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Evaluation of body composition in elite sprint cyclists from the viewpoints of Iran prominent coaches

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ABSTRACT

The aim of the present study, body composition indices in elite cyclists fast from the view points of Iran prominent coaches. For this purpose, a prominent Iranian scholar, coaches in club championship tournament in 2008 in the city of Karaj International Taftanin 2008, attended assess. Due to the nature of research and the number of population, all the population, the census method, for example, in this study, has been studied(N=100)gauges the study, a questionnaire with are liability of 0.92, respectively. Statistical data using EXCEL and SPSS software and t-test at the significance level of the repeated measurements, were analyzed (a=0.05). results showed that, according to the coaches, muscle type, height to weight ratio, and a muscular type of fat in the body composition of elite cyclists speed are important criteria, therefore, recommended cycling talent and coaches, to discover outstanding talents and improve athletic performance, according to the measures of body composition, and for the development of athletes, exercise alone will not suffice.

Keywords: Index of body composition, Cycling, Cycling prominent coaches, talent identification.

INTRODUCTION

Today, scientific research in the area of sport science, the necessity of having the talent or potential, to reach Championship summit, has been proved in various fields. Have reached a steady state in a short time among the elite athletes in a particular sport, are located. This issue of having or not having athletic talent to work raises a particular sport.

Some factors for success in modern sport there. One of the most important is their talent. To detect and identify early talent for anything, most effective and most important factor in contemporary sport [1].

Ability, natural or acquired the means to do some prep work, the instances of individual differences. Mann (1995), the definition of talent, says the amount of talent we infer the relative progress, you learn a skill, similar opportunities to our people, we will see the ease of obtaining it are different. When people have the skills and

expertise, we differ in terms of talent, for that specific job differ [2]. Scientific findings underscore the fact that, "athletic talent" to a great extent, is determined by genetics [3,4].

According to research undertaken talent in different sports, world and Olympic medals to achieve, and the lack of talent in the field of research and data on indicators of cycling, the researchers were trying to answer the question: important indicators of body composition what is the speed of the top riders and trainers on is there a difference?

Therefore prominent Iranian scholar and teacher at the Club Championship in 2008 in the city of Karaj The international tournament attended Taftan in 2008, can be assessed. Capabilities and capacities of individuals, as interpreted by Smith, determine the range of territory that people can practice and training progress. In the same way that the success of any activity that requires certain abilities, each sport also requires businesses to achieve certain functionality. So, quite obviously, not everyone can be expected to champion track and field or swimming or cycling is. Guiding talented to achieve peak performance, particularly with high expectations in the international competition and globalization, scientific and systematic process that especially since the 1970s, countries such as East Germany and the Soviet Union, Bulgaria and Romania have been, and is now considered by many countries and talent in various sports, coaching and better results as a success factor in the championship is known [5]. Peltola(1992) as a talent in sport "... The process by which adolescents based on the results of the tests, the probability of success in increasing participation in sport is encouraged "is defined [6]. His talent won the first step toward developing a beginner's introduction and talent development, an important next step in the process to achieve athletic success knows. What is the study of the views of experts in the field of talent is concluded, that, on the whole territory of talent identification and requirements needed to achieve peak performance, it includes three main domains, which include are:

1) Psychological aspects 2) anthropometric dimensions 3) physiological aspects.
Obviously each of these areas, in turn, is significant components and sub-components of the priority of each element and talent, depending on the requirements of the sport.

A view of the anthropometric characteristics of height, weight, lean body mass, strength, endurance, aerobic capacity, static and dynamic, and will be evaluated. More features and more features, the type of muscle fibers and to assess the anaerobic threshold.

Measurement of height, weight and skin fold thickness may be used to evaluate and determine body composition. Certain groups of athletes, body type or have special somatotype. By the body of a special group of athletes, each athlete can order your food and exercise, which modified the composition of his body; "features winners" will be more and more [4].

We need to know the specific requirements for each sport, there is every single body type, and is required to reflect this. Physical characteristics of three players in all of professional American football defensive position, and a professional runner, having been less than 4% fat [7]. Defenders of drought, compared with a reference population of non-athletes, slimmer and leaner, and the pitcher's side weight relative to your height, weight and the extra weight was not strongly induced muscle hypertrophy and fat.

Differences in body composition exercises out of there. Among participants in an exercise, these differences can be seen. In view of the physical characteristics of university wrestlers, "Stein", marked differences, but relatively little physical connections between America's national wrestlers and wrestlers who had left the group (who were not selected), can be observed. In this tournament, appointees in their weight classes, who was the first to sixth. Relatively unsuccessful athletes did not contest the championship series of the NCAA, will win. The winners of these matches lighter and has less fat and average 3.7 percent of their body weight was fat, the body fat wrestlers failed, 4.2 per cent.

Good endurance runners (sprints successful in college), two percent more than elite endurance runners (World), were fat [8]. Body composition of the national players of the Sword, by Vander et al (1984) assessed [9]. They short height, lighter weight compared with normal males and their same age, had a lower percentage of body fat. Their elite marathon runners were compared, have the same height, but more heavyweights (68.7 kg vs. 64.2 kg) and had a higher percentage of body fat (12.2% vs. 7.5 percent).

Various authors, the factors of susceptible individuals in the sport, as different classifications have. For example, Boostani et al (2011), these factors include physical and mental health, having assessed the perfect body size, genetic characteristics, outstanding sports facilities having adequate environmental conditions and fitness experts considers to be provided [4], and Amir Tash (2004), the talent factors, individual differences, including genetic and environmental factors, and physical and motor fitness, psychological characteristics (personality) characteristics The community knows [10]. Bloomfield (1995), measures of talent, physical capacities, capacity, performance, capacity, physiological and psychological capacities, and finally classified and Burgess (2001), tests to identify susceptible individuals, the type of physiological, anthropometric, psychological, material measurable genetic and sociology, is introduced in terms of the exercise of their priorities are different.

Therefore, the aim of the present study, body composition indices in elite sprints cyclists, outstanding teacher of the country.

MATERIALS AND METHODS

The data are collected, all cycling sports coaches leading men of Iran had (N=100). Due to the nature of the study population and all population census method, for example, has been examined in this study (N=100). Data collection in this study was a questionnaire, the importance of each factor in body composition (lean, handsome, muscle type, fat type, fat type, muscular, handsome muscular lean, overweight, weight, body fat, height to weight ratio), the elite sprint cyclists, questioned analyzed. Ensure content validity of the questionnaire, and precise concepts and examples given, the initial questionnaire by ten professors and martyr Chamran University School of Physical Education and the University of Shiraz, Iran, and seven of the cycling experts, the investigated. Components to measure reliability of measurements of the amount of alpha reflects positively correlated with both members of a set, the Cronbach's alpha coefficient was used to rate (0.92), respectively. reach The objectives of the research, they highlight the viewpoints of Iranian cycling clubs in the Championship in 2008 in the city of Karaj The international tournament attended Taftan in 2008, can be assessed.

RESULTS

Table1shows the descriptive statistics of body composition in elite sprint cyclists, the idea is coaches.

Table1: Descriptive statistics of body composition in elite sprint cyclists

Statistics / Characteristic	Mean	Standard deviation	Rank	Number
Ectomorph	1.746	0.823	7	75
Mesomorph	4.493	0.665	1	75
Endomorph	1.600	0.929	9	75
Mesomorph-Endomorph	3.160	1.424	3	75
Mesomorph-Ectomorph	2.270	1.493	5	75
High weight	3.080	0.996	4	75
Low weight	1.680	1.041	8	75
Percentage body fat	2.586	1.366	6	75
Height to weight ratio	3.746	0.775	2	75

The results indicate the importance of mesomorph type, height to weight ratio, and type of mesomorph-endomorph in elite sprint cyclists.

Table 2 shows the results of repeated measurements for body composition parameters in elite sprint cyclists. The results indicate significant differences between different sizes of body composition indices in elite sprint cyclists.

Table2: Test results of repeated measurements of body composition in elite sprint cyclists

Statistical indicators / Source changes	Sum of square	Degrees of freedom	Mean square	F	Significant
Values	585.807	8	73.226	61.970	P<0.001
Error	699.526	592	1.187	-	-

Table 3 shows the results of t-test to compare measures of body composition in elite sprint cyclists, the two are.

Table3: Paired comparison of body composition in elite sprint cyclists from coaches

Statistical Indicators / Comparison of means	Difference of mean	Standard deviation	Coefficient T	Degrees of freedom	Significant
Ectomorph with Mesomorph	-2.746	1.284	-18.511	74	P<0.001
Ectomorph with Endomorph	0.146	1.170	1.085	74	P=0.281
Ectomorph with Mesomorph Endomorph	-1.413	1.677	-7.297	74	P<0.001
Ectomorph with Mesomorph Ectomorph	-0.973	1.731	-4.867	74	P<0.001
Ectomorph with high weight	-1.333	1.338	-8.628	74	P<0.001
Ectomorph with low weight	-0.066	0.963	0.599	74	P=0.551
Ectomorph with percentage body fat	-0.840	1.416	-5.143	74	P<0.001
Ectomorph with height to weight ratio	-2.000	1.115	-15.534	74	P<0.001
Mesomorph with Endomorph	2.893	1.225	20.445	74	P<0.001
Mesomorph with Mesomorph Endomorph	1.333	1.509	4.768	74	P<0.001
Mesomorph with Mesomorph Ectomorph	1.773	1.665	9.224	74	P<0.001
Mesomorph with high weight	1.413	1.066	11.475	74	P<0.001
Mesomorph with low weight	2.813	1.467	16.601	74	P<0.001
Mesomorph with percentage body fat	1.906	1.595	10.350	74	P<0.001
Mesomorph with height to weight ratio	0.746	1.040	6.212	74	P<0.001
Endomorph with Mesomorph Endomorph	-1.560	1.296	-10.416	74	P<0.001
Endomorph with Mesomorph Ectomorph	-1.120	1.888	-5.136	74	P<0.001
Endomorph with high weight	-1.480	1.308	-9.795	74	P<0.001
Endomorph with low weight	-0.080	1.291	-0.536	74	P=0.593
Endomorph with percentage body fat	-0.986	1.546	-5.525	74	P<0.001
Endomorph with height to weight ratio	-2.146	1.248	-14.888	74	P<0.001
Mesomorph Endomorph with Mesomorph Ectomorph	0.440	2.423	1.573	74	P=0.120
Mesomorph Endomorph with high weight	0.080	1.353	0.512	74	P=0.610
Mesomorph Endomorph with low weight	1.480	1.926	6.652	74	P<0.001
Mesomorph Endomorph with percentage body fat	0.573	1.846	2.689	74	P<0.001
Mesomorph Endomorph with height to weight ratio	-0.586	1.507	-3.370	74	P<0.001
Mesomorph Ectomorph with high weight	-0.360	2.017	-1.545	74	P=0.127
Mesomorph Ectomorph with low weight	1.040	1.766	5.099	74	P<0.001
Mesomorph Ectomorph with percentage body fat	1.133	1.687	0.684	74	P=0.496
Mesomorph Ectomorph with height to weight ratio	-1.026	1.808	-4.917	74	P<0.001
High weight with low weight	1.400	1.692	7.163	74	P<0.001
High weight with percentage body fat	0.493	1.679	2.544	74	P=0.013
High weight with height to weight ratio	-0.666	1.211	-4.764	74	P<0.001
Low weight with percentage body fat	-0.906	1.685	-4.657	74	P<0.001
Low weight with height to weight ratio	-2.066	1.189	-15.049	74	P<0.001
Percentage body fat with height to weight ratio	-1.160	1.551	-6.476	74	P<0.001

Results inTables2and3show that, according to the coaches, not indicators of body composition(ectomorph, mesomorph, endomorph, mesomorphendomorph, mesomorphectomorph, high weight, low weight, percentage body fat, height to weight ratio), respectively, mesomorph, height to weight ratio, mesomorphendomorph, and high weight the more important for elite sprint cyclists, and mesomorphectomorph, percentage body fat, ectomorph, low weight, and endomorph will be the next priority. The t-test results in table 3show that the mesomorph, height to weight ratio, and mesomorphendomorph are significantly different from the other cases($p<0.05$). These results indicate the importance of muscle type, muscle type, weight and height to fit the fat in elite sprint cyclists.

DISCUSSIOND AND CONCLUSION

The aim of the present study was to investigate and develop indicators of body composition in elite sprint cyclists, from the perspective of leading educators in Iran. Many experts claim that there are some personality traits for success in the sport, as well as other features, or even in some cases, they are more important. The combination of physical talent in the fields of sports, to obtain outstanding results, it is indispensable. The obtained results are expressed in justifying research, the relationship between speed, power and muscle mass, which increases muscle mass, increase strength and power, speed requirements, so muscle mass and velocity are directly related to. Consequently, it is obvious that the mesomorph, height to weight ratio, and mesomorphendomorph for elite sprint cyclists, is important. The above results with the results obtained in the investigation of Foley, Baird and White (2008), Neal and Quinn (2001) and McLean and Parker (1989), is consistent. So, we can say that, at the rate of cycling talent in the sport, according to indexes of body composition is very important.

According to coaches, mesomorph, height to weight ratio, and mesomorphendomorph, body composition among the most important indicators of elite sprint cyclists are, therefore, recommended cycling talent and coaches, to discover outstanding talents and improve athletic performance, body composition according to the criteria and to develop athletes to exercise alone will not suffice.

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