

**115 - DIFFERENCE OF THE IMC BETWEEN STUDENTS OF PUBLIC AND PRIVATE SCHOOL**

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**Introduction**

The obesity defined about a fat excess related to the thin mass, and the on-weight as a relative proportion of larger weight than the desirable for the height are conditions of causes provoked by several factors, whose development suffers influence of biological, psychological and socioeconomic factors. A great biological variability exists among the individuals in relation to the storage of the excess of conditioned ingested energy of the excess of ingested energy conditioned by its genetic patrimony. The genetic factors have permissive action so that the environmental factors can act as if they created "favorable internal" atmosphere to the production of the excessive gain of weight (on-weight and obesity), and they are some the studies that point for the paper of biological factors in its development.<sup>1,2</sup>

The obesity can also be classified as an index of corporal mass of 30,0 Kg/m<sup>2</sup> or more being defined functionally as the percentile of corporal fat in which increases the risk of doenças.<sup>3</sup>

The children's alimentary preferences, as well as physical activities, are practical influenced directly by the parents' habits, that frequently persist in the adult life. Therefore, the genetic information is constituted in an enough cause to determine the overweight and obesity, but not always necessary, being possible to be reduced its influence, through modifications in the personal computer and macro sets in that the pessoas.<sup>4</sup> live

Statistics show a significant association among obesity and precocious mortality caused by a certain number of diseases.<sup>5</sup>

The obesity can increase the risk certain diseases or to worsen the diseases caused by other factors.<sup>5</sup>

The diseases of the heart and of the circulatory system they are usually associated to the obesity. So much the hypertension as the sclerosis of the artery (a type of hardening of the arteries) they seem to be related to the obesity. For the fact of the extra fatty fabric, to demand more blood and capillary, it happens an increase of the effort of the heart to pump blood to that fabric. Thus, the obesity can contribute to the development of varicose veins and intermittent claudicação, a disease in the vases of the inferior members.<sup>5</sup>

The number of cells fatty of the human body it is determined during the phases if fast growth, as the last phase of the gestation, the first years of the childhood and of the adolescence. Established the number of fatty cells, he stays for a lifetime.<sup>5</sup>

One of the problems of the infantile obesity is the number of fatty cells.

The adults without obesity problem have about 27 billion those cells. Some researches indicate that 14% of the obese children about the 7 years become obese adults and 70% of the obese children between 10 and 14 years they become obese adults. Such statistics indicate the need of programs of prevention of the obesity in the first years of vida.<sup>5</sup>

Fonseca (1998) says that the main risks for the children's obesity are: orthopedic problems, cholesterol problems, pressure problems, diseases in the skin and respiration problems and, most of the time, those alterations are more evident in the adult life.

Most of the specialists in obesity believes that three factors are responsible: genetic influences and of the parents, diets in calories and fats and insufficient energy expense. With this, the weight loss and its maintenance they proved to be one of the more difficult medical challenges.<sup>8</sup>

In agreement with specialist, the obesity it has been treated as a sharp disease (as an influenza), when it should be seen as a chronic condition (as a heart disease or diabetes). As objective end of an education program is the weight loss and its maintenance, the most appropriate it is to institute a diet balanced and poor of energy for the patient. An extensive program of weight reduction, that incorporates diet, exercises and modifications it indicates that the activity decreases in relation to long period. In way general, many studies they indicate that the physical activity decreases in direct relationship with the obesity degree. However, as the researchers they admit, it has been difficult to determine the inactivity it causes the obesity or the inactivity is taken.<sup>8,9</sup>

In function of this panorama, the objective of the present study is to detect the prevail of ICM (Index of Corporal Mass), in school children with 14 years of age, comparing data of the Public School and of the Private School. However it is necessary that make her a research project gone back to the "obesity", since this is a problem that affects the society, be her poor or rich. And one of the atmospheres which we can observe this problem, is in the school, where the students perhaps due to a flaw in the selection of the supplied victuals or for the bad planning of the physical activities, they end up acquiring a weight above the normal. Due to this, the group he/she/it showed interested in developing this research project in relation to the obesity.

**Methodology**

The present work was accomplished with 40 students, being 20 of the State School "Pacífico Vieira", that is a public institution, where five were of the feminine sex and five of the masculine sex, and 20 of the School "Potência", that is private, where five were of the feminine sex and five of the masculine sex, in which everybody possessed 14 year-old age group. For the accomplishment of the present study, the individuals were submitted to a weight analysis, using for evaluation of both, a scale "Filizola".

The evaluations were accomplished in rooms of the respective institutions in which the student studied. In the moment of the evaluation all the students were barefoot in anatomical position, staying dresses. At the end of the evaluations, the results were applied in the formula of ICM; to obtain the longed for results and soon after the average of ICM was calculated, of the same ones.

$$ICM = \frac{W (Kg)}{(H)^2m}$$

The group through the Directors of the Schools emitted a letter printed to the responsible of the students of both schools, giving them knowledge of the objectives of the research, and requesting to the same ones the consent so that if it could accomplish the research project.

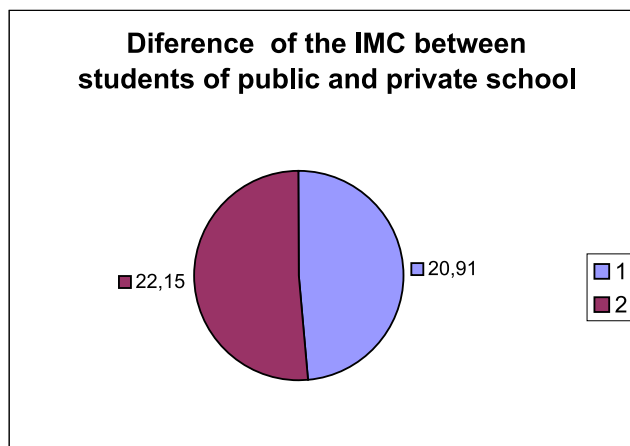
The group also for ethical subjects it deprived the appraised students' real name, for nicknames for the dissertation of the project.

**Results**

It was verified that the largest obesity prevail went in to Private School, that in the Public School. With relationship to

the alimentary habits, it was observed that they were shown inadequate in both schools, because there is a low consumption a day of basic victuals (rice, bean, meats, vegetables, fruits) and a high consumption of victuals with a lot of calorie and inadequate to that age group (fast-food, sodas, chocolates, etc). It was also verified that the socioeconomic factor influences directly in the obtaining certain victuals.

The 40 analyzed children's characteristics meet described below in the table  
Classification of Overweight and Obesity in Children in agreement with IMC



#### Quarrel:

The association of the overweight and the obesidade with biological, psychological, social and economic 0 variable has been consistently investigated, being the data of literature in relation to the action of these still conflicting factors. While some data point them as independently implied in the process of extreme profit of weight, other studies identify the observed association as simply reflected of a bigger probability of interference of other factors, with this potential. The diversity of the data elapses, much

The majority of the research demonstrates to be the prevalence of the infantile obesidade and adult greater in the feminine sex, not having causes well defined for this occurrence [4,6 ]; being that the World-wide Organization of Saúde (OMS) suggests that the biggest prevalence in this sex if must to the fact of that the energy excess preferential is stored, on the form of fat and not of protein, as happens in the masculine sex [7 ]. Evaluations carried through through measures of cutaneous folds had disclosed that girls tend to have adiposo greater amount of fabric that the boys, being that the pubescent phase period of gradual increases of the weight that if perpetuates in the adolescence [ 8 ].

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In this study it had difference with relation to the sex and development of the conditions, what it can be explained by the hormonais characteristics of the studied population, where the sexual hormones still do not meet in band to determine greater accumulate of fabric adiposo in the girls, and the boys increment of the compartment of lean mass, and by the multifactorial etiology of the riots. In this study it had difference with relation to the sex and development of the conditions, what it can be explained by the hormonais characteristics of the studied population, where the sexual hormones still do not meet in band to determine greater accumulate of fabric adiposo in the girls, and the boys increment of the compartment of lean mass, and by the multifactorial etiology of the riots. The IMC are changedded with the age and present increase in constant way, being identified three critical periods for the beginning of the obesidade: The first one corresponds to 1º year of life; 2º occurs enters the 5-7 years of age and, 3º period is the adolescence [8,9].

Study it concludes that, for both the sexes, the more precocious the beginning of the riot of the weight, greater.

Sample studied not presented difference enters measures of children with weight normal, overweight and obesidade, what it became the homogeneous group in that says respect to this 0 variable, having been confirmed any preference of age does not stop in the beginning of the studied alterations of weight.

#### Conclusion

It was ended that the Infantile Obesity increasing in a misleading way in the last years. The two more important considered reasons are: the largest consumption of food with a lot of carbohydrate and Fats, and the lack of physical activity. It was verified that the prevalence of IMC found in the Private School went larger than in to Public School. And this fact can be justified by the inadequate alimentary habits, differentiated socioeconomic profile, types of meals accomplished in the schools and influence of the media.

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#### **DIFFERENCE OF THE IMC BETWEEN STUDENTS OF PUBLIC AND PRIVATE SCHOOL**

Overweight and infantile obesidade present high prevalence of multifactorial character, whose development on biological, psychological influence of factors and economic partner.

With the objective to evaluate the difference Index of Corporal Mass (IMC) of pupils of Public and Private Schools, transversal cut with 40 pupils of 14 years was carried through, of the cited institutions of the urban zone of the city of Lafaiete Council member, MG.

The evaluation was carried through in the rooms of the respective institutions, in which the pupils studied, where to get the longed for results they had been collected the weight and height of these pupils who had been applied formulates it of the IMC.

The group through the directors of the schools, emitted a letter to responsible of the students of both the schools, so that the same ones had a knowledge of the objectives of the research.

Overweight and obesidade had been defined as index of bigger corporal mass that determined for the age and the sex. It analyzes it of the carried through research, determined the influence of the factors in question. In conclusion it has influence of biological and ambient factors in the development of the overweight and infantile obesidade, what it led to the waited result of that the IMC of students of private school to be bigger of the one than of pupils of schools you publish.

**Keywords:** ICM; Obesity; Children

#### **DIFFÉRENCE de l'IMC ENTRE LES ÉTUDIANTS DU PUBLIC et l'ÉCOLE PARTICULIÈRE**

Forte présence de présent de poids excessif et infantile d'obesidade du caractère multifactoriel, dont le développement sur l'influence biologique et psychologique des facteurs et l'associé économique. Avec

l'objectif pour évaluer l'index de différence de Mass corporel (IMC) des pupilles des écoles publiques et privées, la coupe transversale avec 40 pupilles de 14 ans a été portée à travers, des établissements cités de la zone urbaine de la ville du membre du Conseil de Lafaiete, mg.

L'évaluation a été exécutée dans les chambres des établissements respectifs, en lesquels les pupilles étudiées, où les obtenir désirées ardemment pour des résultats avaient été rassemblées le poids et la taille de ces élèves qui avaient été appliqués le formule de l'IMC.

Le groupe par les directeurs des écoles, émis une lettre à responsable des étudiants les des deux les écoles, de sorte que les mêmes aient eu une connaissance des objectifs de la recherche.

Le poids excessif et l'obesidade avaient été définis comme index de la plus grande masse corporelle qui a déterminé pour l'âge et le sexe. Il l'analyse du réalisé la recherche, déterminée l'influence des facteurs en question. Dans la conclusion il a l'influence des facteurs biologiques et ambiants dans le développement de l'obesidade de poids excessif et infantile, ce qui il a mené au résultat attendu de cela l'IMC d'étudiants de l'école privée à être plus grande de celle que de pupilles des écoles vous éditez.

**Mots-clés :** Missile aux performances améliorées ; Obésité ; Enfants

#### **DIFERENCIA De EL IMC ENTRE LOS ESTUDIANTES DEL PÚBLICO Y LA ESCUELA PARTICULAR**

Alto predominio del presente gordo e infantil del obesidade del carácter multifactorial, que desarrollo en la influencia biológica, psicologica de factores y el socio económico. Con el objetivo para evaluar el índice de la diferencia de Mass corporal (IMC) de las pupilas de escuelas privadas públicas y, el corte transversal con 40 pupilas de 14 años fue llevado por, de las instituciones citadas de la zona urbana de la ciudad del miembro de consejo de Lafaiete, mg.

La evaluación fue llevada a través en los cuartos de las instituciones respectivas, en quienes las pupilas estudiadas, donde conseguir las deseadas resultados habían sido recogidas el peso y la altura de estas pupilas que habían sido aplicadas lo formule de el IMC.

El grupo a través de los directores de las escuelas, emitidos una letra a responsable de los estudiantes ambas las escuelas, de modo que las mismas tuvieran un conocimiento de los objetivos de la investigación.

El exceso de peso y el obesidade habían sido definidos como índice de una masa corporal más grande que se determinó para la edad y el sexo. Lo analiza del llevado con la investigación, resuelta la influencia de los factores en la pregunta. En la conclusión tiene influencia de factores biológicos y ambiente en el desarrollo del obesidade gordo e infantil, qué condujo al resultado esperado de eso el IMC de estudiantes de la escuela privada a ser más grande de la que de pupilas de escuelas usted publica

**Palabras claves:** lcm; Obesidad; Niños

#### **DIFERENÇA DO IMC ENTRE ESTUDANTES DE ESCOLA PÚBLICA E PARTICULAR**

##### **Resumo:**

Sobrepeso e obesidade infantil apresentam prevalência elevada de caráter multifatorial, cujo desenvolvimento sobre influência de fatores biológico, psicológico e sócio econômico.

Com o objetivo de avaliar a diferença Índice de Massa Corporal (IMC) de alunos de Escolas Públicas e Privadas, foi realizado corte transversal com 40 alunos de 14 anos, das instituições citadas da zona urbana da cidade de Conselheiro Lafaiete, MG.

A avaliação foi realizada nas salas das respectivas instituições, no qual os alunos estudavam, onde para se obter os resultados almejados foram coletados o peso e altura destes alunos que foram aplicados a formula do IMC. O grupo através dos diretores das escolas,emitiu um carta aos responsáveis dos estudantes de ambas as escolas, para que os mesmos tivessem um conhecimento do objetivos da pesquisa.

Sobrepeso e obesidade foram definidos como índice de massa corpórea maior que a determinada para a idade e sexo.

A análise da pesquisa realizada, determinou a influência dos fatores em questão. Em conclusão há influência de fatores biológicos e ambientais no desenvolvimento do sobrepeso e obesidade infantil, o que levou ao resultado esperado de que o IMC de estudantes de escola privada ser maior do que a de alunos de escolas publicas.

**Palavras chaves:** Obesidade, infantil, IMC.