182 - LIFESTYLE IN PARAGUAYAN ADOLESCENTS WITH OVERWEIGHT: A CASE STUDY

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INTRODUCTION

An active physical behavior and a healthy lifestyle are extremely important for the acquisition of a good level of health. Adopting healthy habits can exert strong impact in people's corporal composition, mainly during adolescence.

The technological progresses and the crescent urbanization process have been influencing the pattern of people's feeding and, consequently, the consumption of lipids, usually associated to the recent phenomenon of the obesity epidemy.

Healthy habits (feeding and physical activity) are crucially important for the acquisition of an excellent level of physical and mental health. On the other hand some risk factors, such as sedentariness, obesity and inadequate nutritional habits, tend to persist in the adult life (PETERSON, AGUILAR, ESPECHE, 2004).

For (FISBERG, 1995), obesity can begin at any age, provoked by factors such as precocious weaning, inadequate introduction of food, disturbances of alimentary behaviors and family relationship, especially in the period of growth acceleration.

During recent years, children and adolescents became less active, motivated by technological progresses (larger time dedicated to TV, computer games, internet and passive leisure). As a result, a considerable increase of adiposity in children and adolescents can be noticed (GIUGLIANO & SHEEP, 2004).

Nowadays, obesity is considered a pediatric disease, which prevails in developed countries. Overweight and obesity during childhood and adolescence are strongly related to cardiovascular diseases at these ages, as morbidity risk and mortality at adult age (REGO, 2002), which can be more easily noticed in women and high social classes (TOGLIERO & MORASSO, 2002).

The consequences of the obesity during childhood and adolescence generate catastrophic consequences in adult life. The most common problems are related to orthopedic, breathing, hypertension and psychosocial difficulties; we could name an enormous list of diseases associated to obesity (BOUCHARD, 2003).

Some studies, produced during the 70's, had already evidenced that when a child becomes obese right before his puberty and remains like that during adolescence, his chances of becoming an obese adult increase (DERELIAN, 1995)

So, the number increase of information related to overweight patterns and Paraguayan adolescents' obesity can generate much relevant information, which can fill out a gap in the knowledge of that group of girls, despite the limitations in this study (due to the small number of adolescents in this investigation).

Therefore, the present study's main objective is to gather anthropometrics information (about weight and stature).

METHODOLOGY

CHARACTERIZATION OF THE INVOLVED ADOLESCENTS

Three girls composed the study at the ages of 15 and 16 years old, considered overweight, chosen on purpose, belonging to two groups of a public school of Ciudad Del Este, Paraguay. At firs, database about the Behaviors of Risk to the Health in Adolescents of the Triple Border (Legnani, 2006) was consulted. Starting from the anthropometrics information (weight and stature), the body mass index (BMI) calculation was done, and adolescents that presented overweight and obesity were classified.

At a second moment, information was analyzed, regarding those youth's lifestyle, such as: physical activities level, sedentary behavior (time spent watching television, listening to music and on the computer), alimentary habits (milk, fruit, vegetables and snacks consumption), cigarette and alcohol consumption. Data was obtained in September 2005, in Ciudad Del Este (Paraguay). All legal stages of collection of data were respected (UFSC's Ethics Committee appreciation; informed consent term presentation to students' parents and standard application of the questionnaire).

DATA COLLECTION INSTRUMENTS AND PROCEDURES

An adapted instrument of the Global questionnaire School-Based Student Health Survey (GSHS), developed by the World Organization of Health (WHO), in collaboration with the United Nations and with the supervision of the Center of Control of Diseases (CDC), was used to get information, regarding the adolescents' health behaviors.

The questionnaire was composed by: (a) personal information; (b) physical activities; (c) sedentary behaviors; (d) alimentary habits; (e) lawful drugs (cigarette and alcohol) consumption.

RESULTS AND DISCUSSION

For better understanding and presentation, data was divided and presented in the following way: a) table 1 - personal information about age, weight, stature and BMI; b) table 2 - level of physical activity and sedentary behavior and c) table 3 - consumption of fruit, vegetables, soft drinks, candies and snacks. Pertinent information about alcohol and cigarettes consumption was included.

Variables	Adolescents			Average
	1	2	3	
Age (years)	15	16	16	15,66
Weight (Kg)	66	73	80	73
Stature (m)	1,5	1,48	1,65	1.54
BMI (kg/m^2)	29,33	33,33	29,41	30.69

In agreement with the weight and stature tables of Center Disease Control (available in: www.cdc.gov), 15 and 16 year old girls, that present a BMI superior to 28,12 and 28,78 Kg2 (percentile 95) respectively, should be classified as overweight. So, it can be inferred that these analyzed adolescents presented high body mass index (table 1).

In relation to physical activities, from moderate to vigorous intensity, practiced out of school such as running, riding a bicycle, skateboarding, soccer, volleyball and basketball playing, jumping and dancing, it was observed that two adolescents (first and third) accomplished 60 minutes of physical activities on the day before the research.

The second adolescent affirmed not to have accomplished any type of extra-school activity. This fact corroborates, in

certain way, with PATRICK'S (2004) discoveries, which show the association between obesity and low level of physical activities.

More details on time spent with accomplishment of physical activities and sedentary behaviors can be seen on Table 2.

Variables	Adolescents		
	1	2	3
Physical activity level (previous day)	60	0	60
Time spent watching TV (previous day)	30	0	120
Time spent listening to music (previous day)	0	0	60
Time spent on the computer (previous day)	0	0	0

* Time in minutes

Sedentary behavior occupied a larger time, and the third adolescent was who dedicated the largest time watching television (120 minutes). The first adolescent used 30 minutes of her time with this activity and the second adolescent declared not to have watched television on the previous day.

There was a decrease on the time dedicated to activities such as listening to music and using the computer. The third adolescent was the only one who spent 60 minutes of her time listening to music. When it comes to time spent using the computer, there was no expenditure of time in this activity because the girls declared not to have a computer at home.

Although evidences in literature seem to show a relationship between overweight and time dedicated to passive leisure, in this study just one of the girls presented a risky sedentary behavior (two or more hours a day watching TV, listening to music or using the computer (FRUTUOSO et al. 2003; GORDON-LARSEN, 2000).

Adolescents' main alimentary habits can be observed in Table 3 (consumption in days per week). In relation to milk and its derivatives ingestion, the first adolescent informed their consumption seven times a week; the second adolescent informed she didn't consume any of these products; the third adolescent informed she had these kind of food only three times on that week (all of them reported their consumption in relation to the previous week).

Table 3 - Alimentary habits: consumption in days per week

Food	Adolescents		
	1	2	3
Milk and derivatives	7	0	3
Fruit	7	0	6
Vegetables	7	7	3
Snacks	3	7	7
Candies	3	3	6
Soft drinks	3	7	6

These data opposes to the discoveries made by CASTAÑOLA; MARGARINÑOS & ORTIZ (2004), in which lower proportions of fruits and vegetables consumption among the Argentinean youths could be noticed. In relation to fruit and vegetables consumption, in this study, only the second adolescent did not have this kind of food on the previous week.

When it comes to snacks consumption, the second and third adolescents assumed having them in a high level, during all the days of the week. Only the third adolescent confessed eating a big quantity of candies. The second and third adolescents affirmed having soft drinks six or more times on the previous week.

So, this study presents some data that confirms the evidences mentioned by PETERSON et al. (2004), who identified that the consumption of industrialized products, with high content energy and fat densities, is increasing among the Argentinean youths.

In relation to alcohol and cigarette consumption, there was no identification of the usage of these substances by any of the investigated adolescents.

FINAL CONSIDERATIONS AND SUGGESTIONS

Considering the limitations of this study, mainly in relation to the instrument used for great groups studying, used to evaluate the level of physical activities and alimentary habits, the use of IMC to evaluate the overweight risk, or even the inferior weight, are used just as a superficial indicator, which could not be used as an exact tool of diagnosis.

Despite the fact that only one of the youths presented a low level of physical activities and normal sedentary behavior, the evidences show that overweight is caused mainly due to inadequate alimentary habits, for these girls assured having a high consumption of caloric food (candies, snacks and soft drinks) in almost all of the days of the week.

So, selected and additional evaluations should be done, with accurate equipment, including (thickness skin fold), diet evaluation, physical activity, family history and other appropriate health procedures which could help to identify overweight origins in these girls.

Recommendations:

-Development of an alimentary reeducation programs for that group of adolescents;

-Motivation of the decrease of the consumption of foods with high caloric densities;

-Stimulation of the increase the level of physical activities and, consequently, the increase of the total caloric expense.

-Creation of attractive physical activities programs, according to the profile of each studied case, as: typical dances, like hip-hop and Latin music, aimed at these specific cases.

REFERÊNCIAS BIBLIOGRÁFICAS

1. Bouchard, C. (2003) *Atividade Física e Obesidade, Manole; São Paulo.*

2. Center Disease Control (CDC) - www.cdc.gov: *Atlanta - USA,* Acessado em 10/05/2006.

3. Castañolas, C.J.; Margarinos, M.O. Ortiz, S. (2204). *Patrón de Ingesta de Vegetales y Frutas en Adolescentes en el Área Metropolitana de Buenos Aires.* Archivo Argentino de adolescentes; 102(4), p. 265-270.

4. Derelian D. (1995). Children - *A small audience only in stature. J Am Diet Assoc.*;95:116.

5. Rego,C; Sinde, S.; Silva, D.; Aguiar, A. & Guerra, A. (2002). *Avaliação transversal de alguns fatores de risco de doença cardiovascular numa população pediátrica de obesos.* Acta Pediátrica Portuguesa, vol. 3, n 1 jan/fev.

6. Fisberg M. (1995). *Obesidade na infância e adolescência. In: Fisberg M. Editor. Obesidade na infância e adolescência*. São Paulo (SP): Fundo Editorial BYK.

7. Frutuoso, M.F.P., Bismark- Nars, E.M. & Gambardella, A.M.D. (2003). *Redução do Dispêndio Energético e Excesso de Peso Corporal em Adolescentes.* Revista de Nutrição de Campinas, 16(3):257-263, Jul/Set, 2003.
8. Giugliano, R.; Melo, A. L. P. (2004). *Diagnóstico de sobrepeso e obesidade em escolares: utilização do Índice de Massa Corporal segundo padrão internacional*. Jornal da Pediatria, 80(2).
9. Legnani, E. (2006). *Comportamentos de Risco à Saúde em Adolescentes da Tríplice Fronteira*. Dissertação apresentada ao Programa de Pós Graduação do Curso de Educação Física da Universidade Federal de Santa Catarina.
10. Patrick, K.; Norman, G.J.; Calfa, K.J.; Sallis, J.F.; Zabinki, M.F.; Rupp, J.& Cella, J. (2004). *Diet, Physical Activity, and Sedentary Behaviors as Risk Factors for Overweiht in Adolescence.* Archivo Pediatric Adolescent Medic., 158; 385:390.
11. Peterson, G. ; Aguilar, D. ; Espeche, M. (2004). *Ácidos grasos trans en alimentos consumidos habitualmente por los jóvenes en Argentina.* Archivo argentino de pediatria.
12. Togliero, J. C.; Morasso, C. M. (2002). *Obesidad y nível socioeconômico en escolares y adolescentes de la ciudad de Salta*: Archivo argentino de pediatria.
13. Who, (2006). The Global School - based student health survey (GSHS). Site (who.int/chp/gshs/en).

LIFESTYLE IN PARAGUAYAN ADOLESCENTS WITH OVERWEIGHT: A CASE STUDY

SUMMARY

INTRODUCTION: An active physical behavior and a healthy lifestyle are extremely important for the acquisition of a good level of health. Adopting healthy habits can exert strong impact in people's corporal composition, mainly during adolescence. OBJECTIVE: to gather anthropometric information (about weight and stature) and to identify the lifestyle of Paraguayan adolescents' with overweight. METHODOLOGY: the study was composed by three girls at the ages of 15 and 16 years old, considered overweight, chosen on purpose, belonging to two groups of a public school of Ciudad Del Este, Paraguay. RESULTS: the adolescents presented high body mass index (BMI); only two of them accomplished 60 minutes of physical activities from moderate to vigorous intensity. The sedentary behavior of the other girl took her more time to do it; just one of the girls presented a risky sedentary behavior to the health. Concerning alimentary habits, it was easy to notice the high consumption of candies, soft drinks and fried food by these adolescents. FINAL CONSIDERATIONS: Despite the fact that only one of the girls presented a low level of physical activities and normal sedentary behavior, the evidences show us that the overweight presented by these youths exists mainly due to the inadequate alimentary habits, for the girls assumed they have much high caloric food (candies, snacks and soft drinks) most of the days of the week. Key words: Lifestyle and overweight

MANIÈRE DE VIVRE DANS ADOLESCENTS PARAGUAYENS AVEC EXCÈS DE POIDS: UNE ÉTUDE DE CAS

RÉSUMÉ

INTRODUCTION: un comportement physiquement les atouts et une manière de vivre saine sont d'importance extrême pour acquisition d'un bon niveau de santé. L'adoption d'habitudes saines peut exercer l'impact fort dans la composition du caporal des gens, au-dessus de tout dans la phase de l'adolescence. OBJECTIF: soulever antropométricas de l'information (je pèse et taille) et identifier la manière de vivre des adolescents paraguayens avec excès de poids. METOLOGIA: le cas a été composé par trois filles avec l'âge de 15 à 16 années, classifié avec excès de poids, choisi dans un chemin intentionnel, appartenir à deux groupes d'une école publique de Ciudad Del Ceci, Paraguay. RÉSULTATS: les adolescents ont présenté haut index de masse du caporal, seulement deux adolescents ont dit la réalisation modérée de 60 minutes d'activités physiques à l'intensité vigoureuse. Le comportement sédentaire a occupé une plus grande demande de temps pour juste un adolescent, juste des filles a présenté comportement sédentaire de risque à la santé. Comme pour les habitudes alimentaires celle qu'elle a mis en valeur était la consommation des bonbons, les boissons sans alcool et les frites de la part des trois adolescents. DERNIÈRES CONSIDÉRATIONS: malgré juste des jeunesses le point des signes que l'excès de poids a présenté par les jeunesses est principalement dû aux habitudes alimentaires inadéquates pour présenter un niveau bas d'activités physiques et comportement sédentaire dans la normale, parce que les filles ont dit consommation de nourritures très calorique (sucré, salé et boissons sans alcool) dans la plupart des jours de la semaine. Mots de la clef: Manière de vivre et excès de poids

EL ESTILO DE VIDA EN LOS ADOLESCENTES PARAGUAYOS CON EL SOBREPESO: UN ESTUDIO DE CASO

RESUMEN

INTRODUCCIÓN: una conducta físicamente activa y un estilo de vida saludable son de importancia extrema para la adquisición de un buen nivel de salud. La adopción de hábitos saludables puede ejercer fuerte impacto en la composición corpórea de las personas, sobre todo en la fase de la adolescencia. OBJETIVO: obtener informaciones antropométricas (peso y estatura) y identificar el estilo de vida de los adolescentes paraguayas con sobrepeso. METOLOGIA: fue compuesto por tres muchachas con la edad de 15 a 16 años, clasificadas con sobrepeso, escogido de una manera intencional, perteneciendo a dos grupos de una escuela pública de Ciudad Del Este, Paraguay. RESULTADOS: los adolescentes presentaron índice alto de masa corpórea, sólo dos adolescentes dijeron el logro moderado de 60 minutos de actividades físicas a la intensidad vigorosa. La conducta sedentaria ocupó una demanda más grande de tiempo para simplemente un adolescente, solo una de las muchachas presentó conducta sedentaria de riesgo a la salud. Con relación a los hábitos alimentarios puedes resaltar el consumo de dulces, bebidas suaves y frituras por parte de las tres adolescentes. CONSIDERACIONES FINALES: Las jóvenes presentaran un bajo nivel de actividades físicas y la conducta sedentaria dentro del normal. El punto de las evidencias que el sobrepeso presentado por las jóvenes es principalmente debido a los hábitos alimentarios inadecuados a pesar de solo una de las jóvenes consumir comidas muy calóricos (dulces, bebidas, postres e gaseosas) en la mayoría de los días de la semana. Palabras claves: estilo de vida y sobrepeso

ESTILO DE VIDA EM ADOLESCENTES PARAGUAIAS COM SOBREPESO: UM ESTUDO DE CASO

RESUMO

INTRODUÇÃO: um comportamento fisicamente ativo e um estilo de vida saudável são de extrema importância para aquisição de um bom nível de saúde. A adoção de hábitos saudáveis pode exercer forte impacto na composição corporal das pessoas, sobretudo na fase da adolescência. **OBJETIVO:** levantar informações antropométricas (peso e estatura) e identificar o estilo de vida das adolescentes paraguaias com sobrepeso. **METOLOGIA:** o caso foi composto por três moças com a idade de 15 a 16 anos, classificadas com sobrepeso, escolhidas de forma intencional, pertencentes a duas turmas de uma escola pública de Ciudad Del Este, Paraguai. **RESULTADOS:** as adolescentes apresentaram elevado índice de massa corporal, apenas duas adolescentes relataram a realização de 60 minutos de atividades físicas de moderada à vigorosa intensidade. O comportamento sedentário ocupou uma demanda maior de tempo por apenas uma adolescente, apenas uma das moças apresentou comportamento sedentário de risco à saúde. Quanto aos hábitos alimentares o que se destacou foi o consumo de doces, refrigerantes e frituras por parte das três adolescentes. **CONSIDERAÇÕES FINAIS:** apesar de apenas uma das jovens apresentar um baixo nível de atividades físicas e comportamento sedentário dentro do normal, as evidências apontam que o sobrepeso apresentado pelas jovens deve-se principalmente aos hábitos alimentares inadequados, pois as moças relataram consumo de alimentos altamente calóricos (doces, salgados e refrigerantes) na maioria dos dias da semana.

Palavras Chaves: Estilo de vida e sobrepeso.