

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 TAMPAs 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 TAMPAs 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 TAMPAs 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

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

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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

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

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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

included. Exclusion criteria were women who could not tolerate the insertion of a finger into the vaginal canal, pregnant women, those with pelvic inflammatory disease, and women undergoing post-radiation therapy in the pelvic region. A questionnaire was developed to collect socioeconomic data, urogenital and obstetric history, and lifestyle habits. Assessments included the Female Sexual Function Index (FSFI) for sexual function, the Reissing scale for muscle tone, and the modified Oxford scale for PFM strength. Data were analyzed using JASP software. The Shapiro-Wilk test was used to assess data normality, followed by Spearman's correlation test ($p < 0,05$).

Results: A total of 62 women were analyzed (age: $28,2 \pm 9,4$ years; BMI: $23,6 \pm 4,9$ kg/m²). The FSFI score was $17,3 \pm 7,0$, indicating sexual dysfunction. Muscle tone was $0,5 \pm 0,7$, and muscle strength was $3,2 \pm 1,0$. No significant correlation was found between PFM tone and FSFI ($r = 0,052$; $p = 0,692$) or between muscle strength and FSFI ($r = 0,088$; $p = 0,503$).

Conclusion: Findings indicate that in women with GPPPD, there is no correlation between PFM function and tone and sexual function. This suggests that biopsychosocial factors may have a greater influence on sexual function than pelvic floor muscle characteristics.

Implications: The results highlight the need for multidisciplinary approaches in managing sexual dysfunction in women with GPPPD. Future studies should explore other factors that may influence sexual function in this population.

Keywords: Sexual dysfunction, Pain, Sexuality

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EFFECT OF THE PILATES METHOD ON ABDOMINAL MUSCLE FUNCTION IN WOMEN WITH DIASTASIS RECTI

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Background: Diastasis recti (DRA) is characterized by the separation of the abdominal muscles due to the widening of the linea alba, leading to abdominal bulging and functional impairments. This condition is associated with abdominal muscle weakness, lower back pain, and pelvic floor dysfunctions, which can negatively impact women's quality of life. Conservative treatment is the first-choice approach, and physical therapy plays a fundamental role in this process. In this context, the Pilates Method has been suggested as an effective strategy for strengthening the abdominal muscles; however, there are still few studies investigating its effects on women with DRA.

Objectives: To evaluate the effects of the Pilates Method on abdominal muscle function in women with DRA.

Method: This is a randomized, longitudinal, and quantitative clinical trial. The study included 44 women over 18 years old, primiparous or multiparous, diagnosed with DRA (inter-rectus distance greater than 20mm). Participants were randomly divided into two groups: the Pilates Group ($n = 22$), which followed a Pilates exercise protocol twice a week for 12 weeks, with 30-minute supervised sessions; and the Control Group ($n = 22$), which did not receive any intervention during this period. Muscle function was assessed using the front plank and side plank tests (right and left), measuring the maximum holding time. Statistical analysis was performed using

SPSS software, employing the repeated measures ANOVA test for group comparisons and Tukey's post-hoc test. The significance level adopted was 5%.

Results: Both groups had similar characteristics before the intervention. After 12 weeks, a group-time interaction was observed in the right side plank [$F(1,38) = 9.29$; $p = 0.004$] and left side plank [$F(1,38) = 9.52$; $p = 0.004$] measurements. The post-hoc test showed an increase in plank holding time only in the Pilates Group, with a significant difference between groups after the intervention ($p < 0.001$). No statistically significant differences were observed in the front plank test.

Conclusion: The findings demonstrate that the Pilates Method significantly improves abdominal muscle function in women with DRA. The increased plank holding time indicates core muscle strengthening, which may contribute to improved lumbopelvic stability and reduced symptoms associated with DRA.

Implications: The results suggest that the Pilates Method can be incorporated as a therapeutic strategy for the rehabilitation of women with DRA, promoting functional improvement. However, the study did not assess the reduction of the inter-rectus distance, which limits the understanding of the structural effect of the intervention. Future research should include this evaluation for a more comprehensive approach to the effectiveness of Pilates in DRA.

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PAIN DURING SEXUAL INTERCOURSE IN WOMEN WITH AND WITHOUT SEXUAL DYSFUNCTION: A CROSS-SECTIONAL STUDY

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Background: Pain during sexual activity can alter the sexual response cycle, potentially leading to sexual dysfunction. Often underestimated in healthcare consultations, pain during sexual activity can negatively impact women's quality of life.

Objectives: To assess the frequency of pain during sexual activity in women with and without sexual dysfunction.

Methods: This is a cross-sectional study that included women aged = 18 years who reported having had sexual activity in the last four weeks. The study was approved by the Human Research Ethics Committee. Data were collected through an electronic form containing sociodemographic questions and the Female Sexual Function Index (FSFI) questionnaire to assess the presence of sexual dysfunction in six domains (desire, arousal, lubrication, orgasm, satisfaction, and pain). The risk of sexual dysfunction was considered for women with a total FSFI score = 26.55, and domain-specific cut-off points were < 2.4 for desire and < 3.6 for the other domains. A descriptive analysis was conducted to determine the frequency of pain during sexual activity in women with and without sexual dysfunction.