ABSTRACT

Objective: The objective of the current set of studies was to develop a reliable and valid physical activity screening measure for use with adolescents in primary care settings.

Study Design: We concluded two studies to evaluate the test-retest reliability and concurrent validity of six single item and three composite measures of physical activity. Findings informed modifications, and a best measure was evaluated in Study 3. Accelerometer data served as the criterion standard for tests of validity.

Results: In Study 1 (N=250, mean age=15 yrs, 56% female, 36% Caucasian), reports on the composite measures were most reliable. In Study 2 (N=57, mean age=14 yrs, 65% female, 37% Caucasian), six of the nine screening measures correlated significantly with accelerometer data. Subjects, however, had great difficulty reporting bouts of activity and distinguishing between intensity levels. Instead, we developed a single measure assessing accumulation of 60 minutes of moderate-to-vigorous physical activity (MVPA). Evaluated in Study 3 (N=148, mean age=12 yrs, 65% female, 27% Caucasian), the measure was reliable (intraclass correlation=.77) and correlated significantly (r = .40, p<.001) with accelerometer data. Correct classification (63%), sensitivity (71%), and false positive rates (40%) were reasonable.

Conclusion: The MVPA screening measure is recommended for clinical practice with adolescents. The measure has been incorporated into the PACE+ computer-mediated physical activity program for adolescents in primary care.

Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time.

Physical activity can be done in sports, playing with friends, or walking to school. Some examples of physical activity are running, brisk walking, rollerblading, biking, dancing, skateboarding, swimming, soccer, basketball, football, & surfing.

Add up all the time you spend in physical activity each day (don’t include your physical education or gym class).

P1. Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?

0 days 1 2 3 4 5 6 7 days

P2. Over a typical or usual week, on how many days are you physically active for a total of at least 60 minutes per day?

0 days 1 2 3 4 5 6 7 days

Scoring: (P1 + P2) / 2 < 5 => not meeting physical activity guidelines