Letter to Editor

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Relationship between Anthropometric Factors and Ability of Standing Long-Jump Among Track and Field Cadet Athletes

Meysam Gholamali,*[1] Arsalan Damirchi,[2] Amir-Hossein Ghorbani,[3] Javad Parhizgar[3]

1. Department of Sport Sciences, Shahid Beheshti University, Tehran, Iran
2. Department of Sport Sciences, University of Guilan, Rasht, Iran
3. Department of Sport Sciences, Shahid Chamran University, Ahwaz, Iran

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From the most important factors that involved in success of sport disciplines, we can note to physiolological, psychological and specific given anthropometric factors of these disciplines [1]. In turn, a few studies have been done about the amount of relationship and strength of anthropometric factors in success prediction, athletes advising about continue given sport discipline in childhood and talent identification. Therefore, the aim of this study was to investigate the relationship between some anthropometric factors and ability of standing long-jump (ASLJ) among track and field cadet athletes. Thirty-four cadets (Age=10.03±2.90) that regularly performed track and field training participated in this study. Height, waist to hip ratio (WHR) and weight measured by flexible tape and digital Scale, respectively. BMI calculated by weight/height [2]. For determination of body fat percent (BF), sum of skin folds of four areas (triceps, biceps, subscupular and suraillum) sited in given formula. Also, fat free mass (FFM) determined trough Weight-BF. Subjects performed standing long jump test for determination of ASLJ. Pearson Liner correlation test used for determination of relationship between anthropometrics factors (BF, FFM, BMI and WHR) and ASLJ. Relationship between anthropometrics factors as predictive factors and ASLJ as criteria factor, analyzed in linear regression. Significant level was set at $p \leq 0.05$. The results of this study showed that there was significant relationship between FFM (p=0.001) and WHR (p=0.003) with ASLG. But does not seen any significant relationship between BF (p=0.08) and BMI (p=0.09) with ASLG. Also, results of this study revealed that 14.20%, t variance related of ASLG explained by anthropometrics factors.

In summary, the results of this study shown that there is significant relationship between FFM and WHR with ASLG in track and field cadet athletes, but there is not any significant relationship between BF and BMI with ASLG in these subjects. These results compatible with the results of Kapetanakis et al. [2], but in conflicts with the results of Milanese et al. [3].Presumbly, this confilication derived from difffrent mean age and physical fitness of subjects of study of Milanese et al., compared to this study. Also, the regression analyses showed that all of antropometrics factors are strong perdictive of ASLG in cadet track and field athelets. Possibilty, this result could use for selection of athelets that have talent for success in feature (in childhood) by track and field coaches' trough using assessable and easy instruments.

Corresponding author: meysam_gholamali2010@yahoo.com

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