Office Excel, and the data were analyzed using the *Statistical Package for Social Science* - version 23.0. Results are presented as mean ± standard deviation, median (minimum and maximum amplitude) or absolute and relative frequency (n/%).
Results: Of 516 records, 50 (9.6%) events of unplanned extubations were identified in 3 of the 5 cities representing the regions of Brazil, being North (n=7/14%), Midwest (n=11/22%) and South (n=32/64%). The highest incidence of unplanned extubations was in premature newborns (n=36/72%), whose mean body weight on the day of the event was 2,312 ± 966 g. The median number of days on invasive mechanical ventilation was 5 (1-62) days. After unplanned extubation, 54% of the newborns needed non-invasive mechanical ventilation support (n=27) and 46% had failure and required reintubation in less than 48 hours (n=12), with a mean time between extubation and reintubation of 4.5 ± 13.72 hours.
Conclusion: Premature newborns weighing less than 2,500g presented, in this study, a higher incidence of unplanned extubation. In addition, the need for reintubation was frequent in the sample, thus indicating the adequacy of management during newborn care and handling of the endotracheal tube.
Implications: Knowing the characteristics of newborns with a higher incidence of unplanned extubation may improve care in the NICU, thus preventing the occurrence of adverse events.
Keywords: Newborn, Neonatal intensive care unit, Unplanned extubation

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PARTICIPATION OF INFANTS AT BIOLOGICAL RISK IS FACILITATED BY REMOTE INTERVENTION CARRIED OUT BY PARENTS — STEP PROTOCOL: RANDOMIZED CLINICAL TRIAL

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Background: Early intervention is highly recommended for infants who present some biological risk. Some principles of this intervention are well established, such as family-centered practice, parental involvement in-home therapy, and environmental enrichment. However, although participation is currently considered the main goal to be achieved in the intervention, few protocols assess this component, and even fewer use participation as a component of early intervention. Furthermore, it is essential to verify the effectiveness of remote protocols, considering that this modality of therapy delivery has been adopted more frequently in recent years.
Objectives: To verify the effectiveness of the remote STEP protocol (composed of stimulation of motor skills, participation, mother-child interaction, and environmental enrichment) in the participation of infants at biological risk at home in the first year of life.
Methods: This is a randomized controlled clinical trial. The study included 46 infants with biological risk (prematurity, low birth weight, hospitalization, cardiopulmonary resuscitation) between 3 and 9 months, who were randomized into the STEP Group (n=24, mean age=6.3 months) and the Control Group (n=22, mean age=6.4 months). Assessments were blinded, and infants were assessed for their frequency and involvement in participation at home by Young Children's Participation and Environment Measure (YC-PEM) via telephone interview, before and after the intervention. The STEP group 79had goals established by the parents and the intervention consisted of specific motor training (based on the principles of motor learning, focus on repetition, variation, and increasing the complexity of the task); stimulation of participation (increased involvement of the infant in daily tasks, such as feeding and self-care, and playing with family members); guidance regarding mother-child interaction and environmental enrichment (promotion of an environment rich in stimuli, with greater possibilities for exploration). The control group had its goals defined by the therapist, and the intervention was based on motor stimulation, according to the infant's abilities. In both groups, the intervention was carried out by the parents at home, with instructions given by the therapist remotely, lasting 10 weeks (5 times a week, 30 minutes a day). Infants showed no differences in baseline measurements. A Mann-Whitney test was applied to verify the difference between the change of groups after the intervention, with a significance of 5%.
Results: The STEP group showed significantly higher improvement compared to the control group after the intervention, in the domain of frequency (p=0.005) and participation involvement (p=0.005).
Conclusion: The STEP protocol proved to be promising to enhance the participation at home of infants at biological risk in the first year of life. This result reinforces the importance of stimulating participation in activities of daily living and interactions with the family.
Implications: Early intervention protocols that stimulate not only motor domains but also involve a biopsychosocial approach, should be included in clinical practice. The results demonstrate how this model, which takes into account preferences and family involvement, encourages participation, and has a low investment cost, can improve functionality in the first year of life.
Keywords: Early intervention, Infants, Participation

Conflict of interest: The authors declare no conflict of interest.
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ASSOCIATION BETWEEN ARTHRALGIA AND TIME OF HORMONIOTHERAPY IN WOMEN SUBMITTED TO ONCOLOGICAL TREATMENT

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Background: Hormone therapy is a highly effective treatment for reducing recurrence and mortality in women with breast cancer. However, it can cause several adverse effects such as arthralgia. Few studies investigate the factors that can influence arthralgia in women undergoing cancer treatment.
Objectives: to investigate the association between the duration of hormone therapy and arthralgia in women undergoing treatment for breast cancer.

Methods: This is a cross-sectional analytical study. The study included women using hormone therapy (Tamoxifen or Anastrozole) for breast cancer and complaining of arthralgia (at least 1 point on the Numerical Categorical Scale - NCS and 1 joint located on the Brief Pain Inventory - BPI). Women who had stage IV cancer, with the presence of lymphedema, limitation to answer questionnaires and women with tumor recurrence were excluded. Data distribution was evaluated using the Kolmogorov-Smirnov test. To determine the isolated contribution of Hormone Therapy Time (independent variable) to arthralgia (dependent variable) in women of hormone therapy for breast cancer, linear regression analyzes, and Spearman correlation coefficients were performed. The significance level was set at 5%. The correlation was classified according to the following criteria: weak (0.0 - 0.4), moderate (0.4 - 0.7) and strong (0.7 - 10).
Results: ninety-two women with a mean age of 53.68 years and a standard deviation of 9.53 participated in the study. The mean duration of hormone therapy use was 2.44 years, with a standard deviation of 1.45, and the mean duration of arthralgia was 5.38. with a standard deviation of 2.73. Arthralgia and duration of hormone therapy did not present a significant correlation (p=0.11; r=0.16).
Conclusion: no association was observed between the duration of hormone therapy and arthralgia in women undergoing treatment for breast cancer.
Implications: Although numerous studies report the presence of arthralgia in women who use hormone therapy in the treatment of breast cancer, the duration of hormone therapy does not seem to influence this complaint. However, prospective cohort studies are needed to confirm the effects of hormone therapy duration on arthralgia in women undergoing cancer treatment.
Keywords: Arthralgia, Hormone therapy, Association

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FLEXIBILITY AFTER 16 WEEKS OF PILATES EXERCISE IN WOMEN WITH ARTHRALGIA AFTER HORMONE THERAPY FOR BREAST CANCER

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Background: arthralgia is a common symptom after treatment with hormone therapy for breast cancer and can lead to several complications, including loss of flexibility. Studies have recommended performing the Pilates exercise to minimize morbidities resulting from cancer treatment.
Objectives: to evaluate flexibility after 16 weeks of Pilates exercise in women with arthralgia after hormone therapy for breast cancer.
Methods: observational study, carried out at the physiotherapy clinic of the High Complexity Oncology Unit. Women with complaints of arthralgia during hormone therapy and who participated in a Mat Pilates exercise program (twice a week for 16 weeks) were included, and women with active cancer or who did not complete the 16 weeks of exercise were excluded. Flexibility was evaluated through the "sit-and-reach test" using the SANNY Instant Unisex Pro Portable Wells Bench. Statistical analysis was performed using GraphPad Prism. The data were submitted to the Kolmogorov-Smirnov normality test, followed by the paired t-test (parametric data) or the Wilcoxon test for repeated measures (non-parametric data), considering a significance level of 5%.
Results: eight women with a mean age of 57.25±12.61 completed the 16 weeks of performing the Pilates exercise, 5 using hormone therapy with Tamoxifen and 3 using Anastrozole. The women had mean and standard deviation for flexibility of 18.12±5.66 at the beginning and 22.75±6.88 after 16 weeks of Pilates exercise (p=0.004). The group that used Tamoxifen presented flexibility of 16.7±4.99 before and 21.4±7.57 after Pilates (p=0.04) and the group using Anastrozole presented flexibility of 20.5± 7 before and 25±6.26 after Pilates (p=0.16).
Conclusion: There was greater flexibility in women after performing the Pilates exercise.
Implications: Pilates exercises have the potential to improve the flexibility of women undergoing cancer treatment. However, randomized controlled trials, with a significant sample, are needed for better scientific evidence of the effects of Pilates exercise on the flexibility of women with arthralgia.
Keywords: Arthralgia, Pilates, Pliability

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ELECTROMYOGRAPHIC PROFILE OF THE WRIST AND ELBOW FLEXORS DURING PNF MOTOR IRRADIATION

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Background: Proprioceptive Neuromuscular Facilitation (PNF) is a concept that has been applied to treating numerous disabling disorders. Among the basic PNF procedures, there is motor irradiation, in which resistance is applied to a body segment to generate muscle activation in another segment and thus obtain improvement in muscle strength. The generated muscular activation can be analyzed in several ways, one of them being Electromyography (EMG). Electromyographic analysis has suggested that target muscles of irradiation demonstrate electromyographic activity during irradiation in healthy individuals and in those with neurological disorders. Despite this, the neuromuscular activation profile (amplitude and temporality) resulting from the different stimuli and positions used in PNF has not yet been investigated.
Objectives: To analyze the neuromuscular activation profile of upper limb muscles in healthy individuals during the application of different PNF irradiation protocols.
Methods: This is a cross-sectional study in which 32 healthy individuals of both sexes, aged between 18 and 45 years. After signing the consent form, the handedness of a subject in activities of daily living, level of physical activity, and sociodemographic characteristics will be identified. First, the EMG signals of the upper limb muscles (biceps brachii, brachioradialis, flexor carpi radialis, and triceps) will be collected during a maximum voluntary contraction (3 repetitions held for 3s with an interval of 30s between contractions).