







Validation of the EPPA! Software for Automated Posturographic Assessment in the Standing Position

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Abstract. The software EPPA! (from the Spanish acronym Evaluación Posturográfica de Pie Automatizada) was developed in the academic field in 2023. It is used for automated posturographic evaluation in a standing position. The program processes 57 postural variables: 18 angular and 39 linear. These variables are obtained from photographic images taken from four anatomical views: anterior, posterior, right, and left. The data is organized into four body regions: cervical-cephalic, spine and trunk, shoulder girdle and upper limbs, and pelvic girdle and lower limbs. This information is essential for developing clinical diagnoses based on objective evidence. The aim of this paper is to present: the inter-rater statistical validation of the EPPA! providing evidence on its consistency and reproducibility.

Eight expert evaluators (physical therapists or physiotherapists) in the clinical assessment of posture were invited to participate in the sample. The Intraclass Correlations Coefficient (ICC) about inter rater, of the total of 57 variables studied, 78.95% were EXC, 7.02% were VG, 3.51% were A and 10.53% were NA. In terms of statistical significance only three variables had p-values >0.05, so they were not significant. The performance of each evaluator was performed by comparing the measured value of each evaluator with the sample average. It is concluded from the results obtained that the software is suitable and reliable for the whole-body postural assessment of the person in a standing position.

Keywords: Automated Postural Assessment · Posturography · Validating Software