## 28th ECSS Anniversary Congress, Paris/France, 4-7 July 2023

Train brain instead of muscle: Immediate effect of neuro-athletic training on flexibility, service and upper extremity performance in elite volleyball players - a randomized controlled trial.

Soylu, Ç., Altundag, E., Isguzar, G., Un Yildirim, N.

University of Health Sciences

## INTRODUCTION:

The aim of this study was to evaluate the immediate effects of neuro-athletic training on flexibility, service, and upper extremity performance in elite volleyball players.

## **METHODS:**

A total of 20 young healthy elite male volleyball players aged 18-25 years were included in the study. Participants were randomized evenly into one of two groups; the control group (CG) and the neuro-athletic training (NAT) group. The flexibility was assessed by using the sit and reach test; A pocket radar ball coach speed gun was used to measure the serve speed, and upper extremity performance was measured by the Closed Kinetic Chain Upper Extremity Stability Test pre-and post-treatment. Neuro-athletic training included visual reset drills, vestibulo ocular reflex drills, optokinetic training, brock string drills, and convergence and divergence drills. Control participants received no intervention.

**RESULTS:** 

Significant improvements were observed in flexibility (p<0.01; effect size: 0.91), serves speed performance (p<0.01; effect size: 0.93), and upper limb performance (p<0.01; effect size: 0.90) in the neuro-athletic group, while all parameters in the control group were similar to before the training. CONCLUSION:

The results of this study showed that neuro-athletic training acutely increased flexibility, serve speed, and upper limb performance. The beneficial outcomes seen in the current study imply that these neuro-athletic training approaches might be used in addition to routine training programs.

Topic: Motor Learning and Motor control Presentation Poster

European Database of Sport Science (EDSS)

Supported by SporTools GmbH



30877