

Body composition, physical fitness and aerobic capacity of middle-school soccer players in OO Island

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Objectives: To obtain the basic data on body composition, physical fitness, aerobic capacity and the status of athletic satisfaction & stress of middle-school soccer players in OO Island and to compare them by position.

Methods: Sixty nine soccer players of six different middle-schools in Jeju Island were enrolled in this study. We measured their body composition including height, weight, body mass index, body fat mass, lean body mass by Inbody 520. We evaluated their basic physical fitness including bilateral isometric grip strength, flexibility, muscular endurance and quickness.

Exercise tolerance test and respiratory gas analysis were performed using the Bruce protocol. And the surveys of the athletic satisfaction & stress were done in all players.

We compared all parameters by each position (6 goalkeepers, 26 defenders, 24 midfielders and 13 strikers)

The results: Summing up above analyzed conclusions, body composition and basal cardiopulmonary fitness were not proved to have significant differences among all groups because most players were first graders (average age: 14.1 ± 0.4 . Height: 160.4 ± 8.7 , weight: 51.0 ± 9.5 , BMI: 19.5 ± 2.1 , body fat mass: 6.7 ± 3.0 , lean body mass: 24.8 ± 6.4 , VO₂max: 52.3 ± 8.7 rSBP: 118.6 ± 15.8 , mSBP: 179.0 ± 22.2 , RHR: 101.9 ± 16.2 , MHR: 193.7 ± 11.2).

And also the comparative analysis among 4 groups of each position did not reveal any significant differences in physical fitness, and the status of athletic satisfaction (74.3 ± 59.8 , total: 105) & stress (78.5 ± 22.0 , total: 145) of middle-school soccer players.

Conclusion: We evaluated the baseline body composition, physical fitness, aerobic capacity and the status of athletic satisfaction & stress of middle-school soccer players in Jeju Island. And this study might be the basic data for a scientific training in middle-school soccer players.

Biography

Eun Young Han is working as an Assistant Professor in the Jejunational University Hospital, department of rehabilitation medicine, South Korea.

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