145 - HEIGHT AS PREDITOR OF MOTOR PERFORMANCE IN CHILDREN 10 YEARS OLD

RUY J. KREBS; FRANCISCO SALVIANO S. NOBRE & LEANDRO AUGUSTO ROMANSINI
Universidade do Estado de Santa Catarina - UDESC, Florianópolis/SC/Brasil
Laboratório de Desenvolvimento e Aprendizagem Motora LADAP/CEFID/UDESC

INTRODUCTION

Recently, in a past not so distant, the supremacy of Brazil while sporting area only got to just obtain respect of the other countries in the soccer. Mainly to the long of those last 20 years that reality has been changed as consequence of the expressive results that Brazil has been getting in the scenery of the international sport. In that way, it has been observing the fame that the country has been getting in international competitions in several sporting modalities. This is true for sailing, swimming, judo, volleyball, tennis and, now, artistic gymnastics. However, there is a growing understanding mainly on the part of the researchers in the area of Sport Sciences that as important as to reach the level of the sporting elite is to develop basic programs to engage children in sports. As strategy for winning that challenge is the proposal of renewal of the sporting athletes through the selection and detection of sporting talents. (Matrsudo, 1987 et. al.; Böme, 1994, 1995; Fernandes Filho, 1997; Gaya et. al. 2005).

The definition of the term sporting talent has been used to characterize people high endowed biological and psychological capacities, which depending on the social way which you/they are involved, can present high sporting acting, depending for that of appropriate environmental conditions, Lanaro Filho & Böhme (2001). In a developmentalist point of view, Vieira and Krebs (2003) tried to understand the path of a sporting talent basing on the of Bronfenbenner's bioecological paradigm (1995) through the model: person-context-process-time, offering one more possibility to understand the interaction between the talent with the context which one is participating. With the intention of presenting perspectives for identification of sporting talents, the specialists have been proposing alternatives that goes from the use finger prints (Fernandes Filho, 1997), up to the more commonly used as anthropometric measures and suitable motor patterns by aptitude tests, as the Estratégia Z-CELAFISCS, Matsudo et.al. (1987), Andrade et al. (1993), the Bio-Psico-social model of Böhme apud Kiss et. al. (2004) and, the most used in present days is the Brazil Sport Project, PROESP BR (Gaya et al. 2005). This last one, developed in the clearly defined space of the school physical education, has as general objective to delineate a profile of motor capacities and life habits of children and adolescents in the age group among 7 to 16 years shimmering the possibility to constitute indicators for the creation of a physical education politics and sports for children and adolescents in Brazil and detection of sporting talents.

The possibility to classify an individual as sporting talent for luck, comes along psychological and social aspects, to be influenced by the interaction among the anthropometric and of physical aptitude presented by the individual (Gaya et al. 2005). However, to accomplish these goals, some methodological steps have to be considered .The authors still comment that only between the 10 and 12 years of age there is a possibility that one gets better in the speed of muscular contraction, what suggests that the physical performance in certain activities which demands muscle power, considering children below the 10 year-old age group, is influenced by other factors such as maturation than metabolic specialization for fast contractions. In that way, Ferreira & Böhme (1998) enumerate a sequence of studies, which affirm that the different aspects of the physical constitution influence the capacity of motor performance, however, in degrees that vary considerably among gender, age group, and anthropometric characteristic. Considering those above-mentioned possibilities, this work had as objective verifies the influence of the hieght on the performance of the horizontal jump in school children of the state of Santa Catarina, Brazil.

METHODOLOGY

For accomplishment of that study random selected a sample of 718 school children with age of 10 years old, being 368 male and 350 female. The data used came from the database composed by 9.689 children and adolescents of the Brazil Sport Project (Proesp/SC), located at the Development and Motor Learning Laboratory - UDESC/CEFID. Those data are referring to the period of September from 2003 to April of 2004. In agreement with the model of motor development of Gallahue (2005), the focus of the objective of this study is in the transitory stage of the specialized movements. According to the author, the specialized motor abilities are products of the phase of fundamental movements. The descriptive analysis included arithmetic average, standard deviation, was calculated minimum and maximum value of the anthropometric variables. In order to select children for two group of different height, norms established by of the National Center of Health Statistics NCHS were used. School children of both sexes were into group 1 (25 percentile) and group 2 (75 percentile). After separated the groups, a two samples supposing different variances, with the alpha level of significance of 5% ($p < 0,05$) was used.

RESULTS AND DISCUSSIONS

The results of the study are showed in tables and followed by pertinent comments In Table 1 we can found the comparisons of the mean values of the anthropometric variables and the results of the children's performance in the horizontal jump test.

Table 1. Distribution of the anthropometric variables and the results of the children's performance in the horizontal jump test

		Average	DP	Maximum	Maximum
Male	**WEIGHT**	34,9	7,1	22,0	65,0
(N 368)	**HEIGHT**	140,1	6,9	122,0	161,0
	IMC	17,7	2,5	12,6	27,9
	SH	*139,5	22,4	71,0	266,0
Female	**PESO**	34,3	7,5	21,4	72,0
(N 350)	**ESTATURA**	140,0	7,5	120,5	162,0
	IMC	17,3	2,8	12,4	32,9
	SH	127,6	21,1	66,0	200,0

As it can be observed in the Table 1, there were not statistical significant differences among means for that age group in the anthropometric variables such as weight and IMC , however a significant difference between the means of the results in the horizontal jump test. Those findings obey an identified tendency in other works already accomplished, (Ferreira & Böhme,1998; Okano et. al. ,2001; Whistles & Dias, 2003. The justification for that phenomenon finds support in the classic literature of motor development, which emphasizes that in that age group, the differences in the motor performance appear for a prevalence of the boys in tasks that involve muscular power as it is the case of the test of horizontal jump, (Malina & Bouchard, 1991; Craty, 1986).However there is to be considered that such differences can be more associated to cultural

factors than. The Table 2 brings the results of the "t" test (two samples supposing different variances).

Table 2: Test-t: two samples supposing different variances

	Variable 1	Variable 2
Average	131,86	135,85
Variance	503,72	548,21
Observations	165,00	229,00
Hypothesis of the difference of average	0,00	
Gl	362,00	
Stat t	-1,71	
P(T<=t) unite-flow	**0,04**	
t critical unite-flow	1,65	
P(T<=t) bi-flow	0,09	
t critical bi-flow	1,97	

In agreement with the Table 2, it is observed that of the 718 studied scholars, 165 are in the percentil p <25 and 229 in the percentil p> 75. The average obtained in the acting of the horizontal jump it was shown favorable to the group with larger stature, p> 75, the one where a level of significância of 0,04 was verified. Those discoveries take to infer that for that age group the stature is shown as an intervening factor in the acting of the jump in distance, however not should be used as pattern for detection of talents once hereafter they can come to be influenced by factors maturacionais and you adapt, Lima (2000), Gallahue (2005).

CONCLUSION

During the last 20 years a considerable number of scientific works has been developed in the ambit of the physical education, under a best perspective to understand the factors that glimpse in the health and in the students' motor acting. Many of those works bring with itself a clear influence of the specialists' group that has as concern the detection, selection and promotion of sporting talents, what should be understood as a praiseworthy initiative. However, it has been verifying that good part of the developed works has been using the data antropométricos and of physical aptitude, in a direct relationship of cause and effect, attributing to the appraised ones an expectation of coming to be identified as sporting talent, without considering the influence of the other factors that for luck can they are able to come to intervene in your development as aspects maturacionais, social and cultural, for instance.

The great contribution of that work felt to the fact of being considered the pertinent characteristics to the children of different goods, however of same age group, seeking like this, to reveal the peculiarities and differences for that population. In that way, when being considered that in the studied age group, 10 years of age, there still is not a metabolic specialization and nor motive for the acting of activities that you/they request force potency, he/she was considered the importance of the influence of the stature for the best acting motor in the test of jumping horizontal. However, there is to be aware, that this variable can be intervening for that moment of the student's life, in the acting of that ability in matter, seeking like this, to justify the reason of the best acting, but, however, alerting for possible limitations of using those references as pattern for detection of talents in that age group. Still, considering a possible influence of the relationship of the interaction peso/estatura for the acting of that physical valência, the study suggests investigations considering the state eutrofia nutricional for these ends, as well as the influence of the stature on the acting in other activities in that age group.

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RUY JORNADA KREBS
UNIVERSIDADE DO ESTADO DE SANTA CATARINA - UDESC
RUA PASCHOAL SIMONI, 149 COQUEIROS
CEP: 88080-350 Florianópolis/SC BRASIL
TEL: (48)3244-2260
ruykrebs@brturbo.com.br

HEIGHT AS PREDITOR OF MOTOR PERFORMANCE IN CHILDREN 10 YEARS OLD
Abstract
The definition of the term sporting talent has been used to characterize people high endowed biological and psychological capacities, which depending on the social way which you/they are involved. this work had as objective verifies the influence of the height on the performance of the horizontal jump in school children of the state of Santa Catarina, Brazil. For accomplishment of that study random selected a sample of 718 school children with age of 10 years old, being 368 male and 350 female. The data used came from the database composed by 9.689 children and adolescents of the Brazil Sport Project (Proesp/SC), located at the Development and Motor Learning Laboratory - UDESC/CEFID. In order to select children for two group of different height, norms established by of the National Center of Health Statistics NCHS were used. School children of both sexes were into group 1 (25 percentile) and group 2 (75 percentile). After separated the groups, a two samples supposing different variances, with the alpha level of significance of 5% (p <0, 05) was used. A significant difference between the means of the results in the horizontal jump test was found. Considering a possible influence of the relationship of the interaction weight/height for the motor performance of children that the study suggests investigations considering the nutritional state of the children, as well as the influence of the height on the performance in other activities in that age group.
Keywords: height, horizontal long jump, motors performance, children

HAUTEUR COMME PREDITOR DE PERFORMANCE DU MOTEUR DANS LES ENFANTS 10 ANNÉES VIEUX
Résumé
La définition du terme le talent de sport a été utilisé pour caractériser des gens hautes capacités biologiques et psychologiques dotées qui selon le chemin social que les you/they sont impliqués. ce travail eu comme objectif vérifie l'influence de la hauteur sur la performance du saut horizontal dans écoliers de l'état de Santa Catarina, Brésil. Pour réalisation de cette étude aléatoire a sélectionné un échantillon de 718 écoliers avec âge de 10 années vieux, être 368 mâle et 350 femme. Les données utilisés sont venus de la base de données composée par 9.689 enfants et adolescents du Brésil Sport Projet (Proesp/SC), a localisé au Développement et Moteur qui Apprend Laboratoire - UDESC/CEFID. Pour sélectionner des enfants pour deux groupe de hauteur différente, normes établies par du Centre National de Statistiques de la Santé - NCHS ont été utilisés. Les écoliers de les deux sexes étaient dans groupe 1 (25 centile) et en groupe 2 (75 centile). Après est séparé les groupes, un deux échantillons qui supposent des désaccords différents, avec le niveau de l'alpha de signification de 5% (p <0, 05) a été utilisé. Une différence considérable entre les moyens des résultats dans l'épreuve du saut horizontale a été trouvée. Étant donné une influence possible du rapport du weight/height de l'interaction pour la performance du moteur d'enfants que l'étude suggère des enquêtes étant donné l'état alimentaire des enfants, aussi bien que l'influence de la hauteur sur la performance dans autres activités dans cette tranche d'âge.
Les mots-clé: hauteur, saut en longueur horizontal, performance des moteurs, enfants,

LA ALTURA COMO PREDICTOR DE ACTUACIÓN MOTRIZ EN LOS NIÑOS 10 AÑOS VIEJO
Resumen
La definición del término se ha usado el talento deportivo para caracterizar a las personas las capacidades biológicas y psicológicas dotadas altas que dependiendo de la manera social que los niños están envueltos. Este trabajo tenido como el objetivo verificar la influencia de la altura en la actuación del salto horizontal en los niños escolares del estado de Santa Catarina, Brasil. Para el logro del objectivo ese azar del estudio una muestra de 718 niños de la escuela seleccionó con la edad de 10 años viejo, siendo 368 varón y 350 hembra. Los datos usados vinieron del banco de datos compuesto por 9.689 niños y adolescentes del Brasil Deporte Proyecto (Proesp/SC), localizó en el Desarrollo y Laboratorio de Aprendizaje de Motor - UDESC/CEFID. para seleccionar a los niños para dos grupo de altura diferente, normas establecidas por del Centro Nacional de Estadísticas de Salud - se usaron NCHS. Los niños escolares de ambos sexos estaban en grupo 1 (25 percentil) y se agrupa 2 (75 percentil). Después de separado los grupos, un dos muestras que suponen las variaciones diferentes, con el nivel del alfa de importancia de 5% (p <0, 05) se usó. Una diferencia significante entre los medios de los resultados en la prueba del salto horizontal fue encontrada. Considerado una posible influencia de la relación del peso/altura de la interacción para la actuación motriz de niños que el estudio hace pensar en las investigaciones considerado el estado nutricional de los niños, así como la influencia de la altura en la actuación en otras actividades en ese grupo de edad.
Palabras claves: altura, salto de longitud horizontal, actuación motriz, niños,

A ESTATURA COMO PREDITOR DE DESEMPENHO MOTOR EM CRIANÇAS DE 10 ANOS DE IDADE
Resumo
O termo talento esportivo tem sido utilizado para caracterizar pessoas dotadas de elevadas capacidades biológicas e psicológicas, que dependendo do meio social o qual estão envolvidos, poderão apresentar alto desempenho esportivo, dependendo para isso de condições ambientais adequadas, Lanaro Filho & Böhme (2001). Este trabalho teve como objetivo verificar a influência da estatura sobre o desempenho do salto horizontal em escolares do estado de Santa Catarina, Brasil. Para realização desse estudo selecionou-se aleatoriamente uma amostra composta por 718 escolares com idade compreendida de 10 anos, sendo 368 do gênero masculino e 350 do gênero feminino. Os dados do estudo foram extraídos do banco de dados composto por 9.689 crianças e adolescentes do Projeto Proesp/SC, cedido pelo Laboratório de Desenvolvimento e Aprendizagem Motora da UDESC/CEFID. De acordo com as normas estabelecidas pelo National Center for Health Statistics NCHS selecionou-se os escolares de ambos os sexos classificando-os pela unidade percentílica para estatura p<25, e p>75. Foi utilizado o teste t: duas amostras presumindo variâncias diferentes, com um nível de significância 5% (p < 0,05). Foi encontrada uma diferença significativa (p<0,05) entre as médias de desempenho do salto horizontal, favorecendo o grupo de maior estatura. O estudo sugere investigações considerando o estado nutricional de eutrofia para estes fins, bem como a influência da estatura sobre o desempenho em outras atividades nessa faixa etária.
Palavras-chave: estatura, salto horizontal, desempenho motor, crianças.