

30 - PHYSICAL ACTIVITY LEVEL EATING HABITS AND NUTRITIONAL STATUS IN SCHOOL ZONES URBAN AND RURAL PIRIPIRI-PI.

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INTRODUCTION

Overweight and obesity are among the most serious problems of rich countries and emerging countries. The problems arising directly or indirectly from obesity are responsible for a significant percentage of deaths. According to the World Health Organization (WHO, 2009), overweight is responsible for 2.8 million deaths worldwide. The WHO also estimates that in 2015, a billion and a half people are with *sobrepeso*. Numerous surveys indicate that many diseases of "modern era" are associated with excess body fat, such as cardiovascular disease, kidney, digestive, diabetes and liver problems (Pitanga et al., 2014).

Because of modern professions, individuals are increasingly sedentary and perform more meals away from home. There was increased consumption of high-fat foods because the food industry has become the cheapest and frequent the market. In addition, fatty foods are more palatable and reduce satiety.

The reduction of fat depending on the physical activity regular practice includes, among other factors, the effects of catecholamines that cause sharp fall of lipids in adipose tissue. For this reason, the mobilization of fat during physical activity and quite sharp (Pitanga, et al 2014). Insufficient levels of physical activity practice can lead to health problems and increase the risk of cardiovascular disease, diabetes, hypertension, obesity and some cancers (DA Silva, et al, 2011).

Currently the recommendations indicate that teens perform 60 minutes or more of physical activity of moderate or vigorous daily, including muscle endurance activities, strength and stretching at least three days a week (Farias et al., 2012).

This study has the general objective to verify and compare the level of physical activity (LPA), Food Habits (HA) and nutritional status, in students from urban and rural areas of the municipality of Piripiri-PI.

METHODS

Cross-sectional study of descriptive and quantitative type. The population consisted of 202 students from two public schools in Piripiri-PI (one located in the urban area and the other in the countryside) with students from 10 to 15 years with a mean of 12.74 years old.

For collection of anthropometric, a handmade stadiometer was used (no mark), with 200 cm long for measurement of height; for weight measurement was used a digital scale Camry-150kg with a precision of 100 grams. Individuals with a BMI at or above the 85 percentile for age and sex were considered overweight, as with individuals with percentile greater than or equal to 95 age and sex according to the recommendation of NCHS (2000) were considered obese.

For verifying the physical activity level of students we used the IPAQ (short version) which classify students as sedentary (S) (no physical activity for at least 10 continuous minutes on any day of the week, Irregularly active (IA) (physical activity for at least 10 continuous minutes on any day of the week without reaching the criteria to be classified as assets; Active (A) (vigorous activity at least three days a week and for at least 20 minutes in each session; moderate activity or walking at least 5 days a week and for at least 30 minutes or any activity at least 5 days a week making a total at least 150 minutes; Very active (MA) (vigorous activity at least 5 days a week for at least 30 minutes vigorous at least three days a week with 20 or more minutes per session, plus moderate activity or walking at least 5 days a week and at least 30 minutes per session.

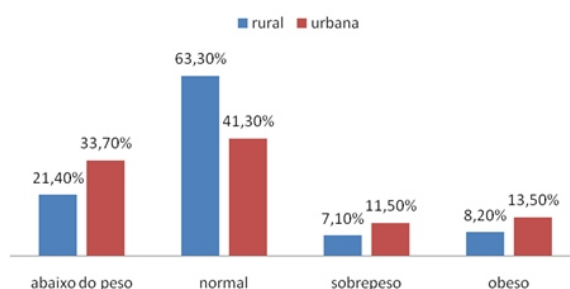
With regard to eating habits we used the questionnaire validated by CIRILO, 2008 to verify the type of power of the students, noting the number of times per week that participants consumed food manufacturers, regulators, energy and fried foods, and questioning how many meals and snacks journals were made by students.

Prior to the data collection, it was given the schools and students participating in the Informed Consent (IC), explaining the purpose of the present study. After all the data collected, the results were tabulated and analyzed using SPSS 16.0. For comparison between urban and rural groups used the chi-square test adopting the significance level of $p < 0.05$.

RESULTS

202 of 105 respondents (52%) were male and 97 patients (48%) were female. Regarding nutritional status, 41 students (20.3%) were overweight or obese, while 105 students (52%) had normal weight. The percentage values of the nutritional status rating areas is the chart 01, which shows that students from rural areas had numerical superiority in the normal category, while students from the urban area were more obese and higher prevalence of students below weight and overweight. Results similar to the one found in the study of Silva, OF et al 2013, where boys from the urban area were higher in the sum of skinfolds than rural youth. It is noteworthy that there was a statistically significant difference between the nutritional status compared students from urban and rural areas.

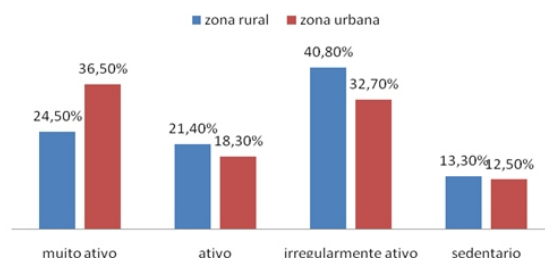
Figure 01: percentage of BMI classification values per zone. PIRIPIRI-PI



Source: Research Data

Regarding the level of physical activity, more than half of the students (50.5%) were considered to be active or very active, however most participants were declared as irregularly active (36.6%). The graph 02 represents the distribution of the percentage values of physical activity per zone. Upon chi-square test it was found that there was no statistically significant difference between the level of physical activity of students in urban and rural areas.

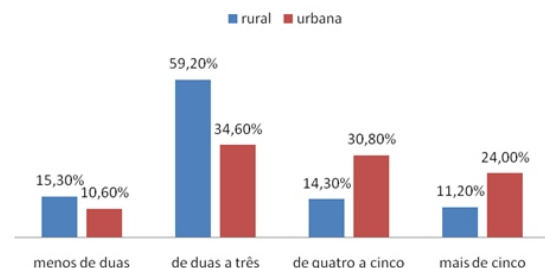
Chart 02: Rating Percentage values IPAQ per zone. Piripiri-PI



Source: Research Data

In the case of eating habits, most students (46.5%) performs two to three daily meals. Graph 03 shows the percentage of meals per zone. This analysis found a statistically significant difference between the number of meals compared students from urban and rural areas.

Chart 03: Percentage values of the number of meals per zone. Piripiri-PI



Source: Research Data

DISCUSSION

The results revealed that approximately one in five students are overweight or obese, and of students with overweight and obese most are male (53.66%) while 46.34% are female, similar results with the found by Farias et. al, 2012, but different from those found by Zanchietta et. al, 2010 where women had the highest percentage of overweight and obesity.

It was found that students from rural areas had numerical superiority in the normal category, while students from the urban area were more obese and higher prevalence of underweight and overweight. Results similar to the one found in the study of Silva, OF et al 2013, where boys from the urban area were higher in the sum of skinfolds than rural youth.

Regarding the physical activity level 58.54% of obese and overweight, were declared irregularly active or sedentary, while 41.46% were considered active or very active. The school underweight or normal weight, 47.21% were considered sedentary or irregularly active, while 52.79% were classified as active or very active. These results show that participants who had less body mass, were seen to be more active than students with higher body mass, which can be explained both by the fact of physical activity help in weight reduction, as by the fact that adolescents overweight feel more retracted to do physical activities for shame.

The sample showed that 50.5% of the participants are active or very active, while 49.5% were considered irregularly active or sedentary. When separated by gender, the male was considered more active (58.1%) than females (42.27%), similar results as found by Farias et. al, 2012, but that goes against the findings of Zanchetta et. al., 2010

With regard to eating habits most students both rural (59.2%) and the urban area (34.6%) said they do two to three daily meals. Other studies that compared daily meals by Zana not found, but the study BORTOLINI, gaet al, found that the frequency of children who consumed daily bread, potatoes, leafy greens, vegetables, fruit, yogurt, meats, sweets, cookies and soda was higher in children living in urban areas. Daily consumption of fish was more common in children living in the countryside.

CONCLUSION

In this study, the five students one presented overweight or obese, approximately, and this occurrence was higher in males.

By analyzing students from urban and rural areas, there was a statistically significant difference when compared the nutritional status variables and number of meals a day, however, to the level of physical activity, did not find a statistically significant difference.

There are countless benefits of regular physical activity combined with a healthy diet that among other things, may decrease the risk of causing chronic diseases. Therefore, it is necessary that interventions for children and adolescents understand the importance of physical activity associated to a balanced diet, and so can adopt a healthier lifestyle.

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PHYSICAL ACTIVITY LEVEL EATING HABITS AND NUTRITIONAL STATUS IN SCHOOL ZONES URBAN AND RURAL PIRIPIRI-PI.

ABSTRACT

Introduction: Overweight and obesity are among the most serious problems of rich countries and emerging countries. The problems arising directly or indirectly from obesity are responsible for a significant percentage of deaths. This study aims to verify and compare the level of physical activity (LPA), Food Habits (HA) and nutritional status, in students from urban and rural areas of the municipality of Piripiri-PI. **Methods:** Cross-sectional study of descriptive and quantitative type. To collect the anthropometric indicators, we used a handmade stadiometer and a digital scale; For verifying the physical activity level of students we used the IPAQ (short version); To evaluate the dietary habits was used a questionnaire validated by CIRILLO, 2008. For comparison between urban and rural groups used the chi-square test adopting the significance level of $p < 0.05$. **Results:** Of 202 respondents 98 (48.51%) were residents of the rural area and 104 (51.49%) of the urban area. Regarding nutritional status, 41 students (20.3%) were overweight or obese, while 105 students (52%) had normal weight. According to the physical activity level of more than half of the students (50.5%) were considered to be active or very active, however most participants were declared as irregularly active (36.6%). In the case of eating habits, most students (46.5%) performs two to three daily meals. **Conclusion:** By analyzing students from urban and rural areas, there was a statistically significant difference when compared the nutritional status variables and number of meals a day, however, to the level of physical activity, did not find a statistically significant difference.

KEYWORDS: physical activity, obesity, IPAQ, BMI

PHYSIQUES HABITUDES ALIMENTAIRES NIVEAU D'ACTIVITÉ ET L'ÉTAT NUTRITIONNEL DANS LES ZONES SCOLAIRES URBAINES ET RURALES PIRIPIRI-PI

RÉSUMÉ

Introduction: surpoids et l'obésité sont parmi les plus graves problèmes des pays riches et les pays émergents les. Les problèmes découlant directement ou indirectement de l'obésité sont responsables d'un pourcentage important de décès. Cette étude vise à vérifier et de comparer le niveau de l'activité physique (LPA), habitudes alimentaires (HA) et l'état nutritionnel, chez les élèves des zones urbaines et rurales de la municipalité de Piripiri-PI. **Méthodes:** Une étude transversale de type descriptif et quantitatif. Pour collecter les indicateurs anthropométriques, nous avons utilisé une toise à la main et une balance numérique; Pour vérifier le niveau d'activité physique des élèves, nous avons utilisé l'IPAQ (version courte); Pour évaluer les habitudes alimentaires a été utilisé un questionnaire validé par CIRILLO 2008. Pour comparaison entre les groupes urbains et ruraux utilisé le test du chi-carré adoptant le niveau de $p < 0,05$ de signification. **Résultats:** de 202 répondants 98 (48,51%) étaient des résidents de la zone rurale et 104 (51,49%) de la zone urbaine. En ce qui concerne l'état nutritionnel, 41 étudiants (20,3%) étaient en surpoids ou obèses, tandis que 105 étudiants (52%) avaient un poids normal. Selon le niveau d'activité physique de plus de la moitié des étudiants (50,5%) étaient considérés comme actifs ou très actifs, mais la plupart des participants ont été déclarées comme irrégulièrement active (36,6%). Dans le cas des habitudes alimentaires, la plupart des étudiants (46,5%) effectue deux à trois repas quotidiens. **Conclusion:** En analysant les élèves des zones urbaines et rurales, il y avait une différence statistiquement significative par rapport aux variables de l'état nutritionnel et le nombre de repas par jour, cependant, le niveau d'activité physique, n'a pas trouvé une différence statistiquement significative.

MOTS-CLÉS: activité physique, l'obésité, IPAQ, IMC

NIVEL DE ACTIVIDAD FÍSICA HÁBITOS ALIMENTARIOS Y EL ESTADO NUTRICIONAL EN LAS ZONAS ESCOLARES URBANA Y RURAL PIRIPIRI-PI.

RESUMEN

Introducción: El sobrepeso y la obesidad son algunos de los más graves problemas de los países ricos y los países emergentes. Los problemas derivados directa o indirectamente de la obesidad son responsables de un porcentaje significativo de las muertes. Este estudio tiene como objetivo verificar y comparar el nivel de actividad física (LPA), Hábitos Alimenticios (HA) y el estado nutricional, en los estudiantes de las zonas urbanas y rurales del municipio de Piripiri-PI. **Métodos:** Estudio

transversal de tipo descriptivo y cuantitativo. Para recoger los indicadores antropométricos, se utilizó un estadiómetro hechos a mano y una balanza digital; Para verificar el nivel de actividad física de los estudiantes se utilizó el IPAQ (versión corta); Para evaluar los hábitos alimentarios se utilizó un cuestionario validado por CIRILLO de 2008. Para la comparación entre grupos urbanos y rurales se utiliza la prueba de chi-cuadrado se adopta el nivel de significación de $p < 0,05$. Resultados: De 202 encuestados 98 (48,51%) eran residentes de la zona rural y 104 (51,49%) de la zona urbana. En cuanto a la situación nutricional, 41 estudiantes (20,3%) eran obesos o con sobrepeso, mientras que 105 estudiantes (52%) tenían un peso normal. De acuerdo con el nivel de actividad física de más de la mitad de los estudiantes (50,5%) fueron considerados como activos o muy activos, sin embargo la mayoría de los participantes fueron declarados como irregularmente activa (36,6%). En el caso de los hábitos alimentarios, la mayoría de los estudiantes (46,5%) realiza dos o tres comidas diarias. Conclusión: Mediante el análisis de los estudiantes de las zonas urbanas y rurales, hubo una diferencia estadísticamente significativa en comparación con las variables del estado nutricional y el número de comidas al día, sin embargo, que el nivel de actividad física, no encontró una diferencia estadísticamente significativa.

PALABRAS CLAVE: actividad física, obesidad, IPAQ, el IMC

NÍVEL DE ATIVIDADE FÍSICA, HÁBITOS ALIMENTARES E O ESTADO NUTRICIONAL, EM ESCOLARES DE ZONAS URBANA E RURAL DE PIRIPIRI-PI.

RESUMO

Introdução: O excesso de peso e a obesidade constituem um dos problemas mais sérios tanto dos países ricos quanto dos países emergentes. Os problemas derivados direta ou indiretamente da obesidade são responsáveis por uma significativa porcentagem de mortes. O presente estudo tem como objetivo verificar e comparar o Nível de Atividade Física (NAF), Hábitos Alimentares (HA) e o estado nutricional, em escolares de zonas urbana e rural do município de Piripiri-PI. **Metodologia:** Estudo transversal do tipo descritivo-quantitativo. Para a coleta dos indicadores antropométricos, foi utilizado um estadiômetro artesanal e uma balança digital; Para a verificação do nível de atividade física dos alunos foi utilizado o questionário IPAQ (versão curta); Para avaliar os hábitos alimentares foi usado um questionário validado por CIRILLO, 2008. Para comparação entre os grupos zona urbana e zona rural utilizou-se o teste de qui-quadrado adotando o nível de significância de $p < 0,05$. **Resultados:** Dos 202 pesquisados 98 (48,51%) eram moradores da zona rural e 104 (51,49%) da zona urbana. Com relação ao estado nutricional, 41 alunos (20,3%) apresentaram sobrepeso ou obesidade, enquanto que 105 alunos (52%) apresentaram o peso normal. De acordo com o nível de atividade física mais da metade dos alunos (50,5%) foram considerados como ativos ou muito ativos, em contrapartida a maioria dos participantes foram declarados como irregularmente ativos (36,6%). Em se tratando dos hábitos alimentares, a maioria dos alunos (46,5%) realiza de duas a três refeições diárias. **Conclusão:** Ao analisar alunos de zona urbana e zona rural, observou-se diferenças estatisticamente significativas quando comparou-se as variáveis estado nutricional e número de refeições ao dia, no entanto, para o nível de atividade física, não encontrou-se diferença estatisticamente significativa.

PALAVRAS-CHAVE: Atividade física, obesidade, IPAQ, IMC