

## Publication

Psychometric properties of the MOBITEC-GP mobile application for real-life mobility assessment in older adults.

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Aim of this study was to test the reliability and validity of the life-space measures and walking speed delivered by the MOBITEC-GP app. Participants underwent several supervised walking speed assessments as well as a 1-week life-space assessment during two assessment sessions 9 days apart. Fifty-seven older adults (47.4% male, mean age= 75.3 (±5.9) years) were included in the study. The MOBITEC-GP app showed moderate to excellent test-retest reliability (ICCs between 0.584 and 0.920) and validity (ICCs between 0.468 and 0.950) of walking speed measurements of 50 meters and above and of most 1-week life-space parameters, including life-space area, time spent out-of-home, and action range. The MOBITEC-GP app for Android is a reliable and valid tool for the assessment of real-life walking speed (at distances of 50 metres and above) and life-space parameters of older adults. Future studies should look into technical issues more systematically in order to avoid invalid measurements.

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