education process to remain informed about the most current evidence that appears in the field of medicine.
*Keywords:* Evidence-Based Medicine, Scientific Evidence, Training in Medicine

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## WHAT IS THE MOST COMPLETE OBSERVATIONAL METHOD OF ANALYSIS OF BIOMECHANICAL EXPOSURE IN THE CRITERIA USED?

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*Background:* There is a wide variety of observational methods for analyzing the biomechanical exposure of workers in the work environment. Valentim et al. (2023) performed a systematic review of these methods and identified 10 explicit observational methods of analyzing biomechanical exposure with high quality of evidence and good measurement properties. The lack of studies that analyze the criteria, the specificity and the way in which these methods evaluate the exposure factors, and their dimensions (frequency, intensity, and magnitude) stimulated this study.
*Objectives:* To present the characteristics and criteria of the 10 most observational methods with adequate reproducibility and validity measurement properties, and with acceptable quality of evidence.
*Methods:* This is an analytical and descriptive study of the 10 observational methods for analyzing the biomechanical exposure of workers identified in the systematic review by Valentim et al. (2023), being the most researched and with adequate properties for measuring reproducibility, validity, and acceptable quality. of evidence. Three professionals with knowledge and experience in using the methods carried out a weighted assessment, seeking to identify the main characteristics of each method (occupational task evaluated and main posture of analysis), in addition to data on risk factors, their dimensions and body segments of each method. Finally, the influence of each criterion on the risk exposure classification was evaluated, based on the partial and final scores.
*Results:* Among the evaluated methods, seven of them present characteristics and criteria that allow a general evaluation of the worker in any main posture. The most evaluated risk factors were joint position and range of motion. The EAWS method is the method that most evaluates biomechanical exposure factors (nine out of the ten listed). The ACGIH HAL TLV and RULA do not assess all biomechanical exposure factors. ROSA is the method that evaluates a greater number of body segments. The trunk and isolated segments, such as the shoulder and wrist, are present in the evaluation of seven of the ten methods. The EAWS, PATH, REBA, ROSA, and RULA methods assess the lower limbs in general. Most of the criteria (exposure factors and body segments) evaluated by the 10 observational methods have a great influence on the classification of risk exposure.
*Conclusion:* The EWAS, OWAS, PATH, QEC, REBA, RULA and SI methods evaluate any task in general. The ACGIH HAL TLV and ROSA methods are directed to specific tasks. The assessment of biomechanical factors and body parts vary between each method and the most complete and detailed observational method among all analyzed in this study is the European Assembly Worksheet (EAWS).
*Implications:* Getting to know the methods better is essential and will help both in choosing the most appropriate method for the analysis and in choosing more assertive preventive measures in the work environment. Contributing to the decision-making of professionals and favoring the reduction of work-related musculoskeletal disorders.
*Keywords:* Occupational Risk, Physiotherapy, Occupational Health

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## ELECTROMYOGRAPHIC ACTIVITY OF THE GLUTEUS MAXIMUS DURING PILATES METHOD EXERCISES COMPARED TO THE SQUAT EXERCISE

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*Background:* Among the muscles worked in the Pilates method exercises, emphasis is placed on activating the Gluteus Maximus (GM), due to its role in pelvic stabilization during functional activities. An ineffective activation of the GM can contribute to lumbopelvic instability and generate overload on the lumbar spine and other joints of the lower limb. In this way, exercises with an emphasis on GM activation are essential for clinical practice in the prevention and rehabilitation of different musculoskeletal disorders, becoming part of the Pilates method and of conventional exercises.
*Objectives:* To compare the level of muscle activation of the gluteus maximus during Pilates method exercises in relation to conventional exercise.
*Methods:* This is a cross-sectional study. All participants signed an informed consent form. The following were eligible for the study: women between 18 and 30 years old; without the presence of degenerative diseases in the hip joints and history of injury or trauma in the lower limbs and lumbar spine. Pain in the pelvis and lumbar spine were considered as a criterion for non-eligibility. Personal and anthropometric data from the participants were collected, followed by an exercise protocol associated with the assessment of electromyographic signals from the GM. The Pilates method exercise protocol included: superman, bird dog and pelvic elevation. The squat exercise was performed as part of the conventional protocol. A familiarization of each exercise was performed, followed by three valid executions with an interval of 40 seconds between each repetition and five minutes between each set of exercises. There was a verbal stimulus in relation to the contraction of the GM muscle during the execution. Electromyographic data were performed during the four exercises using Surface Electromyography (EMG). The electrodes were positioned following the SENIAM rules. For the analysis of the electromyographic data, specific routines were used in a Matlab environment, with the mean value of the linear envelope of the three attempts of each exercise and