136 - ANALYSIS OF FOOD INTAKE PARENTS AND CHILDREN FRESHMAN IN A PROGRAM MULTIPROFESSIONAL TREATMENT OF OBESITY.

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INTRODUCTION

Excess weight and obesity are considered health problems worldwide, which have increased mainly in urban areas of countries with medium and low incomes. Evidence suggests that the prevalence of overweight and obesity has increased at an alarming rate, including both developed and developing ones (GIGANTEet al., 2011).

In Brazil, being overweight has increased over the past six years, is pointing the most recent survey conducted by the Ministry of Health According to data from research Surveillance Protection and Risk Factors for Chronic Diseases Telephone Interviews (VIGITEL), the percentage of individuals with Body Mass Index (BMI) greater than or equal to 25 kg/m2 increased significantly between 2006 and 2010 in population occurring in greater proportion especially among women. According to the study, the proportion of overweight people in Brazil reached 42.7% in 2006 to 48.5% in 2011. In the same period, the percentage of obese increased from 11.4% to 15.8% (VIGITEL, 2011).

One of the important factors related to childhood obesity is the family influence and their eating habits, research indicates that eating habits within the family group, mothers have important influence on how the child behaves in relation to their food (CLARKet al., 2007)

The different ways to feed themselves and not by the preferences with certain food preferences are strongly linked with the family context during childhood and adolescence in time which incorporates most of the eating habits of the population (Birch and Fisher, 1998). Finding A high percentage of parents who push their children to eat more, trying to provide good nutrition to their children, which leads to changes in the regulation of body's own signals (MOENS; BRAET; SOETENS, 2007).

Authors suggest that food preferences and aversions, developed during childhood and adolescence may also be motivated by the sensory characteristics of food and are related to food choices throughout the life cycle (BELLISLE, 2009; Sclafani, 2004; MIKKILÄ et al., 2004. From this information, we verified the importance of observing the eating habits early to minimize future health problems due to poor nutrition.

Dietary habits are the set of actions that establish a relationship between humans and food. These behaviors about food are usually acquired through direct experiences with their own food in the family and social environment, by imitating models, the availability of food, culture and socioeconomic status (BELL and ROLLS, 2003).

Since there is a relationship between eating habits of children and adults from the same family, the aim of this study was to evaluate the nutritional composition of macro and micronutrients power of parents and children and their possible associations regarding dietary deficiencies and excesses.

METHODOLOGY

Were evaluated twenty-four individuals members of a multidisciplinary program for the treatment of obesity (PMTO) with 11 parents of teens participating in the program, entering the second half of the year 2012. The adolescents were classified according to the cutoff points proposed by Cole et al. (2000).

The intervention program lasts 16 weeks, guided by a multidisciplinary group with degrees in Physical Education, Nutrition, Psychology and a pediatrician.

Interventions occur three times a week during the night, lasting for two hours per session. In the first hour, the teenagers are subjected to theoretical interventions in groups with professionals in physical education, nutrition and psychology second order of days (Mondays, Wednesdays, Fridays). In the second hour, the intervention is performed physical education in the pool with aquatic exercise.

Parents were invited to engage in the study participated in some reviews along with their children also had weekly meetings with the psychologist of the program as well as monthly meetings in order to be informed about the development of their children in the program as well as assisting their involvement in their children.

The evaluations were performed one week before starting the program and one week after the 16-week intervention verifying the possible changes. We obtained anthropometric measurements of weight, height, BMI, waist circumference (WC), hip circumference (HC) and waist-hip ratio (WHR) and blood pressure. The participants' body composition was assessed by bioelectrical impedance apparatus, multifrequency, octapolar brand Inbody® Model 520.

For analysis of eating habits was applied a food record of 24 hours held for seven consecutive days in the first week of intervention in both groups (parents and children). In this record, were asked to describe all foods consumed during the week, including water, meal times, and amount of each food. The food record is considered a widely used and, if properly implemented, provides information on the average dietary intake of populations (HAWK-GOMES; RABBIT and SCHMITZ, 2006).

The data were transformed into nutrients and energy values with the aid of a system of assessment and prescription nutritional AVANUTRI ®, launched directly into the software and calculated diet composition. The adequacy of macronutrient and micronutrient intake was calculated from the DRI, which recommend caloric intake of carbohydrate between 45 and 65%, between 10 and 30 proteins, and lipids between 25% and 35%, besides possessing specific recommendations micronutrient (PADOVANI et al., 2006).

Data normality was tested by the Shapiro-Wilk. From this, we chose to use nonparametric statistics for comparison between parents and teenagers. For this, use has been made of the Mann-Whitney test. The data were presented as median and interquartile range. The level of significance was pre-set at 5%.

RESULTS AND DISCUSSION

The data relating to characterization of the sample are shown in Table 1. It is observed that the median BMI obtained is characteristic of overweight and body fat percentage is above the range considered healthy. This fact is justified since for multiprofessionalintervention offered are accepted only adolescents with excess body weight.

Table 1.Characterization of individuals.

	Me	aQ
Weight	73,3	26,25
Height	1,641	0,12
BMI	27,615	5,47
Lean Mass	40,8	10,75
% BodyFat	37,15	11,25

Me = Median; aQ = interquartilerange.

Table 2 lists the comparison of adolescents with excess food and their respective guardians. The data reported are the total caloric value of the food composition and relative to macronutrients.

Table 2.Comparison of total calorie and macronutrient intake for overweight adolescents and their parents.

	Parents (n=11)		Adolescents (n=11)		*P*
	Me	**a_Q**	**Me**	**a_Q**	
TCI (Kcal)	1318,6	412,5	2423,8	1023,9	<0,001*
MACRONUTRIENTS					
Protein (g)	56,2	21,2	104,6	64,4	<0,001*
Carbohydrate (g)	191,2	62,8	260,3	194,1	0,004*
Lipids (g)	38,5	3,5	69,4	45,8	0,003*
Protein (Kcal)	224,9	84,7	418,4	257,7	<0,001*
Carbohydrate(Kcal)	764,8	249,9	1041,1	776,1	0,004*
Lipids (Kcal)	346,7	31,4	624,2	412,9	0,003*
Protein (%)	17,6	5,5	17,2	3,6	0,87
Carbohydrate (%)	56,3	7,7	50,7	13,3	0,123
Lipids (%)	26,8	8,1	30,1	11,4	0,178
Cholesterol	180,5	85,2	259,2	143,9	0,009*
Saturated Fat (g)	10,9	3,2	26,7	23,5	0,002*
Polyunsaturadet Fat (g)	5,1	3,5	11,8	10,9	0,003*
Monounsaturated Fat (g)	8,1	4,1	25,2	19,8	0,004*
Fiber (g)	7,6	6,3	15,1	9,1	0,011*

*P<0,05. Me = Median; aQ = interquartile range.

When comparing the caloric value of the food of teenagers and their parents, there was significant difference between them, and the amounts consumed by older adolescents. This may be related to the increase in energy demand due to the growth process, but studies related to food intake in adolescents have also indicated low intake of dairy products, fruits, vegetables, foods rich in protein and iron, along with the high consumption of sugar and fat, which make the higher calorie foods and, therefore, favor the appearance of excess body weight (SANTOSet al., 2005).

Regarding the adequacy of macronutrients, both feeding the teenagers as the responsible adequacy proposal presented by the DRIs related to percentage. However, when compared grasses and their calories, feeding adolescents was higher as observed previously in the total ingested calorie value.

The adequacy of the fractions of lipids, cholesterol presents fitness for those responsible, but is in excess in the diet of teenagers. Saturated fat is high for both groups, but more frequent in adolescents. The monounsaturated fats and polyunsaturated fats are shown in adequate supply those responsible, but in excess of teenagers.

Table 3 lists the comparative feeding adolescent overweight PMTO participants and their caregivers regarding the intake of micronutrients.

Table 3.Comparison of micronutrient intake for overweight adolescents and their parents.

	Parents (n=11)		Adolescents (n=11)		DRI	*P*
	Me	**a_Q**	**Me**	**a_Q**		
MICRONUTRIENTS						
Vitamin A (mcg)	192,4	81,1	176,6	248,9	700	0,974
Vitamin D (mcg)	0,6	0,9	1,1	3,3	5,0	0,045*
Vitamin B1 (mcg)	0,7	0,4	1,2	0,8	1,1	0,001*
Vitamin B2 (mcg)	0,5	0,4	1,2	0,7	1,1	0,001*
Vitamin B5 (mcg)	1,5	0,6	2,2	1,4	5	0,108
Vitamin B6 (mcg)	0,7	0,4	1,1	1,1	1,3	0,020*
Vitamin B12 (mcg)	1,7	1,2	3,4	6,6	2,4	0,139
Vitamin C (mcg)	44,2	222,51	30,8	51,4	75,0	0,375
Vitamin E (mcg)	6,5	6,5	13,2	6,5	15,0	0,045*
Folate	45,5	67,8	48,9	36,5	400	0,67
Calcium (mg)	296,1	201,7	389,7	264,8	1000	0,341
Phosphorus (mg)	487,2	359,1	1043,3	474,2	700	0,008*
Magnesium (mg)	95,9	46,3	169,4	115,2	310	0,005*
Iron (mg)	7,8	4,9	14,9	10	18	0,008*
Zinc (mg)	4,8	3,8	17,2	14,5	8	0,003*
Copper (mg)	0,5	0,3	0,8	0,6	900	0,008*
Iodine (mg)	8,2	12,8	9,6	54,8	150	0,622
Selenium (mg)	39,4	31,9	65,7	44,6	55	0,023*
Manganese (mg)	0,9	0,6	1,4	0,6	1,8	0,052
Potassium (mg)	856,4	476,4	1706,9	1236,7	5000	0,003*
Sodium (mg)	1613,5	1068,7	2358,6	2176,5	2400	0,178

*P<0,05. Me = Median; aQ = interquartile range.

Regarding the adequacy of vitamins and minerals, vit. A, D, B5, C, E and minerals folate, calcium, magnesium, iron, copper, iodine, manganese, potassium and sodium were much lower than recommended for feeding adolescents as those responsible. The consumption of vitamin B1 was the only considered suitable for both teenagers and for those responsible. The intake vit. B2, B6, B12, phosphorus, zinc, selenium were with suitability for feeding teens and below recommended for those responsible.

From this observation it can be seen that most of the nutrients are below the established recommendation for daily consumption. The presence of nutritional deficiencies in overweight and obese may seem paradoxical in light of evidence of excess calorie intake, but a growing body of literature has documented that multiple micronutrient deficiencies may present a higher prevalence in overweight and obese adults (XANTHAKOS, 2009).

CONCLUSIONS

Despite the methodological difficulties of obtaining data of consumption compared to other nutritional indicators, the high prevalence of diet-related disease, present both in developed and in developing, justifying the investment in this type of research.

From the observation of the results, we conclude that the dietary intake of adolescents are quite high when compared to their responsibility as both total calories in quantities of lipid fractions. When observing the recommendations of vitamins and minerals, you can identify that, in most cases, are ingested in quantities less than the recommendations.

Thus, the presence of a multidisciplinary team to monitor and guide teens and their parents shows their importance to modify and improve eating habits in an attempt to minimize possible damage to health caused by excess body weight and poor nutrition.

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ANALYSIS OF FOOD INTAKE PARENTS AND CHILDREN FRESHMAN IN A PROGRAM MULTIPROFESSIONAL TREATMENT OF OBESITY.

ABSTRACT

Excess weight and obesity are considered health problems worldwide, which have increased mainly in urban areas of countries with medium and low incomes. One of the important factors related to childhood obesity is the family influence and their eating habits. Since there is a relationship between eating habits of children and adults from the same family, the aim of this study was to evaluate the nutritional composition of macro and micronutrients power of parents and children and their possible associations regarding dietary deficiencies and excesses. We evaluated twenty-four individuals members of a multidisciplinary program for the treatment of obesity with 11 parents of teens participating in the program, entering the second half of the year 2012. For analysis of eating habits was applied a food record of 24 hours held for seven consecutive days in the first week of intervention in both groups (parents and children). In the results, we observe that the median BMI obtained is characteristic of overweight and body fat percentage is above the range considered healthy. When comparing the caloric value of the food of teenagers and their parents, there was significant difference between them, and the amounts consumed by older adolescents. Regarding the adequacy of macronutrients, both feeding the teenagers as the responsible adequacy proposal presented by the DRIs related to percentage. Regarding the consumption of micronutrients, it can be seen that most of the vitamins and minerals are below the established recommendation for daily consumption. Thus, the presence of a multidisciplinary team to monitor and guide teens and their parents shows their importance to modify and improve eating habits in an attempt to minimize possible damage to health caused by excess body weight and poor nutrition.

KEYWORDS: Obesity, Teens, Food Record, Intervention.

L'ANALYSE DE LA CONSOMMATION ALIMENTAIRE ET PARENTS ENFANTS DANS LE PROGRAMME RECRUES UN TRAITEMENT DE L'OBÉSITÉ MULTIPROFESSIONNELLE.

RÉSUME

L'excès de poids et l'obésité sont considérés comme des problèmes de santé dans le monde entier, qui ont augmenté principalement dans les zones urbaines des pays à revenu moyen et faible. L'un des facteurs importants liés à l'obésité infantile est l'influence de la famille et leurs habitudes alimentaires. Comme il existe une relation entre les habitudes alimentaires des enfants et des adultes de la même famille, le but de cette étude était d'évaluer la composition nutritionnelle des macro et micronutriments pouvoir des parents et des enfants et de leurs associations possibles concernant les carences alimentaires et les excès. Nous avons évalué vingt-quatre membres particuliers d'un programme multidisciplinaire pour le traitement de l'obésité avec 11 parents d'adolescents qui participent au programme, entrant dans la seconde moitié de l'année 2012. Pour l'analyse des habitudes alimentaires a été appliqué un journal alimentaire de 24 heures détenus pendant sept jours consécutifs au cours de la première semaine de l'intervention dans les deux groupes (parents et enfants). Dans les résultats, on constate que l'IMC médian obtenu est caractéristique de la surcharge pondérale et le pourcentage de graisse corporelle est supérieur à la fourchette considérée comme saine. Lorsque l'on compare la valeur calorique des aliments d'adolescents et de leurs parents, il n'y avait de différence significative entre eux, et les quantités consommées par les adolescents plus âgés. En ce qui concerne l'adéquation des macronutriments, à la fois nourrir les adolescents que la proposition de l'adéquation charge présentée par le ANREF liée au pourcentage. En ce qui concerne la consommation de micronutriments, on peut voir que la plupart des vitamines et des minéraux sont en dessous de la recommandation établie pour la consommation quotidienne. Ainsi, la présence d'une équipe multidisciplinaire pour surveiller et guider les jeunes et leurs parents montre leur importance pour modifier et améliorer les habitudes alimentaires dans le but de minimiser les éventuels dommages à la santé causés par l'excès de poids et une mauvaise alimentation.

MOTS-CLÉS: Obésité, Teens, enregistrement des aliments, d'intervention.

EI ANÁLISIS DE LA INGESTA DE ALIMIENTOS DE PADRES E HIJOS INGRESSOS EN UN PROGRAMA DE TRATAMIENTO DE LA OBESIDAD MULTIPROFESIONAL.

RESUMEN

El exceso de peso y la obesidad son considerados problemas de salud en todo el mundo, que han aumentado principalmente en las zonas urbanas de los países de ingresos medios y bajos. Uno de los factores importantes relacionados con la obesidad infantil es la influencia de la familia y sus hábitos alimenticios. Dado que existe una relación entre los hábitos alimentarios de niños y adultos de la misma familia, el objetivo de este estudio fue evaluar la composición nutricional de los macro y micronutrientes poder de los padres y los niños y sus asociaciones posibles con respecto a deficiencias en la dieta y excesos. Se evaluó veinticuatro miembros individuales de un programa multidisciplinario para el tratamiento de la obesidad con 11 padres de los adolescentes que participan en el programa, entrando en la segunda mitad del año 2012. Para el análisis de los hábitos alimentarios se aplicó un registro de alimentos de 24 horas celebradas durante siete días consecutivos en la primera semana de la intervención en ambos grupos (padres e hijos). En los resultados, se observa que la mediana obtenida IMC es característica de exceso de peso y porcentaje de grasa corporal está por encima del margen que se considera saludable. Al comparar el valor calórico de los alimentos de los adolescentes y sus padres, hubo una diferencia significativa entre ellos, y las cantidades consumidas por los adolescentes mayores. En cuanto a la adecuación de los macronutrientes, tanto en la alimentación de los adolescentes como la propuesta de adecuación responsable presentada por el DRI relacionado con porcentaje. Respecto al consumo de micronutrientes, se puede observar que la mayoría de las vitaminas y minerales están por debajo de la recomendación establecida para el consumo diario. Así, la presencia de un equipo multidisciplinario para vigilar y guiar a los adolescentes y sus padres muestra su importancia para modificar y mejorar los hábitos alimenticios en un intento de minimizar los posibles daños a la salud causados por el exceso de peso y mala nutrición.

PALABRAS CLAVE: Obesidad, Adolescentes, registro de alimentos, Intervención.

ANÁLISE DA INGESTA ALIMENTAR DE PAIS E FILHOS INGRESSANTES EM UM PROGRAMA DE TRATAMENTO MULTIPROFISSIONAL DA OBESIDADE.

RESUMO

O excesso de peso e a obesidade são considerados problemas de saúde mundial, que têm aumentado principalmente nas áreas urbanas de países com rendas média ou baixa. Um dos fatores importantes relacionados com a obesidade infantil é a influência familiar e seus hábitos alimentares.Uma vez que existe relação entre os hábitos alimentares de crianças e adultos de uma mesma família, o objetivo do presente estudo foi avaliar a composição nutricional de macro e micronutrientes da alimentação de pais e filhos e suas possíveis associações quanto a deficiências e excessos alimentares.Foram avaliados vinte e quatro indivíduos integrantes de um programa multiprofissional de tratamento da obesidade sendo 11 destes pais dos adolescentes participantes do programa, ingressantes no segundo semestre do ano 2012.Para análise dos hábitos alimentares foi aplicado um registro alimentar de 24 horas realizado por sete dias consecutivos, na primeira semana de intervenção em ambos os grupos (pais e filhos).Nos resultados, observa-se que a mediana do IMC obtido é característica de excesso de peso e o percentual de gordura corporal encontra-se acima da faixa considerada saudável. Quando comparado o valor calórico da alimentação dos adolescentes e seus responsáveis, houve diferença significativa entre os mesmos, sendo os valores consumidos pelos adolescentes maiores. Quanto à adequação dos macronutrientes, tanto a alimentação dos adolescentes quanto dos responsáveis, apresentaram adequação proposta pelas DRIs relacionada aos percentuais. Em relação ao consumo de micronutrientes, é possível verificar que grande parte das vitaminas e minerais encontram-se abaixo da recomendação estabelecida para consumo diário. Dessa forma, a presença de uma equipe multiprofissional a fim de acompanhar e orientar os adolescentes e seus responsáveis mostra sua importância para modificar e melhorar hábitos alimentares na tentativa de minimizar os possíveis danos à saúde causados pelo excesso de peso corporal e pela alimentação inadequada.

PALAVRAS-CHAVE: Obesidade, Adolescentes, Registro Alimentar, Intervenção.