THE EFFECTS OF REVISED EXERCISE PROGRAMS FOR PEOPLE WITH DISABILITIES WHO CURRENTLY EXERCISE

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Introduction
The issue of physical fitness for individuals with disabilities is a relatively recent public health concern. The reports of individuals participating in no regular physical activity are much greater in the disabled population (25.6%) than for the non-disabled population (12.8%) (MMWR, 2007). This inactivity may partially account for the increased rate of accumulation of secondary conditions, 3.6 in a population with mobility limitations versus 1.3 for the general population with no limitations (Rasch, 2008). Exercise appears to be beneficial for individuals with disabilities in reversing these trends but little is known about the level of exercise intensity needed to improve physical health (Rimmer, 2009). The objective of this project was to evaluate the effectiveness of reevaluation and revision of an exercise programs in people with disabilities who were already exercising regularly.

Subjects
Fifty-eight clients currently exercising in the Courage Center Health Wellness and Fitness Program agreed to participate in the Reassessment Project. These participants had been exercising at Courage Center for an average of 31 months (±14.0) with an average age of 43.7 years (±11.8). There were 28 female and 30 male participants who had a variety of medical diagnoses, including brain injury (12), cerebral palsy (10), neurological diseases (9), stroke (8), spinal cord injury (5) and other (13).

Design/Intervention:
Before beginning exercise, clients received an initial assessment. Clients enrolled in this project were reassessed for endurance, strength, body mass, blood pressure, and secondary conditions and given a revised exercise program. They continued exercising for another 6 months, and then were reassessed a second time. Data was analyzed for three time points, the initial assessment on enrollment into the fitness program, the first reassessment on enrollment into this research project, and a second reassessment at the conclusion of the project.

Results
Participants made significant gains in endurance, but there were no significant changes in strength, weight, or heart rate and blood pressure. No difference was noted for endurance based on level of assistance with the training. Secondary Conditions were assessed through client report using a checklist of 21 common health conditions. The number of secondary conditions for these 46 participants decreased, from an average of 3.23 at initial assessment to 2.5 at second reassessment, a change of .73 secondary conditions. When tested using a Wilcoxon Signed Ranks test, the change in total secondary conditions was significant, at \( p = .04 \). The average length of time of exercise for these participants was 38 months, with a minimum of 9 months, and a maximum of 54 months.

Conclusions
The results of this project provide a strong argument for exercise in this population. Clients showed gains in endurance over the entire period of exercise and a decrease in secondary conditions. This decrease in secondary conditions is particularly important because the length of time these individuals exercised was about 2 ½ years, during which time there would have been an expectation of increased secondary conditions in this population.