39 - PROFILE ANALISYS OF THE PHYSICAL AND ANTHROPOMETRICAL ABILITIES IN ATHLETES UNDER-18 FROM THE SOCCER CLUB UNIÃO CACOALENSE/RO.

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1- INTRODUCTION

Soccer is a complex activity, which requires from the player the developmente of several physical, motor and psychic abilities. In order to organise and develop a training program adequate methodological knowledge is necessary associated with the theory of the specific sport (TOLEDO,2002).

The evolution os soccer, as team sport, has gone through study and sistematization of the elements related to two interdependent realities: the game and the player. As to what refers to the game, studies have been made with different focus and several goals and when the player is 16 years old, the variations associated to biological maturity are very significant.

Different studies have shown that the displacement of the players during the games is determined principally by the position or tactical function. Furthermore, the level of the championship, has influence in the distance ran during the game (SANTOS e KOKUBUN,1999).

This structure has been suffering changes in na ordened way, especially in the matters related to the physical preparation in all methodological aspects. These transformations are based in practical experiences by the professionals involved in the physical preparation, and mainly as a result for the scientific investigations directed to better the means of training structuring, improving this way, the adapting processes of the physical abilities of the soccer player. (BRANDÃO,2000).

Setting sports training into periods seeks to organize and guide the training process so that the athlete gets to the main season competition in their best athlete shape. Which asks from the player the development of several physical abilities. The aim of the present study was to analyze the profile of the physical abilities of a soccer team under-18 in the city of Cacoal – RO in the beginning of the season or preparation period 1 when guided from the macro cycle.

2- AIDS AND METHODS

This research was performed with soccer athletes, aging more than 15 years old and less than 18 years old, counting with 23 athletes. The sample was selected by convenience, obeying the criteria of inclusion where they should age between 15 and 18 years old, be part of the club União Cacoalense, and have signed the Free and clear term.

The study is characterized as being a Field study, with quality and quantity approach having a transversal characteristic and correlational aim. Therefore the following physical abilities were analyzed: aerobic Power through the 12 minutes jogging test, where it consists on the athlete running a higher distance in a time of 12 minutes, in order to obtain the VO2 the cardiac frequency and the distance ran by the athlete. For the test of velocity the test of running 50 meters was utilized where the athletes had to run that distance in the minor time possible. The space for the twelve-minute test was divides in 400 meters, and subdivided with cones every 10 meters. For the analyses of the body composition a mechanical scale of the brand FILIZOLA was used with the minimum weight being 100 grams and the maximum weight 200Kg.For height measuring a stadiometer connected to the scale which had the minimum height of 100 centimeters and the maximum height of 220 centimeters.

For the evaluation of the body fat percentage, a plicometer of the brand CESCORF was used, where 2 sub-scapular and abdominal skin folds were used according to what was proposed by (FORSYTH & SINNING,1973)

The evaluations were performed in the athletes training Field, where they were separated in groups and each group stayed in a station. Two stations were separated where one was for the performance of the test of 12 minutes and the other for the test of the 50 meters. For the evaluation of the body composition the Laboratory of Physical Aptitude of FACIMED was used.

3- RESULTS AND DISCUSSION

Table 1, shows the data referring the body weight, where the average presented the value of 71,5 Kg, and the height had an average of 173,79 cm and the fat percentage with an average of 11,3. In order to make understanding easier, the data are described on the table below.

TABLE 1: average and p.d. of the body composition of the athletes

	AGE	WEIGHT	HEIGHT	% F.
AVERAGE	16,5	71,5	173,79	11,3
P.D.	2,3	7,15	1,04	1,2

Table 2, shows the averages and pattern deviations of physical aptitudes, where in the test of aerobic resistance (12 minutes) the distance ran was of 2373,38 meters. In the velocity test the average was of 6,77 seconds with an estimated VO2 value of 41,54, where the sample was classified as good.

TABLE 2: average and p.d. of the physical abilities

	12 Min	50 m	Vo2
AVERAGE	2373,38	6,77	41,54
P.D	397,52	0,44	12,4

Table 3, shows the relationship between the arithmetic average of the variables researched, in the table below the variables VO2 and the distance ran in the test of 12 minutes were listed, where respectively the values of 41,54 and 2373,38

meters were obtained. The relationship value of the two variables was r = 1, where in the Pearson's ranking they showed themselves very relevant. When the significance of the same showed had the value of 0,001 being very significant.

The variables of body weight and velocity were also listed, where they showed a small correlation, with a value of r = 0,20 and not very significant where the value of significance is 0,5.

When the speed and VO2 variables were related, these ones showed a relation higher than the one analyzed previously, where the value of r = 0,30 and the level of significance presented a value of 0,28 as shown on the table below.

TABLE 3: relationship between the variables researched

	VO2	DISTANCE RAN
AVERAGE	41,54	2373,38
D.R	12,4	397,52
r = 1		
p<0,001		
P>0,5		
	WEIGHT	SPEED
AVERAGE	71,5	6,77
D.R	7,15	0,44
r=0,20		
p<0,5		
P>0,5		
	SPEED	VO2
AVERAGE	6,77	41,54
D.R	0,44	12,4
r=0,30		
p<0,28		
P>0,5		

4- DEBATE ABOUT THE RESULTS

The function caracterization the athletes from different sports types is the target of a great number of studies in the phisiology of the exercise. Generally, the athletes specialized in long lasting events present higher levels of aerobic capacity and anaerobic threshold, indicating a great development of the cardiorespiratory system and a high oxidative capacityof the muscle tissue.(TOURNY et al,2000)

What concerns soccer, not only the tactical game and the players positioning, but also the several game situations, make it difficult to quantify the importance of each energy line during a game. An important step in the optimization of the game dynamics in this sport, in a physiological point of view, is the comparative study of the functional capacity of the players from different positions, aiming not only to understand the metabolic need of the different functions, but also help to prepare specific training sections. (RIENZI et al,2000)

The anaerobic power is an important compound in the stimuli generated by the sport requests. By anaerobic power we understand the higher effort made during certain action in the smallest unit of time available (HERNANDES JR, 2002). For soccer, it is a physical capacity of great relevance, being of great importance to perform actions in the smallest time possible using a higher intensity of effort. For them, this physical capacity is present in the crucial and decisive moments of the game. It can be divided into alactic and lactic anaerobic capacity, being the first one analyzed in this study. The alactic anaerobic capacity is the maximum frequency (quantity per unit of time) in which energy can be produced by the ATP-CP system (MANSO; VALDIVIESO; CABALLERO, 1996).

In this sense, It was evaluated the development of this situation proposed by the study. Traditionally, the control of the development of the anaerobic Power in a macro cycle of training involving soccer is the basic criteria for every physical fitness professional for this sport. Firstly, in this research, it is necessary to differentiate power and aerobic capacity. The aerobic power is the maximum rate of oxygen consumption in the unit of time during exercise and measured directly by the VO2max, where the aerobic capacity is the maximum rate of system energy and identified by the anaerobic threshold (SILVA, 2006). High aerobic Power in soccer players is a factor to be considered predictive of good organism capacity to tolerate the long lasting of the game, becoming primordial for the performance in this sport (BARROS; GUERRA, 2004).

The acknowledgement of the effects of the velocity development in the Sport performance brought up the interest on how to better it during a training process, becoming important to control it during a preparation period. Weineck (2000) says that the velocity is the capacity based on the mobility of the neuromuscular system processes and the capacity of the development of the muscular power, of completing motor actions, under certain conditions, in the smallest amount of time. In soccer, the movements performed by the athletes are made in a cyclic way through running, trotting and acyclic movements, which happen through jinks and dribbling.

The velocities relating to the anaerobic threshold (V4mM) for the athletes, verified in this paper, were slightly inferior to the ones found in the Balikian et al (2002) study involving 51 professional players, which determined higher values than the ones found in the present study in the velocity variable, through the test of 50 meters run.

Balilian et al (2000), in their study with players in different positions, showed that the midfield and wingers presented bigger V4mM towards the other groups. Such results can be partially explained based on study data that, comparing the dislocation of the players during a game, it was verified that the midfielders and wingers run distances 5% bigger than attackers and defenders. This way, it is possible to infer that the bigger volume of running in official games and collective training may result in functional adaptations which express themselves in differentiated values of anaerobic threshold.

In the theory of sports training we may identify two major manifestations of velocity: The cyclic movement velocity and the acyclic movement velocity, the first one was controlled in this research. Another physical ability extremely relevant for the soccer athletes Who are professional in this sport is strength explosion. It is defined as the capacity of surpassing as fast as possible certain resistance, and represents the unique situation For the manifestation of the velocity and strength capacities related to one single effort (GOMES, 2002). Explosive Strength is the product of strength and velocity, and it refers to the ability of the neuromuscular system to generate the biggest impulse possible in a certain period of time (WISLOFF; HELGERUD; HOFr than).

Raymundo et al (2005) evaluated the evolutions of the physical capabilities in soccer athletes, where He concluded that the primordial physical ability for soccer is the aerobic capacity obtaining the result from the VO2 maximum and the anaerobic

resistance, where in the study was performed the test of running 50 meters.

Compared with a study performed by Barros, Lotufo and Mine (1996) in what concerns the VO2max of the players, the values found in this study are close to the ones reported by literature (62,0 ± 4,7ml.kg-1.min-1)22; (60,0 – 65,0ml.kg-1.min-1); (55,0 – 65,0ml.kg-1.min-1)23; (60,0 ± 1,0ml.kg-1.min-1)24; (56,20 ± 6,23ml.kg-1.min-1) 21 and (58,7 ± 4,1ml.kg-1.min-1)25. That implies a very sharp similatiry towards the results mentioned in the literature mentioned in this article.

5- CONCLUSION

It was possible to verify that the athletes, when analyzed VO2 maximum, had the results classified in a good state. Analyzing the fat percentage and the body weight they fit into normality. Finally, when concerning the variables the ones which showed to be more symmetrical were VO2 maximum and distance run, leading to the conclusion that the individuals evaluated have good physical aptitude.

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PROFILE ANALISYS OF THE PHYSICAL AND ANTHROPOMETRICAL ABILITIES IN ATHLETES UNDER-18 FROM THE SOCCER CLUB UNIÃO CACOALENSE/RO.

ABSTRACT

INTRODUCTION: Football is a complex activity, requiring the player's development of various physical, motor and psíquicas.OBJETIVO: analyzing the profile of a physical football team under 18 years of the city of Cacoal - RO.MATERIAIS AND METHODS : the research involved a sample of 23 athletes, which is a choice for convenience. This research is classified as cross-correlation with qualitative-quantitative approach. For data collection tests were used for 12 minutes of COOPER to analyze the aerobic capacity by VO2 max. To check the speed test was used for 50 meters and the body composition was used FORSYTH & Sinningia where it is used for 2 sub-scapular skinfolds and abdominal.RESULTADOS: the variables for analysis of body composition showed the sample mean and standard deviations of weight, height and body fat percentage follows: 71.15 and 7.15, 173.79 and 1.04, 11.3 and 1.2 and mean age 16.5 and sd 2.3. For the variables of physical means and standard deviations of the test 12 minutes, speed and VO2 were 2373.38 and 397.52, 6.77 and 0.44, 41.54 and 12.4. CONCLUSION: it can be conclude that the sample is evaluated with good fitness.

KEYWORDS: physical, anthropometric and football

CAPACITES D'ANALYSE PROFIL DES ATHLETES ET PHYSIQUE ANTHROPOMETRIQUES SUB-18 CACOALENSE UNION FOOTBALL CLUB / RO.

RÉSUMÉ

INTRODUCTION: Le football est une activité complexe qui exige le joueur à développer diverses physiques, motrices et psíquicas.OBJETIVO analyser le modèle de la capacité physique d'une équipe de football de moins de 18 ans de Cacoal City - RO.MATERIAIS ET METHODES : L'étude a utilisé un échantillon de 23 athlètes, qui est un choix pour plus de commodité. La recherche est classé comme une approche transversale de corrélation avec qualitatives et quantitatives. Pour recueillir des tests données ont été utilisées COOPER 12 minutes pour analyser la capacité aérobie par la VO2 max. Pour vérifier le test de vitesse a été utilisé pour 50 mètres et la composition corporelle a été utilisé FORSYTH & Sinning est utilisé lorsque deux plis sous-scapulaire et abdominal.RESULTADOS: les variables pour l'analyse de la composition corporelle a montré la moyenne de l'échantillon et les écarts types de pourcentage en poids, la taille et la graisse corporelle comme suit: 71,15 et 7,15, 173,79 et de

1,04, 11,3 et 1,2, âge moyen 16,5 et 2,3 sd. Pour les variables de supports physiques et les écarts-types de l'épreuve 12 minutes, la vitesse et la VO2 ont été 2373,38 et 397,52, 6,77 et 0,44, 41,54 et 12,4 CONCLUSION:. Il peut être conclure que l'échantillon est évaluée avec bonne forme physique.

MOTS-CLÉS: physique, anthropométriques et le football.

PERFIL DE CAPACIDADES DE ANÁLISIS DE DEPORTISTAS DE FÍSICA Y ANTROPOMÉTRICOS EN SUB-18 CACOALENSE FÚTBOL CLUB UNIÓN / RO.

RESUMEN

El fútbol es una actividad compleja que requiere que el jugador a desarrollar diferentes físico, motor y psíquicas.OBJETIVO analizar el patrón de las capacidades físicas de un equipo de fútbol menores de 18 años de la ciudad de Cacoal - RO.MATERIAIS Y MÉTODOS: estudio utilizó una muestra de 23 atletas, que es una opción para mayor comodidad. La investigación se clasifica como un enfoque correlacional de corte transversal con cualitativos y cuantitativos. Para recoger datos se utilizaron pruebas de Cooper de 12 minutos para analizar la capacidad aeróbica a través de la VO2 máx. Para comprobar la prueba de velocidad fue utilizado por 50 metros y la composición corporal se utilizó Forsyth & Pecar se utiliza cuando dos pliegues cutáneos subescapular y abdominal.RESULTADOS: las variables para el análisis de la composición corporal mostró el promedio de la muestra y la desviación estándar de porcentaje en peso, talla y grasa corporal de la siguiente manera: 71.15 y 7.15, 173.79 y 1.04 11.3, y 1.2, con una edad media 16.5 y 2.3 sd. Para las variables del medio físico y las desviaciones estándar de la prueba de 12 minutos, la velocidad y el VO2 fueron 2.373,38 y 397,52 6,77, y 0,44, 41,54 y 12,4. CONCLUSIÓN: Se puede la conclusión de que la muestra se evalúa con buen estado físico.

PALABRAS CLAVE: física, antropometría y el fútbol.

ANALISE DO PERFIL DAS CAPACIDADES FISICAS E ANTROPOMÉTRICAS EM ATLETAS DE FUTEBOL SUB-18 DO CLUBE UNIÃO CACOALENSE/RO.

RESUMO

INTRODUÇÃO: O futebol é uma atividade complexa, que exige do jogador o desenvolvimento de diversas capacidades físicas, motoras e psíquicas.OBJETIVO: analisar o perfil das capacidades físicas de uma equipe de futebol sub 18 anos do município de Cacoal – RO.MATERIAIS E MÉTODOS: a pesquisa contou com uma amostra de 23 atletas, sendo esta uma escolha por conveniência. A pesquisa se classifica como sendo transversal, correlacional com abordagem quali-quantitativa. Para a coleta de dados foram utilizados os testes de 12 minutos de COOPER para analisar a capacidade aeróbica através do VO2 máximo. Para verificar a velocidade foi utilizado o teste de 50 metros e para a composição corporal foi utilizado FORSYTH & SINNING onde é utilizado 2 dobras cutaneas sub-escapular e abdominal.RESULTADOS: nas variáveis para analise da composição corporal a amostra apresentou medias e desvios padrões de peso, estatura e percentual de gordura seguintes: 71,15 e 7,15; 173,79 e 1,04; 11,3 e 1,2 e média de idade 16,5 e d.p 2,3. Para as variáveis das capacidades fisicas as medias e desvios padrões dos testes 12 minutos, velocidade e Vo2 foram: 2373,38 e 397,52; 6,77 e 0,44; 41,54 e 12,4.CONCLUSÃO: pode-se concluir que a amostra avaliada se encontra com boa aptidão física.

PALAVRAS CHAVE: capacidades físicas, antropométrica e futebol.