

Validity of a Nutrition Knowledge Questionnaire for Adults with Intellectual Disability

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ABSTRACT

Nutrition professionals consider individuals with intellectual disabilities to be nutritionally vulnerable or at risk for becoming overweight or obese. Presently there is limited empirical evidence regarding the nutritional habits and education of individuals with intellectual disabilities. Currently the Special Olympics Healthy Athletes program has become the largest global public health organization dedicated to serving people with intellectual disabilities. In 2012, Special Olympics Texas provided nearly 1,600 health screenings to athletes. The screenings provide surveillance information for public health organizations in the use of health planning, prevention, and promotion. The purpose of this study was to examine the validity of a screening tool used to measure nutrition knowledge and habits of Special Olympics athletes. Data was collected during a Special Olympics competition and all athletes were screened according to the international protocol for *Health Promotions - Special Olympics*. Each Health Promotions screening includes measurements of height, weight, body mass index (BMI), blood pressure, bone mineral density and a questionnaire on nutrition habits and nutrition knowledge. For this study, athletes and parents each completed the nutrition habits and knowledge questionnaire independently. Participants for this study included 55 (25 female) individuals with intellectual disabilities of varying etiology as well as their parents or caregivers. Participants were a mean age of 28.1 ± 10.6 years old with an average BMI of 28.5 ± 8.3 . Of the all the participants, 60% were overweight or obese. Results revealed acceptable internal consistency with Cronbach's alpha coefficient of 0.65. Spearman's pairwise correlation between athletes and parents was with a correlation coefficient of 0.52 ($p < 0.01$). Intraclass correlations for any single question were weak ($r = 0.48$). When averaging all responses intraclass correlations were moderate ($r = 0.65$). Cohen's kappa inter-rater agreement was fair between athletes and parents with kappa values of 0.31 ($p < 0.001$). Independent sample t-tests found athletes and parents provided significantly different responses regarding the frequency of consuming fast food, sweetened drinks, and snacks. Results from this study suggest the Healthy Athletes Surveillance Questionnaire for nutrition knowledge and habits has only fair-to- acceptable validity. Given the intellectual impairments found in this population, self-report data can lead to questionable validity. Results from the screenings provide useful information only if the data collected is valid and reliable. Researchers and practitioners should use caution when using the Healthy Athletes Surveillance Questionnaire for scientific or therapeutic uses.