

Anthropometric and physical fitness differences in talented vs untalented young soccer players

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Abstract: Introduction: Identifying sports talent is an exciting and complex area of sports science, due to its multidimensional nature [1]. In soccer, there are very few scientific contributions about the anthropometric profile, motor skills, or physiological characteristics of children and/or adolescents [2]. Therefore, our aim was to provide information about anthropometric characteristics and performance in some physical fitness tests commonly used. Methods: 722 male Chinese children (8.0 to 13.9 years), from 6 competitive categories were stratified into 2 performance level groups (talented vs untalented), according to the opinion of their coaches. For each subject, twelve independent variables were assessed: chronological age (years), height (cm), body mass (kg), body mass index (kg/m²), squat jump (cm), counter movement jump (cm), Abalakov (cm), sprint 10 m (s), sprint 30 m (s), "repeated side-step" (n), sit & reach test (cm), forced vital capacity (L). Results: Significant differences were found between the talented (T) vs the untalented group (U) in the following tests: squat jump (T: 27.6 ± 5.1 cm; U: 26.8 ± 5.1 cm; p=0.05), counter movement jump (T: 28.3 ± 5.1 cm; U: 27.3 ± 5.2 cm; p=0.02), Abalakov (T: 32.5 ± 6.1 cm; U: 31.5 ± 5.8 cm; p=0.04), sprint 10 m (T: 2.1 ± 0.1 s; U: 2.2 ± 0.1 s; p=0.01), sprint 30 m (T: 5.3 ± 0.4 s; U: 5.4 ± 0.4 s; p=0.001) and repeated side-step (T: 41.6 ± 4.5 n; U: 39.4 ± 4.5 n; p=0.001). Non anthropometric differences were found. Conclusions: This results provide relevant information on some basic anthropometric characteristics and physical skills of a large sample of young soccer players. However, the early development process of young talented athletes must necessarily include not only the evaluation of physical, physiological, and technical skill components, but also the psychological and sociological factors that longitudinally affect sports performance.

Conflict of Interest: The authors declare no conflict of interest.

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