106 - ANTHROPOMETRIC STUDY OF STUDENTS OF THE FUNDAMENTAL EDUCATION OF A PUBLIC SCHOOL IN THE MUNICIPALITY OF PORTO VELHO/RO.

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INTRODUCTION

In the school context of Brazil, Physical Education is the only discipline that has consolidated among its aims to promote the health of schoolchildren. Its contents and practical activities act so much in the fight against the sedentarism and the corporal illiteracy; And in monitoring the growth and development of children and adolescents. It is through Physical Education that the students have the opportunity to experience the learning of the corporal practices or the physical and sports activities as well as to learn the importance of the acquisition of healthy habits for the maintenance of the health. Among the healthy habits to be adopted is the practice of physical exercises.

School age represents a special period of growth and development and, therefore, surveillance actions are fundamental. At this stage of life it is important, among other factors, to monitor aspects related to the nutrition of individuals. Deficiency or excess nutrients can result in disorders in the body. These variables can be identified by underweight or overweight.

The growth word is used to represent physical development. It is the process of increasing body mass; And their study includes weight and height assessment. Growth can be considered one of the most important health indicators of the child. The term development, however, translates a child's ability to perform increasingly complex tasks. (MIZADOR, 2008).

Weight and height are key parameters for growth assessment. Of these, the most used is weight, because it is easy to obtain, but height is the most reliable indicator. Contrary to what happens with stature, the weight is influenced by many factors, and may decrease. Stature measurement indicates results for so-called growth curves. These constitute an important technical instrument for measuring, monitoring and evaluating the growth of children and adolescents aged 0-19 regardless of ethnic origin, socioeconomic status or type of diet. From this tool, malnutrition, overweight, obesity and conditions associated with child growth and nutrition can be detected and sent early (Ministry of Health, 2016). Body weight can also be used alone, it is of great value as an indicator of nutritional status (MIZODOR, 2008).

Giugliano & Melo (2004), defend the use of BMI for the diagnosis of overweight and obesity in the age group of 6-10 years, since it presented agreement with the adiposity.

Anthropometry is an important indicator of health (PEREIRA, 2006). It is characterized by simplicity in its operation and low cost (AMORIM et al, 2007) and for this reason it is accessible to precarious realities of economic resources like the majority of public institutions in the state of Rondônia.

Considering the above, this paper aims to report and analyze the results of the anthropometric evaluation of schoolchildren from a public elementary school in the city of Porto Velho, capital of the state of Rondônia, Brazil. The following specific objectives were determined: a) Identify the evolution of growth and body weight of students; B) To compare the evolution of growth and body weight; C) To study the nutritional aspects of the students.

METHODOLOGICAL PROCEDURES

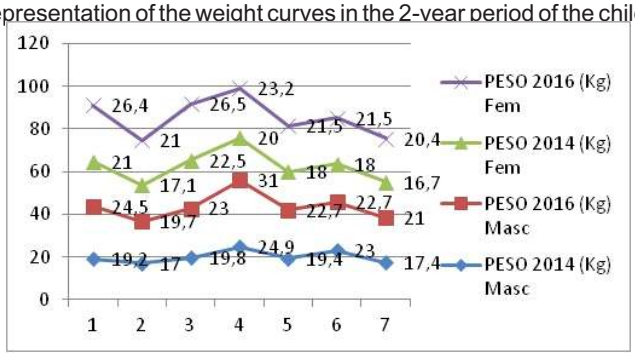
In order to reach the proposed objectives, a documentary-descriptive-quantitative study was carried out. The anthropometric data of 8-year-old schoolchildren of both sexes from a Municipal School of Porto Velho, capital of the state of Rondônia, Brazil, were used. Data were collected in the years 2014, 2015 and 2016, by the Physical Education professional of the educational institution itself. Data on Stature, Body Weight and Body Mass Index / BMI were used. To know the level of normality of the results, the current literature was used in addition, which determines WHO (2007).

For data analysis, descriptive statistics were used, through the identification of the means, of the F-Test for analysis of variances (periods of 2014, 2015 and 2016); And Test T for equivalence of the means of both groups (Male and Female).

ANALYSIS OF RESULTS

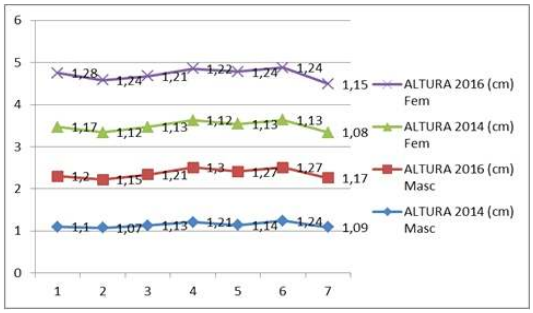
When assessing physical growth through body weight, weight gain was observed at all ages according to the normal range at ages 8 to 10 years (Figure 1). The findings follow the current literature on the subject. Children at this age gain weight by an average of 3 to 3.5 kg per year.

Figure 1: Graphical representation of the weight curves in the 2-year period of the children evaluated.



When evaluating the physical growth through stature, it is verified that the curves of the variable year are similar in both genders (Figure 2).

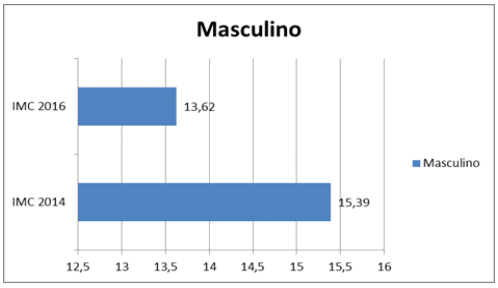
Figure 2: Graphical representation of the curves of height in the 2-year period of the children evaluated.



The evaluated students are in the "Second childhood", phase in which the growth is constant and slow. Only in the next phase, called "Pre-pubertal" (which precedes Adolescence), which starts at age 10, will growth accelerate until the age of 15. However, according to the literature, from 3 to 12 years, children generally grow from 6 to 6.5 centimeters per year, which did not occur with any of them.

Regarding the BMI, male: when compared to the average of the results of 2014 with those of 2016, there is a small decline (according to Figure 3).

Figure 3: Graphical representation of the BMI of the male group in the period between 2014 and 2016.



In the test for analysis of variances (as shown in Table 1), it can be seen that the result obtained when comparing the averages of the 2014 results with those of 2016 is not significant.

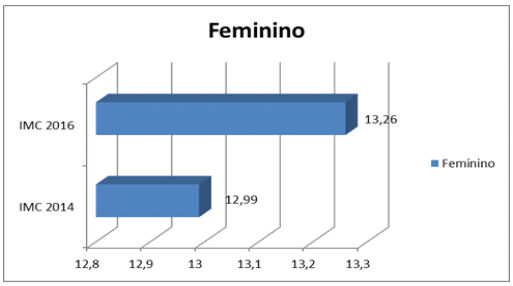
When comparing the results of the boys with the reference table they find out that they were below the normal considered index. In both 2014 and 2016, BMI is below the normality index.

Table 1: Statement of the variance analysis test and equivalence of the means of both groups.

Alunos	Masculino	
	IMC 2014	IMC 2016
1	15,87	17,01
2	14,85	14,9
3	15,51	15,71
4	17,01	18,34
5	14,93	14,07
6	14,96	0
7	14,65	15,34
Media	15,39714286	13,62428571
P(T<=t) bi-caudal	0,325615749	P(T<=t) bi-caudal

In the results obtained by the female group in the years of 2014 when compared with those of 2016, an increase of the BMI is verified (Figure 4); Exactly the opposite of what happened with the boys.

Figure 4: Graphical representation of the BMI of the female group in the period between 2014 and 2016.



Despite the increase in BMI of the girls in the two-year period evaluated, the test for analysis of variances (as shown in Table 2), indicated a non-significant result.

Table 2: Analysis of variance and equivalence of means of both groups.

Alunos	Feminino	
	IMC 2014	IMC 2016
1	15,34	16,11
2	13,63	13,66
3	17,62	18,1
4	15,94	15,59
5	14,1	13,98
6	0	0
7	14,32	15,43
Media	12,99285714	13,26714286
P(T<=t) bi-caudal	0,932788684	não significativo

Still in relation to the girls, both the data of 2014 and the one of 2016 were below the index considered normal.

CONCLUSIONS

Considering the indicators evaluated, it is appreciated that the students are in good health condition. Body height data indicate that they are in a growing state, although they do not follow the recommendations of the literature. The same is true for weight.

Regarding the evolution of BMI, both girls and boys showed a quantitative progression, although these advances, when submitted to statistical analysis, are not significant. Still regarding BMI, both groups were classified below the level of normality.

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ANTHROPOMETRIC STUDY OF STUDENTS OF THE FUNDAMENTAL EDUCATION OF A PUBLIC SCHOOL IN THE MUNICIPALITY OF PORTO VELHO / RO.

Abstratct

School age represents a special period of growth and development and, therefore, surveillance actions are fundamental. At this stage of life it is important, among other factors, to monitor aspects related to the nutrition of individuals. Through Anthropometry tools it is possible to identify health aspects of children and adolescents in a simple and low cost way. The objective of this study was to report and analyze the results of the anthropometric evaluation of schoolchildren. The following specific objectives were determined: a) Identify the evolution of growth and body weight of students; B) To compare the evolution of growth and body weight; C) To study the nutritional aspects of the students. For that, the anthropometric data of 14 8-year-old male and female students from a Municipal School of Porto Velho, capital of the state of Rondônia, Brazil, were used. Data on Stature, Body Weight and Body Mass Index / BMI were collected in the years 2014, 2015 and 2016. To know the level of normality of the results, other theoretical references were used in addition to WHO (2007). The result pointed out that the growth aspects of both girls and boys are on the rise, although they do not follow numerically what the literature recommends. Regarding body weight, this variable developed within normal parameters. Regarding the evolution of BMI, both girls and boys showed a quantitative progression, although these advances, when submitted to statistical analysis, are not significant. Still regarding BMI, both groups were classified below the level of normality.

Keywords: Anthropometry, growth, development.

EVALUATION FONCTIONNELLE DES PERSONNES AGEES : ANALYSE DE LA CAPACITE PHYSIQUE DE FLEXIBILITE

Résumé

Le vieillissement humain est un processus naturel d'altérations dans des multiples systèmes de l'organisme. Ces altérations, parmi d'autres aspects, sont le résultat des dégâts dégénératifs qui anéantissent et limitent la capacité fonctionnelle. La flexibilité, directement liée à la mobilité corporelle, c'est un de ces aspects de la capacité fonctionnelle. Actuellement on voit augmenter l'expectative de vie des êtres vivants. Des études montrent que le style de vie est un important aspect associé au progrès de vieillissement, et, alors, de longévité. L'adoption d'un style de vie plus sain par un individu peut anéantir ou retarder les effets délétères du vieillissement. . Pratiquer une activité physique comme une des parties d'un mode de vie sain donne sa contribution pour l'entretien de la flexibilité, en étant utile aussi un facteur pour l'amélioration de la qualité de vie. L'étude a eu comme objectif présenter et mettre en discussion les résultats de l'évaluation de la flexibilité des membres inférieurs d'un groupe de personnes âgées participants des activités du SESC/Rondônia. Une étude du genre documenté-descriptif-quantitatif a été fait prenant comme plateau des donnés recueillis par le Groupe de Travail programme d'aide /TSI et Développement du sport physique/DEF du SESC/Rondônia. Les donnés ont été collectés en 2015, venant d'un groupe composé para 10 personnes âgées qui avaient entre 60 et 79 ans, de les deux gendre, et qui habitaient la municipalité de Vilhena, dans l'état de Rondônia. Le personnel a suivi le protocole utilisé dans la proposition du programme SESC/DEF SESC/TSI. Pour l'évaluation de la flexibilité, le test d'évaluation physique de Fulleron a été employé. La même référence théorique a été employée dans la classification des résultats. Pour l'enquête statistique, les participants ont été organisés en groupes : entre 60 à 69 ans ; et entre 70 à 79 ans. Les tests statistiques suivants ont été réalisés : teste F pour l'analyse de l'écart ; et le teste T pour l'équivalence des medias entre les deux groupes. Les découvertes indiquent que les niveaux de flexibilité autant dans le groupe avec de membres supérieurs, comme dans le groupe avec des membres inférieurs se trouvent dans la classification « Très Faible », signalant un déficit dans

cet indicateur de la capacité fonctionnelle.

Mots-clés : Vieillissement. Flexibilité. Capacité Fonctionnelle.

ESTUDIO ANTROPOMÉTRICO DE ESTUDIANTES DE LA EDUCACIÓN FUNDAMENTAL DE UNA ESCUELA PÚBLICA EN EL MUNICIPIO DE PORTO VELHO/RO.

RESUMEN

La edad escolar es un período especial de crecimiento y desarrollo y por lo tanto las acciones de vigilancia son esenciales. En esta etapa de la vida es importante, entre otras cosas, controlar aspectos de la nutrición de las personas. A través de la antropometría es posible identificar los aspectos de salud de niños y adolescentes en una herramienta sencilla y de bajo costo. Este estudio tuvo como objetivo describir y analizar los resultados de las evaluaciones antropométricas de la escuela. Se determinaron los siguientes objetivos específicos: a) Identificar la evolución del crecimiento y el peso corporal de los estudiantes; b) comparar la evolución del crecimiento y el peso corporal; c) Estudiar los aspectos nutricionales de los estudiantes. Por lo tanto, hemos utilizado los datos antropométricos de 14 estudiantes con ocho años de edad, de ambos sexos, con una Escuela Municipal de Porto Velho, capital de Rondonia, Brasil. Se recogió información con respecto a la altura, el peso corporal y el Índice de Masa Corporal / IMC en los años 2014, 2015 y 2016. Para conocer el nivel de resultados normales, se utiliza además de la determinación de la OMS (2007) otros marcos teóricos. Los resultados mostraron que los aspectos de crecimiento tanto de las niñas y los niños están en aumento, aunque no sigue numéricamente lo que se recomienda la literatura. Ya en relación al peso corporal, esta variable se desarrolla dentro de los parámetros normales. Sobre la evolución del índice de masa corporal en las mujeres como en los varones, hubo progresión desde un punto de vista cuantitativo, a pesar de estos avances, cuando se somete a un análisis estadístico, no son significativas. También en relación con el IMC, ambos grupos se clasificaron por debajo del nivel normal.

Palabras clave: antropometría, crecimiento, desarrollo.

ESTUDO ANTROPOMÉTRICO DE ESTUDANTES DO ENSINO FUNDAMENTAL DE UMA ESCOLA PÚBLICA DO MUNICÍPIO PORTO VELHO/RO

RESUMO

A idade escolar representa um período especial de crescimento e desenvolvimento e, portanto, ações de vigilância são fundamentais. Nesta etapa da vida é importante, entre outros fatores, acompanhar aspectos relativos a nutrição dos indivíduos. Através de ferramentas da Antropometria é possível a identificação de aspectos de saúde de crianças e adolescentes de forma simples e de baixo custo. Este trabalho teve como objetivo relatar e analisar os resultados da avaliação antropométrica de escolares. Determinaram-se os seguintes objetivos específicos: a) Identificar a evolução de crescimento e peso corporal dos estudantes; b) Comparar a evolução de crescimento e peso corporal; c) Estudar os aspectos nutricionais dos alunos. Para tanto foram utilizados os dados antropométricos de 14 estudantes com 8 anos de idade, de ambos os sexos, de uma Escola Municipal de Porto Velho, capital do estado de Rondônia, no Brasil. Foram coletadas informações relativas a Estatura, Peso Corporal e Índice de Massa Corporal/IMC, nos anos 2014, 2015 e 2016. Para conhecer o nível de normalidade dos resultados, utilizou-se além do que determina a OMS (2007) outros referenciais teóricos. O resultado apontou que os aspectos de crescimento tanto das meninas quanto dos meninos se encontram em ascensão, apesar de não acompanharem numericamente o que recomenda a literatura. Já no que se refere ao peso corporal, esta variável se desenvolveu dentro dos parâmetros da normalidade. Sobre a evolução do IMC, tanto nas meninas quanto nos meninos, constatou-se progressão do ponto de vista quantitativo embora tais avanços, quando submetidos a análise estatística, não sejam significativos. Ainda com relação ao IMC, ambos os grupos se classificaram abaixo do nível de normalidade.

Palavras-chave: Antropometria, crescimento, desenvolvimento.