Psychometric Validation of the Swahili Community Balance and Mobility Scale for Stroke Survivors in Coastal Kenya

J, u, m, a, M, w, e, n, d, a, ,, A, b, d, u, l, r, a, h, m, a, n, M, w, i, n, y, i, ,, M, u, t, h, o, n, i, W, a, w, e, r, u, ,, G, r, a, c, e, A, k, i, n, y, i, O, m, o, n, d, i

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Abstract

Stroke survivors in coastal Kenya require culturally and linguistically appropriate tools to assess high-level balance and mobility. The Community Balance and Mobility Scale (CB&M) is a validated instrument for this purpose, but no Swahili version exists for use in this region. This study aimed to translate and cross-culturally adapt the CB&M into Swahili and to evaluate the psychometric properties, specifically the reliability, of the Swahili CB&M for use with adult stroke survivors in coastal Kenya. A methodological study was conducted. The original CB&M was translated into Swahili using a forward-backward translation process and cross-cultural adaptation. Content validity was assessed by an expert panel. The Swahili CB&M was then administered to a sample of community-dwelling stroke survivors. Reliability was evaluated through internal consistency (Cronbach's alpha) and test-retest reliability (intraclass correlation coefficient, ICC) with a one-week interval. The Swahili CB&M demonstrated excellent internal consistency (Cronbach's alpha = 0.92) and excellent test-retest reliability (ICC = 0.95). Qualitative feedback from participants indicated the instructions and items were clear and relevant to their daily activities. The Swahili version of the Community Balance and Mobility Scale is a reliable tool for assessing high-level balance and mobility in Swahili-speaking stroke survivors in coastal Kenya. The Swahili CB&M is recommended for clinical and research use with this population. Further

research should establish its construct validity, responsiveness, and minimal clinically important difference. Stroke rehabilitation, Outcome assessment, Psychometrics, Translation, Reliability, Kenya This study provides the first Swahili-language tool for assessing high-level balance and mobility in stroke survivors, addressing a gap in appropriate outcome measurement for this population in coastal Kenya.