



INVESTMENTS IN EDUCATION DEVELOPMENT

ground during the use of poles. During uphill walking the impact of the poles is not clear. Some muscles increased their activity and some decreased their activity.

The effect of rehabilitation intervention on the performance of the gait in professional ballet dancers

L. Teplá

Palacký University Olomouc, Czech Republic

luckatepla@seznam.cz

Ballet movements influence the mobility of the lower limb joints. This altered motion is translated to performance of the gait cycle (GC). The aim of this study was to observe the effect of rehabilitation on range of movement during the GC in ballet dancers. Fourteen ballet dancers (5 males, 9 females; age 24.1 ± 3.8 years; height 170.2 ± 8.5 cm; weight 58.3 ± 11.2 kg) participated in this study. We analyzed the subjects before and after ten rehabilitation interventions. Ten trials of the GC at self-selected walking speed were obtained using the system Vicon MX (Vicon Motion Systems, London, UK). Dancers demonstrated significantly increased maximal knee flexion during the stance phase (14.8 ± 4.5) and decreased maximal extension during the swing phase (3.4 ± 4.5), as well as decreased maximal hip adduction (6.8 ± 1.5) after rehabilitation. The results confirm that rehabilitation should be a necessary part of comprehensive care about dancers to improve their dance technique and prevent injuries.