Reliability and Validity of the Japanese Version of the Modified Gait Efficacy Scale

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Purpose: The aim of this study was to determine the reliability and validity of the Japanese version of the modified Gait Efficacy Scale (mGES) as a measure of walking confidence under challenging everyday circumstances in community-dwelling older adults.

Methods: Two-hundred forty older individuals living at home aged 65 years or over (mean 73.5 years) participated in this study. Participants were assessed using the Japanese version of mGES and measures of physical performance (chair-stand test, one-legged standing time, walking speed, and 6-minute walking distance), fear of falling, and life-space assessment (LSA). In a subsample of participants (n = 31), the Japanese version of mGES was administered twice, within 14 to 20 days, to establish test-retest reliability through the intraclass correlation coefficient (ICC [2,1]).

Results: The Japanese version of mGES demonstrated excellent test-retest reliability (ICC [2,1] = 0.945, 95% confidence interval 0.891–0.973, p < 0.001). The Japanese version of mGES was related to measures of physical performance and LSA. Logistic regression analysis revealed that sex (female), walking speed and the Japanese version of mGES were significantly associated with fear of falling.

Conclusion: The Japanese version of mGES is a reliable and valid measure of walking confidence in community-dwelling older adults.