

Psychometric Validation of Physical Activity from the Youth Health Behavior Survey

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Background: The Youth Health Behavior Survey (YHBS) is a 26-item survey with items in the domains of physical activity (PA), nutrition, and access to preventative health services. Although the YHBS was developed from previously validated tools, the validity of the YHBS itself has not been previously validated. **Purpose:** To validate baseline PA from the YHBS between a sub-sample of fourth grade students attending schools partnered with the Healthy Futures Initiative, a three-year multi-level, school-based intervention addressing childhood obesity. **Methods:** The YHBS was completed by 220 students at baseline among four schools (Schools A, B, C, D). Validity was assessed between schools with Pearson product-moment correlation coefficients. Because Questions 2 and 4 violated the basic assumption of normality, a Spearman's rho correlation coefficient was used. Alpha levels were set at $p < 0.05$. **Results:** A total of five questions were assessed for validation (Table 1). A significant positive relationship was found between the responses of Schools A and C for Question 2, $r_s = 0.36$, $p = 0.05$. A significant negative relationship was also found between the responses of Schools B and D for Question 4, $r_s = -0.287$, $p = 0.035$. No other relationships were found between the responses of any school for Questions 1, 3, or 5 ($p > 0.05$). **Conclusion:** Because we found significant relationships between Schools A and C for Question 2, and Schools B and D for Question 4, from the PA sub-section of the YHBS, use of these questions is validated for the study population. The development of more age-appropriate language for Questions 1, 3, and 5 of the YHBS may better evaluate the self-reported PA among fourth grade students in the Greater Philadelphia region.

Table 1: Five Physical Activity (PA) Questions Validated from the Youth Health Behavior Survey

Question 1	During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?
Question 2	On an average school day, how many hours did you watch TV?
Question 3	On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work?
Question 4	In an average week when you are in school, on how many days do you go to physical education classes?
Question 5	During the past 12 months, on how many sports teams did you play?" between the responses of any of the schools

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