

Methods: Individuals over 60 years of age of both sexes were included in the study, and a questionnaire was applied to collect personal data where the participant answered about their habits and physical activity practices. The assessment of depressive symptoms was performed using the Geriatric Depression Scale (GDS). The score ranges from 0 (absence of depressive symptoms) to 15 points (maximum score of depressive symptoms). To analyze the data, comparisons were performed using unpaired t-test, correlations were performed by Pearson's correlation test, and statistical significance was defined as $p \leq 0.05$.

Results: The sample consisted of 139 seniors with a mean age of 70.06 ± 5.90 . The statistical analysis showed a correlation between the practice of self-reported physical activities and the GDS among women ($r = -0.303$; $p < 0.007$) and among men ($r = -0.30$; $p = 0.01$). Analyzing the entire sample, it was found that the practice of exercises predicted the occurrence of depressive symptoms [$F(1,137) = 14.543$; $p < 0.0001$; $R^2 = 0.08$]. A significant difference was observed in the GDS scores between the group of practitioners of physical activity and the group of non-practitioners (2.90 ± 2.02 and 4.81 ± 3.00 , respectively; $p < 0.0001$).

Conclusion: It was possible to conclude that there was an influence of the practice of physical activities on the symptoms of depression in the elderly evaluated and that the practicing group had lower scores in the GDS than the non-practicing group.

Implications: The observed results can contribute to public health, making it possible to create early actions to maintain the quality of life of these individuals, being important of attention and investment in preventive health actions.

Keywords: Aging, Depression, Physical activity

Conflict of interest: The authors declare no conflict of interest.

Acknowledgments: Not applicable.

Ethics committee approval: Study approved by the Research Ethics Committee of the Faculty of Philosophy and Sciences – Sao Paulo State University, under protocol n° 4.168.934

<https://doi.org/10.1016/j.bjpt.2024.101001>

416

IS THERE A DIFFERENCE BETWEEN THE SEX IN PAIN INTENSITY AFTER 1 SESSION OF MANUAL THERAPY IN PEOPLE WITH CHRONIC LOW BACK PAIN?

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Background: Chronic low back pain (CLBP) is a very common symptom experienced by people of all ages and is considered the leading cause of disability in the world. Its global prevalence is 7.3%, that is, 540 million people are affected by the condition, with an increase of 54% since 1990. In some studies, the prevalence of CLBP was higher in women (60.9%) than in men (39.1%). Most recommended treatments for CLBP (with moderate and high evidence) have small effects, including pharmacological solutions such as the use of opioids. Among the available treatments, manipulative therapy is one of the possibilities, as they have hypoalgesia effects similar to those observed for other therapies recommended by guidelines. In the present study, we evaluated whether there is a difference in pain intensity between men and women before and after manipulative therapy using the Numerical Pain Rating Scale.

Objectives: To identify if there is a difference in pain intensity between men and women with CLBP after a manipulative therapy session.

Methods: this is a cross-sectional and secondary study based on data from a randomized clinical trial that offers manipulative therapy as a treatment for patients with CLBP. At the first meeting, the patients were evaluated regarding: sociodemographic aspects such as sex, age, weight, height, income, and education; pain intensity.

Results: So far, 128 patients with non-specific CLBP have participated in this study, totaling 64 females and 64 males. The average age of the male (M) sample was 44 years ($SD=9.49$) and female (F) 45.5 years ($SD=8.78$), with an average weight of $M=87$ kg ($SD=15.68$) and $F=76.5$ kg ($SD=14.49$), average height of $M=178.5$ cm ($SD=23.15$) and $F=162$ cm ($SD=5.97$). All data were tested for normality using the Shapiro-Wilk test. An analysis of variance (ANOVA) of repetitive measures was applied. The intra- and between-subject factors were time (period before and after 1 session of manipulative therapy) and Group (men and women), respectively. The post-hoc test using the Bonferroni correction was used when a significant interaction was found.

Conclusion: There was no interaction between gender and pain intensity after a manipulative therapy session. Both sexes showed significant improvement after a manual therapy session ($P < 0.05$). Among men, 32 subjects showed clinically significant improvement in reducing pain intensity. Among women, this number was 39 people.

Implications: These results bring information about the characteristics of the sample.

Keywords: Chronic Low Back Pain, Manipulative Therapy, Sex

Conflict of interest: The authors declare to have no conflict of interest.

Acknowledgment: This work was supported by the State of São Paulo Research Foundation – FAPESP (process number 2019/22924-6 and 2019/23356-1).

Ethics committee approval: The research was approved by the Federal University of São Carlos (Process No. 52359521.1.0000.5504).

<https://doi.org/10.1016/j.bjpt.2024.101002>

417

COMPARISON OF VERTEBRAL SEGMENTAL DYSFUNCTIONS BETWEEN INDIVIDUALS WITH CHRONIC GASTRITIS AND HEALTHY INDIVIDUALS

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Background: Recent research has suggested associations between the presence of visceral dysfunctions and the occurrence of musculoskeletal disorders, particularly in the vertebral column. Chronic gastritis is one of the most common visceral dysfunctions in clinical practice, and this dysfunction causes restrictions in visceral motility and mobility, compromising the normal functioning of the organ and, consequently, potentially leading to musculoskeletal repercussions.

Objectives: The aim of this study was to compare musculoskeletal dysfunctions of the spine between adults diagnosed with chronic gastritis and healthy individuals.

Methods: This is a pilot study of an observational cross-sectional design. Forty participants were included and randomized into a gastritis group ($GG=20$), consisting of individuals diagnosed with chronic gastritis, and a comparison group ($GC=20$), consisting of healthy individuals. The assessment was performed manually. Tenderness upon palpation of the spinous processes of vertebrae C2, C3, C4, T5, T6, T7, T8, and T9 (sclerotome) was evaluated by palpating the spinous processes, and participants were asked to report

the presence or absence of pain. The density and texture of the soft tissues adjacent to the occipital region (suboccipital muscles) and C1-C4 and T5-T9 vertebrae (paravertebral muscles) were assessed by palpating the soft tissues immediately lateral to the spinous processes of the vertebral column and the occipital bone. Asymmetry of the occipital and vertebral (C1-C4 and T5-T9) regions was assessed as follows: for the occipital region, the evaluator, with their fingers placed on the occipital bone, determined if one side was more posterior than the other. For the C1-C4 and T5-T9 segments, the evaluator located the transverse processes of the cervical and thoracic vertebrae and identified posteriority through palpation. Vertebral mobility of C1-C4 was assessed by evaluating two main movements, lateral flexion, and vertebral rotation. For vertebral mobility of T5-T9, rotational movements of the vertebrae were investigated.

Results: The GG exhibited greater restriction in lateral gliding and left rotation mobility at the vertebral levels between C2 and C4 and T6 and T9, as well as increased pain (at C3 to C4 and T7 to T9), muscle tension (at all levels), and vertebral asymmetry (at C2 to C4 and T7 to T9) compared to the GC, with a significance level of $p < 0.05$.

Conclusion: Individuals with chronic gastritis showed reduced left-sided vertebral rotation mobility in the cervical and thoracic spine, as well as decreased left-sided vertebral lateral gliding mobility in the cervical region. Additionally, they exhibited increased pain at the spinous process, right-sided vertebral transverse process asymmetry, and increased muscle tension adjacent to the right-sided vertebrae in the thoracic and cervical regions, compared to healthy individuals.

Implications: It is of paramount importance to investigate the relationships between the viscera and the musculoskeletal system, as it can help prevent potential associated musculoskeletal dysfunctions and promote a more comprehensive alternative treatment through osteopathy, chiropractic, or other approaches.

Keywords: Gastritis, Posture, Range of motion

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We would like to thank the collaboration of patients who were willing to participate in the research.

Ethics committee approval: Federal University of Pernambuco, CAAE:74848117.0.0000.5208

<https://doi.org/10.1016/j.bjpt.2024.101003>

418

FINE MANUAL DEXTERITY OF CHILDREN WITH AUTISM SPECTRUM DISORDER AND WITH TYPICAL DEVELOPMENT THROUGH IDADI

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Background: Autism affects 1 in every 160 children in the world. It is estimated that there are about 2 million people within the spectrum in Brazil. Its diagnosis is based on the presentation of the disorder, since there is no biological marker, which led to the emergence of numerous international instruments for screening and more assertive diagnosis. In Brazil, the use of these instruments is limited by translation, validation, psychometric quality and by the large geographic dimension that can, for example, generate different motor repertoires among children of the same age group due to the great diversity between the regions of the country. So far, only one study used the Dimensional Inventory of Child Development

Assessment (IDADI), created in Brazil, to assess fine motor skills in children with Autism Spectrum Disorder (ASD), but without including the population of the northern region of Brazil.

Objectives: To compare the fine motor skills of children with ASD and those with typical development using the Dimensional Inventory for Child Development Assessment.

Methods: This is a descriptive and observational study with a cross-sectional design developed in Pará. Data collection was carried out by four researchers online or in person, divided into two groups: children with ASD and children with typical development. The instrument uses the parental report of mothers or other family members of daily contact with the child who had a clinical diagnosis (in all degrees) of Autistic Spectrum Disorder determined by a licensed professional (psychologist or physician), and the age group was used between 24 and 72 months. The group of typically developing children were in the same age group and scored less than 15 on the Social Communication Questionnaire, indicating no risk of ASD. For the assessment of fine motor skills, the standardized score of the IDADI fine motor domain was used.

Results: 66 children participated in the study, 22 diagnosed with ASD and 44 with Typical Development. A significant difference was observed comparing the fine motor skills of children with ASD (69.5 ± 19.6) with children with TD (98.2 ± 19.0), with statistical difference between groups ($p < 0.0001$), with large effect size ($d = 1.48$).

Conclusion: We carried out the analysis of fine motor skills in child development through the Dimensional Inventory of Child Development Assessment, created in Brazil, comparing children with TD and ASD, and our results confirmed that children with ASD have significantly lower scores than typical children when compared fine motor skills between children with ASD and with typical development.

Implications: Motor abnormalities are usually the first sign of atypical development in ASD and can be detected before social and language disorders, being able to significantly affect other aspects of child development. In addition, impaired fine motor skills can be predictors of ASD severity, making detection essential to enable effective interventions for this population.

Keywords: Autistic Spectrum Disorder, Motor Skills, Motor behavior

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We thank God, our families, the Graduate Program in Human Movement Science and all the families who participated in the study.

Ethics committee approval: Ethics Committee for Research with Human Beings of the Federal University of Pará: Number: 5,384,086.

<https://doi.org/10.1016/j.bjpt.2024.101004>

419

CAPACITY OF PHYSICAL AND NON-PHYSICAL CHARACTERISTICS IN PREDICTING OBJECTIVE FUNCTION OF WOMEN WITH PATELLOFEMORAL PAIN

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Background: Patellofemoral pain (PFP) is a chronic musculoskeletal disorder characterized by an insidious and diffuse pain around and/or behind the patella. People with PFP have decreased levels of physical activity and muscle strength of the knee extensors, as well as higher levels of pain, kinesiophobia, and body mass index (BMI).