

Then, the EMG signal of these muscles of the non-preferential limb will be collected, during 4 PNF irradiation techniques in a randomized order for each participant. Each irradiation will be applied 3 times, maintaining the contraction for 5s, with a 10s interval between them. After each irradiation will be checked the perceived exertion.

**Results:** The study is in the data collection phase.

**Conclusion:** It is expected through this study to verify if the applied irradiation techniques activate the musculatures described anecdotally in the clinical literature.

**Implications:** The study can generate an understanding of motor irradiation and the use of the technique to improve the strength of a body segment.

**Keywords:** Irradiation, Proprioceptive neuromuscular facilitation, Electromyography

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

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## ASSOCIATION BETWEEN ENVIRONMENTAL FACTORS AND AFFORDANCES FOR THE NEUROPSYCHOMOTOR DEVELOPMENT: A CROSS-SECTIONAL STUDY

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**Background:** In the world, 1 billion children live in poverty. Regarding developing countries, Brazil has the highest rate of social inequality. Environmental factors may impact child development and, consequently, functionality.

**Objectives:** to analyze the association between environmental factors and affordances in the home environment of healthy infants exposed to low socioeconomic status (SES).

**Methods:** At 3 months old, 128 full-term healthy infants were divided into two groups: the exposed group (EG), infants classified as low SES, and the comparison group (CG), infants without low SES exposition; both according to the income-to-poverty ratio (PIR). The affordances in the home environment were measured by The Home Environment for Motor Development – Infant Scale (AHEND-IS); physical space, variety of stimulation, gross-motor toys, fine-motor toys, and total score. It classified the affordances: as less than adequate (LTA), moderately adequate (MA), adequate (A), and excellent (E). In the SPSS 2.0, comparison tests and stepwise multiple linear regression were performed ( $p < 0.05$ ).

**Results:** Infants of the EG had significantly the lowest mean in length at birth ( $p=0.03$ ; Cohen's  $r=0.157$ ); PIR ( $p<0.01$ ; Cohen's  $r=0.351$ ); maternal age ( $p<0.01$ ; Cohen's  $r=0.50$ ); marital status of guardians ( $p<0.01$ ; Cohen's  $r=0.31$ ); the number of children living in the household ( $p<0.0001$ ; Cohen's  $r=0.29$ ); and maternal education ( $p<0.01$ ; Cohen's  $r=0.73$ ). The home environment of the EG presented less affordances for child development in the dimensions of gross motor toys ( $p<0.0001$ ; Cohen's  $r=0.353$ ; EG,  $md=2.00$  [1.00 – 3.00] vs GC,  $md=3.00$  [2.00 – 4.50]); fine motor skills ( $p=0.0001$  Cohen's  $r=0.327$ ; EG,  $md=1.00$  [0.00 – 2.00] vs GC,  $md=2.00$  [1.00 – 4.00]); and the total score ( $p<0.0001$ ; Cohen's  $r=0.377$ ; EG,  $md=15.00$  [13.00 – 18.00] vs GC,  $md=19.00$  [16.00 – 22.00]). Maternal age was a protective factor for obtaining the LTA score ( $p=0.043$ , OR: 0.829 [0.692 - 0.994]). Therefore, each additional year in maternal age decreases 17.01-fold the chance the affordances in the home environment score LTA.

**Conclusion:** The home environment of infants exposed to poverty presented less adequate affordances for neuropsychomotor development, mainly in the dimensions of gross motor toys, fine motor toys, and, consequently, total score. In contrast, the higher the maternal age, the better the results regarding the quantity and quality of affordances present in the home environment.

**Implications:** Knowledge about offering adequate affordances for neuropsychomotor development is essential for providing healthy child development. Basic kits of age-appropriate toys offered during the follow-up may be useful as palliative and low-cost tools.

**Keywords:** Low Socioeconomic Status, Maternal Age, Child Poverty

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## NORMATIVE VALUES FOR ISOMETRIC MUSCLE STRENGTH OF HIP FLEXORS WITH HAND-HELD DYNAMOMETER IN UNIVERSITY ATHLETES

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**Background:** Establishing normative strength data can assist professionals in guiding post-injury rehabilitation and be a criterion for deciding discharge for sports return.

**Objectives:** To establish reference values for isometric hip flexor muscle strength in college athletes.

**Methods:** This was a cross-sectional observational study. The athletes were submitted to an isometric muscle strength evaluation of the hip flexors through a hand-held dynamometer (Medeor Medtech Tecnologia em Saúde Industria e Comercio Ltda). The athletes remained in dorsal decubitus position on a stretcher, with the tested leg flexed 10 cm above the surface to start the test. The dynamometer was positioned on the anterior part of the leg, above the talotibial joint line. The lever arm was defined as the distance, in meters (m), between the anterior superior iliac spine and the dynamometer application point. The athletes performed three isometric contractions of 5 seconds, with a rest interval of 30 seconds between repetitions. If there was a discrepancy greater than 10% in the first three