

# INTER-RATER RELIABILITY OF THE SELECTIVE FUNCTIONAL MOVEMENT ASSESSMENT (SFMA) BY SFMA CERTIFIED PHYSICAL THERAPISTS WITH SIMILAR CLINICAL AND RATING EXPERIENCE

Jeffery Dolbeer, PT, DSc<sup>1</sup>

John Mason, PT, DSc<sup>2</sup>

Jamie Morris, PT, DSc<sup>3</sup>

Michael Crowell, PT, DSc<sup>4</sup>

Donald Goss, PT, PhD<sup>1</sup>

## ABSTRACT

**Background:** The Selective Functional Movement Assessment (SFMA) assesses posture, muscle balance, and movement patterns in order to identify relevant musculoskeletal dysfunction in a clinical population.

**Purpose:** The purposes of this study were to: (1) determine if raters with similar clinical experience and rating experience exhibit adequate agreement of the scoring for the SFMA during clinical use; (2) determine the reliability of the categorical scoring of the SFMA in a clinical population; (3) determine the reliability of the criterion checklist scoring of the SFMA in a clinical population; (4) compare the reliability of real-time assessment to recorded assessment.

**Design:** Inter-rater reliability study

**Methods:** 49 clinical subjects (20.7 years  $\pm$  1.6) were simultaneously assessed in real-time by two physical therapists and were recorded with digital video cameras in the sagittal and frontal view while they performed the fifteen component movement patterns that comprise the top-tier SFMA. The third physical therapist assessed the patterns from the video. Subjects were assessed using the SFMA categorical scoring and criterion checklist scoring tools.

**Results:** The two live clinical raters demonstrated the greatest Cohen's Kappa scores (10 of 15) with moderate or better inter-rater agreement (Kappa > 0.40) using the categorical scoring tool. The overall ICC [2,1] score indicated fair to moderate agreement between all raters for the criterion checklist scoring (ICC, SEM, p-value) (0.61, 8.23, p < 0.001). Real time clinical use was the most reliable method for using the criterion checklist scoring tool (0.72, 1.95, p=0.43).

**Conclusions:** Using the categorical and criterion checklist tools in a clinical population to score the fifteen component fundamental movements of the SFMA demonstrated moderate or better reliability when performed clinically by certified SFMA raters.

**Level of Evidence:** Reliability, Level 2

**Key words:** Dysfunction, functional movement, reliability

<sup>1</sup> Baylor University-Keller Army Community Hospital Division  
Sports Physical Therapy Fellowship, West Point, NY, USA

<sup>2</sup> Womack Army Medical Center, Fort Bragg, NC, USA

<sup>3</sup> Brooke Army Medical Center, Fort Sam Houston, TX, USA

<sup>4</sup> US Army Office of the Surgeon General, Falls Church, VA, USA

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## CORRESPONDING AUTHOR

Jeffery Dolbeer

Keller Army Community Hospital, Arvin

Sports Physical Therapy Clinic

900 Washington Road

West Point, NY 10996

E-mail: jeff.dolbeer@gmail.com