

# The Effects of 8-Week Core Stability Exercises on the Gait of Children with Spastic Dipelgia

Parisashojaee.689@gmail.com

The present study aimed to investigate the effects of 8-week core stability exercises on the gait of children with Spastic Dipelgia. Participants of this study were 16 students with Spastic Dipelgia in Shiraz. Using voluntary and accessibility sampling and after pretests and matching procedures, the participants were divided into control and experimental groups. Then, they followed the core stability exercise protocol using acrogym balls for three 35-minute sessions per week over 8 weeks. Like the treatment group, the control group received usual occupational therapy services during the exercise time. After this period, both groups were post tested and their results were compared using Mann Whitney U test.

The results showed that stride length was significantly different between the groups ( $z= 2.901$ ,  $u=4.500$ ,  $sig= 0.004$ ). Furthermore, the gait Velocity in the experimental group was significantly different from that of control group ( $z= 1.995$ ,  $u= 13.000$ ,  $sig= 0.046$ ). In terms of the other two parameters (gait distance and Cadence), no significant differences were observed between the groups.

These results suggest that core stability exercises can change the gait parameters in children with Spastic Dipelgia.

Keywords: Cerebral Palsy, Children with Spastic Dipelgia, Gait, Core Stability Exercises