

sessions. Data normality was tested using the Shapiro-Wilk test, and a two-way ANOVA was used for group comparisons.

Results: A total of 102 female runners participated (mean age: 34.2 years, SD: 8.7). Each intervention group had 34 participants who completed their respective programs. At 12 weeks, the mean change in ICIQ-UI-SF scores was -6.5 (95% CI: -7.24 to -5.75) for iPFMT, -6.7 (95% CI: -7.22 to -6.17) for cPFMT, and -1.7 (95% CI: -2.08 to -1.31) for AHT. There was no significant difference between iPFMT and cPFMT, but both were superior to AHT, with the two PFMT regimens achieving the minimum clinically important difference of 4 points. Regarding PFM strength assessed by vaginal palpation (Oxford Scale), the mean change at 12 weeks was 1.1 (95% CI: 0.8 to 1.3) for iPFMT, 1.2 (95% CI: 1.02 to 1.3) for cPFMT, and 0.4 (95% CI: 0.22 to 0.57) for AHT. For mean PFM pressure measured by manometry, the mean change was 22.5 cmH₂O (95% CI: 15.84 to 32.71) for iPFMT, 24.4 cmH₂O (95% CI: 18.65 to 35.71) for cPFMT, and 10.3 cmH₂O (95% CI: 7.17 to 13.34) for AHT. For all PFM evaluations, there was no significant difference between iPFMT and cPFMT, but both were superior to AHT.

Conclusion: There was no difference in effect between coordinated and isolated PFMT, but both PFMT training regimens were superior to AHT.

Implications: As demonstrated in the general population of women with UI, PFMT is also an effective treatment for UI in female runners. AHT should not be recommended for this purpose.

Keywords: hypopressive, pelvic floor, running, urinary incontinence

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

Funding: Not applicable.

Ethics committee approval: No. 5.566.069.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101377>

115

ASSOCIATION BETWEEN MUSCULAR QUALITY INDEX AND QUALITY OF LIFE IN WOMEN WITH FIBROMYALGIA

Vike Maria Tamar Leão de Almeida, Jousielle Márcia dos Santos, Vanessa Gonçalves César Ribeiro, Gabriele Teixeira Gonçalves, Débora Fernandes de Melo Vitorino, Sílvia Monteriro, Ana Cristina Rodrigues Lacerda, Sueli Ferreira da Fonseca
Universidade Federal dos Vales do Jequitinhonha e Mucuri (UFVJM), Diamantina, MG, Brazil

Background: Fibromyalgia (FM) is a rheumatic condition characterized by chronic, diffuse musculoskeletal pain, often associated with other manifestations. Patients with FM commonly experience reduced functional capacity, impairment in performing daily living activities, and worse quality of life (QoL). Compared to healthy control individuals, they show lower muscle strength and functional capacity, which may increase the risk of impairment in the muscular quality index (MQI). The MQI has been proposed as a clinically relevant marker to identify individuals at risk of functional disability, as well as an important prognostic factor for mortality. The MQI can be measured using two approaches: laboratory measurement and field measurement. The field MQI, being easy to implement and low-cost, is a valid alternative for assessing muscular quality, especially in contexts with limited laboratory resources.

Objectives: To investigate the associations between field and laboratory MQI measurements and QoL in women with FM.

Methods: This is a quantitative, cross-sectional, and exploratory study. Women over 18 years old with a confirmed diagnosis of FM according to the criteria established by the American College of Rheumatology (2016) were included. QoL was assessed using the

Short Form-36 (SF-36) questionnaire, Brazilian version, which covers eight domains: functional capacity, physical aspects, pain, general health status, vitality, social aspects, emotional aspects, and mental health. The MQI was obtained from the following calculations: the ratio between lower limb (LL) strength and lean mass of LL (laboratory measure); and the ratio between LL strength and body mass index (BMI) (field measure). LL strength was measured using the chair stand test (five repetitions). Lean mass of LL was measured by dual-energy X-ray absorptiometry (DEXA). BMI was calculated by the ratio of weight (kg) to height (m²). The association between the variables was analyzed using Spearman's correlation test.

Results: The study included 47 women with an average age of 53.45 ± 7.32 years. Significant correlations were found between both laboratory and field MQI and the domains of pain ($r = 0.528$, $p = 0.000$; $r = 0.452$, $p = 0.001$, respectively); functional capacity ($r = 0.359$, $p = 0.013$; $r = 0.433$, $p = 0.002$); and physical aspects ($r = 0.433$, $p = 0.002$; $r = 0.479$, $p = 0.001$). Additionally, a strong correlation was found between field MQI and laboratory MQI ($r = 0.94$, $p = 0.000$).

Conclusion: A higher MQI is associated with greater functional capacity, better physical condition, and reduced pain in women with FM. Furthermore, both laboratory and field MQI proved to be relevant indicators of muscular quality, with field MQI representing a valid alternative for clinical contexts due to its accessibility and practicality.

Implications: The results of this study may contribute to the development of more specific interventions to improve the QoL of women with FM. Additionally, they reinforce the applicability of field MQI as a viable clinical tool for assessing muscular quality, enabling the monitoring and implementation of management strategies, even in contexts with limited laboratory resources.

Keywords: Fibromyalgia, muscle quality, quality of life

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

Funding: CNPq; PROEXT-PG CAPES; FAPEMIG; LAFIEX.

Ethics committee approval: CAAE: 67426223.4.0000.5188.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101378>

116

ASSOCIATION OF PAIN SEVERITY WITH KINESIOPHOBIA IN WOMEN WITH CHRONIC PELVIC PAIN: A CROSS-SECTIONAL STUDY

Liliane Maciel Barreto^a, Camila Façanha^b, Bianca de Moraes Varella Mororó^b, Natany Santos Martins^c, Rodrigo Frago de Andrade^d, Simony Lira do Nascimento^e, Mayle Andrade Moreira^e

^a *Mestranda da Pós-Graduação em Fisioterapia e Funcionalidade, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil*

^b *Graduanda em Fisioterapia, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil*

^c *Mestre em Fisioterapia e Funcionalidade, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil*

^d *Professor do Curso de Fisioterapia, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil*

^e *Professora do Curso de Fisioterapia e do Programa de Pós-graduação em Fisioterapia e Funcionalidade, Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil*

Background: Chronic Pelvic Pain (CPP) is characterized by persistent pain for at least 6 months in the pelvic region. This condition generates negative impacts on both the physical and psychological aspects of life, and can also cause fear of movement, known as kinesiophobia. Previous research has observed that people with chronic

pain can present kinesiophobia. However, it is important to know whether pain severity is associated with higher levels of kinesiophobia in women with CPP.

Objectives: To analyze the association of pain severity with kinesiophobia in women with Chronic Pelvic Pain.

Methods: This is a cross-sectional study, conducted between December 2020 to October 2022, with women aged 18 to 45 years with CPP. In addition to sociodemographic data, information on pain intensity in the last 30 days were collected using the Numerical Pain Scale (NPS), and kinesiophobia was assessed using the TAMPA Scale for Kinesiophobia (TSK). Pain (NPS) was classified as mild to moderate (up to 6 points); severe pain (7 points or more). Furthermore, a cutoff point of 51 points or more on the TAMPA scale was considered for the classification of severe kinesiophobia. Descriptive analysis was expressed using mean and standard deviation for quantitative variables, and absolute and relative frequencies for categorical variables. The Chi-square test was used to analyze the association between pain severity and kinesiophobia (significance level of 5%).

Results: The total sample consisted of 168 women with a mean age of 34.2 years ($SD \pm 6.9$), 73.2% ($n = 123$) of mixed race, 42.3% ($n = 71$) married and 55.7% ($n = 93$) with a level of education ranging from complete high school to incomplete higher education. Regarding pain intensity in the last 30 days, the mean pain was 7.6 ($SD \pm 2.0$) points and 69.6% ($n = 117$) of the women reported severe pain. Regarding kinesiophobia, the mean on the TAMPA scale was 45.5 ($SD \pm 8.6$), in which 28% ($n = 47$) of the women presented severe kinesiophobia and 72.0% ($n = 121$) mild to moderate kinesiophobia. We observed that women who reported severe pain were associated with the presence of severe kinesiophobia ($p = 0.002$).

Conclusion: We evidenced that there was an association between greater pain severity and the presence of severe kinesiophobia.

Implications: The results of the study reinforce the need for comprehensive care for women with CPP so that there is a reduction in pain and fear of movement in their rehabilitation process. In clinical practice, the multidisciplinary team involved in assisting this population should look at both physical and psychological aspects.

Keywords: Kinesiophobia, Pelvic Pain, Women's health

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

Funding: Not applicable.

Ethics committee approval: CAAE: 67426223.4.0000.5188.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101379>

117

EFFECT OF THE MENSTRUAL CYCLE ON THE ISOMETRIC MUSCLE STRENGTH OF ELBOW FLEXORS IN HEALTHY ADULT WOMEN

Anna Julia Chaves Baldissera, Laura Bortolozzo Leitão, Lyncon Lima De Souza Silva, Alessandro Haupenthal, Janeisa Virtuoso

Universidade Federal de Santa Catarina (UFSC), Araranguá, SC, Brazil

Background: The menstrual cycle is characterized by variations in the concentrations of female sex hormonal steroids, which may influence skeletal muscle performance. However, the literature presents discrepancies regarding the impact of different phases of the menstrual cycle in muscle strength in women of reproductive age.

Objectives: To analyze the isometric muscle strength of elbow flexors in healthy adult women during different phases of the menstrual cycle.

Methods: This prospective cross-sectional observational study included 30 women aged 18 to 37 years, all with regular menstrual cycles and no use of contraceptives for at least four months. Participants were assessed during three phases of the menstrual cycle: follicular, ovulatory, and luteal. Assessments in the follicular phase were conducted on the first or second day of menstruation; in the ovulatory phase, on day 14; and in the luteal phase, one to two days before menstruation. Isometric muscle strength was measured using a hand-held dynamometer, with three repetitions of five seconds each, interspersed with 30 seconds of rest. Assessments were conducted with participants in an upright position and their elbows flexed at 90°. Numerical variables were analyzed using mean and standard deviation. Normality was verified using the Shapiro-Wilk test, and inferential analysis was performed using repeated measures Analysis of Variance (ANOVA) to compare muscle strength across the different phases, considering a significance level of $p > 0.05$.

Results: The study included 30 participants (22.3 ± 3.61 years; 64.1 ± 12.2 kg; 1.63 ± 0.05 m). For right elbow flexion, the mean strength values were: 12.9 ± 3.16 kgf in the follicular phase, 13.8 ± 3.25 kgf in the ovulatory phase, and 13.2 ± 2.31 kgf in the luteal phase. For the left arm, the mean values were: 12.9 ± 3.14 kgf in the follicular phase, 13.4 ± 3.51 kgf in the ovulatory phase, and 12.8 ± 2.69 kgf in the luteal phase. No statistically significant differences were observed between menstrual cycle phases ($p = 0.309$).

Conclusion: Hormonal fluctuations throughout the menstrual cycle did not show a significant influence on the isometric muscle strength of elbow flexors in healthy adult women.

Implications: The findings of this study contribute to the understanding of the relationship between the menstrual cycle and muscle performance, providing evidence that upper limb isometric strength may remain stable across menstrual phases in healthy women. Future studies with larger sample sizes and assessments of different muscle groups may complement these findings and further deepen the understanding of this topic.

Keywords: Woman, Muscle Strength, Menstrual Cycle

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

Funding: Not applicable.

Ethics committee approval: CAAE: 67426223.4.0000.5188.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101380>

118

CORRELATION BETWEEN PELVIC FLOOR MUSCLE FUNCTION AND TONE AND SEXUAL FUNCTION IN WOMEN WITH GENITO-PELVIC PAIN/PENETRATION DISORDER

Lyana Belém Marinho, Giovanna Beatriz Tobias Oliveira, Letícia Rodrigues Silva, Vanessa Santos Pereira Baldon

Universidade Federal de Uberlândia (UFU), Uberlândia, MG, Brazil

Background: Genito-pelvic pain/penetration disorder (GPPPD) negatively impacts women's quality of life and sexual function. Studies suggest that pelvic floor muscle (PFM) strength and tone may be associated with sexual dysfunction in this population, but this relationship is not well established.

Objectives: To assess the correlation between pelvic floor muscle function and tone and the sexual function of women with genito-pelvic pain/penetration disorder.

Methods: This is a cross-sectional study. Women over 18 years old who had engaged in sexual intercourse and experienced genito-pelvic pain/penetration before, during, or after intercourse were