

99 - ANALYSIS OF THE PREVALENCE OF OBESITY AND PRACTICE OF PHYSICAL EXERCISES IN THE PRIVATE AND PUBLIC EDUCATION NETWORKAYANNE GABRIELLY DOS SANTOS RIBEIRO FIRMINO¹RAFAELLE CAVALCANTE DE LIRA²MARCOS ANTONIO MEDEIROS DO NASCIMENTO³ODVAN PEREIRA GOIS⁴

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INTRODUCTION

It is now common to find high rates of obesity in children, adolescents and adults considered a public health problem, causing chronic degenerative disease due to the high fat content. This disease not only contributes negatively in the body, but also psychological factors, thus leading to a decrease in self-esteem in these individuals. (RIBEIRO, 2014). According to the World Health Organization (WHO, 1995) in 2025 the number of overweight and obese children and adolescents can reach 75 million (ARAGÃO, 2015).

Used as one of the strategies for obesity prevention in childhood and adolescence, physical exercise has an adjuvant role in the treatment of obesity, since the caloric expenditure from physical exercise is shown as a great ally in fat loss, being also a contributing factor for the increase in muscle mass and physical fitness levels (BRAVIN et al., 2016).

Research has reported that many children are exposed to low levels of physical activity, resulting in a high level of sedentary behavior. The recommendations point to the need for the child to participate in at least 120 minutes of daily physical activities, half of which is spent on planned physical exercises, such as collective or individual sports practices to improve motor development, coordination, flexibility in body fat loss (COSTA et al., 2015).

It is extremely important to be educated about the environment in which a child is diagnosed with obesity, realizing that this disease affects the life of this individual in an arduous way. According to the World Health Organization (WHO), "the individual's perception of his position in life in the context of the culture and value system in which he lives and in relation to his goals, expectations, standards and concerns" (CASTRO et al. 2016).

As argued by Coutinho and Speretta (2015), it is difficult for children to live with childhood obesity in view of a lack of understanding of possible chronic degenerative diseases, so it is important that there is an agreement between doctors, nutritionists, psychologists and physical educators.

Thus, it is essential to motivate children and adolescents to have a healthy diet associated with the practice of physical exercises, as this allows them to develop a quality self-esteem (VICTORINO et al., 2015). In view of the above, a question arises: is there a difference in the prevalence of childhood obesity and the practice of physical exercises between private and public schools? Therefore, the present study aims to verify the prevalence of obesity and the practice of physical exercises among students aged 7 to 10 years, enrolled in elementary school and private school.

MATERIALS AND METHODS

This was a descriptive, quantitative approach that consisted of obtaining structured answers to reach the expected results. The study was conducted in May 2018. The research scenario was the schools of the private and public education network of the city of Patos / PB.

The population was composed of all the students enrolled in the educational networks targeted for the research, which met the following inclusion criteria: Age between 7 and 10 years, of both sexes, enrolled in elementary education I and that the responsible allowed the viability of the study with the signing of the Term of Free and Informed Consent (TCLE). In this sense, the final sample totaled 134 children.

Two structured questionnaires were used to collect data. The first applied was that of Gama (1999), not validated, adapted by Freitas (2010). The objective of this study is to verify the food frequency of the sample students in the school environment. The second was a simplified questionnaire (SILVA, 2009), with the objective of verifying the level of physical activity. The variables gender and age were also measured. The body mass was verified by a digital tempered glass scale. The height was measured with a SANNY anthropometric scale, in steel, with an accuracy of 0.1 mm.

The BMI was calculated using the Weight / Stature formula and the Waist / Hip circumferences. The entire sample was submitted to measurements. Barefoot and with as little clothing as possible, the students remained on the scale with slight lateral displacement of the feet, remaining on the center of the platform of the scale and with the head and back erect and, in this way, was measured and annotated the mass body weight in kilograms. The measurements were performed with the participant in orthostatic position, feet joined, trying to put in contact with the wall, the posterior surfaces of the heel, pelvic waist, scapular waist and occipital region. The measurement was made with the individual in inspiratory apnea, in order to minimize possible variations on this anthropometric variable. Precautions were taken so that the head was oriented in the plane of Frankfurt, parallel to the ground.

Obesity and overweight were defined using the cut-off points of BMI for sex and age adapted from the National Center for Health Statistics (NCHS) and Centers for Disease Control and Prevention (CDC) growth charts, 2000.

As for the processing and analysis of the data obtained, they were tabulated through the Microsoft Office Excel 2007 program and processed through a statistical program SPSS version 2.0 for Windows, thus forming tables and graphs for better presentation, and the results compared to the current and relevant literature.

As it was a question of research involving human beings, the study was submitted to the Research Ethics Committee (CEP), receiving a favorable opinion of No. 2,577,654 and CAAE: 84396218.1.0000.5181.

RESULTS

Regarding the characterization of the sample, 70 (52.2%) participants were from the private school, of which 42 (60.0%) were male and 28 (40.0%) were female. In the public school, 64 (47.8%) individuals were selected, of which 36 (56.3%) were male and 28 (43.8%) were female.

Table 1- Distribution of dietary habits of study participants (n = 134). Itaporanga (PB). 2018

VARIÁVEIS	PRIVATE SCHOOL		PUBLIC SCHOOL	
SERIES	f	%	f	%
2nd year	19	27,1	24	37,5
3rd year	-	-	20	31,3
4th year	26	37,1	-	-
5th year	25	35,7	20	31,3
IN SCHOOL YOU:				
Bring your own snack	-	-	1	1,6
It feeds in the school canteen	70	100	63	98,4
WHAT DO YOU EVER EAT AT SCHOOL?				
Pizza	70	100	-	-
French fries	-	-	-	-
Sandwich	51	72,8	42	65,6
Cake	70	100	64	100
savory	70	100	-	-
Others	70	100	64	100
WHAT DO YOU LIKE TO DRINK AT SCHOOL?				
Soda	-	-	-	-
Artificial juice	-	-	-	-
Natural juice	70	100	64	100
Yogurt	70	100	44	68,7
milk	-	-	64	100
Another drink	-	-	43	67,1

Source: Research data, 2018.

Regarding the school characterization, it is possible to observe that in the private school 26 (37.1%) are enrolled in the 4th year of elementary school and in the public school, the predominance is that of students enrolled in the second year, 24 (37.5%) of the participants. When comparing the eating habits of the private school with those of the public school, it is observed that in both, the children feed themselves in the school canteen, private 70 (100%) and public 63 (98.4%), except for only one student in the public school who said take home the snack. As far as food in the private school was concerned, all students reported feeding on pizza (100%), salt (100%), while in the public school the food with sandwiches (100%) and cakes (100%). In terms of drink, the two departments offer natural juice (100%).

Table 2 - Obesity level of the participants evaluated through BMI. (N = 134). Itaporanga (PB). 2018.

VARIABLES	PRIVATE SCHOOL			PUBLIC SCHOOL		
BMI	AVERAGE ± SD	MINIMUM	MAXIMUM	AVERAGE ± SD	MINIMUM	MAXIMUM
	18,97±3,92	12,14	29,56	17,31±3,21	10,41	32,20

A t-test of independent samples was performed to compare obesity among public and private school students through BMI, in both cases the significance was $p < (0.01)$ which shows that both public and private schools risks of obesity are the same, but when analyzing the mean, it can be seen that in private schools the risk is even greater than in the public.

Table 3 - Items related to the practice of physical exercises of the participants in the public and private schools. (n = 134). Itaporanga. (PB). 2018.

VARIABLES	PRIVATE SCHOOL		PUBLIC SCHOOL	
SCHOOL DISPLACEMENT	f	%	f	%
Go ahead	70	10,0	43	67,2
Go bicycle	-	-	-	-
Go by car or other motorized transportation	63	90,0	21	32,8
DOES YOUR SCHOOL OFFER PHYSICAL EDUCATION CLASSES?				
Yes, theoretical and practical	-	-	-	-
Yes, just practice	68	97,1	-	-
Yes, only theoretical	2	2,9	-	-
Not	-	-	64	100
PHYSICAL EDUCATION CLASSES AT SCHOOL				
Do not do	45	64,3	64	100
1 time per week	-	-	-	-
2 times per week	25	37,5	-	-
3 times a week	-	-	-	-
DO REGULAR PHYSICAL ACTIVITY OR SPORTS?				
Never or almost never	-	-	41	64,1
Sometimes	70	100	23	35,9
Ever	-	-	-	-
PRACTICE INTENSE PHYSICAL ACTIVITY?				
Yes	-	-	-	-
Not	70	100	64	100
PRACTICE LIGHT PHYSICAL ACTIVITY?				
Yes	-	-	-	-
Not	70	100	64	100

Source: Research data, 2018.

When questioned about the trip to school, private school students reported that they use a car or motor vehicle 63 (90%), in contrast to the public school only 21 (32.8%) of the participants use these vehicles. In relation to the offer of physical education in the school, the private school only offers practical classes 68 (97.1%) and the public school does not offer any kind of physical education class 64 (100%). In private school 45 (64.3%) do not do the physical education class, even though it is offered. Regarding the intensity of physical activity in both schools, students do not practice activities of light intensity or strong intensity, a response issued by all participants (100%).

DISCUSSION

In the present study it is possible to verify that the students generally feed at the school itself, being able to infer that the foods are offered by the institution. When comparing the habits of the institutions studied it is well known that the private school has a greater supply of products rich in carbohydrates and industrialized in relation to the public school that although also offer these types of foods, the dispensation occurs in a less accentuated way. In this sense, the greatest risk of developing obesity was found in the private school.

The practice of physical activities is an important component in reducing the risk of obesity, as in the reduction of cardiovascular diseases related to the sedentary lifestyle. The search for activities of this nature was a negative factor in both

schools, and there was no offer from the institution.

According to the World Health Organization (WHO) obesity can be characterized as a "disease in which excess body fat has accumulated to such an extent that health can be affected," in addition, it is important to note that obesity beyond of disease is a risk factor for several cardiovascular and metabolic diseases (SOUZALEÃO, 2003). A study by Mello et al. (2004) points out the importance of an adequate diet for the prevention and reduction of obesity-related morbidities, especially in childhood, given that it is in childhood that the atherosclerosis process begins, and this increase in fat deposition inside the vessels is directly related to the lifestyle adopted by the individual.

Physical activity is considered to be planned, structured, and repetitive. It is important to reflect that adherence or not to physical activities may serve as a tool to assist in the identification of children and adolescents at risk of obesity and intolerance to physical practices. Children and adolescents tend to become obese when sedentary, and obesity itself may make them even more sedentary. Physical activity, even if spontaneous and unplanned, is important in body composition, because it increases and stimulates bone mass, besides being a factor that contributes to the absorption of glucose in the bloodstream, thus avoiding complications such as Diabetes Mellitus (ARAÚJO, 2017).

Sedentary habits, such as watching television and playing video games, contribute to a decrease in daily caloric expenditure. It is possible to observe a significant decrease in the rate of resting metabolism while the children watched a particular television program, being even smaller in those that already owns the obesity. Thus, in addition to the metabolic expenditure of daily activities, resting metabolism may also influence the occurrence of obesity. The increase and the beginning of the physical activity, therefore, is a goal to be followed, accompanied by the decrease and food intake of quality, with important nutritional values (FERNANDES, 2016).

According to Bernardes et al (2016), adequate diet should take into account the relationship between nutrient intake and the increase / decrease in the chance of becoming ill, depending on the routine adopted by each individual. Healthy eating is influenced by the individual's beliefs, that is, by cultural formation, especially in relation to the judgment of the existence of harmful or prohibited foods, a variable that is difficult to modify, actively interfering with the process of self-care (CHAVES et al, 2015).

CONCLUSION

From the results presented, it is possible to infer that the objective of the study was ratified, while presenting the food profile offered to the children by the school institution, taking into consideration that when comparing the risk of obesity among schools, the private school is more prevalent, besides evidencing the low adherence of the children to the practice of physical activities and one should draw attention to the absence of offer of activities of this nature by the public school.

As a main limitation, it is possible to mention the low production in the literature referring to the subject that presents comparisons between different institutions and the alimentary management for risk of obesity, being able to be a propelling and differential factor of this research. This study intends to contribute to the compression of educational managers about the importance of adequate nutrition, as well as the need for implementation and implementation of strategies that seek the insertion of children into appropriate and regulated physical activities, focusing on the reduction and decrease of obesity and subsequent improvement of the quality of life of these children as adults, thus adding a knowledge to the Physical Education professional, that this can guarantee the adherence of their students to physical activities.

REFERÊNCIAS

- ARAÚJO, C. E. Atividade física e exercício físico na promoção da saúde. Dissertação, 225 f. Mestrado Profissional em Exercício Físico na Promoção da Saúde. Londrina: Paraná, 2017.
- ARAGÃO, C. \ DA S.. A prevalência de sobrepeso e obesidade em escolares da cidade de Rio Branco-AC. RBONE-Revista Brasileira de Obesidade, Nutrição e Emagrecimento, v.5, n.53, 170-175, 2015.
- BERNARDES, A. F. M.; SILVA, C. G.; FRUTUOSO, M. F. P. Alimentação saudável, cuidado e gênero: percepções de homens e mulheres da zona noroeste de Santos-SP. Rev Demetra; v. 11, n. 3, p. 559-573, 2016.
- CHAVES, F. F.; CHAVES, F. A.; CECÍLIO, S. G.; AMARAL, M. A.; TORRES, H. C. Mapa de conversação em diabetes: estratégia educativa na visão dos profissionais de saúde. Rev Min Enferm; v. 19, n. 4, p. 854-858, 2015.
- COUTINHO, R. B.; SPERETTA, G. F. F.; Prevalência e fatores associados para sobrepeso e obesidade em alunos de uma escola privada de São Paulo. RBONE-Revista Brasileira de Obesidade, Nutrição e Emagrecimento, n. 49, p.12-21, 2015.
- FERNANDES, A. M. T. Análise do comportamento da frequência cardíaca, percepção subjetiva de esforço e afeto em brincadeiras ativas em escolares pré-púberes. Monografia 30 f. Universidade Federal do Rio Grande do Norte. Departamento de Educação Física. Natal, 2016.
- FREITAS, H. R. M. Análise da prevalência de obesidade em escolares da rede de ensino particular de Morada Nova. 2010 60f. Dissertação de Licenciatura. Faculdade Católica Rainha do Sertão, Ceará, 2010.
- MELLO, E. D.; LUFT, V. C.; MEYER, F. Obesidade infantil: como podemos ser eficazes?. Rev Jornal de Pediatria; v. 80, n. 3, p. 173-183, 2004.
- SOUZALEÃO, L. S. C.; ARAÚJO, L. M. B.; MORAES, L. T. L. P.; ASSIS, A. M. Prevalência de obesidade em escolares de salvador, Bahia. Rev Arq Bras Endocrinol Metab; v. 47, n. 2, p. 151-158, 2003.

ANALYSIS OF THE PREVALENCE OF OBESITY AND PRACTICE OF PHYSICAL EXERCISES IN THE PRIVATE AND PUBLIC EDUCATION NETWORK

The occurrence of childhood obesity reaches worrying rates. The theme has acquired important importance, mainly due to the impact that can cause in the life of children, bringing physical, social, economic and psychological consequences. To verify the prevalence of obesity and the practice of physical exercises among students from 7 to 10 years of age enrolled in elementary school I. Descriptive exploratory study of quantitative approach. Held in the municipality of Itaporanga-PB, and had two study institutions, one from the private network and another from the public network. The sample consisted of 134 students of both sexes, where 64 students are from the public school and 70 students from the private school. To collect data, two questionnaires were used to verify the eating habits in the school and their level of physical activity. The data collected was tabulated through the Microsoft Office Excel 2007 program and processed through the SPSS statistical program. Regarding dietary habits, it was possible to verify that the private school has a greater supply of products rich in carbohydrates and industrialized when compared to public school and the adherence to physical activities was practically nonexistent in both schools. Therefore, the results of the study show the need to implement and / or implement strategies that envisage an adequate diet, such as the stimulation of physical activity among children, so that a future quality of life and reduction of the obesity index.

Key-words: Obesity. Physical exercises. Child

ANALYSE DE LA PRÉVALENCE DE L'OBÉSITÉ ET DE LA PRATIQUE DES EXERCICES PHYSIQUES DES ÉTUDIANTS DU RÉSEAU D'ÉDUCATION PRIVÉ ET PUBLIC

L'obésité chez les enfants atteint des taux inquiétants. Le thème a acquis une importance majeure, principalement en raison de l'impact que peut avoir sur la vie des enfants, ce qui entraîne des conséquences physiques, sociales, économiques et psychologiques. Vérifier la prévalence de l'obésité et la pratique d'exercices physiques chez les élèves de 7 à 10 ans inscrits à l'école primaire I. Etude exploratoire descriptive de l'approche quantitative. Tenu dans la municipalité d'Itaporanga-PB, et avait deux institutions d'étude, une du réseau privé et une du réseau public. L'échantillon était composé de 134 étudiants des deux sexes, dont 64 étudiants de l'école publique et 70 étudiants de l'école privée. Pour recueillir des données, deux questionnaires ont été utilisés pour vérifier les habitudes alimentaires à l'école et le niveau de leur activité physique. Les données collectées ont été compilées via le programme Microsoft Office Excel 2007 et traitées via le programme statistique SPSS. En ce qui concerne les habitudes alimentaires, il a été possible de vérifier que l'école privée dispose d'un plus grand choix de produits riches en glucides et industrialisés que l'école publique et que l'adhésion aux activités physiques était pratiquement inexistante dans les deux écoles. Par conséquent, les résultats de l'étude montrent la nécessité de mettre en œuvre et / ou de mettre en œuvre des stratégies prévoyant un régime alimentaire adéquat, tel que la stimulation de l'activité physique chez les enfants, afin qu'une qualité de vie et une réduction futures puissent être envisagées. de l'indice d'obésité.

Mots-clés: obésité. Exercices physiques Enfant.

ANÁLISIS DE LA PREVALENCIA DE OBESIDAD Y LA PRÁCTICA DE EJERCICIOS FÍSICOS EN ALUMNOS DE LA RED DE ENSEÑANZA PRIVADA Y PÚBLICA

La ocurrencia de obesidad infantil alcanza índices preocupantes. La temática ha adquirido relevante importancia, principalmente debido al impacto que puede provocar en la vida de los niños, trayendo consecuencias físicas, sociales, económicas y psicológicas. Verificar la prevalencia de obesidad y la práctica de ejercicios físicos entre alumnos de 7 a 10 años, matriculados en la enseñanza primaria I. Estudio exploratorio descriptivo de abordaje cuantitativo. Realizado en el municipio de Itaporanga-PB, y tuvo con escenario de estudio dos instituciones escolares, una de la red privada y otra de la red pública. La muestra se compuso de 134 alumnos de ambos sexos, donde 64 alumnos son de la escuela pública y 70 alumnos de la escuela privada. Para la recolección de datos se utilizaron dos cuestionarios para verificar los hábitos alimenticios en la escuela y el nivel de actividad física de los mismos. Los datos recolectados fueron tabulados a través del programa Microsoft Office Excel 2007 y procesados a través del programa estadístico SPSS. En relación a los hábitos alimentarios fue posible verificar que la escuela privada tiene mayor oferta de productos ricos en carbohidratos e industrializados cuando comparado a la escuela pública y la adhesión a las actividades físicas fue prácticamente inexistente en ambas escuelas. Por lo tanto los resultados del estudio evidencian la necesidad de implantación y / o implementación de estrategias que vislumbre una adecuada alimentación, tal como el estímulo a la práctica de actividad física junto a los niños, para que de esa forma se pueda pensar en una futura calidad de vida y reducción del índice de obesidad.

Descriptor: Obesidad. Ejercicios físicos. Niño.

ANÁLISE DA PREVALÊNCIA DE OBESIDADE E A PRÁTICA DE EXERCÍCIOS FÍSICOS EM ALUNOS DA REDE DE ENSINO PRIVADA E PÚBLICA

A ocorrência de obesidade infantil alcança índices preocupantes. A temática tem adquirido relevante importância, principalmente devido ao impacto que pode provocar na vida de crianças, trazendo consequências físicas, sociais, econômicas e psicológicas. Verificar a prevalência de obesidade e a prática de exercícios físicos entre alunos de 7 à 10 anos, matriculados no ensino fundamental I. Estudo exploratório descritivo de abordagem quantitativa. Realizado no município de Itaporanga-PB, e teve com cenário de estudo duas instituições escolares, uma da rede privada e outra da rede pública. A amostra se compôs de 134 alunos de ambos os sexos, onde 64 alunos são da escola pública e 70 alunos da escola privada. Para coleta de dados utilizou-se dois questionários para verificar os hábitos alimentares na escola e o nível de atividade física dos mesmos. Os dados coletados foram tabulados por meio do programa Microsoft Office Excel 2007 e processados através do programa estatístico SPSS. Em relação aos hábitos alimentares foi possível verificar que a escola privada tem maior oferta de produtos ricos em carboidratos e industrializados quando comparado a escola pública e a adesão à atividades físicas foi praticamente inexistente em ambas as escolas. Portanto os resultados do estudo evidenciam a necessidade de implantação e/ou implementação de estratégias que vislumbrem uma adequada alimentação, tal como o estímulo à prática de atividade física junto as crianças, para que dessa forma se possa pensar em uma futura qualidade de vida e redução do índice de obesidade.

Descriptor: Obesidade. Exercícios Físicos. Criança