

Effects of Post-Activation Potentiation (PAP) warm-up on vertical jump performance among volleyball players

ABSTRACT

This study aims to examine the effects of resistance versus complex exercise with the retention of post-activation potentiation (PAP) on vertical jump among volleyball players. A total of 30 volleyball players (mean age = 16.5 ± 1.106 years old) were recruited as participants of this study. The participants were requested to attend two different testing sessions, with two days between each session. Each session had a different exercise routine, namely, resistance and complex. A one-way repeated measure was used to analyse the performance of the vertical jump, while a pairwise comparison was applied to compare the retention of PAP between the resistance and complex exercises. The findings show that there is a significant interaction for both warm-up exercises; [(F(1,29)=1275.57, p=0.000] for resistance exercise and [(F(1,29) = 1456.83, p= 0.000] for complex exercise. The retention analysis for PAP effect also indicates that there is a significant difference between the two warm-up activities in vertical jump performance. In conclusion, this study reveals that both exercises managed to increase PAP among volleyball players. However, complex exercise is suggested to be combined with the warm-up method as it can maintain a longer retention than resistance exercise.

Keyword: Post-Activation Potentiation (PAP); Resistance exercise; Complex exercise; Vertical jump; Volleyball players