

Acute effects of different warm-up strategies on physical performance and motor skills in schoolchildren

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Abstract

The objective of this research is to assess the effects of different types of warm-ups applied in schoolchildren on the quality of movement of motor skills and jumping and sprint performance. The methodology used was based on a randomized crossover study design (n = 27 schoolchildren), which included three experimental conditions to assess the acute effect of different types of warm-up (traditional, based on reduced adapted games and FIFA 11+) on the vertical jump, sprint in 20 meters and motor skills of locomotion and control of objects in children. Descriptive and comparative statistics were used through repeated measures ANOVA and Friedman with its post-hoc tests as appropriate. The results show that all types of warm-up showed significant differences in sprint, vertical jump and motor skills, compared to the control condition without warm-up. The warm-up based on reduced adapted games presented greater effects than the other modalities on the motor skills of locomotion ($p < .05$). Comparisons between warm-ups showed that the intervention based on FIFA 11+ was shown to be more effective in reducing sprint time by 20 meters and increasing vertical jump height ($p < .05$). In conclusion, this study suggests that the selection of an appropriate strategy based on a diversity of motor experiences such as those offered by the FIFA11 + warm-up protocols and reduced adapted games could be key to improving motor performance and the magnitude of the benefits associated with warm-up.

Author keywords

Motor competence
Motor learning
Motor performance
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