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The Effects of Offseason Training on Special Olympics Athletes

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The Effects of Offseason Training on Special Olympics Athletes

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Abstract

Many Special Olympics athletes focus on sport specific preseason training and have no fitness programs in the offseason. The purpose of this study was to evaluate the effectiveness of individualized fitness programs on fitness levels of Special Olympics athletes. Participants were 3 Special Olympics athletes recruited from specialized exercise programs at the YMCA. Athletes were given an Athlete Pre-Program Survey and participated in field testing to assess their baseline needs. In the field we tested flexibility, strength, balance, and aerobic fitness levels by using the following tests: Back Saver Sit and Reach Test, Apley's Test, Timed Sit-Stand Test, Partial Sit-up Test, Seated Push-up Test, Eyes Open and Eyes Closed Single Leg Stance, Multidirectional Functional Reach and the Three Minute Walk-Run Test. Based on the baseline assessment athletes were given an individualized exercise program and were retested after six weeks. Our specific intervention focused on balance and aerobic fitness. We measured the greatest post-intervention improvement in these areas. We used the Cohen statistic to calculate the effect size, which measures the strength of the correlation between the intervention program and the recorded improvements. Effect Size is represented as Small (0.1-0.3), Medium (0.3-0.5), or Large (>0.5). A Large Effect Size was calculated for the following tests: Eyes Open Single Leg Stance (L/R), Eyes Closed Single Leg Stance (R), and the Three-Minute Walk/Run Distance. From the improvements shown in the brief six week intervention, we found the program to be effective at increasing the fitness levels of our Special Olympic Athletes. We anticipate that there would be more significant improvements in balance, flexibility, strength and aerobic fitness in a longer program.

Introduction: "Get Fit For Sport"

- Get Fit for Sport is a community-based, year-round fitness program that is being developed for Special Olympics (SO) athletes of any age.
- The benefits of year-round fitness programming include:
 - Off-season training for SO athletes, allowing additional time for skills training in 'season'
 - 'Fitness as sport' for potential new SO members
 - Fitness lifestyle programming for older athletes with less focus on competition

Purpose

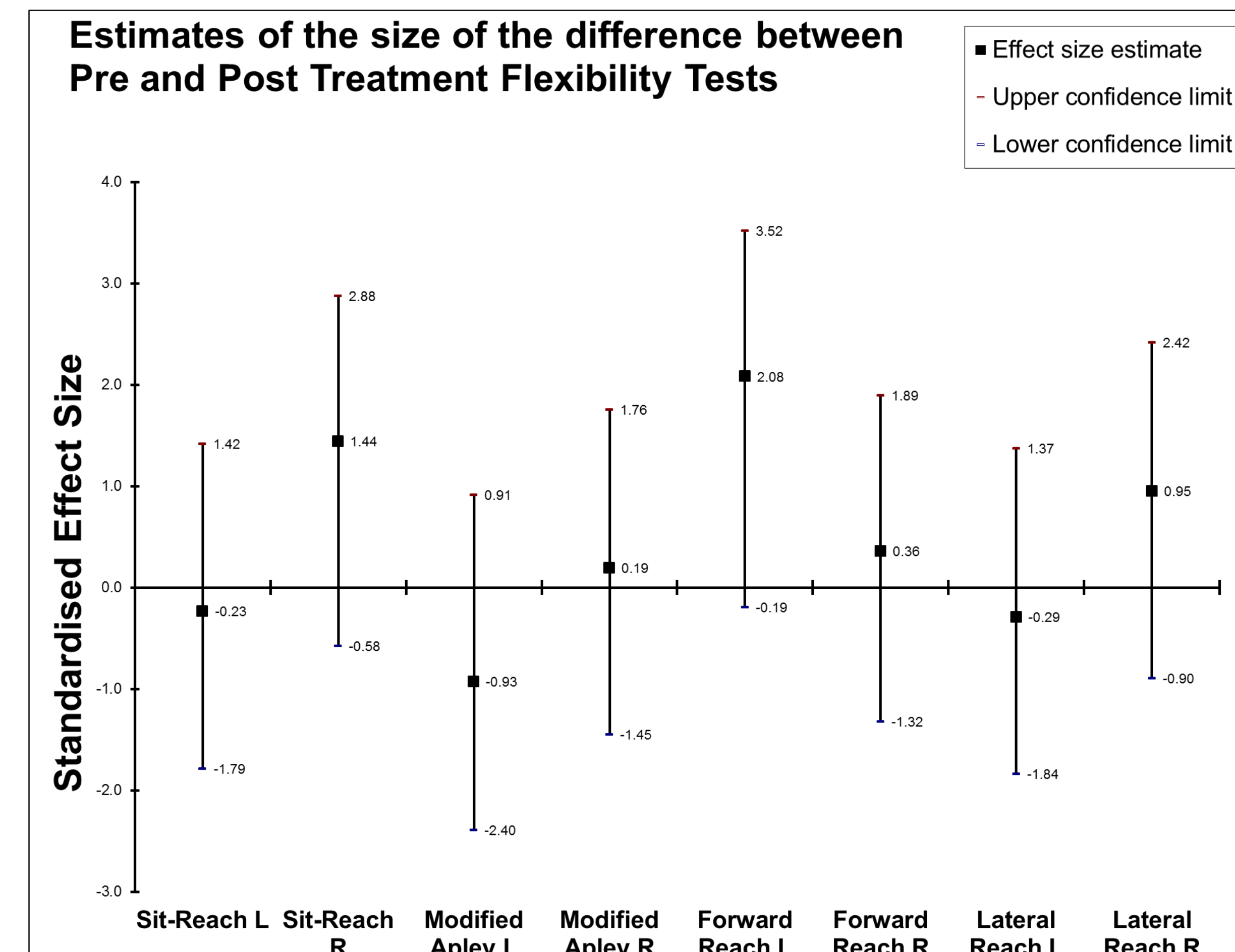
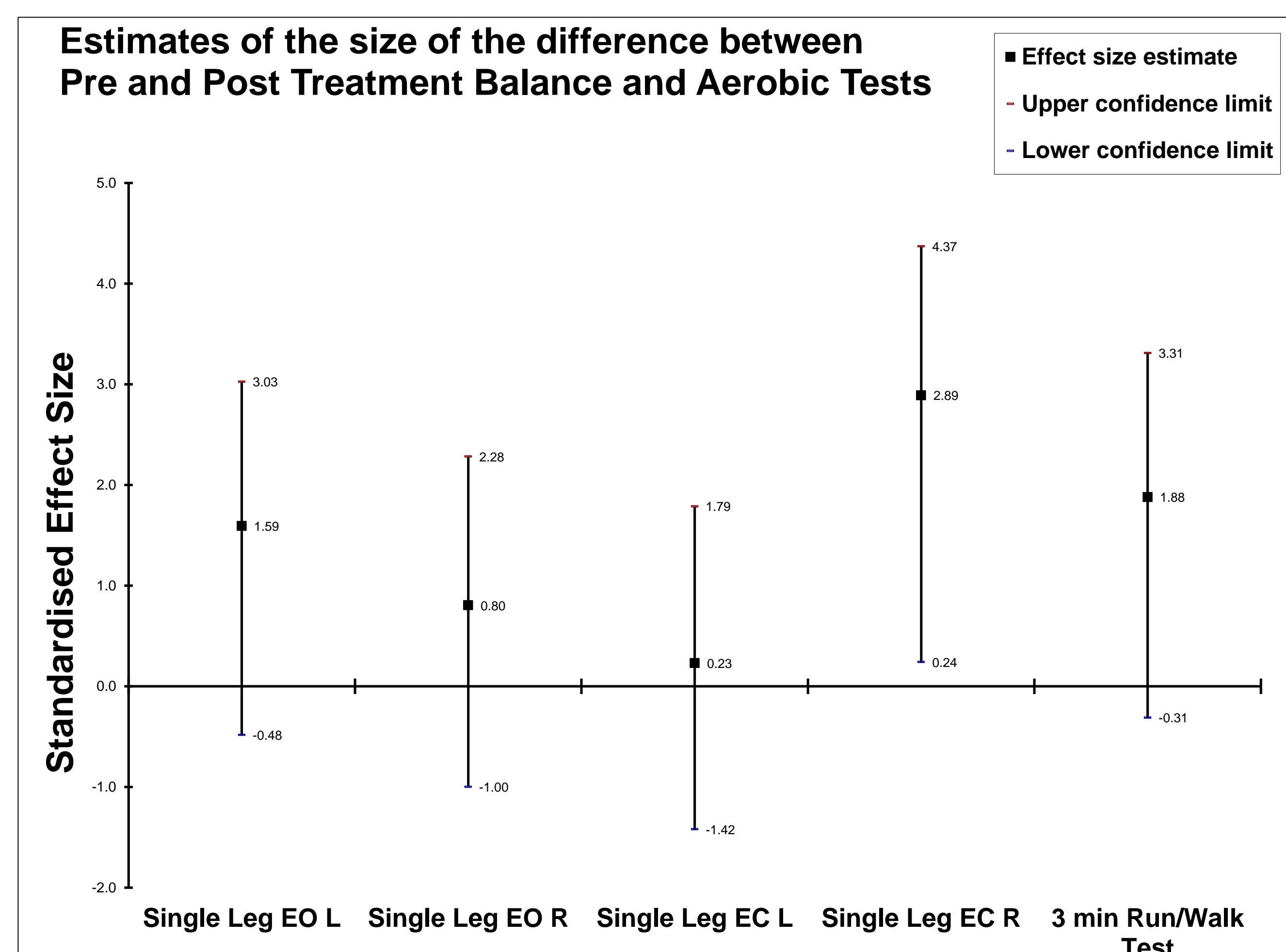
- Many Special Olympics athletes focus on sport specific preseason training and have little to no exercise in the offseason.
- The purpose of this study was to evaluate the effectiveness of individualized offseason fitness programs on fitness levels of Special Olympics athletes.

Methods

- Participants were 3 Special Olympics athletes recruited from specialized exercise programs at the YMCA
- Athletes were given an Athlete Pre-Program Survey in order to learn about their view of fitness and determine their preferred type of exercise
- In the field we tested flexibility, strength, balance, and aerobic fitness by using the following tests: Back Saver Sit and Reach Test, Apley's Test, Timed Sit-Stand Test, Partial Sit-up Test, Seated Push-up Test, Eyes Open and Eyes Closed Single Leg Stance, Multidirectional Functional Reach and the Three Minute Walk-Run Test
- Based on the baseline assessment, an exercise program was developed and introduced to each individual athlete
- We checked in with the athletes weekly to monitor technique and progress, then provided feedback to the athletes
- Athletes were retested six weeks later and given a Post-Program Survey to evaluate the effectiveness of the exercise program

Results

- Our specific intervention focused on balance and aerobic fitness. We measured the greatest post-intervention improvement in these areas.
- We used the Cohen statistic to calculate the effect size, which measures the strength of the correlation between the intervention program and the recorded improvements.
- Effect Size is represented as:
 - Small (0.1-0.3)
 - Medium (0.3-0.5)
 - Large (>0.5)
- A Large Effect Size was calculated for the following tests:
 - Eyes Open Single Leg Stance (L/R), Eyes Closed Single Leg Stance (R), Forward Reach (L), and the Three-Minute Walk/Run Distance



Discussion and Conclusions

- On the Post-Program Survey, all of our athletes said they would continue on with the program on their own.
- This program was designed to be a long-term intervention program.
- From the improvements shown in the brief six week intervention, we found the program to be effective at increasing the fitness levels of our Special Olympic Athletes.
- We anticipate that there would be more significant improvements in balance, flexibility, strength and aerobic fitness in a longer program.
- This program promoted lifestyle changes through physical fitness.
- Overall fitness improvements can vary between individuals based on:
 - Individualized fitness programs
 - Age
 - Motivation.

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