

ADAPTIVE DOWNHILL SKIING IN CHILDREN WITH CEREBRAL PALSY: EFFECT ON GROSS MOTOR FUNCTION

Sterba, J. (2006)

PURPOSE

To measure the effect of a 10-week adaptive downhill skiing program on gross motor function in children with spastic cerebral palsy.

SAMPLE

Children with spastic cerebral palsy who are ambulatory (n = 5).

Age: 4 - 12 years



METHODS

Design: Repeated Measures

Measures: Gross Motor Function Measure Dimensions A-E and Gross Motor Function Measure Total (GMFM-total)

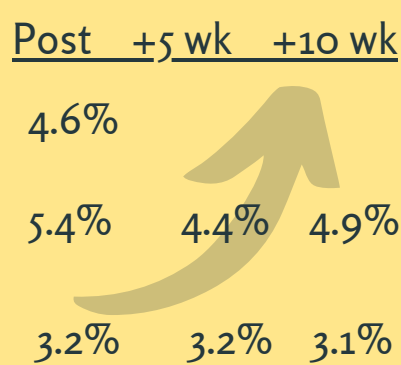
Independent Variable: 10-week Adaptive Skiing Program



MAJOR FINDINGS

The 10-week Adaptive Skiing Program resulted in an increase in gross motor skill function beyond students' regular therapy.

- **Walking, running, and jumping** had statistically significant improvements at the conclusion of the program.
- **Standing** had statistically significant improvements after the 10th week, 5 weeks after the program, and 10 weeks after.
- **GMFM-total** had statistically significant improvements after the 10th week, 5 weeks after the program, and 10 weeks after.



IMPLICATIONS

Adaptive downhill skiing could be clinically recommended to help improve overall gross motor function and improve specific dimensions including standing, walking, running, and jumping.



This is the first study to measure sustained improvement in gross motor function in children with physical disabilities. Therefore, future research can:

1. study children with cerebral palsy who are non-ambulatory.
2. increase the length of the study and follow-up period.
3. study children who have no prior skiing experience.