



Validity of the Brief physical activity assessment tool for clinical use in COPD

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Abstract

Background: Low physical activity (PA) levels have been associated with adverse outcomes in patients with COPD. Thus, PA should be routinely assessed to identify insufficiently active patients. There are several tools to assess PA, however, some are too expensive (e.g., accelerometers) or long (e.g., self-report questionnaires) to be applied in resource- or time-constrained clinical settings. This study assessed the validity of the Brief physical activity assessment (Brief-PA) tool for clinical use in COPD.

Methods: The Brief-PA tool (Marshall et al, Br J Sports Med. 2005;39:294-7) consists of 2 questions assessing the frequency and duration of moderate and vigorous PA (MVPA) undertaken in a 'usual' week. A total score is calculated (range 0-8). Sixty-seven patients with COPD (67.6±11.6yrs, FEV1=72.9±23.6%pred) completed the Brief-PA tool and the International Physical Activity Questionnaire short-form (IPAQ-sf). A sub-sample (n=46, 63.1±16.2yrs, FEV1=76.6±23.1%pred) used an accelerometer (Actigraph GT3X+) for 4 consecutive days. Validity was assessed by correlating the Brief-PA total score with IPAQ-sf (MET-min/week) and accelerometer (MVPA, steps/day) data.

Results: The total score of the Brief-PA tool was significantly correlated with the IPAQ-sf MET-min/week ($r=0.523$, $p<0.001$) and accelerometer-based MVPA ($r=0.529$, $p<0.001$) and daily steps ($r=0.565$, $p<0.001$).

Conclusions: The Brief-PA tool seems to be a valid tool to assess patients' PA. Thus, it may be valuable to identify insufficiently active patients who may need PA advice. Further research is needed to support these findings and to assess the feasibility of including the Brief-PA tool in patients' routine assessment in clinical settings.