50 - GROWTH AND FITNESS FOR SCHOOLCHILDREN OF PUBLIC EDUCATION OF THE CITY OF PRESIDENTE FIGUEIREDO / AM

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INTRODUCTION

The growth, body composition and physical fitness are, undoubtedly, important indicators that establish levels of human health in the early stages of life. Thus we believe that based on the investigation of the growth and physical fitness, will support evaluation of motor skills, indicating the health of children and adolescents collaborating with the performance of professionals.

These variables when related to other information, can be an important indicator of the health of a young population. However, it is necessary to fetch data that will support an evaluation (GUEDES and GUEDES, 2002).

Physical fitness is focused on several investigations population of physical education and sport sciences defined with different meanings. However, it presents characterized by a set of attributes, but under the aspect related to the ability of sports performance and health-related, (GUEDES & BARBANTI, 1995; GUEDES & Guedes, 1995; LION, 2005; LION & FERREIRA, 2009 ; BARBANTI, 1990, 2003; BARBANTI & GUISELINI, 1993; BIDDLE & FOX, 1988, 1999; GUEDES and GUEDES, 1995; MILK, 2000).

The objective of this study is to describe the growth patterns and levels of physical fitness of school children in the city of Presidente Figueiredo / AM.

METHODOLOGY

Based on information from the Municipal Education President Figueiredo was found a number of 2,700 students enrolled in 2010 at the headquarters of the Municipality, aged from seven to 16 years. In this sense, the sample size to meet the objectives of the present study was 30% of the population, according to Table 1.

TABLE 1 - Total sample of boys and girls measured and tested seven to 16 years, of both sexes, the municipality of Presidente Figueiredo - AM.

AGE	BOYS	GIRLS	TOTAL
7	48	62	110
8	45	31	76
9	41	35	76
10	59	46	105
11	63	55	118
12	53	50	103
13	39	46	85
14	60	47	107
15	48	27	75
16	23	16	39
TOTAL	479	415	894

Data collection occurred on school mornings and afternoons, anthropometric variables involving body weight, height and triceps skinfold and subscapular regions. The variables of health-related physical fitness test were the sit-and-reach and modified abdominal.

Body weight was measured in Kg using an electronic digital scale to the nearest 100g, according to the suggested by Gordon, Chumlea and Roche (1988). For stature, we used a wooden stadiometer (plank), graduated at intervals of 1mm according to suggested by Gordon, Chumlea and Roche (1988). The reference used for the determination of skinfold triceps and subscapular regions follow the technique proposed by Harrison et al (1988). For this, we used a measure of skinfold JOHN BULL, with records made with an accuracy of 0.2 mm. To check the physical fitness related to health, we used the international standard suggested by the manual of AAHPERD, (1980).

The results of anthropometric and motor tests were analyzed using descriptive statistics to calculate means, standard deviations, range of variation, through the computer program SPSS version 14.0. The differences between the sexes were analyzed using the Student "t" test for comparison.

RESULTS AND DISCUSSION

A comparison of the information with the scores of mean values and the Student t test produced variable body weight, height, triceps skinfold and subscapular between boys and girls, shows increasing values for all variables and age groups in the present study as Table 2. In the variable weight for ages twelve and thirteen girls had higher body mass than boys with statistically significant differences, but at the age of sixteen statistically significant differences were recorded in favor of boys. However, there were no differences in stature statistically significant.

TABLE 2 - Comparison of mean and test value "t" test of variables of body weight, height and triceps skinfold, subscapular of both sexes from seven to 16 years, the municipality of Presidente Figueiredo - AM.

Sex	Age	Body weight		Estature		Tricipital		Subescapular	
		$\bar{x}$	t	$\bar{x}$	t	$\bar{x}$	t	$\bar{x}$	t
Male	7	23,8	-1,321	121,4	-0,360	11,6	-1,459	7,0	-0,449
Female		22,7		120,9		10,1		6,6	
Male	8	26,5	-1,321	127,0	-0,360	9,6	-1,459	6,7	-0,449
Female		25,0		125,3		11,4		6,8	
Male	9	27,8	2,319	131,7	1,287	10,9	0,824	7,5	1,745
Female		31,2		133,7		12,1		9,4	
Male	10	32,0	-0,607	135,8	0,700	10,9	0,337	7,8	0,109
Female		31,1		135,6		11,2		7,9	
Male	11	36,7	1,338	142,2	2,367	11,4	2,236	7,8	2,424
Female		38,9		145,8		13,6		9,7	
Male	12	40,0	3,215	148,6	-0,061	10,2	4,863	7,6	4,659
Female		45,1		151,0		15,8		11,6	
Male	13	44,4	2,692	153,2	1,420	12,1	3,549	9,3	2,796
Female		50,4		155,5		17,8		13,2	
Male	14	50,3	-0,710	162,6	-4,453	10,2	4,753	8,5	3,694
Female		49,1		155,9		18,8		13,1	
Male	15	56,2	-2,222	165,1	-3,707	10,7	4,488	10,0	3,046
Female		50,3		157,0		18,0		14,6	
Male	16	50,4	-2,917	165,3	-4,507	8,6	7,819	9,9	2,420
Female		58,5		156,5		17,9		13,3	

*p<0,05

By analyzing and comparing the data with the values of the scores of the subcutaneous tissue, we can see that the girls had greater adiposity than boys in almost all ages, bearing similarity at age 10 years in the triceps and at the age of thirteen, two fifteen p.m. years in the subscapular region with statistically significant differences.

Regarding health-related physical fitness variables sit-and-reach and modified abdominal between boys and girls, it is observed that the variable sit-and-reach, girls had higher scores than boys in almost all ages except at ages 15 and 16 years, and similar to the 7, 11 and 13, Table 3.

However the result extracted from abdominal modified test suggests that the mean scores of boys are higher than girls in all age groups with statistically significant differences in the ages of fourteen and fifteen, bearing similarity only at the age of 7 years.

TABLE 3 - Comparison of the mean value of the test and "t" test of variables: sit-and-reach abdominal and modified in both sexes of seven to 16 years in the city of Presidente Figueiredo - AM.

Sex	Sexo	Age	sit-and-reach		modified sit-up	
			$\bar{x}$	T	$\bar{x}$	T
Male	Masculino	7	26,9	-0,451	16,1	0,088
Female	Feminino		26,4		16,2	
Male	Masculino	8	25,9	-0,451	19,7	0,088
Female	Feminino		27,5		14,8	
Male	Masculino	9	24,7	0,800	21,6	-1,802
Female	Feminino		25,9		18,4	
Male	Masculino	10	24,6	1,311	21,9	-1,802
Female	Feminino		26,0		18,3	
Male	Masculino	11	23,1	0,213	25,9	-4,224
Female	Feminino		23,3		18,2	
Male	Masculino	12	22,8	0,752	27,3	-3,299
Female	Feminino		22,3		21,2	
Male	Masculino	13	20,4	0,115	28,3	-5,131
Female	Feminino		20,6		18,2	
Male	Masculino	14	22,9	0,868	28,9	-3,054
Female	Feminino		24,1		16,5	
Male	Masculino	15	25,2	-0,561	31,5	-6,174
Female	Feminino		24,0		17,7	
Male	Masculino	16	24,1	-1,190	30,6	-3,546
Female	Feminino		21,2		18,5	

*p<0,05

CONCLUSIONS

The data indicate the increasing behavior of the average values of the variables of height and weight in both sexes. It is observed that the girls in this study showed marked increases in height and weight with age, proving to be taller and heavier than boys, and these indices considered similar to those that have been found in studies of national and international reference.

As for physical fitness tests related to health is observed that the test sit-and-reach girls showed more flexibility than boys.

Regarding indicators of abdominal modified test, the extracted data from this study indicate an increasing behavior with variations in average values in both sexes, but suggesting better performance of boys compared with girls. This information indicated that the boys probably move more than girls, featuring girls who show little motivation to practice regular physical activity.

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ABSTRACT

The aim of the study was to describe the patterns of growth, body composition and physical fitness and health of children in the city of Presidente Figueiredo / AM, through a transversal approach using a battery of tests of motor performance and anthropometric measures. A sample of 894 subjects of both sexes aged from seven to 16 years, with 479 boys and 415 girls, duly enrolled in 2010 at the headquarters of the municipality of Presidente Figueiredo-AM. The results of anthropometric variables showed that girls are taller, heavier and had a higher accumulation of body fat than boys, and these indices considered similar to those that have been found in studies of national and international reference.Regarding the data of physical fitness tests related to health is observed that for flexibility girls showed higher levels of performance than boys. Regarding the variables of abdominal modified, the data indicate better performance of boys compared with girls. This information indicated that the boys probably move more than girls, featuring girls who show little motivation to practice regular physical activity.

KEYWORDS: Growth, Body Composition, Physical Fitness.

CROISSANCE ET D'ADAPTATION À L'ÉCOLE DE L'ÉDUCATION PUBLIQUE DE LA VILLE DE PRÉSIDENT FIGUEIREDO / AM

RÉSUMÉ

Le but de cette étude était de décrire les modèles de croissance, la composition corporelle et de condition physique et la santé des enfants dans la ville de Presidente Figueiredo / AM, grâce à une approche transversale en utilisant une batterie de tests de performances du moteur et des mesures anthropométriques. Un échantillon de 894 sujets des deux sexes âgés de sept à 16 ans, avec 479 garçons et 415 filles, dûment inscrits en 2010 au siège de la municipalité de Presidente Figueiredo-AM. Les résultats des variables anthropométriques ont montré que les filles sont plus grands, plus lourds et avaient une plus forte accumulation de graisse corporelle que les garçons, et ces indices considérées comme similaires à celles qui ont été trouvés dans les études de référence nationale et internationale. En ce qui concerne les données de tests de condition physique reliés à la santé est observé que pour les filles flexibilité ont montré des niveaux plus élevés de performance que les garçons. En ce qui concerne les variables de l'abdomen modifié, les données indiquent une meilleure performance des garçons par rapport aux filles. Cette information a indiqué que les garçons sans doute passer plus que les filles, avec des filles qui montrent peu de motivation à pratiquer une activité physique régulière.

MOTS-CLÉS: croissance, la composition corporelle, la condition physique.

CRECIMIENTO Y APTITUD PARA LA ESCUELA DE EDUCACIÓN PÚBLICA DE LA CIUDAD DE PRESIDENTE FIGUEIREDO / AM

RESUMEN

El objetivo de este estudio fue describir los patrones de crecimiento de la composición corporal, y la condición física y la salud de los niños en la ciudad de Presidente Figueiredo / AM, a través de un enfoque transversal mediante una batería de pruebas de rendimiento del motor y las medidas antropométricas. Una muestra de 894 sujetos de ambos sexos con edades comprendidas entre siete y 16 años, con 479 niños y niñas de 415, debidamente inscrito en 2010 en la sede del municipio de Presidente Figueiredo-AM. Los resultados de las variables antropométricas mostraron que las niñas son más altos, más

pesados y tenían una mayor acumulación de grasa corporal que los niños, y estos índices considerarse similares a las que se han encontrado en los estudios de referencia nacional e internacional. Respecto a los datos de las pruebas de aptitud física relacionados con la salud se observa que para las niñas flexibilidad mostraron mayores niveles de rendimiento que los niños. En cuanto a las variables de abdominal modificado, los datos indican un mejor rendimiento de los niños en comparación con las niñas. Esta información indica que los chicos probablemente se mueven más que las niñas, con las niñas que muestran poca motivación para practicar actividad física con regularidad.

PALABRAS CLAVE: crecimiento, composición corporal, estado físico.

CRESCIMENTO E APTIDÃO FÍSICA DE ESCOLARES DA REDE PÚBLICA DE ENSINO DO MUNICÍPIO DE PRESIDENTE FIGUEIREDO/AM

RESUMO

O objetivo do estudo foi descrever os padrões de crescimento, composição corporal e aptidão física relacionada à saúde das crianças do Município de Presidente Figueiredo/AM, através de uma abordagem transversal utilizando uma bateria de testes de desempenho motor e das medidas antropométricas. Foi estudada uma amostra de 894 sujeitos de ambos os sexos com idade entre sete a 16 anos, sendo 479 meninos e 415 meninas, devidamente matriculados no ano de 2010 na sede do Município de Presidente Figueiredo-AM. Os resultados das variáveis antropométricas mostraram que as meninas são mais altas, mais pesadas e apresentaram maior acúmulo de gordura corporal que os meninos, sendo estes índices considerados semelhantes aos que têm sido encontrados em estudos de referência nacional e internacional. Com relação aos dados dos testes de aptidão física relacionado à saúde observa-se que em relação a flexibilidade as meninas apresentaram índices de desempenho maior que os meninos. Em relação as variáveis de abdominal modificado, os dados indicam melhor desempenho dos meninos quando comparados com as meninas. Estas informações apontam que os meninos provavelmente se movimentam mais que as meninas, caracterizando que as meninas demonstram pouca motivação a prática de atividades físicas regulares.

PALAVRAS CHAVE: Crescimento, Composição corporal, Aptidão Física.