115 - CHARACTERIZATION OF PROFILE MORPH FUNCTIONAL IN ATHLETE OF SEATED VOLLEYBALL OF THE BRAZILIAN JUNIOR TEAM

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1.INTRODUCTION

The Paralympics modalities come projecting as a great source of conquests in Brazil. The Brazilian teams are getting satisfactory result and also they serve as it foment to the practical one of physical activities for disabilities.

According to Marins & Giannich (1998) the evaluation in athlete allows the elaboration of the specific profile for each sport. This profile indicates if an individual will have better possibilities of performance in a specific sport, beyond serving as orientation for that they intend to initiate a porting life.

Fernandes Filho (2003) clears that the knowledge of the characteristics of a sport seems to propitiate the adequate application of the strategies that would better influence in its income, that, the profile of characteristics is an instrument of excellence for the sport.

In Brazil, it is perceived, great lack of studies and information concerning the aspects related to the profile of the Paralympics athletes of this modality. Normally, adaptations and/or formularizations of authors meet on practitioners of traditional volleyball.

The present study is justified, for the necessity of studies on such modality in Brazil, not only for its lack, but also for the growth and the projection that this sport has presented in the last decade. With the promotion of new research, theoreticians and practical about Paralympics modalities had certainly appeared bigger possibilities for the evolution of these sports until the excellence. In addition, it foments its practical.

The relevance of this study correlates, and articulates at first, with the justifications showed in the previous item. Therefore, it expects getting the objectives, and, anyway, taking care of the part of the relative necessities to the sport in analysis.

The objective of the present study is centered in establishing the morph functional characteristics, such as, measured of perimetry and coetaneous fold, force of manual hold and speed of the superior members in Paralympics athletes of Seated Volleyball Integrant of the Brazilian Junior Team.

2.HISTORY OF PARALYMPIC VOLLEYBALL

In 1956 the seated Volleyball appeared, that was combination of the Volleyball with Sitzball, amputated persons could compete and participate, cerebral palsy, injured in the vertebral column and people with other types of musculoskeletal deficiency (TURINI & OF THE COAST, 2002).

In 1976, the seated Volleyball was included with the presentable content in the Paralympics of Toronto. Four years later the seated Volleyball was included as Paralympics modality in the games of Arnhem, Holland. Since 1993, world-wide championships of the modality had been produced, as much in the masculine as in the feminine. Until Sydney-2000, paralympic volleyball was divided between the seated category and in foot (the athletes use themselves of prosthesis to play), after Athens just they had had disputes with seated athletes, for decision of the Paralympics International Committee. Two organizations have the mission to manage and prescribe paralympic volleyball: the WOVD-World Organization Volleyball for Disable and FIVB - Federacy International of Volleyball (PARALYMPIC BRAZILIAN COMMITTEE).

The Seated Volleyball started to be experienced in Brazil in 2002, and it had as its pioneer lecturer Ronaldo Gonçalves de Oliveira, Physical Education lecturer of Mogi das Cruzes, São Paulo (OLIVEIRA, 2006).

2.1.PARALYMPIC VOLLEYBALL CHARACTERISTICS

The morphologic characteristics of the players of Seated Volleyball, because its musculoskeletal incapacity, in the majority, are of players with amputations acquired and congenital and injured of polio, but also people with cerebral palsy, spina bifida, muscular dystrophy multiple sclerosis, among others, can play. However, the great majority of the players of the Seated Volleyball is amputated, mainly of inferior members, followed of polio injured (OLIVEIRA, 2006).

Of the rules, the only difference of the paralympic volleyball for conventional volleyball, is: the size of squares is: 10x6 m, and the net to 1.15 m of height of the floor in its superior part for men and to 1.05 m for women; the position of the players in the squares and the possibility to block the serve. Each team makes use of six athletes on either side and the game is the one best one of five sets. The four first ones go to 25 points (unless it has ties up to in 24, when the dispute is extending until one team opens advantage with 2 points) and the last one goes to 15 (it being valid the same rule in case of it ties up to in 14 points). A player cannot give two consecutive touches in the ball, except only for the action of the block. Differently of conventional volleyball, the serve can be blocked. The athletes must keep pelvis in contact with the ground during the game (VUTE, 2004).

2.2.THE POWER AND THE PARALYMPIC VOLLEYBALL

The human being's power can be understood as the capacity to surpass, to support or to attenuate such resistance. There are three basic types of manifestation of the force; maximum force, force-speed and force-resistance (PLATONOV & BULATOVA, 2003).

The dynamometry is a method that involves all the types of measures of force and pressure. The measurable forces are of reaction that is the external forces transmitted between the body and the environment (FERREIRA, 2003).

In conventional volleyball the muscular force of inferior, superior members (mainly shoulders) and of trunk is basic for the good development of the modality. In paralympic volleyball, the use and importance of the muscular force in the superior members (mainly shoulders) and trunk are not different, except the use of the inferior members, since the athletes in its majority do not contain or have some type of deficiency that disables the conventional use of the inferior members. The same ones remain seated most of the time (SCHNEIDER, BENETTI & MEYER, 2004).

2.3. THE SPEED AND THE PARALYMPIC VOLLEYBALL

“Speed is the capacity, on the basis of the mobility of the processes of the nervous and muscular system and the capacity of development of the muscular force, to complete motor actions, under such conditions, in the smaller time” (FREY, 1977 *apud* WEINECK 2000).

The speed is a motor ability that depends much more on the genotype of what of phenotype, and it depends on three factors for its good development: - amplitude of the movement, - force of the employed muscular group and efficiency of the motor neuron system (POWERS, 2000).

The speed of an athlete is fruit of its functional properties that allow the execution of motor actions in a minimum time. Although diverse forms of manifestation of the speed to exist, the same one get two basic factors that there are in all their manifestations; the achievement of the mechanisms muscular neuron and the capacity of fast mobilization of the set of motor actions. The first factor is genetic and its development is so modest and the second factor suffers greater influence from the training (PLATONOV & BULATOVA, 2003).

The specific speed of the movements of competitive volleyball has led the development of programs of isokinetic training

assigned for production of muscular contraction in specific speed, in muscular level as neural (SCHNEIDER, BENETTI & MEYER, 2004).

3.STUDY'S TYPES

In accordance with Thomas & Nelson (2002), the present study is characterized for being descriptive and of transversal matrix, aiming at to examine the relation of certain types with the performance of specific sport.

3.1.SAMPLE

For the elaboration of this work a sample of 9 individuals with the average of age of 21,8 ± 2,05 years old, with average of height of 179 ± 7,76 cm and average of the weight without prosthesis of 63 ± 5,66kg was considered as presented in table 1. All are integrant of the Brazilian Paralympic Junior Team of Seated Volleyball.

The tests had been done in 2º World-wide Paralympic Volleyball Junior, who occurred in the period of April 14 to the 23, 2007 in the Niteroiense Association of Deficient Physicists - ANDEF, located in the Estrada Velha de Maricá, 4830, Rio do Ouro - Niterói - Rio de Janeiro-Brazil.

3.2.PROCEDURES

The evaluation of the athletes happened by test of dynamometry of Hand (*Grip*) (Johnson & Nelson, 1979), which was used to measure the force of manual hold. The protocol used in the test of Plaques' Blow was the EUROFIT, (European Test of Physical Skill) objectifying the analysis of the speed of the superior members.

The study happened in accordance with resolution 196/96 of the National Council of Health (C.N.S.) that regulates the research produced with human beings. All the participants of the research had received the term from assent and propagation of image, having accepted voluntarily to participate of the study.

3.3.STATISTICAL PROCESSING

For analysis of the results, the descriptive statistics was used through the Microsoft Excel of Windows XP software.

4. PRESENTATION AND DISCUSSION OF RESULTS

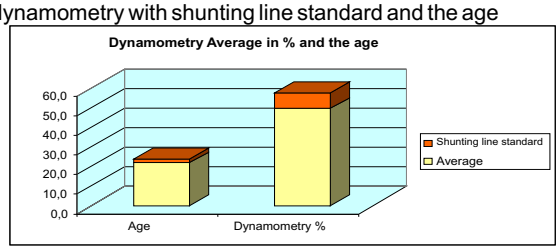
The average of stature of the Brazilian Paralympic Volleyball Junior Team, if compared with the Brazilian Masculine Youthful Team of conventional volleyball, measured in March of 2003, would be low. Therefore the conventional team got the average, in that occasion, of 1,97cm, but the paralympic team has the average of 1,79cm. However, what really it would be significant to consider at this moment is the stature with the extended arms that measure the height "real" of the athlete inside of its game's conditions. Since, the same ones come across with a net that measures 1,15 m of height of the floor till its superior part. Therefore, since the player lowest to highest, both would be ready in physiologic questions to do the block, for example.

TABLE 2: Result of the descriptive statistics of the stature and length of some segments.

	Stature	Stature sat with arms extended	Length trunk cefhalic	Span	Length of the right arm	Length of the left arm
N	9	9	9	9	9	9
Average	179,0	132,1	80,2	185,7	78,8	79,3
Shunting line standard	6,75	5,06	3,49	8,89	2,22	1,97
Standar error	2,25	1,69	1,16	2,96	0,74	0,66
Mínimum	172,00	124,00	77,00	169,00	76,00	77,00
Maximum	193,00	138,00	86,00	203,00	81,00	82,00

The following Graph 1 clears the converted average of kg to percentage, for the table of Johnson & Nelson (1979), in relation the force of manual hold of the players Juniors de Paralympic Volleyball of the Brazilian Team. When observing the graph we will perceive that in table 1, that it was described previously in the chapter 3, the index of 50% of force of manual hold is proportional at 107kg, in respect to the age of 20 to 29 years. Therefore, we consider the evaluation in the athletes of the Brazilian Paralympic Volleyball Junior Team, through the test of dynamometry, medium, because the same ones had gotten a average of 49,4% with shunting line standard of 7,88. Thus being able, to evolve very in what it says respect to the profit of force of manual hold.

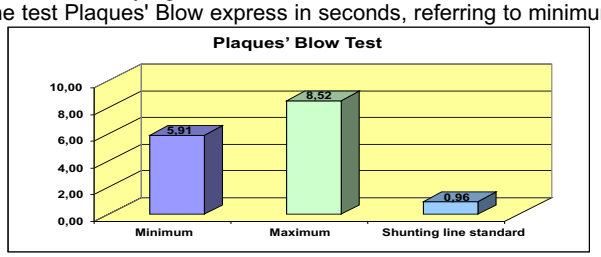
GRÁPH 1: Relation of the dynamometry with shunting line standard and the age



In picture 7, below, it follows the result of the test Plaques' Blow express in seconds. The protocol of the EUROFIT stands out that athletes of 18 years old had gotten average of 10,42 seconds ± 1,74, and the athletes of the Brazilian Paralympic Volleyball Junior Team had gotten 7,3 seconds ± 0,96. However, we cannot take in consideration this type of contrast, because, the athletes of the EUROFIT that had been evaluated did not have the specificity of the test in accord with the practiced modality, in view they were practicing of soccer. Therefore, it suggests new tests to us, concerning the specificity of the related one in accord with the modality.

Graph 2, below displayed, makes that we have an easy visualization of the minimum and the maximum, since it will be important tools for future confrontations of data, aiming at to evaluate the functionality of the training used for the improve of the speed of superior members of the athletes of Paralympic Volleyball. However, we evidence that the results of this path are very distant, generating, therefore a group sufficiently differentiated in respect to superior members' speed. Therefore, the gotten minimum was of 5,91 and the maximum was of 8,52, these are resulted sufficiently significant and distinct.

GRAPH 2: Relation of the test Plaques' Blow express in seconds, referring to minimum, maximum and the Shunting line standard.



5. CONCLUSION

Through the results found in the evaluation of the players of the Brazilian Paralympic Volleyball Junior Team, the profile of characteristics of the present group was determined, in the morph functional factors evaluated and described previously.

In function of the analysis of the results, we conclude that the current group did not present significant statistical differences in the morph functional characteristics, mainly in respect to speed of superior members.

It expects that the present study can serve as font of consultation for students and professionals in this area of Physical Education. As well as, to assist the technician and physical preparer that need information concerning the morph functional characteristics, such as, measured anthropometric, force of manual hold and speed of superior members.

One suggests that future studies can be done and through that can complement the information gotten here, once upon, the modality in question growing more and more for having characteristics of a dynamic and fast game.

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CHARACTERIZATION OF PROFILE MORPH FUNCTIONAL IN ATHLETE OF SEATED VOLLEYBALL OF THE BRAZILIAN JUNIOR TEAM

ABSTRACT

The aim of the present study is centered in establishing the morph functional characteristics, the force of manual hold and the speed of the superior members of integrant Paralympics athletes of the Brazilian Junior Volleyball Team. In Brazil, it is perceived, great lack of studies and information concerning the aspects related to the profile of the Paralympics athletes of this modality. Normally, adaptations and/or formularizations of authors are meet about practitioners of traditional volleyball. For the elaboration of this work a sample of 9 individuals with the average of age of 21,4 ± 2,05 was considered, with the average of height of 1,79 ± 7,76 and the average of the weight without prosthesis was of 63 ± 5,66. All are integrant of the Brazilian Paralympic Junior Team of Seated Volleyball. The tests had been done in 2º World-wide Junior Paralympic Volleyball of 2007. In function of the analysis of the results, we conclude that the current group did not present significant statistical differences in the morph functional characteristics.

KEY-WORDS: Volleyball, force and speed.

CARACTÉRISATION DE PROFIL MORPH FONCTIONNELLE DANS ATHLÈTE DE VOLLEY-BALL ASSIS BRÉSILIEN DE L'ÉQUIPE JUNIOR

RÉSUMÉ

L'objectif de la présente étude est centrée sur l'établissement de l'morpher caractéristiques fonctionnelles, la force de tenir manuel de la vitesse et de la supériorité des membres de integrant paralympiques athlètes de l'équipe de volley-ball brésilien Junior. Au Brésil, il est perçu, grand manque d'études et d'informations concernant les aspects liés à la visibilité de la athlètes paralympiques de cette modalité. Normalement, de l'adaptation et / ou formularizations de rencontrer les auteurs sont des praticiens traditionnels sur le volley-ball. Pour l'élaboration de ce travail d'un échantillon de 9 personnes à la moyenne d'âge de 21,4 ± 2,05 a été considéré, à la moyenne de la hauteur de 1,79 ± 7,76 et la moyenne des poids sans prothèse était de 63 ± 5,66. Tous sont integrant de l'équipe junior brésilienne paralympique de Volley-ball assis. Les essais ont été effectués en 2 ° World-wide volley-ball juniors paralympiques d'2007. En fonction de l'analyse des résultats, nous concluons que le groupe actuel ne présente pas d'importantes différences dans les statistiques de morph caractéristiques fonctionnelles.

MOTS CLES: Volley-ball, à la force et la vitesse.

CARACTERIZACÍON DEL PERFIL DEL MORPH FUNCIONAL EN EL ATLETA DE VOLEIBOL SENTADO DE LA BRASILEÑO JUNIOR TEAM

RESUMEN

El objetivo del presente estudio se centra en el establecimiento de las características funcionales del morph, la fuerza de celebrar manual de la velocidad y del superior jerárquico de los miembros integrantes de los atletas Paraolímpicos brasileño Voleibol Junior Team. En Brasil, se percibe, una gran falta de estudios y la información relativa a los aspectos relacionados con el perfil de los atletas Paraolímpicos de esta modalidad. Normalmente, las adaptaciones y / o formularizations de los autores se reúnen alrededor de los practicantes tradicionales de voleibol. Para la elaboración de este trabajo una muestra de 9 individuos con la media de edad de 21,4 ± 2,05 se consideró, con la media de altura de 1,79 ± 7,76 y el promedio del peso fue de prótesis sin 63 ± 5,66. Todos son integrantes de la brasileña Paralímpicos Junior Team Seated de Voleibol. Las pruebas que se había hecho en el 2 ° Mundial Junior de Voleibol Paralímpicos de 2007. En función del análisis de los resultados, llegamos a la conclusión de que el actual grupo no presentó diferencias estadísticas significativas en las características funcionales del morph.

PALABRAS CLAVE: Voleibol, la fuerza y la velocidad.

CARACTERIZAÇÃO DO PERFIL MORFOFUNCIONAL EM ATLETAS DE VOLEIBOL SENTADO DA SELEÇÃO BRASILEIRA JÚNIOR

RESUMO

O objetivo do presente estudo centra-se em estabelecer as características morfofuncionais, a força de preensão manual e a velocidade dos membros superiores de atletas paraolímpicos de voleibol integrantes da Seleção Brasileira Júnior. No Brasil, percebe-se, grande carência de estudos e informações acerca dos aspectos relacionados ao perfil dos atletas paraolímpicos desta modalidade. Normalmente, encontram-se adaptações e/ou formulações de autores sobre praticantes do voleibol tradicional. Para a elaboração deste trabalho considerou-se uma amostra de 9 indivíduos com a média de idade de 21,4 ± 2,05, com a média de altura de 1,79 ± 7,76 e a média do peso sem prótese foi de 63 ± 5,66. Todos são integrantes da Seleção Brasileira Paraolímpica Júnior de Voleibol Sentado. Os testes foram realizados no 2º Mundial Júnior de Voleibol Paraolímpico de 2007. Em função da análise dos resultados, concluímos que o atual grupo não apresentou diferenças estatisticamente significativas nas características morfofuncionais. PALAVRAS-CHAVE: Voleibol, força e velocidade.