

Criterion validity of the sedentary behavior question from the global physical activity questionnaire in older adults

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Background: To assess the validity of the single question to determine sedentary behavior (SB) by using the Global Physical Activity Questionnaire (GPAQ) in older adults. **Methods:** The sample included 163 participants (96 women) aged 65-92 years. Self-reported SB was obtained from the GPAQ. Objectively measured SB was assessed using the Intelligent Device for Energy Expenditure and Activity. Participants wore the Intelligent Device for Energy Expenditure and Activity continuously during 2 consecutive days while following their daily routine. The relative validity was assessed using the Spearman rank correlation coefficient (r), and the agreement was examined using mean bias and 95% limit of agreement with the Intelligent Device for Energy Expenditure and Activity as reference. **Results:** The results showed small correlations ($r = .291$, $P < .001$) between the SB from the GPAQ and the objective measures, and ranged from $r = .217$ to $r = .491$ depending on the potential moderator. Similarly, the GPAQ underestimates the SB for approximately 2 hours per day in older adults (limit of agreement = -7.3 to 3.4 h/d). **Conclusion:** The GPAQ may not be the most suitable questionnaire for measuring SB in this population and should be used with caution because those studies that use this questionnaire in older adults may have an inaccurate measurement of SB levels. © 2020 Human Kinetics, Inc.

GPAQ

IDEEA

Objective measurement

Self-report

Validation

aged

article

controlled study

correlation coefficient

energy expenditure

female

human

human experiment

human tissue

limit of agreement

major clinical study

male

physical activity

questionnaire

sedentary lifestyle

self report

validity

exercise

physiology

questionnaire

very elderly

Aged

Aged, 80 and over

Exercise

Female

Humans

Male

Sedentary Behavior

Surveys and Questionnaires