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INTER- AND INTRA-EXAMINER RELIABILITY OF THE PHYSIOCODE POSTURE APPLICATION FOR QUANTITATIVE ASSESSMENT OF POSTURAL ALTERATIONS: PRELIMINARY DATA

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Background: Posture is defined as the alignment of body segments or the relative positioning of body parts for a specific activity. Traditional postural assessment is based on visual analysis, through qualitative observation of spinal curvatures and asymmetries from lateral, anterior, and posterior views. In most cases, it is subjective, as it relies heavily on the evaluator's experience and skill to interpret the results. With current technological advancements, the use of digital photography is being considered and applied for quantitative postural assessment. Physiocode Posture is an Android application designed to identify postural and movement alterations quantitatively.

Objectives: This study aimed to investigate the inter- and intra-examiner reliability of the Physiocode Posture application for the quantitative assessment of postural alterations.

Methods: This is a cross-sectional observational study conducted with 32 volunteers aged 18 to 30 years. Data collection took place on two separate days, with a seven-day interval between assessments. The Physiocode Posture app was used for quantitative postural analysis in the right and left lateral views. Images were captured using a smartphone mounted on a tripod, positioned at a standardized distance of 2.4 meters from the volunteers, with height adjusted according to each participant's stature. Anatomical points were identified and marked with retro-reflective markers to facilitate analysis. The volunteers were instructed to maintain an orthostatic posture, with their gaze fixed on a reference point. The evaluators performed the measurements independently and underwent a familiarization phase with the application before the study began. Inter- and intra-examiner reliability was assessed using the Intraclass Correlation Coefficient (ICC), analyzed with SPSS software.

Results: The study results suggest varying ICC values, with inter-examiner reliability generally higher than intra-examiner reliability. The reliability of the same evaluator in the right and left lateral views ranged from poor to moderate, while the reliability between different evaluators in the same views was good to excellent.

Conclusion: The Physiocode Posture application demonstrated good to excellent inter-examiner reliability, highlighting its potential as a quantitative postural assessment tool. However, intra-examiner reliability was lower, emphasizing the need for improvements in the use of the application and its methodology.

Implications: This study fills an important gap in the literature by investigating the reliability of Physiocode Posture in the quantitative assessment of postural alterations, a topic that has been minimally explored. By analyzing and reporting the application's reliability in different contexts, the study contributes to the consolidation of more objective and precise postural assessment methods, providing reliable data that can support clinical decision-making.

Keywords: Data Accuracy, Posture, Mobile Applications

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KNOWLEDGE, ATTITUDES, PRACTICES, AND BARRIERS OF PHYSICAL THERAPISTS REGARDING HEALTH PROMOTION IN FORTALEZA, BRAZIL: PRELIMINARY RESULTS

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Background: Noncommunicable chronic diseases (NCDs) are a leading cause of death and disability worldwide, including in Brazil. Fortaleza, the largest capital in the northeast, mirrors this trend. The main types of NCDs are cardiovascular diseases (heart attacks and stroke), cancers, chronic respiratory diseases (obstructive pulmonary disease and asthma), and diabetes. The World Health Organization recommends that health professionals focus on health promotion to manage well-being and prevent NCD risk factors like physical inactivity, and smoking, using behavior change theoretical frameworks. While physiotherapists are well-positioned to promote health and mitigate NCDs risks, there is little information on their competencies and barriers in health promotion in Brazil.

Objectives: To investigate the knowledge, attitudes, practices, and barriers to health promotion among physical therapists in Fortaleza.

Methods: A cross-sectional study was conducted using the Brazilian version of the "Knowledge, Attitudes, and Practice" questionnaire, which 30 physical therapists completed. Physical therapists were considered eligible for the study if they were currently practicing and providing services to adults. The questionnaire underwent cross-cultural adaptation following recommended procedures, ensuring appropriate semantic, idiomatic, cultural, and conceptual Equivalence in the final translated version. The ethical review board of the university approved this study and consent was considered implied for the physical therapists who participated. The questionnaire included 26 items designed to identify knowledge, attitudes, and practices related to health promotion. One item was added to the end of the questionnaire, to identify the most frequent barriers to updating clinical practice regarding health promotion. For most items, participants indicated their level of agreement using a 5-point Likert scale. Descriptive statistics and percentages were calculated for the data.

Results: Participants, aged 25 to 47 years (mean: 32.6, SD: 5.8), were predominantly women (63.3%). The most common highest education level was a bachelor's degree with an additional certificate (52%), and 67% had less than 9 years of clinical experience. Most respondents recognized health promotion as important disease prevention (83.3%) and behavior change (77%). However, over half lacked knowledge of behavior change theories (53%) and felt physical therapists were not well-positioned to meet clients' health promotion needs (57%). All participants agreed that physiotherapists should use appropriate methods and collaborate with stakeholders to enhance health promotion effectiveness (100%). Most reported consistently incorporating health promotion into client care (70%), with a lack of understanding about health promotion and time cited as the primary (62%) and second barriers (50%), respectively.

Conclusion: Physical Therapists from an underprivileged region of Brazil expressed positive attitudes towards health promotion;