

Publication

Map-based assessment of older adults' life space: validity and reliability.

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 4614332

Author(s) Hinrichs, Timo; Zanda, Adriana; Fillekes, Michelle P; Bereuter, Pia; Portegijs, Erja; Rantanen, Taina; Schmidt-Trucksäss, Arno; Zeller, Andreas W; Weibel, Robert

Author(s) at UniBasel [Zeller, Andreas](#) ; [Schmidt-Trucksäss, Arno](#) ;

Year 2020

Title Map-based assessment of older adults' life space: validity and reliability.

Journal European review of aging and physical activity : official journal of the European Group for Research into Elderly and Physical Activity

Volume 17

Number 1

Pages / Article-Number 21

Keywords Aged; Environment; Geographic information systems; Mobility

Map-based tools have recently found their way into health-related research. They can potentially be used to quantify older adults' life-space. This study aimed to evaluate the validity (vs. GPS) and the test-retest reliability of a map-based life-space assessment (MBA).; Life-space of one full week was assessed by GPS and by MBA. MBA was repeated after approximately 3. Distance-related (mean and maximum distance from home) and area-related (convex hull, standard deviational ellipse) life-space indicators were calculated. Intraclass correlations (MBA vs. GPS and test-retest) were calculated in addition to Bland-Altman analyses (MBA vs. GPS).; Fifty-eight older adults (mean age 74, standard deviation 5.5; 39.7% women) participated in the study. Bland-Altman analyses showed the highest agreement between methods for the maximum distance from home. Intraclass correlation coefficients ranged between 0.19 (95% confidence interval 0 to 0.47) for convex hull and 0.72 (95% confidence interval 0.52 to 0.84) for maximum distance from home. Intraclass correlation coefficients for test-retest reliability ranged between 0.04 (95% confidence interval 0 to 0.30) for convex hull and 0.43 (95% confidence interval 0.19 to 0.62) for mean distance from home.; While acceptable validity and reliability were found for the distance-related life-space parameters, MBA cannot be recommended for the assessment of area-related life-space parameters.

ISSN/ISBN 1813-7253

Full Text on edoc ;

Digital Object Identifier DOI 10.1186/s11556-020-00253-7

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/33292160>