The Effects of Plyometric Training on Balance, Anaerobic Power and Physical Fitness Parameters in Handball

Zeynep Inci Karadenizli

Faculty of Sport Sciences, Duzce University, Duzce, Turkey
E-mail: incikaradenizli@duzce.edu.tr

KEYWORDS Agility. Center of Pressure. Exercise. Explosive Power. Speed

ABSTRACT The aim of this paper was to investigate the effects of a 10-week plyometric training (PT) on static balance (SB-unipedal), dynamic balance (DB-bipedal slalom), anaerobic power (AP) and some physical fitness parameters (PFP). Female handball players (aged: 15.13±0.87 years) were randomly selected into an experimental group (EG; n=14), and a control group (CG; n=12). At the beginning of the examination, SB-unipedal, DB-bipedal slalom and PFP were measured. Wilcoxon test was used for comparison within groups and Mann-Whitney U test was used for comparison of between groups. Research findings show that the EG made significantly greater improvements than the CG in the SB-unipedal (left), AP, 30-meter sprint, agility, vertical jump (VJ), and horizontal jump (HJ) performances (p<0.05). Finally, 10-week PT positively affects SB-unipedal (left), AP, 30-meter sprint, agility, VJ and HJ performances. In order to gain positive results for these parameters, the PT program should be added and applied regularly in handball practice by coaches.