Physical Activity and Nutritional Behaviors in Adults with Intellectual Disabilities
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ABSTRACT

Background: Current research suggests this population has a high rate of obesity, physical inactivity, and poor fruit and vegetable intake; yet, no study has examined the interaction of these three components. Purpose: This study examines the physical activity (PA) and fruit and vegetable intake of adults with intellectual disabilities to determine if they meet the current recommendations and their impact on obesity. Methods: A total of 6 adults with intellectual disability ages 18+ years residing in Western Wisconsin have been recruited. Anthropometric information (body mass index and waist circumference) was recorded for measures of obesity, and a demographic questionnaire was completed by each participant. Subjective accounts of fruit and vegetable intake and PA was taken twice (pre- and post-activity monitoring) via questionnaires. PA was objectively measured using an accelerometer (Actical) for 7 consecutive days. The Actical device was exchanged on day 3 and day 5 of the monitoring period and collected on day 8. Results: It was observed that 50% of participants do not meet the PA recommendations 83.3% do not meet recommended steps per day, 100% do not consume at least 5 cups of fruits and vegetables per day, and the majority over report their participation in PA.

INTRODUCTION

- A high prevalence of obesity is present among this population as compared to the general population.
- Obesity in this population has the potential to reduce or limit opportunities for various types of community participation, including employment and leisure, and can also require greater effort on the part of the caregiver in assisting the individual with ID in various activities and instrumental activities of daily living.
- The current trend of leisure time activities for this population consists of sedentary behaviors leading them to not meet the recommended duration for PA.
- Adults with intellectual disability often do not meet the recommended intake of 5 cups of fruit and vegetables per day.

PURPOSE AND HYPOTHESIS

The purpose of this study is to examine the PA behaviors and nutritional intake of adults with ID to determine if they meet the current recommendations and their impact on obesity. We hypothesize that a majority of adults with ID living in the community will not meet the recommendations for daily PA and/or nutritional intake of fruits and vegetables, will present a higher BMI.

METHODS

Subjects
- 6 adults with intellectual disability, age 18 and older
- Participants recruited via PA and Recreation for Individuals with Disabilities in the Eau Claire area for Adults Program (PRIDE4Adults), county Offices of Developmental Disabilities Services, area Arc offices in Western Wisconsin, and private and state operated assisted living programs.
- Exclusion criteria: Not capable of remembering to properly wear the Actical for 7 consecutive days.
- Informed consent gathered according to IRB guidelines at UW-Eau Claire.

Instrumentation
- Objective PA data was measured via Actical accelerometer device. It was worn aligned with the right hip and when worn properly the word “Actical” was upright and facing out.
- PA was subjectively measured by administration of the PA portion of the CDC’s Behavioral Risk Factor Surveillance Survey (2013). Completed at both the baseline and final pick-up meetings. The utilization of a secondary source in completing the questionnaire was encouraged.
- Fruit and vegetable intake was subjectively measured by completion of the National Institute of Health’s “All Day Fruit and Vegetable Screener” at both baseline and final pick-up meetings. The assistance of a secondary source in completing the questionnaire was encouraged.
- Anthropometric measurements (height, weight, waist circumference) were taken using a stadiometer, an electronic scale, and a flexible tape measure. Based on the calculated BMI and waist circumference, each participant was categorized into two difference classification: Normal/overweight/obese, and low/high risk.

Data Collection Procedure
- At the initial visit investigators gathered demographic and anthropometric measurements from the participants. The participants then completed two questionnaires regarding their PA and fruit and vegetable intake habits over the past month.
- The Actical was given to the participants who then demonstrated they could successfully put it on and take it off. Data collection would begin that following morning at 12:00am and continue for 7 consecutive days with a 30-sec epoch length.
- Participants were instructed to wear the device during all waking hours with the exception of water activities.
- Investigators exchanged devices with the participants on day 3 and 5 of monitoring to ensure proper device functioning.
- On the day following the final day of monitoring the device was picked up from participants and the PA and fruit and vegetable questionnaire were administered and completed with the help of a secondary source.

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REFERENCES