190 - NUTRITIONAL PROFILE OF STUDANTS THAT PARTICIPATING IN THE PROJECT DEVELOPED BY METALLURGICAL INDUSTRY W3 IN PONTA GROSSA

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INTRODUCTION

The main process features of life are changes and the human race being is no exception to this rule (ARAÚJO, 1985). Since birth until adulthood, the man goes through changes from three interactive tasks, such as growth, maturation and development, which stimulate the condition and seek adjustments to its aging (GARRETT e KIRKENDALL et al., 2003).

More generally, we can understand the adaptation of a much more broadly, as Platanov (2008), includes two different forms of adaptation: a genotypic and phenotypic. The first changes in a population are relation to environmental conditions that it receives on the basis of genetic and natural selection. Since the other are adjustments that happens in each individual, separately, during his life due to the action of external agents.

Based on metamorphic aspect where man and society are embedded, we can aim to identify a current profile of these changes and assess how this is influencing the health of the population.

The desertion of the traditional concept of health was only the absence of disease and the recently adoption of the modern concept that relates to different aspects of human behavior directly related to enhancing the quality of life on welfare, let is also the "not sick", it looks more and more, searching for attitudes that differ from the risk factors that lead to the emergence of diseases (GUEDES e GUEDES, 2006).

However, there is a decrease on the physical activity level, helped by an increase in the intake of unhealthy foods. According to Cooper (1991), children's generation, which he named "fast food" is the prospect of acquiring a serious diseases and shorten their lives because of their lifestyle and poor nutrition, which lead them to be serious candidates to degenerative diseases development. Among the main causes of the problem is the preference for electronic gadgets such as video games, computer, unlimited access to the Internet, rather than exercise or sports, the most frequently used types of locomotion is worryingly, the submission and accommodation of the parents in these situations.

Direct consequence of eating and a diet rich in non-healthy food such as fat, mainly of animal origin, sugar, refined foods, complex carbohydrates and certain fibers, not associated with physical activity lead to increased obesity (MONTEIRO et al., 2000). Obesity can be defined as a fat deposition in the body (GUYTON e HALL, 2006) possessing high relationship with the onset of cardiovascular disease and diabetes also acquired in adulthood (Cooper, 1991; DÂMASO, 2003). While in developed countries grow the studies focused on obesity in childhood and adolescence, this countries still lack of studies on undernourishment. Childhood and adolescence undernourishment diagnosed by severe impairment of linear growth and / or weight loss end of the individual, still constitutes one of the biggest problems faced by companies, called third world (Monteiro and CONTE, 2000). Undernourishment is multifactorial in origin and complex that has its roots mainly in poverty. Occurs when the body receives the nutrients needed for metabolism physiological, due to lack of contribution or problem in the use of what is offered. Thus, in most cases, malnutrition is the result of insufficient intake or hunger, and disease (ACC / SCN, 2000).

METODOLOGY

The procedures used in this study following the resolution 196/96 of the National Board of Health of Brazil, which deals with research procedures in humans. There is consent of all individuals responsible for the research participants and also those responsible for the project, after the presentation of the objectives and methodology of work.

The research was conducted at Project Happy Child, which is a social project offered by the company pontagrossense W3 Industrial Ltda. This company is characterized by offering sports activities of initiation in different forms, in turn against school for students from 7 to 16 years. The sample consisted of 133 students, of which, 90 were male and 43 female.

Nutritional status assessment was used Body Mass Index (BMI). Therefore, required is the determination of anthropometric variables: weight, height and age. Weight was measured with the aid of an electronic scale with a maximum capacity of 150 kg. The subjects used light clothing, without shoes or ornament that could change the weight. For height, we used an inelastic tape, fixed to a wall, no have footers. Individuals were positioning themselves in the foot, with the posterior surface of the heel, the pelvic girdle, shoulder girdle and the occipital region in contact with the scale of measurement (tape) and were without shoes or hair accessories that could change the height, the body mass index of children was determined by dividing the weight (kg) by height (m) squared.

Generally, both boys and girls follow the same level of growth (Garrett and KIRKENDALL et al., 2003), with the exceptions derived growth spurts, but soon coming when equipped to adulthood. With respect to body mass, children at birth have a high index of body fat, but are becoming thinner as they age. In addition, there are also differences in the concentration of adipose tissue between boys and girls. To minimize these differences was used as a character comparison, the BMI for age and sex of studies conducted by the CDC (2000) (Center for Disease Control, U.S.), which had data for children aged 2 to 20 years of age.

The final classification criterion, were admitted percentile scores derived using a source quoted Lefevre Guedes and Guedes (2006). Determining these cut-off points intra-percentile scales to classify students in undernourishment, underweight, normal, overweight and obese.

RESULTS AND DISCUSSION

The data analysis revealed that the sample studied showed some significant differences, as shown below in Tables 1 and 2.

Table 1. Nutritional status classification the male child participating in the Happy Child project (n = 90).

BMI variables / age	Fa	Fr (%)	Fra (%)
Undernourishment	08	8,9	8,9
Underweight	16	17,8	26,7
Normal	48	53,3	80
Overweight	06	6,7	86,7
Obese	12	13,3	100

Fa: Absolute frequency; Fr: Relative frequency; Fra: Relative absolute frequency.

Table 2. Nutritional status classification the female child particip ating in the Happy Child project (n = 43).

BMI variables / age	Fa	Fr (%)	Fra (%)
Undernourishment	03	7	7
Underweight	03	7	14
Normal	27	62,8	76,8
Overweight	06	13,9	90,7
Obese	04	9,3	100

Fa: Absolute frequency; Fr: Relative frequency; Fra: Relative absolute frequency.

Approximately one in five individuals, both male and female is overweight and / or obese. The sample it was found that despite the great concern over the increase of children today are overweight or obese, the number of children who are underweight or undernourishment, it is also very high (26.7% of boys and 14% of girls). These conditions are associated with, among other factors, increase in the incidence and severity of infectious diseases (viral, bacterial and parasitic), retarded psychomotor development, difficulties in school performance and decreased time and productive capacity in adulthood (Martorell et al., 1992).

The amount of the percentage of children who are overweight or already classified as obese is 20% and the percentage of girls is slightly higher, ie 23.2%. Recently researches indicated that being overweight or obese can significantly increase a person's risk for developing several degenerative diseases (diabetes, heart disease, osteoporosis, hypertension, among others). Likewise, being underweight can also lead to increased health risks due to undernourishment. Although BMI is accurate in most cases, it can overestimate or underestimate body fat sometimes. For example, BMI does not differentiate between body fat and muscle mass, which weighs more than fat. Many athletes are labeled as "obese" because of their BMI when in fact, have a very low body fat percentage.

It was also noted that the number of male children that are in the ideal weight is roughly equal proportion of the amount of the children who are above or below the weight considered ideal, ie 53% within the normal range and 47% are below or above the normal range. In relation to girls, 62% are within the standard and 38% are in adjacent conditions.

Differences in this study may be related to different patterns of maturation enhanced by the oscillation of the age groups and determining individual and genetic responses of organisms to growth spurts (GALLAHUE, 1989). With regard to genetics, Guyton (2006), describes its relevance in determining the characteristics of energy metabolism, but states that the changes in the last three decades, in relation to nutritional data, are more a function of lifestyle and environmental factors, since genetic alterations could not have happened so quickly.

CONCLUSION

The analysis of results can be concluded that despite changes in the patterns and lifestyles of the population main effect resulted in an increase in the number of subjects with weight above normal, it was necessary to highlight also the considerable percentage of children is below their normal weight. Both the underlying conditions of normality can adversely contribute to both development and growth in children, may also influence their learning in motor, cognitive and emotional future profiles.

Studies in health record heavily influenced by the habits acquired in the period of growth and development of children reflect individually on physical fitness for certain situations and also maintain their quality of life in various stages of maturation.

Therefore, we can admit the importance of monitoring health standards through continuous assessment and the need to implement programs to promote health and encourage the practice of regular physical activity. For if absence of good eating habits and non-practice of regular physical activity can lead the individual to have some health problems later, it is necessary to identification and intervention of the future problem as early as possible.

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NUTRITIONAL PROFILE OF STUDANTS THAT PARTICIPATING IN THE PROJECT DEVELOPED BY METALLURGICAL INDUSTRY W3 IN PONTA GROSSA

ABSTRACT

Recently, dietary habits and lifestyle have changed in most places of the world. These changes in lifestyle induced an increase in prevalence of overweight and obesity in all age groups. The aims of this work was assess the nutritional status of students that participating in the social project “happy child”, developed by Metallurgical W3 in Ponta Grossa, Paraná state. Therefore, the sample was composed by 133 students (90 male and 43 female). To determine the nutritional status were measured height and weight, used for Body Mass index (BMI) calculated. There is a difference between body fat mass in male and female. Thus, we used the BMI suggest by CDC (2000), that show the BMI for child among 2 and 20 years old. The results showed that despite the great concern over the increase of children overweight or obesity, the number of children who are underweight or malnourished, it is also very high (26.7 of male and 14% of female). Percentage of female (62%) who meet their weight within the normal range for their age is higher than for males (53%).

KEY WORDS: nutritional status, lifestyle, obesity.

PROFIL NUTRITIONNEL DES ÉCOLIERS PARTICIPANT DU PROJET DE LA SOCIÉTÉ W3 INDUSTRIE DES MÉTAUX À PONTA GROSSA

RÉSUMÉ

Au cours des dernières années, les habitudes alimentaires et le mode de vie ont changé dans des nombreuses régions du monde, n'etant pas un privilège des pays développés. Ces changements de mode de vie ont potentialisé l'augmentation de la prévalence de surpoids et d'obésité dans tous les groupes d'âge. Cette étude visait à évaluer l'état nutritionnel des élèves participant au projet “Criança Feliz”, un projet social proposé par la société pontagrossense W3 Industrial Ltda. Par conséquent, l'échantillon se composait de 133 élèves, dont, 90 étaient du sexe masculin et 43 du sexe feminin. Pour déterminer les variables d'état nutritionnel nous avons mesurés, taille et poids, utilisées pour déterminer l'indice de masse corporelle (IMC). Comme il y a des différences de concentration de graisse entre les garçons et les filles, pour minimiser cette difference on a utilisé une comparaison des caractères, l'IMC pour l'âge et le sexe de la CDC (2000), disposant des données pour les enfants âgés de 2 à 20 ans. À partir de l'analyse des résultats, on peut conclure que malgré la grande préoccupation devant la recrudescence des enfants sont aujourd'hui en surpoids ou obèses, le nombre d'enfants qui souffrent d'insuffisance pondérale ou souffrent de malnutrition, est également très élevé (26,7% des garçons et 14% des filles). Il a également été constaté que le pourcentage de filles (62%) qui ont un poids dans la fourchette normale pour leur âge est plus élevée que chez les garçons (53%).

MOTS-CLÉS: état nutritionnel, mode de vie, obésité.

PERFIL NUTRICIONAL DE LOS ESTUDIANTES PARTICIPANTES DEL PROJECTO DE LA EMPRESA W3 INDÚSTRIA METALÚRGICA DE PONTA GROSSA

RESUMEN

En los últimos años, los hábitos alimentarios y estilo de vida han cambiado en muchas partes del mundo, no es un privilegio de los países desarrollados. Estos cambios en el estilo de vida potenció el aumento de la prevalencia de sobrepeso y la obesidad en todos los grupos de edad. Este estudio tuvo como objetivo evaluar el estado nutricional de los estudiantes que participan del Proyecto Niño Feliz, proyecto social ofrecido por la empresa pontagrossense W3 Industrial Metalúrgica Ltda. Por lo tanto, la muestra estuvo constituida por 133 estudiantes, de los cuales, 90 eran varones y 43 mujeres. Para determinar el estado nutricional fueron mensuradas las medidas, altura y peso, utilizado para determinar el Índice de Masa Corporal (IMC). Como hay diferencia en la concentración de grasa entre los niños y niñas, para minimizar esta diferencia fue utilizado como una comparación de caracteres, el IMC para la edad y el sexo del CDC (2000), que había datos para niños de 2 a 20 años de edad. El análisis de los resultados podemos concluir que a pesar de la gran preocupación por el aumento de los niños de hoy tienen sobrepeso o son obesos, el número de niños con bajo peso o desnutridos, también es muy alta (26,7% de varones y 14% de las niñas). También se observó que el porcentaje de niñas (62%) que cumplan con su peso dentro del rango normal para su edad es más alta que para los varones (53%).

PALABRAS CLAVE: estado nutricional, estilo de vida, la obesidad.

PERFIL NUTRICIONAL DE ESCOLARES PARTICIPANTES DO PROJETO DA EMPRESA W3 INDÚSTRIA METALÚRGICA DE PONTA GROSSA

RESUMO

Nos últimos anos, os hábitos alimentares e o estilo de vida se modificaram em várias partes do mundo, não sendo um privilégio apenas dos países desenvolvidos. Essas modificações no estilo de vida potencializaram o aumento da ocorrência de sobrepeso e obesidade em todas as faixas etárias. Este estudo teve como objetivo avaliar o estado nutricional dos alunos participantes do Projeto Criança Feliz, projeto social oferecido pela empresa pontagrossense W3 Indústria Metalúrgica Ltda. Para tanto, a amostra foi constituída de 133 alunos, sendo que, 90 eram do sexo masculino e 43 do sexo feminino. Para a determinação do estado nutricional foram mensuradas as variáveis; peso e altura, utilizadas para a determinação do Índice de Massa Corporal (IMC). Como há diferença na concentração de tecido adiposo entre meninos e meninas, para minimizar esta diferença foi utilizado como caráter de comparação, o IMC por idade e sexo do CDC (2000), que possuía dados de crianças de 2

a 20 anos de idade. Com a análise dos resultados pode-se concluir que, apesar da grande preocupação com o aumento das crianças que hoje estão com sobrepeso ou obesas, o número de crianças que estão abaixo do peso ou desnutridas, também é muito grande (26,7% dos meninos e 14% das meninas). Observou-se também que a porcentagem meninas (62%) que encontram-se com seu peso dentro da normalidade para sua idade é superior à dos meninos (53%).

PALAVRAS-CHAVE: estado nutricional, estilo de vida, obesidade.

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