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Advancing women's handball: Early insights from a SAQ-focused plyometric training study

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Background
Plyometric training is very effective in improving strength, speed, and agility which are crucial components of athletic ability in handball. This form of training comprises explosive exercises that aim to activate the muscles' stretch-shortening cycle to enhance force output. Although it is used in many sports, there is a lack of research studies specific to its use in female handball players and how it can enhance Speed, Agility, and Quickness parameters.
Materials and methods
This research was conducted on 10 female athletes of the handball team "Srem" from Sremska Mitrovica with the age of 19.60 ± 3.95 years. The participants were divided into two equal groups, consisting of 5 randomly selected players. The study was done for 8 weeks in the mid-season and the test was done before and at the end of the study.
The experimental group underwent additional strength training sessions which were scheduled to be done twice in a week. The additional training involved the use of elastic bands in plyometric exercises. In the course of the study, eight different tests were used in order to assess different aspects of SAQ.
Results
2X2 ANOVA was used and compared the differences between the two groups, and showed that there was a significant improvement in the experimental group to the control group on the various performance parameters. Thus, an increase in the CMJ and both: single-leg left and right jumps was noted.
Conclusions
These findings indicate that plyometric training with elastic bands enhanced the explosive lower body strength that is needed for tasks that demand fast and powerful movement of the lower limbs.
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