



INVESTIGATION OF THE EFFECTS OF PROPRIOCEPTIVE EXERCISES ON SOME PHYSICAL AND MOTORIC FEATURES IN WOMEN VOLLEYBALL PLAYERS AGED 11-12

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- ✓ Volleyball
- ✓ Motoric Features
- ✓ Balance
- ✓ Vertical Jumping
- ✓ Core

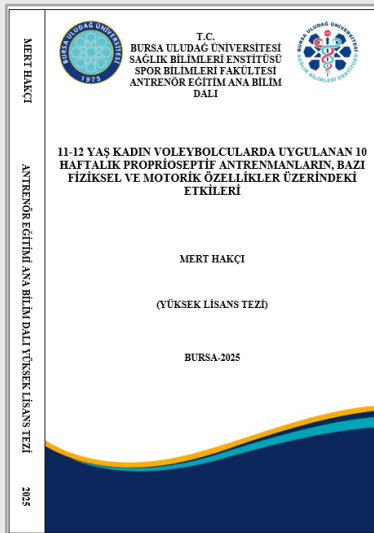
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THESIS ABSTRACT

This study examined the effects of a 10-week proprioceptive training program on vertical jump, visual reaction time, core muscle performance, and balance in 11–12-year-old female volleyball players. Balance, rapid reaction times, and vertical jump performance are critical in volleyball, so the contribution of proprioceptive training to these factors was evaluated. The sample comprised 24 athletes equally divided into control (n=12) and experimental (n=12) groups. The control group followed the standard volleyball training program, while the experimental group performed proprioceptive exercises in the warm-up phase three times per week (20–25 minutes each) for 10 weeks. Pre-test and post-test measurements were obtained. Visual reaction time was measured using a Lightspeed Trainer, core muscle performance was assessed via a 30-second sit-up test, balance was evaluated with the Flamingo Balance Test, and vertical jump was measured with a PowerTimer 300 device. All tests were conducted under consistent conditions. Shapiro–Wilk tests confirmed normality, and mixed-design ANOVA was used to analyze group differences. The experimental group showed statistically significant improvements in reaction time, vertical jump, and balance. Core muscle performance improved in both groups, but no significant difference was found between them, possibly due to the effects of regular volleyball training. These findings suggest that proprioceptive training enhances coordination between the central nervous system and muscles, improving athletes' perceptual-motor skills. Incorporating proprioceptive exercises into training regimens may thus improve visual reaction time, balance, vertical jump performance, and overall athletic performance.

APPLICATION AREAS OF THE THESIS RESULTS

It is thought that the relevant study will benefit researchers who will work with the concepts of proprioception, vertical jump, balance, visual-perceptual reaction time and motoric characteristics and volleyball coaches who work in infrastructure groups.

ACADEMIC ACTIVITIES

Hakçı M., Vatansever Ş., Bölükbaşı M.G., (2023). The Effects of Exercise on Depression and Anxiety: A Systematic Review. III. INTERNATIONAL ISTANBUL CURRENT SCIENTIFIC RESEARCH CONGRESS. 8-9 February 2023 (Full Text Paper)