

Promoting healthy fitness and nutrition lifestyle habits among adults with developmental disabilities through community programs

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Purpose

The purpose of our project was to utilize community-based fitness and nutrition programs to support the health and wellness of a group of adults with obesity, diabetes, and developmental disabilities. This project supports the AAHD 2012 legislative agenda item on decreasing rates of obesity and increasing physical activity for children and adults with disabilities.

Introduction

Obesity and Developmental Disabilities

- Adults with intellectual disabilities have a 59% higher rate of obesity than members of the general population, and obesity is a risk factor for chronic conditions such as diabetes and heart disease¹

- Adults with developmental disabilities who live in community settings are exposed to a wide variety of unhealthy food choices daily, which may lead to the higher rates of obesity/overweight in this population

Physical Activity and Developmental Disabilities

- The percentage of adults with intellectual disabilities who participate in little to no physical activity has been estimated to be between 47% and 51%.⁴

- Adults 50-93 years old with intellectual disabilities have been found to be less physically fit than age-matched peers.⁵

- Approximately 50% of adults with developmental disabilities do not exercise and do not meet the weekly recommendations of participating in moderate-to-vigorous physical activity for 30-minutes a day, five days a week³

- Other physical activity programs for adults with intellectual and developmental disabilities have been found to improve the participants' weight, body mass index (BMI), and amount of physical activity performed.

Barriers to Healthy Living in Adults with Developmental Disabilities

- Adults with developmental disabilities have cited many barriers to physical activity including: cost, boredom, lack of transportation, not knowing how to exercise, and lack of access to health clubs

- Common barriers such as lack of knowledge about healthy foods and reliance on others to prepare healthy foods have been identified as impacting the consumption of fruits/vegetables by adults with developmental disabilities

Methods

The nutrition component of this program consisted of weekly cooking classes for 6 weeks total facilitated by Share our Strength's Cooking Matters program that focuses on selecting and preparing low-cost, nutritious foods. The fitness component of this program was a twice-weekly water exercise class for 12 weeks adapted to accommodate persons with disabilities to create a safe and effective exercise environment.

Results

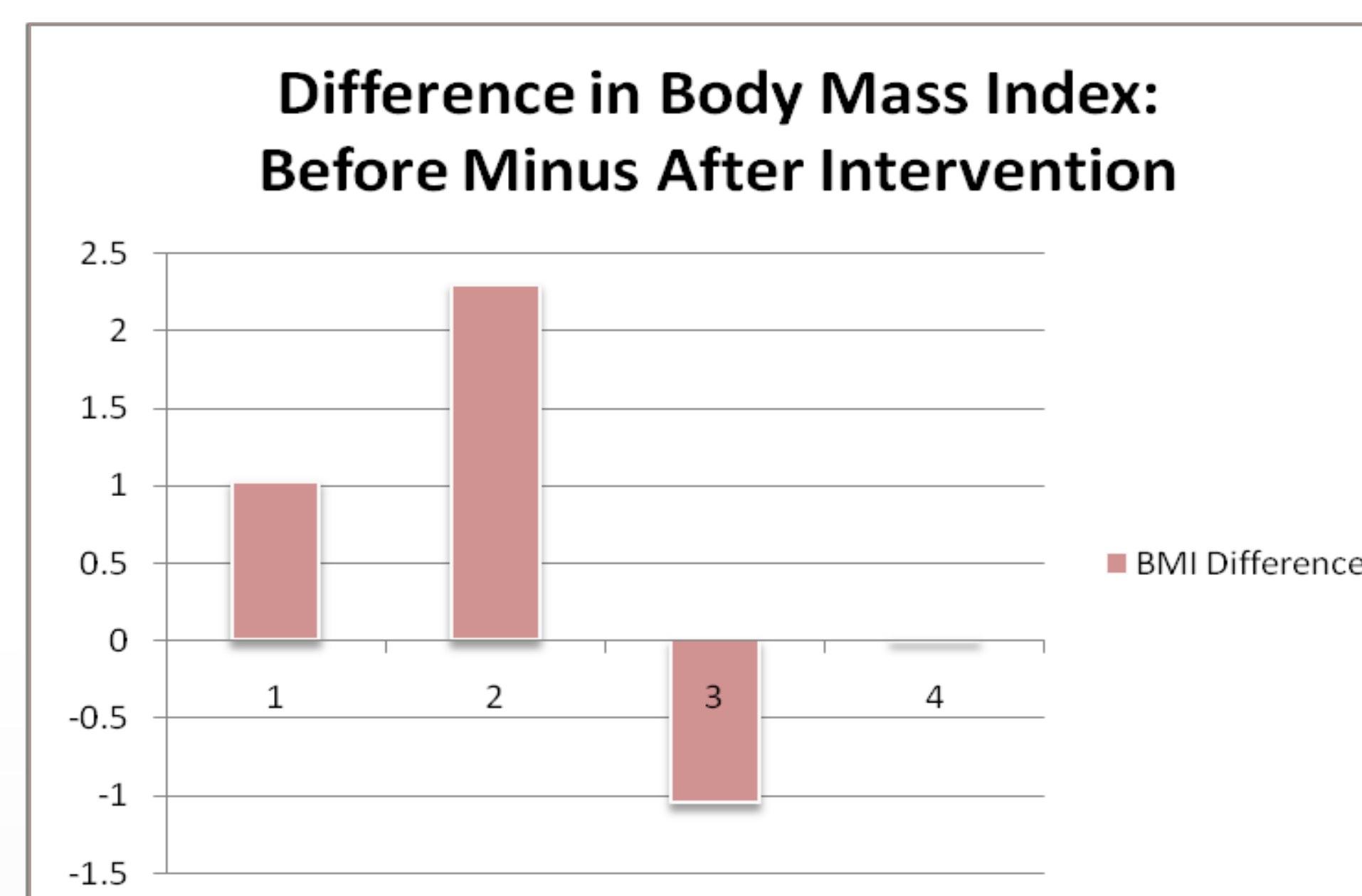
Table 1.0 Biometrics

Mean Measurement	Pre-Intervention	Post-Intervention
BMI	40.45	39.89
Waist Circumference (in)	51.30	50.18
Heart Rate (bpm)	74.25	75.33

Table 2.0 Mean Functional Test Results

Mean Measurement	Pre-Intervention	Post-Intervention
30 Second Sit to Stand (#)	15.50	19.25
Single Leg Balance (seconds)		
Left	6.30	12.74
Right	10.90	15.99
Functional Reach Test (cm)	29.34	28.31

Figure 1.0 The figure displays the difference in mean BMI before and after the intervention. Positive values indicate a decrease in BMI while negative values indicate an increase in BMI. Note: Participant one only took part in the healthy eating component of the intervention.



Waist Change: Before Minus After Intervention

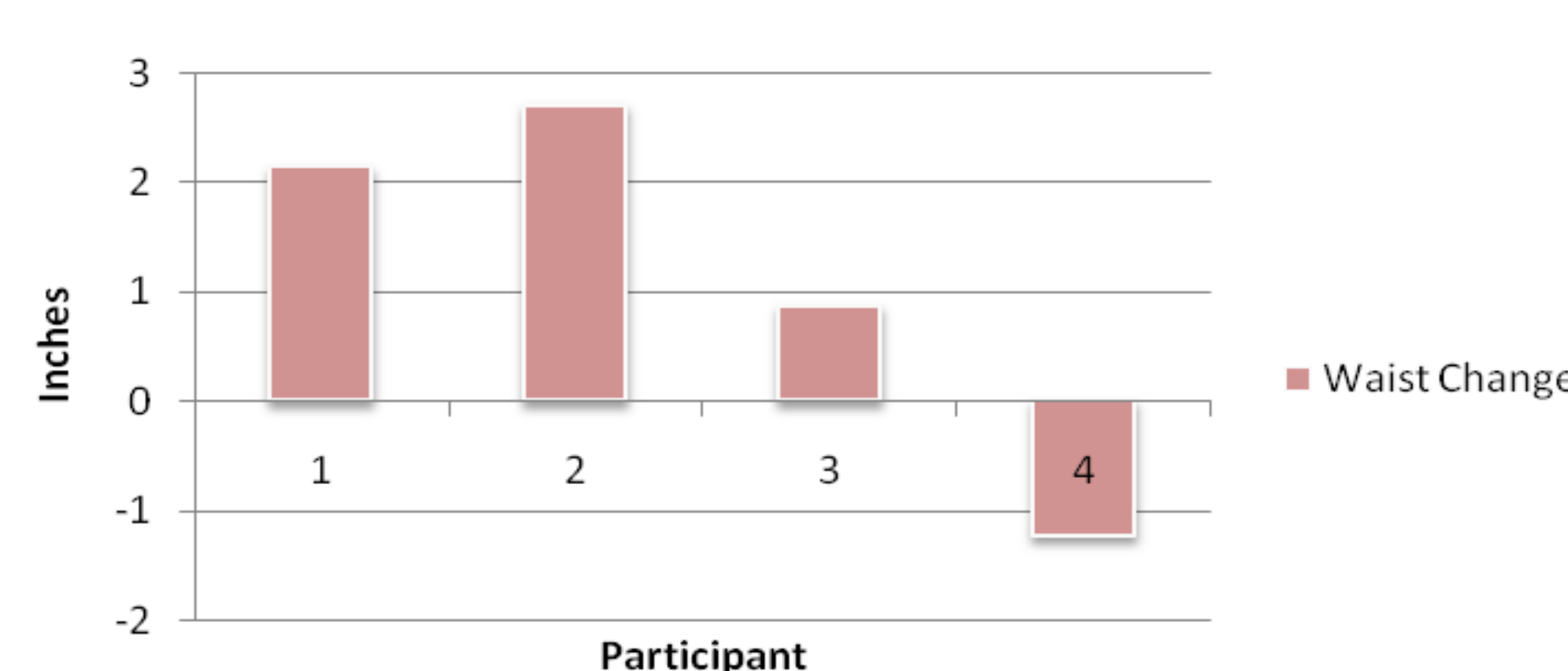
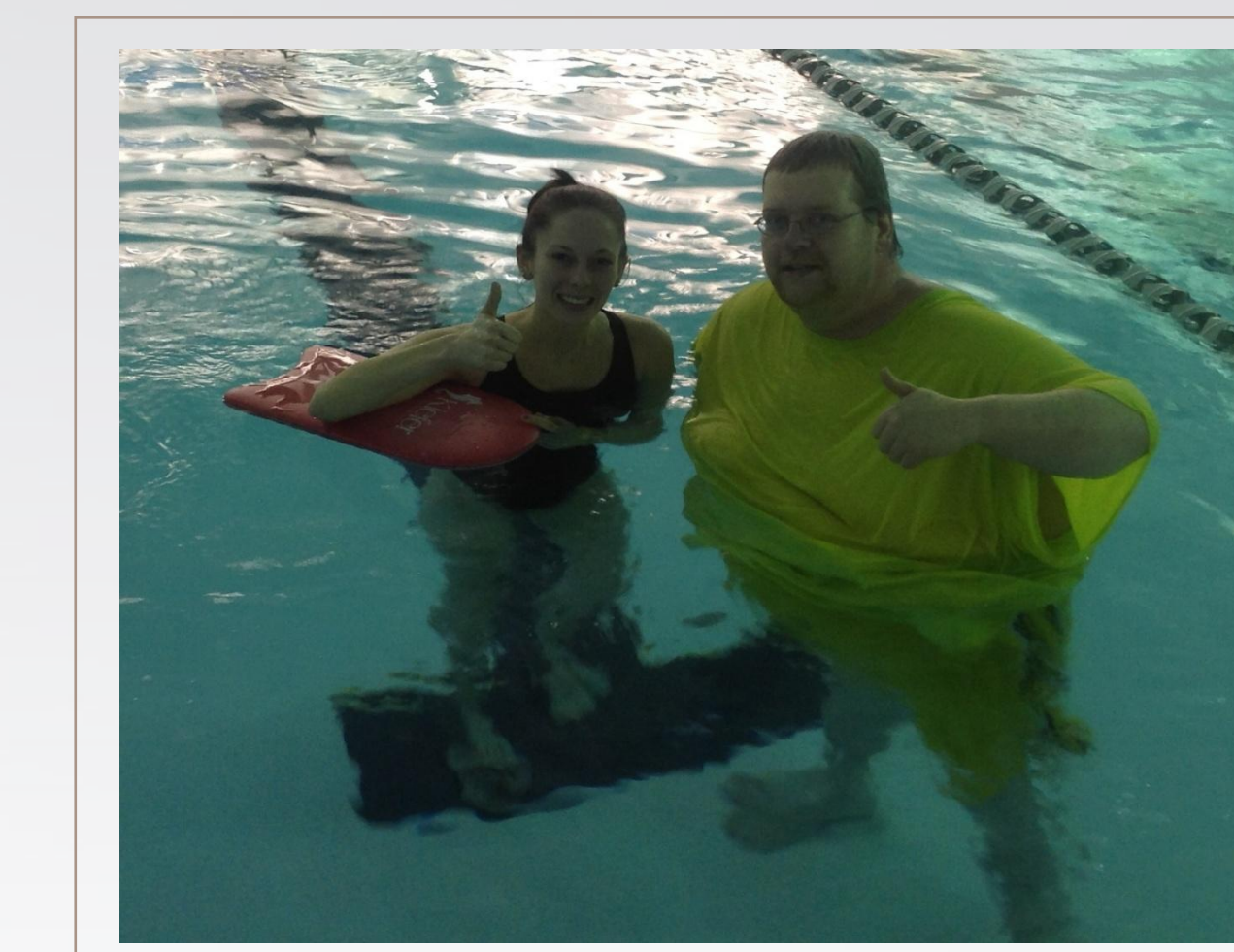


Figure 2.0 The figure displays the difference in mean waist circumference before and after the intervention. Positive values indicate a decrease in waist circumference while negative values indicate an increase in waist circumference. Note: Participant one only took part in the healthy eating component of the intervention.

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Conclusions

- Overall, participants had small but promising decreases in BMI and Waist Circumference.

- Functional test results revealed an increase in 30-second sit to stand test score and single-leg balance (both left and right) improved lower extremity muscular strength/endurance and balance. However, there were no significant changes in functional reach from a static standing position.

- Barriers to participation were a significant limitation of this intervention and have been discussed in the literature.

- Barriers encountered in this program included transportation, caregiver support, and variability in motivation to participate,

- Although there were no attitudinal barriers limiting participation in the existing community programs, the program instructors lacked experienced adapting programs for adults with ID/DD.

- Grant funding reduced potential financial barriers of participation in this program.

- Future program planning should continue to focus on reduction of participation barriers due to observed health and wellness benefits of this pilot program.

References

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